

AFB/PPRC.26.a-26.b/52 4 August 2020

Adaptation Fund Board Project and Programme Review Committee

# REQUEST FOR CHANGE OF PROJECT OUTPUT AND EXECUTING ENTITY: MONGOLIA (UN-HABITAT)

# Background

1. The Adaptation Fund Board (the Board) intersessionally between its thirty first and thirty second meetings, approved the project titled "Flood Resilience in Ulaanbaatar Ger Areas - Climate Change Adaptation through community-driven small-scale protective and basic-services interventions ", submitted by the United Nations Human Settlements Programme (UN-Habitat) for a requested amount of US\$ 4,495,235 (Decision B. 31-32/12).

2. The objective of the project is to enhance the climate change resilience of the seven most vulnerable Ger Khoroo<sup>1</sup> settlements focusing on flooding in Ulaanbaatar City. The project aims to achieve this through the provision of flood resilient physical infrastructure and services building on the priorities communicated by the Ulaanbaatar city authorities and Khoroo communities; developing hazard and risk mapping and land use planning; and enhancing capacities and awareness for resilience and risk reduction at Ger -district and community level.

3. The project includes four main components: (i) National/City Level Producing hazard and risk information / evidence for increasing resilience and developing land use plans to increase this resilience at Ulaanbaatar City level; (ii) Khoroo/Community level Participative planning and capacity development for flood resilience in Ger-areas at the district / khoroo and community level (including activities to operate and maintain and; mitigate any potential risks related to - the interventions under component 3; and (iii) Enhance resilience of community level flood protection assets and (iv)Awareness raising, knowledge management and communication.

4. The first tranche of disbursement for the implementation of the project was released following signature of the agreement in October 2018, for the total amount of US\$ 985,661, corresponding to 22% of the project funding.

5. The project began implementation on 28 February 2019. On 29 May 2019 the secretariat had received two requests from UN-Habitat, for the introduction of one output and budget revision, which does not constitute a material change (as per Board Decision B.29/31), nor altered the project management fees (Annex I). UN-Habitat had also provided a letter of endorsement of such changes, signed by the Designated Authority of Mongolia. As mandated by the Adaptation Fund Board Decision B.29/32, for changes in project outputs, including introductions, modifications and deletions, the implementing entities should: (i) obtain prior approval from the Board; (ii) communicate such changes to the secretariat; and (iii) submit a letter from the designated authority endorsing such changes to the secretariat, in order to obtain such approval; UN-Habitat had submitted such request through the secretariat on 29 May 2019, in compliance with the Board Decision.

6. The addition of a new output, was due to the fact that during the inception workshop and during consultations with the government partners, it was observed that there is a greater need to implement a comprehensive knowledge management strategy aiming multilevel stakeholders bringing international expertise under different components in a more integrated manner. This amounted to 8.3% of the total budget for the project (excluding the

<sup>&</sup>lt;sup>1</sup> Mongolian 'Ger' (old term: yurt) is a portable, circular dwelling. Yurts have been the primary style of home in Central Asia, particularly Mongolia. 'Khoroo' is an administrative subdivision in Mongolia.

project fees), therefore, did not trigger a material change nor did it alter the project management costs. Following the recommendation of the secretariat after its review of the request for change in project output submitted by the United Nations Human Settlements Programme as described in document AFB/B.33-34/10, the Board approved the change through Decision B. 33-34/29.

7. The first project performance report (PPR) for the project was submitted on 4 March 2020 with a request for a change for a sub-activity under Component 3 and a request for change of project Executing Entity (EE). The secretariat reviewed the PPR and did not provide a clearance before the Board consideration of the proposed changes, in accordance with the Adaptation Fund's operational policies and guidelines (OPG).

8. The proposed changes have been supplemented by an endorsement letter from the Designated Authority for Mongolia confirming that the requested changes are in alignment with the Government of Mongolia's national priorities (Annex 1). The request for change in EE is also supplemented by the Implementing Entity (IE) focal point for Mongolia (Annex 2).

9. The proposed request for changes is in compliance with Annex 7 of the OPG, as approved in October 2017, as follows:

"12. For changes in project output or outcome indicators and/or associated targets, including modifications and deletions, on the understanding that such changes would only be accepted in exceptional circumstances and up to the submission of the first Project Performance Report for the project/programme, the implementing entities should:

- (i) obtain prior approval from the Board following a full technical review of the revised fully-developed project/programme document by the Project and Programme Review Committee;
- (ii) communicate such changes to the secretariat; and
- (iii) submit a letter from the designated authority endorsing such changes to the secretariat, for the purposes of such technical review and approval".

10. Following the request for changes from the implementing entity (UN-Habitat) submitted in March 2020 and the letter of endorsement from the Designated Authority of Mongolia was submitted in May 2020 (see Annex 1), the IE submitted a revised fully-developed programme document in May 2020 (see Annex 3).

11. The proposed changes include (i) a realignment of the drainage infrastructure, to be constructed under Output 3.1 of the project from a broadly north-south alignment to a broadly east-west alignment in Khoroo 40 (formerly Khoroo 7) and, (ii) a change the EE from UN Office for Project Services (UNOPS) to World Vision Mongolia.

12. As per the justification note accompanied by the revised proposal (Annex 7 of revised proposal), the justification for re-alignment under component 3 are two-fold. Firstly, the Asian Development Bank (ADB) planned to construct sanitation infrastructure very close to the formerly proposed north-south drainage alignment, under its Ger Area Development Investment Programme, which got underway in 2019. This was not

highlighted in the original proposal, because in 2017 the works were not foreseen, despite extensive discussion and coordination with the ADB at the time of project formulation. Secondly, BD Engineering, the executing entity's sub-contractor, having done its detailed design, found that the re-aligned infrastructure will be more effective in supporting the community to adapt because under the revised design there will be more discharge points into the existing canal.

13. With respect to the EE change, primary reason for this was that UNOPS could not offer the services for the cost originally proposed, without a budget revision and reduction of outputs. These changes are noted in the revised project document that accompanies this letter. World Vision was chosen as the new executing entity through a competitive process during the project inception phase. Project partners were consulted about the change, and the Designated Authority has approved of the change (Annex 1)

# Secretariat's review of the request

#### Overall project review

14. Following a review of the request, the secretariat completed a technical review of the proposed revisions and finds that despite the proposed realignment under output 3.1, component 3, overall the project still delivers the same objective and adaptation benefits including (i) Improving the knowledge on flood hazard and risk exposure and vulnerability for these areas; (ii) Improving the resilience and adaptive capacity of the Ger settlements through a Community-Based gender-responsive approach (i.e. building social cohesion per Khoroo); (iii) Increasing resilience Ger area physical infrastructure and services, supported by enhanced capacities of responsible district level and khoroo authorities and; (iv) Strengthened institutional capacity to reduce risks and capture and replicate lessons and good practices.

15. In addition, the project expects to deliver the same level of results as initially included in the approved project and in compliance with the Adaptation Fund results framework. The new drainage channel SO1 is 460 metres long and provides direct benefits to 420 households, which will directly benefit approximately 1,680 people. The drainage channel SO2 is proposed to be 860 metres long and will directly benefit 561 households, with a total of 2,244 people. Lastly the drainage channel SO3 will be 1,471 metres long and will directly benefit 419 households with a total of 1,676 people. The revised alignment is expected to provide drainage benefits to the same flood/catchment area as the previous alignment, so the total number of beneficiaries (direct and indirect) will be the same at approximately 29,865 (15,270 women).

16. In terms of compliance with the Fund's environmental and social as well as gender policies, the proposed changes required additional consultations, further assessment of risk findings and an update of the environmental and social management plan (ESMP).

17. Additional consultation took place with the new Khoroo 40 Governor because the governance arrangements have changed since the formulation of the project. Furthermore, the Project Execution Unit (PEU) worked with BD Engineering, the firm designing the drainage, to undertake additional consultations with the communities. A total of nine consultations were held from October 2019 with 172 attendees, including 88 women. A

separate meeting also took place with the affected commercial property, who have agreed to the works and provided a consent letter, provided in Annex 10. In these consultations, the communities were given the opportunity to propose changes or revisions to the designs. An overview table of the proposed changes and how they have been incorporated is provided in Annex 11. In these consultations, communities highlighted the continued need for drainage and flood management infrastructure, in the context of increased incidences of flooding in recent years (Annex 9).

18. The revised proposal also presented a revised assessment of environmental and social impacts and risks (Annex 5). The revised assessment was shared with beneficiary communities for their feedback and comments. The communities' requests and ideas for the potential solutions were heard by BD Engineering and have been taken into consideration in the designs presented in this revised proposal. The communities voted on and agreed to the revised designs (Annex 9). Furthermore Annex 10 of the revised proposal provides consent letters from plot holders that would be directly affected by the construction. The parties have been additionally informed that they may withdraw consent at any time.

19. Related to economic, social and environmental benefits, the concrete interventions and supporting activities (corresponding to prioritized resilience building interventions in table 1) were updated to include the beneficiary data, estimated costs, priority interventions, location and dimension for the new Khoroo 40 (Table 4). Sex disaggregated population data in target Khoroos has also been accordingly updated in the revised proposal (Table 4b).

20. Considering the proposed changes, the secretariat conducted a revised costeffectiveness and non-duplication analysis of the proposed changes and found that the rationale to be justified as supplemented by revisions in relevant sections in the revised proposal.

# Specific changes requested

21. In 2019, the Government of Mongolia decided to re-draw the boundaries of numerous Khoroos and Districts in Ulaanbaatar City. This re-districting exercise was mainly designed to reflect population changes as a result of extensive migration in recent years. Essentially, Khoroo 7 (under the original project) was divided into two Khoroos – Khoroo 7 and the new Khoroo 40. The revised activities/infrastructure design to be implemented by project will be in Khoroo 40. The new Khoroo 40 has been entirely created from Khoroo 7, therefore, despite this boundary change, the geographic area and the climate change, flood impacts and adaptation requirements in Khoroo 40 are the same as originally described in Khoroo 7. Ongoing work in the project has revealed no other change in the vulnerability baseline. The project is preparing detailed vulnerability assessment and planning work under Component 1. Table 1 which details the target areas, local climate change impacts and vulnerabilities, barriers to adapt and prioritized concrete resilience building interventions has been updated to reflect this change.

22. As with Component 1, activities under Component 2 will take Khoroos 7 and 40 together to develop a joint Flood Resilience Action Plan for Khoroo 7 and Khoroo 40.

23. The main change under Component 3, output 3.1 relates to the revised plan for the proposed drainage infrastructure under Area 1 (Khoroo 7 at the time of the proposal, now Khoroo 40). In 2019, once the project had already started, but before construction got underway, the Asian Development Bank approved the second tranche of its Ger Area Development Investment Programme. Under this programme, the ADB will construct new sanitation infrastructure close to the proposed infrastructure in Area 1 (Khoroo 7 at the time of the proposal, now Khoroo 40).

24. A new Annex (Annex 8) has been provided to give an overview of communications between the project and the ADB's Ger Area Development and Investment Programme (GADIP) project.

25. To address this problem, it is proposed to change the siting of the infrastructure in Area 1 (in Khoroo 40, formerly Khoroo 7). The proposed new siting is demonstrated in Figure A3, of the revised proposal. According to this, the originally proposed site of the drainage infrastructure, to be constructed under Component 3 would run on a north-south axis. The newly proposed drainage channels SO1, SO2, and SO3 will drain water in a roughly east-west direction, to the existing canal which ultimately drains into the river. The revised alignment is expected to provide drainage benefits to the same flood/catchment area as the previous alignment, so the total number of beneficiaries will remain the same.

26. The revised drainage infrastructure will affect five private residential plots and one private company. This is fewer plots than the original design and all plot holders have been consulted and their permission gained for the works. In no cases will the drainage infrastructure expected to run under the house itself (only the garden area of the plot, which is used for parking or storage and not for vegetable growing). Full and informed prior consent from affected plot holders prior to construction works starting has been obtained (Annexes 9 and 10. The project management unit discussions between project staff/contractors and affected plot holders includes full knowledge of the grievance mechanism and awareness by plot holders that they may withdraw their consent at any time.

27. During the consultations, no new risks or impacts were identified relating to gender equality and women's empowerment and, as such, the risk and impact identification as well as the gender action plan in Annex 6 maintain their validity.

28. It should be noted that "Overview of potential environmental and social impacts and risks measures to prevent or mitigate impacts" has been sufficiently updated and the Environmental and Social Management Plan (ESMP) (Tables 15 and 17 of Annex 5) have been updated to reflect the risks identified in Table 13 of the revised main text. Finally, the project categorization remains unchanged with the proposed changes.

29. The initial technical review requested a few corrective action requests (CARs) clarification requests (CRs) relating to more clearly presenting non-duplication, ESP risk findings, submitting updated consultation reports and relevant ESP supporting documents. The initial technical review also found that the original package failed to attach a support letter from the Designated Authority endorsing the change in EE.

30. The final technical review finds that UN-Habitat had adequately addressed the issues raised.

# Recommendation

31. Therefore, the Project and Programme Review Committee (PPRC) may wish to recommend the Board to:

- a) Approve the changes proposed under Output 3.1 and Executing Entity of the "Flood Resilience in the Ger Areas of Ulaanbaatar (FRUGA)" project, as requested by the United Nations Human Settlements Programme (UN-Habitat) and contained in the revised proposal presented as Annex 3 of document AFB/PPRC.26.a-26.b/52; and
- b) Request the secretariat to draft an amendment to the agreement between the Board and UN-Habitat to reflect changes made under a).

# Annexes

- 1. Letter by the Designated Authority for Mongolia endorsing the proposed realignment of drainage channel under Component 3 and change of Executing Entity;
- 2. Letter by the Implementing Entity on Executing Entity change;
- 3. Proposed changes in project Justification Note
- 4. Revised proposal document with tracked changes addressing comments made by the secretariat in its initial review;

ENDORSEMENT OF THE PROPOSED CHANGES TO THE ONGOING PROJECT: FLOOD RESILIENCE IN THE ULAANBAATAR GER AREAS (FRUGA) – ADAPTATION THROUGH

COMMUNITY-DRIVEN, SMALL-SCALE

PROTECTIVE AND BASIC SERVICES INTERVENTIONS

# Annex 1: Letter by the Designated Authority for Mongolia endorsing the proposed realignment of drainage channel under Component 3 and change of EE



MINISTRY OF ENVIRONMENT, AND TOURISM

#### ENVIRONMENT AND CLIMATE FUND

2nd floor, "Margad" center, Students street, 8th khoroo, Sukhbaatar district, Ulaanbaatar city Tel: (976-11) 70000753, Fax: (976-11) 70000743 E-mail: info@ecfund.mn, http://www.ecfund.mn

Date <u>2020. 05. 28</u>\_№\_\_\_\_1

Dear Sir/Madam,

In my capacity as the Designated Authority for the Adaptation Fund in Mongolia, I confirm that the revised project is still in accordance with the government's national priorities in implementing adaptation activities to reduce the adverse effects of climate change for people in Mongolia. I also note the change of Executing Entity, from the United Nations Office for Project Services to World Vision. I am satisfied that this change was made through due process, and that World Vision has ample capacity to execute the project.

I understand that the revisions to the originally submitted proposal are necessary to avoid conflict with other, under-construction infrastructure, and the revised designs have been engineered, consulted with communities and costed in a way that they will be at least equally beneficial as the originally proposed designs. The revised infrastructure designs still serve vulnerable communities in a way that is in line with national development priorities.

Furthermore, the revisions to the project are still in line with and supports implementation of relevant local and national policies including the Mongolia National Action Programme on Climate Change (Phase II, 2017-2021), National Green Development Policy, Nationally Determined Contribution to the Paris Agreement under the United Nations Framework Convention on Climate Change, Ulaanbaatar 2020 Master Plan and Development Directions for 2030 and the Ulaanbaatar Flood Risk Management Strategy 2015.

In this regard, the revised project is fully endorsed by the DA of Mongolia for the Adaptation Fund.

Yours Sincerely

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Dr. Batjargal Zamba Special Envoy on Climate Change, National Focal Point for the UNFCCC and DA for the Adaptation Fund Ministry of Environment and Tourism

#### Annex 2: Letter by the Implementing Entity on EE change

United Nations Human Settlements Programme P.O. Box 30030, Nairobi 00100, KENYA Tel: +254-20 7623120 <u>infohabitat@unhabitat.org</u>, www.unhabitat.org

Nairobi, 3 June 2020

Dear Sir/Madam,

Subject: Change of Executing Entity in the Ongoing Project: Flood Resilience in the Ulaanbaatar Ger Areas (FRUGA)

I am writing this letter to formally request a change of executing entity on the Flood Resilience in the Ulaanbaatar Ger Areas (FRUGA) project, Adaptation Fund Project i.d. MNG/MIE/DRR/2017/1. This letter is being sent in response to feedback from the Adaptation Fund Secretariat, dated 11<sup>th</sup> of May, 2020.

UN-Habitat needed to change the Executing Entity (which was originally proposed to be the UN Office for Project Service – UNOPS) during the inception phase of the project. The primary reason for this was that UNOPS could not offer the services for the cost originally proposed, meaning the project would not be able to commence in a timely fashion, without a budget revision and reduction of outputs. These changes are noted in the revised project document that accompanies this letter.

World Vision was chosen as the new executing entity through a competitive process during the project inception phase. All project partners were consulted about the change, and the Designated Authority has approved of the change (a separate letter has been provided to this effect).

It was only upon receiving the review of the project revision that UN-Habitat became aware of the need to inform the Adaptation Fund secretariat prior to the change of entity. We acknowledge this oversight.

Yours faithfully,

Rafael Tuts Director, Global Solutions Division

The Adaptation Fund Secretariat Adaptation Fund Board Secretariat 1818 H Street NW Washington DC 20433 United States of America

#### **Annex 3: Proposed Changes Justification note**

# Flood Resilience in the Ger Areas of Ulaanbaatar (FRUGA) Justification of the proposed changes to Component 3 of the original project document.

This justification note describes why changes are being proposed under Output 3.1 of the FRUGA project.

The changes proposed have been recommended by BD Engineering LLC, the engineering sub-contractor of World Vision Mongolia, the project's Executing Entity. These changes have been reviewed by UN-Habitat and discussed with the Project Working Group. These changes have also been consulted with the beneficiaries in the target areas and they have been approved by the Khoroo Governor.

# **Explanation of the Changes**

The drainage infrastructure, to be constructed under Output 3.1 of the project has been realigned from a broadly north-south alignment to a broadly east-west alignment in Khoroo 40 (formerly Khoroo 7 – see further explanation below). The change in design is shown in Figure 1.

The reasons for this re-alignment are two-fold. Firstly, the Asian Development Bank is to construct sanitation infrastructure very close to the formerly proposed north-south drainage alignment, under its Ger Area Development Investment Programme, which got underway in 2019 (and was thus not highlighted in the original proposal, because in 2017 the works were not foreseen, despite extensive discussion and coordination with the ADB at the time of project formulation). Second, BD Engineering, the executing entity's sub-contractor, having done its detailed design, feels that the re-aligned infrastructure will be more effective in supporting the community to adapt because, *inter alia*, under the revised design there will be more discharge points into the existing canal, giving the system greater redundancy.

Drainage channel SO1 is 460 metres long and provides direct benefits to 420 households, which will directly benefit approximately 1680 people. Drainage channel SO2 is proposed to be 860 metres long and will directly benefit 561 households, with a total of 2,244 people. Drainage channel SO3 will be 1,471 metres long and will directly benefit 419 households with a total of 1,676 people. However, the revised alignment is expected to provide drainage benefits to the same flood/catchment area as the previous alignment, so the total number of beneficiaries (direct+indirect) will be the same at 27,900 total (14,229 women).

While the total length of drainage in the re-alignment (2791 metres, as opposed to 3110 metres) is slightly shorter than in the original proposal, as of April 2020, material price increases relative to 2017 (when the project was formulated) and currency fluctuations mean that there is no overall change in the estimated budget.

Further design details and images have been provided in Part II, Section A of the revised proposal document.



Figure A7.1 - Previous and Newly Proposed Drainage Infrastructure

# **Construction Details**

Under the original proposal, the construction details were to be as follows, with the numbering (A1-A3) corresponding with the red lines, labelled A1-A7, in Figure 1:

| Pkg A1a | 332m | \$177,620 | A1i: From #23, Bayankhoshuu 39 to #41, Bayankhoshuu 39 |  |  |  |  |  |
|---------|------|-----------|--|--|--|--|--|--|
| Pkg A1b | 79m  | \$24,030  | A1ii: From #14a, Bayankhoshuu 38 to #41, Bayankhoshuu  |  |  |  |  |  |
|         |      |           | 39   |  |  |  |  |  |
| Pkg A2a | 297m | \$158,895 | A2i: From #41, Bayankhoshuu 39 to #8, Bayankhoshuu 35. |  |  |  |  |  |
| Pkg A2b | 71m  | \$19170   | A2ii: From #1, Bayankhoshuu 35 to #8, Bayankhoshuu 35  |  |  |  |  |  |
| Pkg A3  | 437m | \$233795  | A3: From #8, Bayankhoshuu 35 tto #17, Bayankhoshuu 29  |  |  |  |  |  |
| Pkg A4  | 230m | \$62,100  | A4: From #8, Bayankhoshuu 29 to #17, Bayankhoshuu 29   |  |  |  |  |  |
| Pkg A5  | 660m | \$178,200 | A5: From #17, Bayankhoshuu 29 to #45, Tsergiin angi 1  |  |  |  |  |  |
| Pkg A6  | 668m | \$180,360 | A6: From #8, Tsergiin angi 2 to #45Tsergiin angi 2     |  |  |  |  |  |
| Pkg A7  | 336m | \$90,720  | A6: From #45, Tsergiin angi to #6, Namag 1             |  |  |  |  |  |

Under the realignment, the construction details are proposed as follows:

| SO1 | 460m   | \$185,399 | From #23, Bayankhoshuu 39 to #26a, Monlaa 6        |
|-----|--------|-----------|--|
| SO2 | 860m   | \$346,616 | From #2, Bayankhoshuu 35 to #30, Monlaa 1          |
| SO3 | 1,471m | \$592,875 | From #9, Khiliin tsereg 0119 to #48, Bayanbu-lag 4 |

# **Environmental and Social Safeguards**

A revised environmental and social risk and impact assessment has been provided in the revised proposal in Annex 5.

#### Note on Boundary Changes in

It should be noted that since the proposal was submitted the Khoroo boundaries in Ulaanbaatar have been re-drawn. Khoroo 7, where the drainage infrastructure shown in Figure 1 is to be built, has been split into two Khoroos; Khoroo 7 and Khoroo 40. This boundary change has primarily been driven by population growth in the area. Both the old and new infrastructure sites are in Khoroo 40. Because this is only an administrative/boundary change, the climate change, flood impacts and adaptation requirements in Khoroo 40 are the same as originally described in Khoroo 7.

The geographic area to be surveyed under Components 1 and 2 of the project is the same (originally 7 Khoroo level plans were foreseen). 8 will now be prepared without any change in budget.



The Khoroo Boundaries are shown below, with the old boundaries (accurate at the time of the proposal) on the left and the new boundaries as of January 2020 on the right:

Annex 4: Revised proposal document with tracked changes addressing comments made by the secretariat in its initial review



# REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat 1818 H Street NW MSN P4-400 Washington, D.C., 20433 U.S.A Fax: +1 (202) 522-3240/5 Email: afbsec@adaptation-fund.org



# **PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND**

# **PART I: PROJECT/PROGRAMME INFORMATION**

Project/Programme Category: Country/Cities: Title of Project/Programme:

Type of Implementing Entity: Implementing Entity: Executing Entity/ies: Regular Mongolia/ Ulaanbaatar Flood Resilience in Ulaanbaatar Ger Areas - Climate Change Adaptation through community-driven small-scale protective and basic-services interventions Multilateral Implementing Entity UN-Habitat Programme Execution Unit (PEU) <u>World Vision</u>, with the Municipality of Ulaanbaatar (MUB) and the Governor's Office, District Governors and Ger-Communities within Songinokhairkhan, Bayanzurkh and Sukhbaatar Districts; INGOs and LNGOs; Ministry of Environment and Tourism (MoET).

Amount of Financing Requested:

# 1. Project Background and Context

Mongolia is a landlocked country located in Northeast Asia between Russia and China with a total land area of 1,564,116 square kilometres. It is surrounded by high mountains and is located on highlands at an average elevation of 1,500 meters above sea level.

Ulaanbaatar<sup>1</sup> (see picture below), the capital city, is the coldest capital city in the world. It is home to half of the national population and nearly all of its skilled human capital and financial resources.



US\$ 4.5 million

<sup>&</sup>lt;sup>1</sup>Ulaanbaatar will hereafter be referred to as UB city in this document.



# The problem

### From nomadic resilience to urban vulnerability

Although Mongolia is labelled as a stable economy with regard to its state of development, high rural-urban migration rates and uneven economic development remain major challenges in the country. Twenty percent of Mongolia's population have migrated to Ulaanbaatar over the past three decades. Weather patterns, called dzud, have forced many to leave their traditional way of life herding cattle and sheep and move to the capital. Dzud is an ultra-coldweather phenomenon (with temperatures down to -50 degrees Celsius) believed to occur in five-yearly cycles, but has been increasing in frequency, especially in the Gobi Desert region of Mongolia. Last year, one million animals died due to the deep freeze, often buried neckdeep in snowdrifts. In 2009 nearly eight million animals were wiped out in one of Mongolia's worst ever winters, destroying the herds many families. The dzuds ruin the farmers' livelihoods, and due to lack of social support systems, the only choice left is to move to Ulaanbaatar and find a job. This process of nomads moving to Ulaanbaatar has created a new class of 'urban poor,' that mostly reside in the fast expanding informal 'Ger' settlements (a Ger is a nomadic tent). This in turn has resulted in increased pressure on public services and the environment. During winter, these 'Ger' areas 'suffer' from the highest levels of air pollution in the world - caused by the burning of coal to keep warm in the Gers and the cities power plants. Besides that, increasing climate change related flood events especially affect these unplanned Ger areas because people reside in high risk areas such as next, or even in, gullies and rivers. Moreover, floods cause the overflow of latrines, resulting in contaminated water and soil, which in turn lead to health problems and water scarcity. Because the inhabitants of the Ger areas are often poor (i.e. 22 percent of the city's population lives in poverty) and the government does not have the resources and technical capacities to provide adequate and climate resilient basic utilities and services to the ever-growing urban poor population, people living in these 'Ger' areas are particularly vulnerable.

Should another catastrophic dzud take place, this would occur at a time of extreme economic hardship and poor levels of preparedness. It is likely that it is the informal urban 'Ger' settlements, where just over one quarter of the entire countries' population already resides, will be the most impacted within the capital. Another dzud would further increase the transient population of the city, increase urban density in the most 'at-risk' areas such as around gullies at the bottom of the hills in the city and in riverbeds. This 'forced' mass migration would contribute to the extreme levels of water, soil and air pollution as well as increased risk of flooding and social exclusion.

The combination of these factors and the exponential pace of in-migration have imposed huge pressures on the Government to address the challenges of rapid expansion of informal settlements and associated risks. However, the current economic challenged and the shifts in leadership have resulted in a macro-approach to addressing prevailing challenges and national development, of which some focus on sustainable urban growth, including in ger-areas. The government has shown to be just about able to create the appropriate policy and planning framework in face of rapid urban expansion but does not have the resources to also prepare and plan for climate change impacts, which are only set to deteriorate in future. Thus, the government requires support to address the issue of expanding communities as a consequence of climate change as well as provide immediate attention to these Ger-settlers who are left vulnerable to multiple risks upon arrival. Most urgently, support is needed to avoid future immigrants to reside in high risk areas (through land use planning). Besides that, support is required to reduce the impacts of floods and the consequently overflow of pit latrines, leading to health issues (through the provision of basic infrastructure and resilient latrines), all through the involvement and social cohesion building of communities.





**Climate change projections** 



Figure 2: Annual mean air temperature (left), mean air temperature in winter (middle) and mean air temperature in summer (right). Source: Assessment report on climate change 2009, pp. 36-37.

Mongolia has four distinct seasons, large temperature fluctuations, and little precipitation. The climate varies widely from region to region, not only due to differences in altitude, but those in latitude. The annual mean temperature is between -8°C and 6°C, and varies considerably among regions. Summer temperatures range between 10° and 26.7°C and can reach a maximum of 45°C, while winter temperature ranges between -15° and -30°C, and can even dip below -50°C (Figure 2).



Figure 3: Geographical distribution of annual precipitation (top), summer precipitation (middle), and winter precipitation (bottom) in mm. Source: Source: Assessment report on climate change 2009, p. 37.

In general, mean temperatures are highest in south Gobi (>6°C) and decrease to the northern parts of the country, with mean a temperature of 0°C in Mongolia's northern part of the Gobi Desert region. Extreme temperature shifts across seasons (Figure 2, summer and winter) and abrupt shifts within shorter time spans (i.e. Day/night, hour/hour/, day/day) are mainly due to the country's long distance from oceans, the high mountains which surround it and its high elevation of more than 1.5 kilometres above sea level. It should be noted that annual mean air temperature at the land surface has increased by 2.07°C for the years from 1940 until 2013.<sup>2</sup>

Rainfall varies within the country and is strongly influenced by topography, increasing from south to north. Precipitation in Mongolia is generally low with annual averages of 300-400 mm in the northern mountain regions, 250-300 mm in the forest-steppe zones, 150-250 mm in the steppe zones, and 50-100 mm in the southern Gobi Desert (Figure 3, top). About 85 percent of the annual precipitation is recorded during the months from April to September, of which 50-60 percent falls in the summer months of July and August (Figure 3, middle). Although rainfall

is generally low in Mongolia, its intensity is high. Records show intense rainstorms that receive 40-65 mm of rain in only one hour. Precipitation during the winter months from December to March is highest in the northern mountain areas with 20-30 mm of snow, around 10 mm in the desert region and 10-20 mm in the other regions (Figure 3, bottom).

Due to its location, fragile natural ecosystems, the lifestyle of the people and the economic situation, Mongolia's sensitivity to climate change makes this an important topic to be addressed by the Mongolian government. The impact of already observed climate change related events caused high damages not only to its livestock, but also to the country's ecology and socio-economic sectors. According to different scenario models, there will likely be an

<sup>&</sup>lt;sup>2</sup>Mongolia Second National Communication under the UNFCCC, p. 41.

increase in temperature where intensity is expected to be higher during the summer seasons than the winter seasons. Similar, increased projections are calculated with regard to precipitation. However, projected precipitation for the summer months are less than 10 percent, with slight decreasing projections for the 2011-2030 (2-4 percent decrease) and the 2046-2065 (0-0.4 percent decrease) periods. At the end of this century, in winter, a high intensity pattern of temperature is projected by 5.5-7.50°C in eastern and western regions of the country and by 5.0-5.50°C in the western region in summer. Winter precipitation is projected to increase by 55-75 percent in the central, western and eastern regions, whereas summer precipitation is projected to decrease by 5-10 percent in western Mongolia (Figure 3, bottom).

# **Expected impacts**

Mongolia is set to be significantly impacted by the effects of climate change. Although milder climatic forecasts might bring some benefits to a country such as less harsh weather conditions, these are most likely to be outweighed by significant drawbacks for the country. As mean temperatures are to rise, secondary effects such as increases in extreme weather events become more likely.

Climate change will exacerbate existing natural resource concerns due to changes in permafrost, or decreases in total glacier areas, for example. As a result, not only will the country's main water resources (lakes or surface water, for example) be significantly diminished, Mongolia will experience more desertification. Desertification has become a national disaster, affecting more than 70 percent of Mongolia's grassland. Moreover, climate related hazards such as heavy rain and snowfall, strong winds, sand and snowstorms, hail, and floods have become more and more frequent in recent years and are likely to intensify in the future. **Zud** or **dzud** – extremely harsh winters – deprive livestock of grazing and is a specific phenomenon that takes its toll in winter and spring with a high number of livestock dying of starvation. "As of end of April 2010, or about 22 percent, of the country's entire livestock, around 8 million animals,



Figure 4: Climate Variability across Mongolia in Celcius. Source: Assessment report on climate change 2009, p. 39.

were lost as a result of the 2009-2010 winter [dzud] disaster and consequently the livelihoods of over 200,000 rural herdsmen living in the affected regions were severely threatened"<sup>3</sup>. Between 2000 and 2010, droughts in Mongolia have also intensified and become increasingly frequent, inducing forest and steppe fires and causing dust and sand storms.

Ulaanbaatar is located at an elevation of 1350 meters above sea level in the Tuul valley, an arm of the Selenga river. The city is fed by downstream water supplies coming from the Upper Tuul ecosystem, which covers an area of over 5000 square kilometres. Ulaanbaatar's water supplies, therefore depend entirely on the Tuul River and recharging of the groundwater aquifers. Any changing ecological conditions in the upstream ecosystem directly impacts the availability and regularity and flow of water resources. ncreasing human influence and land use pressures in the Upper Tuul due to intensive grazing, tourism, logging and harvesting have continued to deteriorate the ecosystem, and contributed to increase run off and intensification of the maximum and minimum flows of the river and increased flooding particularly over the past 15 years<sup>4</sup>.

The Flood Risk Assessment of Ulaanbaatar also indicated annual mean temperatures have increased by 1.56 C over the past 60 years, which has led to a decrease in both duration and depth of snow cover, altered timing and length of snowmelt period, impacting on downstream

<sup>&</sup>lt;sup>3</sup> Mongolia Second Assessment Report on Climate Change, 2014, p. 14.

<sup>&</sup>lt;sup>4</sup> The Economic Value of the Upper Tuul Ecosystem in Mongolia, World Bank 2009, Page xiv

flooding regimes.<sup>5</sup> This provides evidence of climate induced temperature changes being a direct consequence of the increased flooding being experienced in Ulaanbaatar and in particular to the poorly prepared Ger-areas.

# Flood risks and vulnerabilities in Ulaanbaatar

As a consequence of increased warm summer days and nights in Central Mongolia, where Ulaanbaatar is located, there has been more frequent flooding in Ulaanbaatar City. As indicated by the recent the Flood Risk Assessment (FRA) study<sup>6</sup> that looked at 35 floods that occurred within the period of 1915-2013, 60 percent of these floods took place within the decade of 2000-2010. The study states that 50 percent of these floods were of 'alluvial' type, occurring due to water flow and run-off from mountain slopes and along dry riverbeds. Besides that, Ulaanbaatar suffers from flash floods and ground water flooding. The 2003 flash floods for instance, killed 15 people, made 30 families homeless and destroyed 93 houses.<sup>7</sup> The Ger area's are hit hardest by all types of floods.

Flood issues are likely to increase in poor, unplanned areas that expand fast, mostly at the north-side of the city. As mentioned above, Ulaanbaatar is located in the Tuul valley, an arm of the Selenga river. An arm of the Tuul, the Selbe streams down from the north and ends in the Tuul at the Southside of the city. Besides the Selbe, there are many other smaller rivers that pass through the city from the north to the south. The city is surrounded by hills and many Khoroos stretch into valleys, mainly to the north, which means that these Khoroos have hills on either side.



Figure 5: Ulaanbaatar river system. Target areas are along 3 rivers in the north of UB city.

<sup>&</sup>lt;sup>5</sup>Flood Risk Assessment and Management Strategy of Ulaanbaatar City 2015-Volume 1, World Bank, Page 52

<sup>&</sup>lt;sup>6</sup> Flood Risk Assessment and Management Strategy of Ulaanbaatar City 2015-Volume 1, World Bank, Page 13

<sup>&</sup>lt;sup>7</sup> OCHA Mongolia flash floods situation report, 2003. Online at http://reliefweb.int/report/mongolia/mongolia-flash floods-ochasituation-report-no-1

# **Economic context**

Mongolia was experiencing high levels of growth in 2011 due to its vast and rich natural resources, with the highest recorded growth figures of 17.5 percent globally, before the economic growth slowed down in 2012/2013 until only 0.1 percent in 2016. This was largely due to the fall in commodity prices and decrease in exports to China (95 percent of exports go to China) and a parallel decline in foreign investment that took place due to some policy changes which made international investment in the country more challenging. According to most recent statistics published by the World Bank, Mongolia's Gross National Income (GNI) amounted to US\$3,870 per capita, yielding economic growth of only 0.1 percent in 2016. This trend is projected to slightly increase with forecasted GDP growth rates of 2 to 3.7 percent for the years 2017 and 2019, respectively.8

Mongolia's economy is not very diversified and driven by two main sectors: Mineral industry and agriculture. While the country's economic base was fundamentally agricultural, its mining industry contributes to around 20.3 percent to the country's GDP, and accounts for more than 80 percent of its export and 40 percent of government revenues<sup>9</sup>. The agriculture sector, on the other hand, is failing to realize its growth potential due to fallen commodity prices and the impacts of climate change.<sup>10</sup>

Ulaanbaatar (UB City) is a key, if not the key economic region in Mongolia accounting for approximately 64 percent of Mongolia's GDP. However, UB City also experiences very high inequality with 22 percent of the city residents below the poverty line and living on 2\$ a day; with these based primarily in the Ger areas. The on-going Ger area redevelopment programmes maintain a key focus on facilitating the growth of the informal sector, for strengthening micro-small-medium enterprise (MSME) sector and improving connectivity to the urban core, as potential drivers for improving the economic conditions of Ger Areas and UB city as a whole.

The diversification of the economy toward a healthier local business environment - promoting self-sufficiency and reduction of inequalities- while moving away from extreme reliance on export commodities - is clearly the way forward to achieve more economic stability for the country.





<sup>&</sup>lt;sup>8</sup>The World Bank, 2017. Per capita GNI is displayed using the World Bank's Atlas method, which smoothens a country's GNI per capita by price variations and exchange rate fluctuations, taking into account the year of observation and the two previous years. It further adjusts the country's own and the international rate of inflation. with the international inflation rate being the euro area, the United Kingdom, the United States and Japan since 2001. Online at http://data.worldbank.org/country/mongolia

<sup>&</sup>lt;sup>9</sup> UN-Habitat – Mongolia Country Profile.

<sup>&</sup>lt;sup>10</sup> IMF Country Report No. 03/277, p. 2.

<sup>&</sup>lt;sup>11</sup>https://www.asiapathways-adbi.org/2014/04/development-via-regional-integration-mongolias-chance-for-a-prosperous-future/

## **Social context**

Mongolia has a population of 3.03 million, growing at a rate of 1.7 percent annually<sup>12</sup>. Almost half (47 percent) of the country's population is currently living in its capital city (1.38 million) and the share of the urban population has increased to 67 percent of the total population<sup>13</sup>.

Since the 1990s, UB city has had limited formal extension of its core, which largely comprises apartment blocks with comprehensive utility services, including dedicated heating, water, and sanitation. However, successive waves of in-migration with Ger tents have reshaped the city's geography, with (i) little upgrading or extension of basic urban services; and (ii) government policy, since 2003, to grant each citizen about 700 square meters of land. A vast, low-density peri-urban area, commonly and collectively referred to as Ger areas, now extends around the city core- with three informal settlement tiers around the formal urban core area, the inner, middle, and fringe locations- these are characterized by unplanned settlements of low and medium income households with land ownership, un-serviced plots, unpaved roads and poor facilities. Settlement growth here is much faster than urban development and is projected to increase by another 40 percent by 2020.

Although poverty is more pronounced in rural areas, inequality, particularly in access to various services, is higher in urban areas<sup>14</sup> and especially in Ger areas where there are very low levels of public services available and very few households that are connected to the city's water distribution network.

The Ger area population is estimated at 800,000, representing 60 percent of Ulaanbaatar. Approximately 40,000-people migrate to UB city per year, of which most end up in Ger areas. Despite their size, Ger areas have until recently been considered temporary settlements. However, their official integration in the 2013 city master plan provides the necessary provision to plan the redevelopment of the Ger areas into a formal peri-urban area.

Lack of long-term planning, infrastructure investment, and land use regulation in Ger areas have resulted in haphazard development, limited availability of space for public facilities, poor access to socioeconomic services and insufficient livelihood opportunities. The lack of basic urban infrastructure is preventing people to move out of poverty.

The service gap between the city core and Ger areas means Ger residents are badly connected to the city core and poorly integrated in the urban economy, and this is one of the most urgent and difficult development challenges. While various government and development partner initiatives have significantly improved living conditions in Ger areas, approaches have generally focused on specific sectors, failing to design a sustainable vision and provide integrated solutions for the problems of peri-urban development.

Gender context: Female-headed households make up roughly 25% of homes in Mongolia, and are particularly vulnerable to flooding, suffering from land grabbing and lower levels of disaster assistance.<sup>15</sup>. Data from Participatory Living Standards Assessment of the National Statistics Office (NSO) have identified that a disproportionate number of women-headed households are living in poverty and that the proportion is growing. Women are limited to engage in livelihood or employment opportunities because of the tasks at home. Some women, who are employed or engaged in small enterprises, need to work longer hours than

<sup>&</sup>lt;sup>12</sup>The World Bank, World Development Indicators,2017.http://data.worldbank.org/indicator/SP.POP.GROW?locations=MN

<sup>&</sup>lt;sup>13</sup>United Nations Statistics Division, 2017. Online at http://data.un.org/Data.aspx?q=mongolia+urban+&d=POP&f=tableCodepercent3a1percent3bcountryCodepercent3a496

<sup>&</sup>lt;sup>14</sup>Government of Mongolia, UNDP and SIDA (2011, p87) Mongolia human development report

<sup>&</sup>lt;sup>15</sup>https://tradingeconomics.com/mongolia/female-headed-households-percent-of-households-with-a-female-headwb-data.html

men do, just to manage tasks at home and at work. As such, it is vital that women have a strong voice in disaster recovery planning, as well as equal or gender-specific, gender-responsive opportunities in a post-disaster context.



Figure 7: Ger district sections. Aqua blue-river basin, bright orange-central Ger areas, orange-middle Ger areas, yellow-peripheral Ger areas, grey-city area, green-green/camp zones. Source: Ulaanbaatar City Development Strategy-2020 and Development trend until 2030.



**Figure 8: The Urban Poverty Profile** – generated as part of the Citywide Pro-poor "Ger Upgrading Strategy and Investment Plan" (GUSIP) programme by Cities Alliance and UN-Habitat in collaboration with the Government provides a snapshot of Urban Poverty, especially in the Ger Areas of Ulaanbaatar City in 2005.

# **Environmental context**

The Mongolian topography is characterized by a clear north-south divide. While the north is dominated by huge mountain ranges, deep forests and steppe, the southern parts of the country are of much lower elevation, and consist of mainly parched lands such as deserts and desert steppe. A significant area of the south is covered by the Gobi Desert, one of the largest desert regions in Asia that also covers parts of northern and north-western China. Mongolia is rich in mineral resources such as gold, silver, coal, precious stones, and gravel. Its mining sector is among the driving economic forces in the country, however these industrial activities are a major cause of parts of rivers becoming heavily polluted. Rivers, such as the Tuul River for example, are not only utilized for industrial purposes, but also for household and drinking water consumption. The Tuul River is among the most polluted fresh water sources in the country. It flows through the centre of Mongolia as well as UB City.

The negative environmental impacts of city growth are urban air pollution caused by increased energy consumption and use of coal, pressure on water resources, accumulation of solid wastes, impact on forests and protected areas nearby. The city core where jobs and services are concentrated has experienced unprecedented congestion, due to rapidly increasing private vehicle ownership and use, while the urban road and public transport networks have not kept pace with this rapid growth in traffic demand.



Living conditions in Ger areas are particularly inadequate. Poor sanitation households almost exclusively rely on open pit latrines—and poor waste collection practices have created highly unsanitary living conditions. Related to this, Infectious diseases (especially dysentery and hand and mouth diseases) are increasingly becoming a problem in Ger areas where toilets often overflow, leading to water and soil pollution.

Figure 9: Infectious disease (hepatitis, dysentery, salmonella, food poisoning, etc.) incidents within 32 Khoroos in Songinohairkhan District during 2012-2016

Air pollution is among the worst in the world, particularly during winter because of inadequate household heating systems, traffic jams and dust from unpaved roads. Access to water, supplied by kiosks operated by the Ulaanbaatar Water Supply and Sewerage Authority (USUG), is limited. There is a significant in-equality in access to water between ger residents who have to pay a premium for the cost of water, above all other residents/industries/businesses/institutions – it was found that the total volume of water use/consumption by ger residents (who constitute 60% of the city population) was 1.7 m3 mill/year equating to 2.1% of the total consumption by the entire city; they however pay the highest water tariffs amongst local residents at 442 Tug/m3 – higher than piped water to metered apartments (40 tug/m3), piped water to households (95 tug/m3) and even higher than piped water to industries and businesses (200 tug/m3).

In the same vein, a pressing issue to note is the significant decline in groundwater tables in Ulaanbaatar over the past 50 years. Current annual demand for water is in excess of 77 million cubic metres (supplied by USUG). With the population forecasted to rise by another 400,000 over the next 5 years, the demand will also increase significantly. Furthermore, land management practices for industry, tourism and settlements expansion upstream in the Tuul ecosystem will also have an impact on the availability of clean, regular and sufficient river flow and groundwater resources for UB city.

Upstream ecological conditions in the Tuul ecosystem therefore have a direct relation the availability of groundwater and surface water downstream in Ulaanbaatar, where demand will continue to rise.

# **Project approach**

With six out of every ten Mongolians living in urban areas, approaches for reducing vulnerability and increasing sustainability in urban areas will have a significant impact on national level development.

As Ulaanbaatar pursues its sustainability agenda by following the initiatives of wealthier nations through mass urbanisation, ambitious urban renewal projects and adapting the city to handle mobility issues around increasing traffic; it is at risk of ignoring the increased vulnerabilities to climate change related risks which then gradually reduces its own capacity for resilience. It is ironic that one of the historically most resilient and adaptive populations (through its nomadic heritage) is rapidly becoming one of the most at-risk and least prepared for climate change. For this process to be reversed, Mongolia's policy makers and urban planners should not only design the city as they believe it 'should be', based on archaic principles of projectionbased top-down urban planning but also 'plan' the cities as a place for people -design it with the population at its core, using bottom-up community led approaches. UB City is faced with a limited, and urgent, window of opportunity to address increased vulnerabilities to climate change related risks and increase its own capacity for resilience.

At the basis of increasing urban resilience is to create incentives for the community to adapt by themselves, empowering the Ger-district communities to become the key stakeholders in their own resilience strategies. A key positive externality of such participative capacity building is the creation of a common social thread between the members of the community who have been removed from their tight-knit rural communities and find themselves living in an increasingly overcrowded environment. Stronger social ties amongst urban poor women and men reduces the threat of conflict and provides an essential support group post-disaster and at times of need. Without a strong and connected community at its foundation, strategies for improving their lives, including becoming more resilient to climate change, becomes very challenging. The creation of a sense of social harmony between the urban policy makers, the residents and the emergency responders allow for improved communication and the sharing of experiences which would ultimately lead to greater social resilience.

UN-Habitats' community development approach, the People's Process <sup>16</sup> lends itself to achieve this purpose very well, as successfully demonstrated by previous and ongoing projects implemented in Ger- communities on the areas of *water sanitation and infrastructure services* as well as *urban health systems strengthening, urban planning* and *affordable housing,* primarily in partnership with the Municipality of Ulaanbaatar and other stakeholders.

Building on the policy directions and strategies of the Government of Mongolia on climate change and resilience and complemented by consultation with national government experts, the Governor's office, District level Governor's and khoroo authorities on (i) the priority climate adaptation need for flood resilience and (ii) identification of the most vulnerable locations which experience repetitive flooding; UN-Habitat has conducted Rapid Assessments and consultations in these Ger-Areas with most at risk communities and designed the project components based on the finding of this evidence within the framework of national policies and strategies.

<sup>&</sup>lt;sup>16</sup>See Annexes 5,6 People's Process brochure and Poster.

# **Target Khoroos (communities)**

The Flood Risk Assessment and Management Strategy of Ulaanbaatar City supported by the World Bank, specified the most vulnerable target settlements for hazard and risk mapping and the production and improvement of adaptive infrastructure, which were: (1) Tolgoit zuunsalaa, (2) Mon Laa (3) District III, IV flood control levee (4) Selbe river (5) Gorkhi and (6) Baatarkhair-khan Uliastai river. These are located on the territories of i) 12, 13, and 14<sup>th</sup> khoroos of Su-khbaatar district; ii) 21, 27, 8, 23<sup>rd</sup> khoroos of Bayanzurkh district; iii) 25, 7th khoroos of Songinokhairkhan district; and iv) 9<sup>th</sup> khoroo of Bayangol district<sup>17</sup>.

Further consultation with Governor's and the three (3) district authorities of SonginoKhairkhan, Sukhbaatar and Bayanzurkh districts identified the below 7 khoroos (sub-districts) as the most vulnerable in terms of either being impacted by floods or areas from which run-off takes place on a frequent basis. These districts fall amongst the biggest in terms of population size and the fastest growing in Ulaanbaatar. The 7 Khoroos have a total population of 88,839.

In these areas, in summer, when ice melts and rain falls, water comes down from the northern hills, leading to floods around gully's and rivers. These floods affect houses, other assets and lead to overflow of latrines, heavily polluting water and soil, which in turn lead to increased incidents of disease often affecting children. Extreme flood incidents are also increasingly recorded in Ulaanbaatar, not only destroying houses and assets, but also causing death. This is especially relevant in Khoroo (i.e community) 24, where new informal settlers have started to move into the riverbed. In the downhill / lower-lying Khoroos, another problem besides floods is stagnant water build-up and rising groundwater. This stagnant water, which is polluted due to overflow of the latrines, often from upstream, can stay for months and impedes the mobility of residents and access to critical services, with cars, ambulances, fire trucks, etc. not being able to enter the Khoroo. After the summer, the stagnant and polluted water freezes to then melt again in summer.

From a technical perspective, the situation is aggravated by non-existent or not properly designed drainage systems and low-quality and basic design latrines that not take into account flood risks. Besides that, there is limited awareness of flood risk zones and health risk. As mentioned above, people build their houses in the middle of the river or in the path of gully's. Moreover, pit latrines are sometimes emptied on the street.

In 2019, the Mongolian Government decided to re-draw the boundaries of numerous Khoroos and Districts in Ulaanbaatar City. This re-districting exercise was mainly designed to reflect population changes as a result of extensive migration in recent years. A map of the new Khoroo boundaries (in Songinokhairkhan District as relevant to this project) is shown in Figure A1 and A2. Essentially, Khoroo 7 has been divided into two – Khoroo 7 and the new Khoroo 40. The revised activities/infrastructure design to be implemented by project will be in Khoroo 40. Despite this boundary change, however, the geographic area is the same, and thus the same vulnerabilities affect the new areas. The project is preparing detailed vulnerability assessment and planning work under Component 1.

<sup>&</sup>lt;sup>17</sup>Flood Risk Assessment and Management Strategy of Ulaanbaatar City 2015-Volume 1, World Bank, Page 3



Figure A1 – New Khoroo Boundaries in Songinokhairkhan District



Figure A2 – Higher resolution view of new Khoroo boundaries in Songinokhairkhan District

# Overview of 3 target areas and localized climate change / flood impacts and resilient building needs

# Area 1: Songino-khairkhan district (north-west) Khoroos 24, 25 and 7

Khoroo 24 and 25, which are located between hills in the west and east and above Khoroo 7, experiences floods gullies from the west and east and in the case of Khoroo 24, from the river coming from the north. The main issues here are new informal settlers moving into the river bed and sanitation issues due to floods. The polluted flood water going down then enters Khoroo 7, which also receives polluted flood water from 25 in the north-east. Besides that, stagnant water is considered a big problem as it causes health issues and limits access. Due to high population density and prevalence of above issues, this is considered the hotspot area of this project.

Note that the new Khoroo 40 has been entirely created from Khoroo 7. As such, the climate change, flood impacts and adaptation requirements in Khoroo 40 are the same as originally described in Khoroo 7. Ongoing work in the project has revealed no other change in the vulnerability baseline.



Figure 10: Area 1- Songino-khairkhan district (north-west) Khoroos 24, 25 and 7 localized climate change / flood impacts

# Area 2: Sukhbaatar district (north-central) Khoroo 12, 13 and 16

Khoroo 12, 13 and 16 are located next to the main Selbe river. Khoroo 16, on the east side, experiences floods from the river and is muddy / wet, leading to extremely poor sanitation issues. The same muddy / wet situation continues in Khoroo 12 and 13 on the west side of the river. However, these two khoroos are protected from the river by walls on the east side and the water here, comes from flash floods from the hills to the west



Figure 11: Area 2: Sukhbaatar district (north-central) Khoroo 16 localized climate change / flood impacts



Figure 12: Area 2: Sukhbaatar district (north-central) Khoroo 12 and 13 localized climate change / flood impacts

# Area 3: Bayanzurkh district (north-east). Khoroo 9

Khoroo 9, which is located next to a hill in the north and the main Uliastai river on the east experiences floods from both the hill and a secondary arm of the river. This water from the arm flows south into an informal area literally through house plots. In this area, there is also a problem of stagnant water and sanitation overflow. In the center of the Khoroo, a school and hospital and the south-eastern part are of risk of floods from gullies from the north-west. Khoroo 9, as can be seen by the prevalence of floods, as the second flood hotspot risk area.



Figure 13: Area 3: Bayanzurkh district (north-east). Khoroo 9 localized climate change / flood impacts

Table 1 below provides an overview of the target Khoroos with the localized climate change impacts and effects, vulnerabilities, barriers to adaptation and prioritized concrete resilience building interventions by the communities. It is clear that the main problems are river and flash floods, water and soil pollution due to overflow of pit latrines and muddy / swampy areas, caused by a combination of floods and groundwater coming to the surface. In summer, these muddy / swampy areas are not accessible to cars, ambulances, fire trucks, etc. and difficult to cross by foot. In winter, these areas are frozen.

When examining the disaggregated population data, it becomes clear that the demographic of these ger populations resembles that of a developing country with a high prevalence of youth /children\* at more than 30%. The characteristics of such populations are high dependency ratio of younger population over the older/working population accompanied by a smaller percentage of older population who also have a shorter life expectancy of around 60 years. \*Moreover, youth by UN definition, falls within the 18-30 year age group and the under 18 age group are classified as children – so the proportion of children and youth amongst these Gerpopulations are likely to be even higher and possible more than 50% prevalence.

The project proposal has considered taking an approach which prioritizes the involvement of youth in project activities even though earlier attempt to do so have shown little success. Women on the other hand are very active in the communities as well as the government.

Therefore, the project will especially target women committees and particularly younger women/youth within the 18-30 age group. The project will also make efforts, through focus group discussions for instance, to identify barriers to youth involvement in project activities as well as identify opportunities and synergies for their involvement, during implementation of community led 'People's Process' activities.

| Khoroo          | Popu-<br>lation / bene-fi-<br>ciaries   | Main climate<br>change impacts<br>/ Hazards  | Main climate Effects on communities<br>change impacts<br>/ Hazards  |   | Barriers to adapt   | Resilience building<br>interventions priori-<br>tized by community   |
|-----------------|---|--|---|---|---|--|
| District: S     | Songino-khairkhan (n  | orth-west)   |   |   |   |  |
| 7               | <b>20.128</b><br>Households: 5510<br>(3,7 per house)<br>Women: 10.259<br>>65: 775<br><18: 6241<br>Disabled: 254               | <ul> <li>Floods from<br/>Khoroo 24 and<br/>25</li> <li>Flash floods</li> <li>Stagnant wa-<br/>ter</li> <li>Harsh winter<br/>and air pollu-<br/>tion</li> </ul>     | <ul> <li>Flood leading to damaged / destroyed assets and toilet overflow and water / soil pollution</li> <li>Diarrhoea and other infectious disease are caused by water / soil contamination</li> <li>Muddy area in summer resulting in cars, ambulances, etc. not able to enter</li> </ul>                             | <ul> <li>High poverty</li> <li>Limited basic<br/>services</li> <li>No secondary<br/>drainage system<br/>and waste from<br/>ceramic industry</li> </ul>      | <ul> <li>Limited financial means / no<br/>Khoroo budget for flood con-<br/>trol</li> <li>Lack of awareness and em-<br/>powerment</li> <li>Lack of community self-or-<br/>ganization</li> <li>Lack of central sewerage sys-<br/>tem to dispose grey water<br/>and for connecting latrines</li> </ul> | <ol> <li>Flood reduction /<br/>drainage measures</li> <li>Address latrine over-<br/>flow / water &amp; soil<br/>pollution</li> <li>Address problem of<br/>muddy areas</li> </ol> |
| 7 (Jan<br>2020) | Total Population           9,506           Households: 3,667           Women: 4,694           ≥65: 725           <18: 4,070   | <ul> <li>Floods from<br/>Khoroo 7, 24,<br/>and 25</li> <li>Flash floods</li> <li>Stagnant wa-<br/>ter</li> <li>Harsh winter<br/>and air pollu-<br/>tion</li> </ul> | <ul> <li>Flood leading to damaged / de-<br/>stroyed assets and toilet overflow<br/>and water / soil pollution</li> <li>Diarrhoea and other infectious dis-<br/>ease are caused by water / soil<br/>contamination</li> <li>Muddy area in summer resulting in<br/>cars, ambulances, etc. not able to<br/>enter</li> </ul> | <ul> <li>High poverty</li> <li>Limited basic<br/>services</li> <li>No secondary</li> <li>drainage system<br/>and waste from<br/>ceramic industry</li> </ul> |   | 1. Flood reduction /         drainage measures         2. Address latrine over-         flow / water & soil         pollution         3. Address problem of         muddy areas  |
| 40 Jan<br>2020  | Total Population:           10,562           Households: 2,660           Women: 5,489           >65: 451           <18: 3,216 | <ul> <li>Floods from<br/>Khoroo 24 and<br/>25</li> <li>Flash floods</li> <li>Stagnant wa-<br/>ter</li> <li>Harsh winter<br/>and air pollu-<br/>tion</li> </ul>     | <ul> <li>Flood leading to damaged / de-<br/>stroyed assets and toilet overflow<br/>and water / soil pollution</li> <li>Diarrhoea and other infectious dis-<br/>ease are caused by water / soil<br/>contamination</li> <li>Muddy area in summer resulting in<br/>cars, ambulances, etc. not able to<br/>enter</li> </ul> | <ul> <li>High poverty</li> <li>Limited basic<br/>services</li> <li>No secondary</li> <li>drainage system<br/>and waste from<br/>ceramic industry</li> </ul> |   | 1. Flood reduction /<br>drainage measures         2. Address latrine over-<br>flow / water & soil pol-<br>lution         3. Address problem of<br>muddy areas                    |
| 24              | <b>13.689</b><br>Households: 4040<br>(3,4 per house)<br>Women: 7145<br>>65: 706<br><18: 2736<br>Disabled: 45                  | <ol> <li>Floods</li> <li>Flash floods</li> <li>Strong wind<br/>and storm</li> <li>Harsh winter<br/>and air pollu-<br/>tion</li> </ol>                              | <ol> <li>Floods causing high risk of informal<br/>settlers in river bank.</li> <li>Flood leading to damaged / de-<br/>stroyed assets and toilet overflow<br/>and water pollution</li> </ol>   | <ol> <li>Informal settlers<br/>(immigrants) in<br/>riverbed</li> <li>High poverty</li> <li>Limited basic<br/>services</li> </ol>                            |   | <ol> <li>Flood reduction /<br/>drainage measures</li> <li>Address latrine over-<br/>flow / water &amp; soil<br/>pollution</li> <li>Land use / street<br/>planning</li> </ol>     |

| Table | 1: 1 | Farget area | as, loca | l climate | change | impacts | s and effect. | vulnerabilities | barriers to ada | pt and | prioritized | concrete | resilience | building | interventi | ions |
|-------|------|-------------|----------|-----------|--------|---------|---------------|-----------------|-----------------|--------|-------------|----------|------------|----------|------------|------|
|       |      |             | ,        |           | - U    |         |               |                 |                 |        |             |          |            |          |            |      |

| 25            | <b>13.680</b><br>Households: 3488<br>(3,9 per house)<br>Women: 7082<br>>65: 1536<br><18: 4801<br>Disabled: 290   |  | <ol> <li>Diarrhoea and other infectious disease are caused by water / soil contamination</li> <li>Flood leading to damaged / destroyed assets and toilet overflow and water pollution</li> <li>Diarrhea and other infectious disease are caused by water / soil contamination</li> </ol>                               | <ol> <li>High poverty</li> <li>Limited basic<br/>services</li> </ol>   |   | <ol> <li>Flood reduction /<br/>drainage measures</li> <li>Address latrine over-<br/>flow / water &amp; soil<br/>pollution</li> <li>Land use / street<br/>planning</li> </ol>   |
|---------------|--|--|--|--|---|--|
| District: Suk | khbaatar (north-centra   | )  | A Fleed leading to demonstrat ( )  | 4 Illink a susat   |   | A Electronic from (  |
| 12            | 7.162<br>Households: 2182<br>(3,3 per house)<br>Women: 3585<br>>65: 416<br><18: 2446<br>Disabled: 213<br>9.136<br>Households: 2522<br>(3,6 per house)<br>Women: 4617<br>>65: 281 | <ol> <li>Floods</li> <li>Flash floods</li> <li>Stagnant water</li> <li>Harsh winter and air pollution</li> </ol>     | <ol> <li>Flood leading to damaged / de-<br/>stroyed assets and toilet overflow<br/>and water /soil pollution</li> <li>Diarrhoea and other infectious dis-<br/>ease are caused by water / soil<br/>contamination</li> <li>Muddy area in summer resulting in<br/>cars, ambulances, etc. not able to<br/>enter</li> </ol> | <ol> <li>High poverty</li> <li>Limited basic<br/>services</li> <li>Poor or non-ex-<br/>istent drainage<br/>system</li> <li>Dam situated in<br/>the middle of the<br/>khoroo is highly<br/>polluted</li> <li>Low elevation</li> </ol> | <ol> <li>Limited financial means / no<br/>Khoroo budget for flood con-<br/>trol</li> <li>Lack of awareness and em-<br/>powerment</li> <li>Lack of community self-or-<br/>ganization</li> <li>Lack of central sewerage sys-<br/>tem to dispose grey water<br/>and for connecting latrines</li> <li>Police and khoroo office's co-<br/>operation is weak in surveil-<br/>lance of garbage disposal</li> <li>See above</li> <li>Residents try to fix canals but<br/>lack professional know how</li> <li>5 people are in charge of<br/>cleaning the khoroo for small</li> </ol> | <ol> <li>Flood reduction /<br/>drainage measures</li> <li>Address latrine over-<br/>flow / water &amp; soil<br/>pollution</li> <li>Address health is-<br/>sues</li> <li>Address problems<br/>related to ground<br/>water coming up</li> <li>Address swampy /<br/>muddy issue caused<br/>by flood water</li> <li>Flood reduction /<br/>drainage measures</li> </ol> |
| 16            | <18: 2879<br>Disabled: 239<br><b>11.945</b><br>Households: 3127<br>(3,8 per house)<br>Women: 6128<br>>65: 466<br><18: 4329   | <ol> <li>Flood from the<br/>main river<br/>Flash floods</li> <li>Harsh winter<br/>and air pollu-<br/>tion</li> </ol> |  | <ol> <li>High poverty</li> <li>Limited basic<br/>services</li> <li>Poor or non-ex-<br/>istent drainage<br/>system</li> </ol>   | <ul> <li>salary but it is not stable as<br/>cleaning happens only before<br/>important events or national<br/>holidays</li> <li>1. Limited financial means / no<br/>Khoroo budget for flood con-<br/>trol</li> <li>2. Lack of awareness and em-<br/>powerment</li> <li>3. Lack of community self-or-</li> </ul>   | <ol> <li>Address latrine over-<br/>flow / water &amp; soil<br/>pollution</li> <li>Flood reduction /<br/>drainage measures</li> <li>Address swampy /<br/>muddy issue caused<br/>by flood water</li> </ol>   |

|             |   |                |  |    |  | 4.                   | Waste and burnt<br>materials comes<br>down from<br>waste recycle<br>center   | 4.                   | Lack of central sewerage sys-<br>tem to dispose grey water<br>and for connecting latrines   | 3.             | Address latrine over-<br>flow / water & soil<br>pollution   |
|-------------|---|----------------|--|----|--|----------------------|--|----------------------|---|----------------|---|
| District Ba | yanzurkh (north-east)   |                |  |    |  |                      |  |                      |   |                |   |
| 9           | <b>13.701</b><br>Households: 3785<br>(3,6 per house)<br>Women: 6994<br>>65: 239<br><18: 4980<br>Disabled: 537 | 1.<br>2.<br>3. | Floods<br>Flash floods<br>Heavy air pol-<br>lution in winter | 1. | Flood leading to damaged / de-<br>stroyed assets and toilet overflow<br>and water / soil pollution<br>Diarrhea and other infectious dis-<br>ease are caused by water / soil<br>contamination | 1.<br>2.<br>3.<br>4. | High poverty<br>Limited basic<br>services<br>Poor or non-ex-<br>istent drainage<br>system<br>Lack of toilets at<br>last bus stop | 1.<br>2.<br>3.<br>4. | Limited financial means / no<br>Khoroo budget for flood con-<br>trol<br>Lack of awareness and em-<br>powerment<br>Lack of community self-or-<br>ganization<br>Lack of central sewerage sys-<br>tem to dispose grey water<br>and for connecting latrines | 1.<br>2.<br>3. | Address latrine over-<br>flow / water & soil<br>pollution<br>Flood reduction /<br>drainage measures<br>Address health is-<br>sues |

During the rapid assessment and consultations of these Khoroos by the UN-Habitat community mobilization team (see full assessments link in the consultation section), the areas on the maps below have been identified and confirmed by the communities as high-risk flood areas.
# Flood impacts in target communities – in photos

Songino-khairkhan district 7<sup>th</sup> khoroo (Rain in 2017.06.20)



Flooding of main road sinkhole constructed by the Geodetic Water Facility Office of the Housing Authority (UN-Habitat June 2017)







Basement of the 12<sup>th</sup> apartment of Khilchin hothon – flood water and ground-water penetrating from the walls and floors leading to power cut restriction of 670 households *Photo (UN-Habitat June 2017* 



Flood due to lack of flood seweage and canal in households near 0119<sup>th</sup> military unit and 1-4 streets Photo (UN-Habitat June 2017)

# 2. Project Objectives

#### Main objective

The main objective of the proposed project is to enhance the climate change resilience of the seven most vulnerable Ger khoroo settlements focusing on flooding<sup>18</sup> in Ulaanbaatar City by:

- 1. Improving the knowledge on flood hazard and risk exposure and vulnerability for these areas
- 2. Improving the resilience and adaptive capacity of the Ger settlements through a Community-Based gender-responsive approach (i.e. building social cohesion per Khoroo)
- 3. Increasing resilience Ger area physical infrastructure and services, supported by enhanced capacities of responsible district level and khoroo authorities.
- 4. Strengthened institutional capacity to reduce risks and capture and replicate lessons and good practices

The main component of the project will be the provision of flood resilient physical infrastructure and services, building on the priorities as communicated by the UB city authorities and Khoroo communities, both women and men; evidence made available and supplemented with hazard and risk mapping and land use planning; and delivered within the framework of enhanced capacities and awareness for resilience and risk reduction at Ger -district and community level.

<sup>&</sup>lt;sup>18</sup>As identified in the Flood Risk Assessment and Management Strategy of Ulaanbaatar City supported by the World Bank

# 3. Project Components and Financing Table 2: Project components and financing

| Project Compo-<br>nents  | Expected Concrete Outputs  | Expected Concrete<br>Outcomes   | Amount<br>(US\$) |
|--|--|---|------------------|
| Component 1  | Output 1.1   | Outcome 1.1   |                  |
| National/City Level<br>Producing hazard and<br>risk information / evi-<br>dence for increasing<br>resilience and devel-<br>oping land use plans<br>to increase this resili-  | <b>One (1) Ulaanbaatar northern Ger-Area*</b><br><b>Territorial Land Use Plan,</b> with legal frame-<br>work recommendations and a specific focus<br>on flood risk reduction - building on 1.2 <sup>19</sup> * ( <i>in-</i><br><i>cludes the three (3) high risk target districts</i><br><i>covering the seven (7) most vulnerable kho-</i><br><i>roos)</i>  | Relevant threat, haz-<br>ard information, evi-<br>dence and recommen-<br>dations (on land use<br>and zoning) generated<br>for increasing resili-<br>ence at the city level  | 91,790           |
| ence at UB City level.   | Output 1.2.<br>Simulation model for forecasting future impacts of climate change flooding in UB city & Ger-areas established. <sup>20</sup>  | (In line with AF out-<br>come 1: reduced ex-<br>posure at national  | 60,000           |
|  | Output 1.3<br>Seven (7) Detailed Ger-khoroo level Land<br>Use Plans with specific focus on flood risk re-<br>duction and building resilience of the most<br>vulnerable areas and people <sup>21</sup>  | level (which is also city<br>level in Mongolia) to<br>climate-related haz-<br>ards and threats).  | 250,000          |
|  |  | Total   | 401,790          |
| Component 2  | Output 2.1   | Outcome 2.1.  |                  |
| Khoroo/Community<br>level<br>Participative planning<br>and capacity develop-<br>ment for flood resili-<br>ence in Ger-areas at<br>the district / khoroo<br>and community level<br>(including activities to<br>operate and maintain | Seven (7) Khoroo-level floods resilience<br>action plans to implement the interventions<br>identified under component 3;<br>A series of District, Khoroo and community<br>level consultations / workshops (50 percent<br>women where possible) introducing the Peo-<br>ple's Process and Community Based Disaster<br>Risk Reduction approach, focused on building<br>social cohesion and consensus on community<br>level implementation of interventions under<br>component 3. <sup>22</sup> | Target community<br>members are aware of<br>resilience building and<br>climate risk reduction<br>processes and have<br>ownership over pro-<br>posed interventions at<br>the District, Khoroo<br>and community level | 195,390          |
| - and mitigate any po-<br>tential risks related to<br>- the interventions un-<br>der component 3).   | Output 2.2<br>Khoroo community level interventions op-<br>eration & maintenance* and awareness<br>campaigns and trainings (50 percent women<br>where possible) to support the sustainable<br>implementation of interventions under compo-<br>nent 3.<br>An Estimated 20.nos. of trainings *(Aware-<br>ness will also cover potential risks mitigation)   | come 3: strengthened<br>awareness and own-<br>ership of adaptation<br>and climate risk reduc-<br>tion processes at local<br>level).   | 212,956          |
|  | Output 2.3   |   | 50.000           |
|  |  |   |                  |

<sup>&</sup>lt;sup>19</sup> In line with National priority: Nationally Determined Contribution: Relevant adaptation needs: to conduct disaster risk assessments at local and subnational levels. Also in line with national priority: Green development policy 2014-2030: 6) Develop and implement a population settlement plan in accordance with climate change, while considering the availability of natural resources and the resilience of regions. Also in line with Ulaanbaatar municipality Flood Risk Assessment and Flood Risk Management Strategy (FRMS) of Ulaanbaatar City. 20 In line with National priority: National Action Programme on Climate Change: 4) Enhance the national climate observation, research and monitoring network and strengthen employees' capacity <sup>21</sup> In line with National priority: Green development policy 2014-2030: 6.2. Reduction of air, water and soil pollution by implementing

<sup>22</sup> In line with National priority: National Action Programme on Climate Chang: 5) Conduct public awareness campaigns and support citizen and com-

munity participation in actions against climate change

|   | <b>Technical studies – Engineering and hy-<br/>drological</b> - required to implement the inter-<br>ventions under component 3.   |  |                      |  |  |
|---|---|--|----------------------|--|--|
|   | I   | Total  | 458,346              |  |  |
| Component 3<br>Enhance resilience of<br>community level flood<br>protection assets<br>(NB April 2020, there<br>is no change in the<br>nature of the Compo-<br>nent, Output or Out-<br>come, only the loca-<br>tions of the infrastruc-<br>ture to be built) | Output 3.1.<br>Physical assets developed in response to<br>climate change related flood impacts as<br>prioritized by Khoroo communities the core<br>concrete interventions are flood protection<br>and drainage infrastructure <sup>23</sup> and resilient<br>sanitation <sup>24</sup> to reduce floods impacts – imple-<br>mented through community contracting.<br>For details see next sections<br>Output 3.2<br>Management & operations; design & su-<br>pervision of assets / physical infrastruc-<br>ture to comply with national and local regula-<br>tions and processes – procured as consulting<br>services | Outcome 3.1<br>Increased adaptive<br>capacity within priori-<br>tized community as-<br>sets<br>(In line with AF out-<br>come 4: increased<br>adaptive capacity<br>within relevant devel-<br>opment and natural<br>resource sectors).   | 2,225,904<br>418,780 |  |  |
|   |   | Total  | 2,644,684            |  |  |
| Component 4   | Output 4.1.   | Outcome 4.1.   | 244,682              |  |  |
| Awareness raising,<br>knowledge manage-<br>ment and communica-<br>tion  | Lessons learned and best practices re-<br>garding flood-resilient urban community<br>development are generated, captured and<br>distributed to other Districts and khoroo<br>communities, civil society, and policy-mak-<br>ers in government appropriate mechanisms.<br>Output 4.2<br>Workshops and trainings will be organised<br>targeting city- and district government officials<br>(50 percent women where possible) with a fo-<br>cus on replication of processes, land use<br>plans and interventions and to discuss how<br>lessons can be integrated into existing strate-<br>gies and plans. <sup>25</sup>  | Institutional capacity<br>strengthened to de-<br>velop and replicate<br>this approach<br>(In line with AF out-<br>come 2: Strengthened<br>institutional capacity to<br>reduce risks associ-<br>ated with climate-in-<br>duced socioeconomic<br>and environmental<br>losses). |                      |  |  |
|   |   | Total  | 244.682              |  |  |
| 5. Total components   |   |  |                      |  |  |
| 6. Project/Programme Execution cost   |   |  |                      |  |  |
| 7. Total Project/Programme Cost   |   |  |                      |  |  |
| 8. Project/Programme C  | Cycle Management Fee charged by the Implement   | nting Entity   | 352,141              |  |  |
| Amount of Financing   | Requested   |  | 4,495,235            |  |  |

<sup>&</sup>lt;sup>23</sup> In line with Ulaanbaatar municipality priority: Ulaanbaatar 2020 master plan and development approach for 2030: Storm water and flood management: Engineering flood protection measures will include managing infrequent spring floods, draining rainwater from roads and squares, securing groundwater, strengthening channels and reducing land degradation.

<sup>&</sup>lt;sup>24</sup> In line with National priority: Green development policy 2014-2030: 2.9. Increase the capacity and productivity of water supply and sewerage facility, provide at least the 90percent of the population with drinking that meets hygiene standards, and provide access to improved sanitation to at least the 60 percent of the population. <sup>25</sup> In line with national priority: National Action Programme on Climate Change: 1) Set the legal environment, structure, institu-

tional and management frameworks for addressing on climate change.

# Projected Calendar:

Table 3: Projected Calendar

| Milestones                                | Expected Dates |
|---|----------------|
| Start of Project/Programme Implementation | 09-2018        |
| Project/Programme Closing                 | 09-2022        |
| Terminal Evaluation                       | 09-2022        |

# A. Project components

The seven target Ger communities<sup>26</sup> in Ulaanbaatar are characterized by a high exposure to multiple climate hazards ranging from wind and dust storms, air pollution and particularly by floods - found to be the main climate issue that required urgent addressing by the communities during the risk and needs assessment and consultations; prioritized as a key adaption issue by municipal government; as evidenced in city/national risk assessments and subsequently stated in city/national level climate strategies and plans .

Ulaanbaatar's climate sensitivity is underpinned by rapid urbanization driven by massive population growth; and is leading to people residing in high-risk unplanned areas, in unsanitary conditions, engaging in unhygienic behaviour, all of which exacerbates public health risks. Underlying vulnerabilities are poverty, limited social ties trust and cohesion, limited access to basic services and environmental degradation. Moreover, the adaptive capacities at household, community and governance level are barriers for change as there exists very limited knowledge and awareness of risks and their vulnerability.

To achieve the overall project objective, "enhance the climate change resilience of the seven most vulnerable Ger khoroo settlements and people focusing on flooding<sup>27</sup> in Ulaanbaatar City" the project will focus on soft and hard components: combining horizontally and vertically interrelated resilience strengthening of national and city institutions, local government and khoroo<sup>28</sup> communities; and resilience building measures for their physical, natural and social assets.

The project intends to promote and improve vertical inter-departmental collaboration particularly by facilitating engagement between the Ministry of Environment and Tourism and the Municipal authorities at all levels, as a key gap that has not yet been addressed in Mongolia is the rollout and implementation of national level climate policies and strategies at the urban level. Furthermore, capacities for resilience building within Districts and khoroos are weak, with pressing demands for urban services & development, in the face of rapid expansion. overburdening local authorities. Therefore, the level of collaboration around the issues of urban resilience and climate adaptation between local authorities at District and khoroo level as well as with communities, have been minimal to date. There is, however, significant emergency and disaster response capacity in rural and urban areas, through the National Emergency Management Agency (NEMA) - the project will thus work with the NEMA team under the Municipality, particularly harnessing existing capacities for the advocacy and training components for local authorities and communities and streamlining with on-going initiatives as necessary. Therefore, institutional capacities and information sharing will be strengthened and harmonized horizontally between different technical institutions responsible for climate resilience, environmental protection and risk reduction activities as well as local authorities within the Municipality, whilst also broadening the vertical outreach of these institutional and municipality to high-risk communities. This integrated approach will also allow for completion of feedback loop to inform and develop future urban climate policies, strategies and frameworks, building on the comprehensive adaptation measures to be implemented at city, district and khoroo community level.

<sup>&</sup>lt;sup>26</sup> Note, as of the April 2020 revision, the project still targets 7 communities – the revised infrastructure location still serves the same communities as originally proposed

<sup>&</sup>lt;sup>27</sup>As identified in the Flood Risk Assessment and Management Strategy of Ulaanbaatar City supported by the World Bank
<sup>28</sup>Khoroo - sub-district

By taking a comprehensive approach of national policy-level institutional capacity strengthening at city, district and khoroo level including support for community level actions for resilience building, that respond to current and future needs, all actions will benefit the inhabitants of the Ger settlements while aiming to sustain the identified concrete adaptation measures. This combination of soft and hard interventions, will contribute to sustainably strengthening local resilience particularly at the household, community and informal settlements level.

The core focus on concrete adaptation measures also lends 'voice' to the priorities of the highrisk communities and vulnerable Ger-residents demonstrating quick impact within the duration of the project. Through showcasing impact, the project intends to generate 'demand'; and supply the software, tools and methodologies necessary to urban authorities for replication of these best-practices and community led approach, to other high risk Ger communities.

The specific needs of women, recent migrants and youth (18-30 years) will be considered at all stages of the project. This is achieved through engaging representatives of these vulnerable groups in community and stakeholder consultations through the community-based approach (i.e. the people's process)<sup>29</sup> – where community primary groups are formed and sustained throughout all stages of the project and through which communities participate in project implementation: in planning, executing activities and monitoring. Given the predominance of youth and young population within the Ger demographic – a key focus will also be to target involvement of young women and men during the community level project consultations and planning, and identify opportunities for their engagement during implementation and monitoring; as well as in the knowledge dissemination and awareness building component.

Table 4 below provides an overview of proposed core interventions and activities and supporting activities required to operate and maintain (and mitigate potential risks) of these concrete interventions. Before this table, there a short description of the proposed concrete interventions in the target areas is provided.

**Component 1:** Producing hazard and risk information / evidence for increasing resilience and developing land use plans to increase this resilience at the city, District and Khoroo level.

In line with AF outcomes 1 and Mongolia and Ulaanbaatar Government priorities (see section D), this component will focus on reducing vulnerability to climate-related hazards and threats both at the city/town and community level by:

- 1.1. Developing **(1) Ulaanbaatar northern Ger-Area\* Territorial Land Use Plan,** with zoning, legal framework recommendations and a specific focus on flood risk reduction building on 1.2 \*(*includes the three (3) high risk target districts covering the seven (7) most vulnerable khoroos*)
- 1.2. Developing a simulation model for forecasting future impacts of climate change flooding in UB city & Ger-areas
- 1.3. Developing seven (7) Detailed Ger-khoroo level Land Use Plans with specific focus on flood risk reduction and building resilience of the most vulnerable areas and people

The information generated and included in the land use plans and simulation model will allow the municipality, district authorities and khoroo communities to understand climate change related impacts and risks and to identify appropriate, community specific resilience interventions based on this information (this in addition to the concrete interventions that will be implemented under this project). This component is required because the current information on

<sup>&</sup>lt;sup>29</sup>Please refer to Annex 5 for more details about UN-Habitat's community engagement approach – The People's Process

climate change impacts and risk (e.g. the World Bank flood risk assessment) is not detailed enough to identify appropriate risk reduction and resilience building interventions at the community level, including information that advocate for reduction/prevention of people moving into high risk areas. The plans will also include land re-adjustment and further planning options for plots, roads, assets, etc., by taking into account hazard risks, whilst also addressing other sector needs.

A northern Ger-Area Territorial Land Use Plan, including zoning and legal framework recommendations, is further required for a holistic planning approach of the Ger areas. It is important to note here that the vast majority of the urban sprawl and Ger-areas are concentrated in the north of UB city.

All information collected, and assessment reports, plans and strategies will be made available on a digital format in Mongolian and English and uploaded on the Municipality of Ulaanbaatar's web portal and spatial database. The simulation model will be launched online by the Ministry of Environment and Tourism and linked to the cities' environmental and geospatial databases.

Please note that there are now 8 target Khoroos in the project area because of the division of Khoroo 7 into two parts (Khoroo 7 and Khoroo 40, described above). However, as these activities are currently underway, they are taking Khoroo 7 and Khoroo 40 together. This means that there will be a joint Khoroo 7 and Khoroo 40 land use plan. Please also note that Khoroos 24 and 25 have also been split, to create Khoroos 41 and 42. The project's planning component will include the new khoroos (which are within the same boundary and have the same beneficiaries as the original proposal.

**Component 2:** Participative planning and capacity development for flood resilience in Gerareas at the district / khoroo and community level (including activities to operate and maintain - and mitigate any potential risks related to - the interventions under component 3).

In line with AF outcomes 3 and Mongolia and Ulaanbaatar government priorities (see section D), this component will focus on strengthening awareness and ownership of adaptation and climate risk reduction processes and capacity by:

- 2.1. Developing seven (7) Khoroo-level floods resilience action plans to implement the interventions under component 3; a series of District, Khoroo and community level consultations / workshops introducing the People's Process and Community Based Disaster Risk Reduction approach, focused on building social cohesion and consensus on community level implementation of interventions under component 3. Developing seven (7) community-level High-risk Ger areas resilience action plans.
- 2.2. Khoroo-level interventions operation and maintenance (and potential risks mitigation) awareness campaigns and trainings to support the sustainable implementation of interventions under component 3. An estimated twenty (20) number of trainings will be conducted.
- 2.3. Technical studies Engineering and hydrological required to implement the interventions under component 3.

This component aims at fully involving communities in the planning and execution of the proposed interventions under component 3; to ensure the proper operation and maintenance (and implementation of potential risk mitigation measures) of these interventions through community involvement. Under component 3, Khoroos communities will be directly contracted to execute the concrete interventions. The Khoroos communities will develop plans to execute these interventions, including management and maintenance arrangements. In parallel with these plans, technical engineering and hydrology studies will be conducted to ensure the assets are properly designed.

To ensure inhabitants are aware of the main issues and risks (including environmental and social risks of interventions) in their communities and to be able to respond to these issues and risks, awareness raising campaigns will be set-up and trainings conducted.

For the management and maintenance of flood resilient infrastructure, UN-Habitat proposes to build on the role and functions of the Community Development Councils (CDC's) that are formed as part of the People's Process for all projects and that are currently operational or have been operational - and will be strengthened by community nomination of members specifically to oversee the implementation, management and monitoring of community assets and infrastructure which help adapt to increased flooding management. These CDC's will also be the key recipients of community level trainings.

The Ministry of Environment and Tourism and other key stakeholders will be invited to participate/observe the implementation of People's Process at the urban level and provide technical advisory inputs.

As under Component 1, there are now 8 target Khoroos in the project, not 7, due to the boundary changes described in Section 1, which divide Khoroo 7 into Khoroos 7 and 40. As with Component 1, activities under Component 2 have begun, and will take Khoroos 7 and 40 together to develop a joint Flood Resilience Action Plan for Khoroo 7 and Khoroo 40.

Because of this, there are no further changes arising in Components 1 or 2 as a result of the boundary changes.

**Component 3:** Enhance resilience of community level flood protection assets

In line with AF outcomes 4 and Mongolia and Ulaanbaatar government priorities (see section D), this component will focus on increasing the adaptive capacity of relevant development and natural resource sectors by:

- 3.1. Developing or strengthening physical assets in response to climate change related flood impacts as prioritized by Khoroos.
- 3.2. Management and operations design & supervision of assets / physical infrastructure – procured as consulting services.

During the rapid Khoroo-level vulnerability assessment, prioritization and vulnerable groups consultations, communities identified and confirmed two main concrete resilience building interventions: improved drainage systems<sup>30</sup> to reduce floods and improved sanitation systems that won't overflow during floods and lead to health issues.

Thus, these interventions have been selected to respond to the most pressing Khoroo-specific climate change hazards.

As this would be the first time to implement the Peoples Process in some of the proposed Gerareas it is critical that the local authorities and communities are exposed to the rigorous and complex combination of implementation and monitoring approaches and guidelines that will be put in place; from technical compliance and quality to management accountability, trans-

<sup>&</sup>lt;sup>30</sup> The drainage sub-projects have been designed in a way to remove the need for resettlement and will be implemented within a short timeframe during which homeowners will have guaranteed access to their plots, as assured by UN-Habitat team.

parency and safe-guarding the rights-based approach of the People's Process. An international advisory technical team, familiar with the roll-out of the People's Process closely working with the national execution team to adapt the approach to suit the local context – with all its' cultural, community, institutional and legal dynamics - will be critical to ensure the success of the implementation.

Component 4: Awareness raising, knowledge management and communications.

Under outcome 2; In line with AF guidelines and Mongolia and Ulaanbaatar government priorities (see section D), this component will strengthen urban-level institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses, especially related to floods and ensure the project implementation is fully transparent, all stakeholders are informed of products (tools, methodologies, approach) and results and have access to these for replication.

Furthermore, the People's Process approach will need to be championed by the members of the Project Advisory Committee – in particular to facilitate the required legal and institutional mechanisms to make the Peoples Process and its tools – Community Implementation Agreements (CIA) - functional for the Mongolian context. Therefore, there will need to be a specific advocacy/training session to secure high-level buy in from PAC at the onset of the project

To this end:

4.1. Lessons learned and best practices regarding flood-resilient urban community development are generated, captured and distributed to other Districts and khoroo communities, civil society, and policy-makers in government through appropriate mechanisms.

Lessons learned on increasing the flood resilience of communities need to be captured; and municipal and district level government officials exposed to these principles and trained on lessons learned to ensure buy-in and the sustainability of this project for effective replication of best practices.

4.2 Workshops and trainings will be organised targeting city- and district government officials with a focus on replication of processes, land use plans and interventions and to discuss how lessons can be integrated into existing strategies and plans.<sup>31</sup>.

Trainings will be held for city- and district government officials from other potential high-risk areas on the project approach and knowledge generated for replication based on demand by the communities and local authorities. A specific component targeting advocacy to the Project Advisory Committee will be conducted at the onset of the project to ensure buy-in of high level policy and decision makers on the project approach and for application of results and knowledge to add value and improve existing policies, strategies and plans.

All knowledge components of the project will also ensure gender parity and gender considerations in the planning and implementation, The Operational Manual developed for the project will contain Gender approach linked to AF GP. The project will maintain a gender and age disaggregated database of direct beneficiaries and stakeholders involved within the project. Training on the use of the simulation model will be targeted at both male and female civil servants.

<sup>&</sup>lt;sup>31</sup> In line with national priority: National Action Programme on Climate Change: 1) Set the legal environment, structure, institutional and management frameworks for addressing on climate change.

All knowledge products generated will be made available on a digital format in Mongolian and English and uploaded on the Municipality of Ulaanbaatar's web portal and spatial database. The simulation model will be maintained by the Ministry of Environment and Tourism and be an on-going data-sharing and risk analysis collaboration between the Municipality of Ulaanbaatar and the Ministry. Synergies and knowledge collaborations are also being discussed with the Ministry of Construction and Urban Developments' urban data platforms, planned for the near future.

#### Proposed concrete interventions in target areas (component 3)

As a response to the Khoroo-specific climate change resilience building needs and intervention prioritization by communities, as identified in Table 1, the project will concentrate on two main concrete interventions (to address flood risks and related water pollution and health risks due to flooded latrines: 1) Flood protection and drainage infrastructure and 2) flood resilient latrines. The interventions focus on addressing climate change impacts in the hot spot areas of the target Khoroos, while maximizing (downstream) benefits. Importantly, to ensure effective operation and sustainability / maintenance of the project interventions, supporting activities to ensure this have been identified.

Details of the two main interventions and activities are shown in the table 4 below.

#### Overview of 3 target areas and proposed flood resilience building interventions

Area 1: Songino-khairkhan district (north-west) Khoroos 24, 25 and 7

In Khoroo 24, the project will focus on avoiding future development / settlement in the riverbed through land use planning. Besides that, the settlers that are already located in the riverbed, will be sensitized about the fact that they are living in a high-risk area. In Khoroo 7 the project will focus on developing the drainage channels (see red line) that will benefit the most inhabitants. In the north-east sections, the proposed drainage channel will capture all water coming from the north-east (see also figure 10). In the southern sections, the drainage channel will divert flood water to avoid flooding of large apartment blocks and the build-up of stagnant water in the western section of the Khoroo.. In the remaining area of the Khoroos, including Khoroo 25, the project will focus on increasing the flood resilience of latrines, also benefitting downstream areas from run-off of polluted water.

The drainage interventions are proposed to be constructed in residential areas (there are no shops or restaurants) which will not disrupt existing local livelihoods and income generation activities. Interventions are also designed in a way so as to not disrupt daily life in terms of access or reduced mobility – in addition to guaranteeing access to plots at all times, there will be no restrictions on access to main roads.



| CONSTRUCTION PHASE | I Construction | of Drainage | Channel |
|--------------------|----------------|-------------|---------|
|                    | 0011011001011  | or Brainago | onannoi |

| Pkg A1a | 332 m | \$177,620 | From #23, Bayankhoshuu 39 to #41, Bayankhoshuu 39  |
|---------|-------|-----------|--|
| Pkg A1b | 79 m  | \$24,030  | From #14a, Bayankhoshuu 38 to #41, Bayankhoshuu 39 |
| Pkg A2a | 297 m | \$158,895 | From #41, Bayankhoshuu 39 to #8, Bayankhoshuu 35.  |
| Pkg A2b | 71 m  | \$19,170  | From #1, Bayankhoshuu 35 to #8, Bayankhoshuu 35    |
| Pkg A3  | 437 m | \$233,795 | From #8, Bayankhoshuu 35 to #17, Bayankhoshuu 29   |

Figure 14A: Area 1: Songino-khairkhan district (north-west) 7 proposed drainage interventions





| Pkg A4 | 230 m | \$62,100  | From #8, Bayankhoshuu 29 to #17, Bayankhoshuu 29  |
|--------|-------|-----------|---|
| Pkg A5 | 660 m | \$178,200 | From #17, Bayankhoshuu 29 to #45, Tsergiin angi 1 |
| Pkg A6 | 668 m | \$180,360 | From #8, Tsergiin angi 2 to #45 Tsergiin angi 2   |
| Pkg A7 | 336 m | \$90,720  | From #45, Tsergiin angi 2 to #6, Namag 1          |

#### Figure 14B: Area 1: Songino-khairkhan district (north-west) 7 proposed drainage interventions

#### **Revised design for Area 1**

The original intervention plan was designed as the proposal was being developed in 2017. However, in 2019, once the project had already started, but before construction got underway, the Asian Develop-

ment Bank approved tranche 2 of its Ger Area Development Investment Programme. Under this programme, the ADB will construct new sanitation infrastructure close to the proposed infrastructure in Area 1, above (Khoroo 7 at the time of the proposal, now Khoroo 40). The ADB's infrastructure is not specifically designed to support the communities adapt to climate change, or deal with flooding problems, but its siting will reduce the efficacy of this project's infrastructure, if built as proposed.

To address this problem, it is proposed to change the siting of the infrastructure in Area 1 (in Khoroo 40, formerly Khoroo 7). The proposed new siting is shown in Figure A3, below:

In Figure A3, the red line, from points A1 to A7 is the originally proposed site of the drainage infrastructure, to be constructed under Component 3. The purple lines, marked SO1, SO2 and SO3 are the newly proposed drainage channels. These channels drain water in a roughly east-west direction, to the existing canal which ultimately drains into the river.

Drainage channel SO1 is 460 metres long and provides direct benefits to 420 households, which will benefit approximately 1680 people. A close-up depiction of the proposed route of the drainage is provided in Figure A4 (below).

**Drainage Channel SO2** is also proposed on an east-west axis and runs to the south of SO1. The channel is proposed to be 860 metres long and will directly benefit 561 households, with a total of 2,244 people. Like SO1, it will run from the road in the east to the existing drainage channel in the west. The detailed map is shown in Figure A5.

**Drainage Channel SO3** is proposed to run on a roughly northeast to southwest line, draining directly into the river. The channel will be 1,471 metres long and will directly benefit 419 households with a total of 1,676 people. A closer view of this is provided in Figure A6.

However, the revised alignment is expected to provide drainage benefits to the same flood/catchment area as the previous alignment, so the total number of beneficiaries (direct+indirect) will be the same. A total of 27,900 people, of which 14,229 women, will benefit will gain flood reduction benefits from the revised alignment (the same number of total beneficiaries as previously).

In all cases, the drainage channels are a mix of open and covered throughout their length. The crosssection drawings are shown beneath, in Figure A7. Where the drainage channels are on public land they are uncovered, but on the few occasions where they run through domestic plots or, in one case, a private business, they are covered and underground. 40th khoroo, Songinokhairkhan district



Planned Revised

Figure A3 – Revised Infrastructure Location in Khoroo 40 (formerly Khoroo 7)



Figure A4 – Close up View of Drainage Channel SO1



Figure A5 – Close up view of Drainage Channel SO2. The large square in the centre is the commercial plot



Figure A6 – Close up view of the The new SO3 drainage channel (shown in blue)



Figure A7 – Drainage channel cross section (open section on the left and covered on the right)





Figure A9 – Cadastral map of the drainage channel SO2



Figure A10 – Cadastral map of the drainage channel SO3

Area 2: Sukhbaatar district (north-central) Khoroo 12, 13 and 16

In Khoroo 12, 13 and 16, the project will focus on increasing the flood resilience of latrines, also benefitting downstream areas. Although there are flood risks from the river to Khoroo 16 (see figure 11), the construction of a dike has been considered but is not feasible / cost-effective. In the case of Khoroo 12 and 13, the biggest flood impact is stagnant water, leading to latrine issues. Although some drainage interventions have been considered here, it is not feasible from a priority and cost-effective point of view.

Area 3: Bayanzurkh district (north-east) Khoroo 9

In Khoroo 9, the project will focus on reducing flood impacts from the secondary arm of the river (see figure 13) by placing a flood retention wall/dike at the top of the Khoroo (see red line top-right), diverting the stream from entering the Khoroo. In the central-west part of the Khoroo, a drainage ditch/channel next to the road (see red line bottom-right) will ensure downstream areas are protected from flood waters coming from the north-west. These interventions will be complemented with flood resilience latrines provision, also benefitting downstream areas.



| Rhoroo boundary       |            |           |  |
|-----------------------|------------|-----------|--|
| CONSTRUCTIO           | ON PHASE I |           |  |
| Pkg A                 | 1065 m     | \$214,750 | From #832, Sharhad 64 to #959, Sharhad 64 and bridge |
| CONSTRUCTION PHASE II |            |           |  |
| Pka B                 | 490 m      | \$73.500  | From #1016. Sharhad 61 to #844. Sharhad 61           |

Figure 15: Area 3: Bayanzurkh district (north-east) Khoroo 9 proposed flood protection and drainage interventions



Figure 16: Technical design of proposed interventions in Khoroo 7 and 9 - Perforated pipes will be used and installed to a depth of 1m. The construction will be similar to the 'open' drainage channels and will involve land excavation, drainage pipe transportation and installation and filling with excavated soil and / or gravel.

The drainage pipes selected will be of length(s) which are suitable for easy transportation and installation within an average plot size (500m2) so it can be assembled on a plot by plot basis without much disturbance to neighbouring areas.



Note: Components are shown in different colors for illustration purposes.





Figure 17: Technical design of proposed toilets improvements in target Khoroos

<u>Please note that the new infrastructure has been added in Table 4, below. The infrastructure it is intended to replace has been left in the table for comparison.</u>

| Concrete inter  | ventions / activities  | Target       | Estimated nr of   | Estimated cost   | Design details   |  |   |
|---|--|--------------|---|--|--|--|---|
| Priority in-<br>vestments                                 | Detailed activities<br>(for more details<br>see environmental<br>and social risks<br>screening sheets<br>in annex 5) | Kho-<br>roos | beneficiaries   | (US\$) and cost-ef-<br>fectiveness of di-<br>rect beneficiaries<br>(area within the<br>Khoroo) | Location (see<br>maps)   | Dimensions   | Description<br>(incl. relevant info for risks screening)  |
| Flood protec-<br>tion and<br>drainage in-<br>frastructure | Construct a flood re-<br>tention wall / dike   | 9            | Direct: 3.000<br>(1.530 women)<br>Indirect: 22.449<br>(Rest Khoroo 9<br>+ 17) | 73.500 = 24 pp   | See figure 15<br>B: From #1016,<br>Sharhad 61to<br>#844, Sharhad 61  | Pkg A (Length): 490 m<br>Width: 3,3 m<br>Height: 2,3 m         | Design: see figure 16<br>Land status: public land<br>Land use: flood area. In winter its frozen and cars some-<br>times pass<br>Materials: soil, rock and cement<br>The wall / dike will protect the inhabitants south of it from<br>floods. It catches water from the mountain in the west as<br>well as from the stream and the main river. |
|   | Drainage channels  | 9            | Direct: 4.000<br>(2.040 women)<br>Indirect: 21.449<br>(Rest Khoroo 9<br>+ 17) | 209,750 = 52 pp<br>5,000 (for bridge)  | See figure 15<br>A: From #832,<br>Sharhad 64 to<br>#959, Sharhad 64<br>and bridge  | Pkg B (Length): 1065 m<br>Width: 1,2 m<br>Height: 1,2 m        | Design: see figure 16<br>Land status: public / informal in northern part and mixed in<br>southern part<br>Land use: residential<br>Materials: cement<br>The drainage channel will be placed on the north side of<br>the road. Halfway a foot bridge will be constructed for in-<br>habitants to pass.   |
|   |  | 7            | Direct: 20128<br>(>10.265<br>women)<br>Indirect: 7.772<br>(Khoroo 5)          | 1.124.890 = 55 pp  | See Figure 14A<br>A1i: From #23,<br>Bayankhoshuu 39<br>to #41, Bayank-<br>hoshuu 39<br>A1ii: From #14a,<br>Bayankhoshuu 38<br>to #41, Bayank-<br>hoshuu 39 | Pkg A1a: 332m<br>Pkg A1b: 79m<br>Width: 1,2 m<br>Height: 1,2 m | Design: see figure 16<br>Total length: 3020 meters of which 1066 covered<br>Land status: mostly public land<br>Land use: residential: northern part informal<br>Materials: cement<br>The whole drainage channel is located on the east side of<br>Khoroo 7 to catch all water coming from the east; thus,                                     |

**Table 4:** Concrete interventions and supporting activities (corresponding to prioritized resilience building interventions in table 1 above)

|  |  | See Figure 14A<br>A2i: From #41,<br>Bayankhoshuu 39<br>to #8, Bayank-<br>hoshuu 35.<br>A2ii: From #1,<br>Bayankhoshuu 35<br>to #8, Bayank-<br>hoshuu 35 | Pkg A2a: 297m<br>Pkg A2b: 71m<br>Width: 1,2 m<br>Height: 1,2 m | protecting all inhabitants west of it. The channel will be<br>placed along the road except in the northern part, where it<br>will go through plots and thus will be covered.<br>Although the drainage intervention in Khoroo 7 was<br>planned strategically for the whole Khoroo it will be man-<br>aged in sub-sections (as shown on the left) |
|--|--|---|--|---|
|  |  | See Figure 14A<br>A3: From #8,<br>Bayankhoshuu 35<br>to #17, Bayank-<br>hoshuu 29   | Pkg A3: 437m<br>Width: 1,2 m<br>Height: 1,2 m                  |   |
|  |  | See figure 14B<br>A4: From #8,<br>Bayankhoshuu<br>29 to #17,<br>Bayankhoshuu<br>29  | Pkg A4: 230m<br>Width: 1,2 m<br>Height: 1,2 m                  |   |
|  |  | See figure 14B<br>A5: From #17,<br>Bayankhoshuu<br>29 to #45, Tser-<br>giin angi 1  | Pkg A5: 660m<br>Width: 1,2 m<br>Height: 1,2 m                  |   |
|  |  | See figure 14B<br>A6: From #8,<br>Tsergiin angi 2<br>to #45Tsergiin<br>angi 2   | Pkg A6: 668m<br>Width: 1,2 m<br>Height: 1,2 m                  |   |
|  |  | See figure 14B<br>A6: From #45,<br>Tsergiin angi 2<br>to #6, Namag 1  | Pkg A7: 336m<br>Width: 1,2 m<br>Height: 1,2 m                  |   |

|                               |   | <u>40</u> | Immediate:<br>5,800 (2,958<br>women), 22,100<br>people (11,271<br>women) get<br>flood reduction | <u>185,399</u>   | So1: From #23,<br>Bayankhoshuu 39<br>to #26a, Monlaa 6   | Pkg So1: 460m<br>Design1: Width: 1.5m<br>Height: 1.0m<br>Design2: Width: 1.5m<br>Height: 1.5m | Total length: 460 meters<br>Land status: mostly public land<br>Materials: cement  |
|-------------------------------|---|-----------|---|------------------|--|---|---|
|                               |   | <u>40</u> | <u>benefit)</u>   | <u>346,616</u>   | So2: From #2,<br>Bayankhoshuu 35<br>to #30, Monlaa 1   | Pkg So2: 860m<br>Design1: Width: 1.5m<br>Height: 1.0m<br>Design2: Width: 1.5m<br>Height: 1.5m | Total length: 860 meters Land status: mostly public land Materials: cement  |
|                               |   | <u>40</u> | _   | <u>592,874</u>   | So3: From #9,<br>Khiliin tsereg 0119<br>to #48, Bayanbu-<br>lag 4  | Pkg So3: 1471m<br>Design1: Width: 1.5m<br>Height: 4.0m  | Total length: 1471 meters Land status: public land Land use: flood area. In winter its frozen Materials: soil, rock and cement  |
| Total                         |   |           |   | 1,413,140        |  |   |   |
| Flood resili-<br>ent latrines | Construct suitable<br>latrines (for rocky or<br>muddy under-<br>ground) | 24        | Direct: 1101<br>(>561 women)<br>Indirect: 32.824<br>(Rest Khoroo 24<br>+ 7)                     | 144.000 = 133 pp | See figure 10 - in<br>flood prone /<br>swampy area<br>Focus on house-<br>holds in Salhitiin<br>zadgai and Zeeliin<br>zadgai streets  | 320 units of latrines   |   |
|                               |   | 25        | Direct: 1.098<br>(>560 women)<br>Indirect: 32.377<br>(Rest Khoroo 25<br>+ 7)                    | 123.750 = 115 pp | See figure 10 - in<br>flood prone /<br>swampy area<br>Households in<br>Khairkhan 7 <sup>th</sup> , 8 <sup>th</sup><br>and 9 <sup>th</sup> streets,<br>and Odont 24 <sup>th</sup><br>and 25 <sup>th</sup> streets | 275 units of latrines   | Design: see figure 17.  |
|                               |   | 7         | Direct: 222<br>(>113 women)<br>Indirect: 27.699<br>(Rest Khoroo 7<br>+ 5)                       | 22.500 = 123 pp  | See figure 10 - in<br>flood prone /<br>swampy area<br>Households in<br>Tsergiin angi 1-4 <sup>th</sup><br>streets, Monlaa 2 <sup>nd</sup>  | 50 units of latrines  | Land status: mixed<br>Land use: residential<br>Designs will ultimately be agreed upon with residents. De-<br>sign support comes from the university and other partners. |

|       | 9  | Direct: 290<br>(148 women)<br>Indirect: 25.175<br>(Rest Khoroo 9<br>+ 17                                       | 33.750 = 124 pp  | street. Bayank-<br>hoshuu 29 <sup>th</sup> street,<br>Namag 1 <sup>st</sup> street<br>See figure 13 - in<br>flood prone /<br>swampy area<br>Households in<br>Sharhad 60-62 <sup>nd</sup><br>and 64 <sup>th</sup> streets | 75 units of latrines  | Latrines will be placed within residential plots. The selec-<br>tion of beneficiaries / locations within the khoroos will be<br>done by the khoroo members themselves besides some<br>basic criteria:<br>1. Income / poverty<br>2. Flood vulnerability<br>3. Willingness Willingness to cost share<br>The final selection of residents / locations could not be<br>done in advance because it's an agreement process of the<br>khoroo which would raise too much expectation without |
|-------|----|--|------------------|--|-----------------------|--|
|       | 12 | Direct: 1074<br>(>548 women)<br>Indirect: 20.050<br>+ center<br>(Rest Khoroo<br>12, + 10, 11 and<br>center)    | 117.000 = 137 pp | See figure 12 - in<br>flood prone /<br>swampy area<br>All households in<br>Khangai 1-23 <sup>rd</sup><br>streets   | 260 units of latrines | having secured the funding.  |
|       | 13 | Direct: 1377<br>(>702 women)<br>Indirect: 28.890<br>+ center<br>(Rest Khoroo<br>13, + 10, 11, 12<br>and center | 168.750= 124 pp  | See figure 12 - in<br>flood prone /<br>swampy area<br>Households in<br>Rashaan 9, 10,<br>14,15, 16 <sup>th</sup> streets,<br>Nogoon talbai 1-<br>5 <sup>th</sup> streets   | 375 units of latrines |  |
|       | 16 | Direct: 955<br>(>487 women)<br>Indirect: 15.089<br>+ center<br>(Rest Khoroo 16<br>+ 2 and center               | 139.500 = 118 pp | See figure 11 - in<br>flood prone /<br>swampy area<br>Households in<br>Belkh 11-14th<br>Streets  | 310 units of latrines |  |
| Total |    |  | 749,250          |  |                       |  |

# B. Economic, social and environmental benefits

The fundamental purpose of UN-Habitats' community development approach, The People's Process, is to achieve cohesive resilient communities working together to increase their social, economic, physical and environmental conditions, through participative capacity and trust building and decision making

Stronger social ties amongst the urban poor reduces the threat of conflict and provides an essential support group post-disaster and at times of need. Without a strong and connected community at its foundation, strategies for improving their lives, including becoming more resilient to climate change, becomes very challenging. The creation of a sense of social harmony between the urban policy makers, the residents and the emergency responders allows for improved communication and the sharing of experiences which would ultimately lead to greater social resilience.

By implementing a combination of institutional, community and assets risk and vulnerability reduction measures, especially in vulnerable/poor urban areas, this project is expected to lead to reductions in future climate related economic, household and livelihood losses, reductions in vulnerabilities of the elderly, women, immigrants, disabled and youth and finally reductions in environmental degradation.

Component 1 of the project will generate evidence and information which will allow the municipality, district authorities and khoroo communities to understand climate change related impacts and risks in the most vulnerable and high-risk communities of Ulaanbaatar. The generation of a **City wide Ger-area Land Use Plan** will provide a model for how to balance economic gains and environmental impacts; and the development of a **simulation model** to forecast future impacts, will allow authorities to 'keep a handle' on worst case scenarios and to identify appropriate, resilience initiatives to address potential threats, in consultation with other government institutions & authorities – this will also contribute to institutional resilience and cooperation. The Detailed **Ger-khoroo level Land Use Plans** for the 3 most-at-risk Ger-areas, in addition to identifying risk reduction and resilience building interventions at the community level, will include land re-adjustment and urban planning options – which, when followed by authorities, will lead to economic resilience through protection of assets and reduction of future economic losses.

Component 2 of the project aims at fully involving communities in the planning and execution of the proposed interventions under component 3 through generation of Khoroo-level **floods resilience action plans.** The trainings conducted for **the management and maintenance of flood resilient infrastructure**, through community involvement via the Community Development Councils (CDC's) that are formed as part of the People's Process; and the awareness raising campaigns – will firstly instil the knowledge capacity of communities and supporting local authorities on current and future climate risks and secondly, generate the means for communities and local authorities to protect the physical assets from potential climate induced economic risks. The **technical engineering and hydrology studies** that will be conducted in parallel with these plans will ensure the assets are properly designed and maximize the impact and sustainability of economic benefits arising from the physical implementation of these concrete interventions. Furthermore, the technical data generated from these studies will be shared with relevant institutions so that institutional capacities for responding to such risks will be strengthened across multiple entities.

Component 3 is the main focus of the project, delivering the majority of the concrete adaptation measures with the rest of the components of the project designed to service and sustain the

# Physical assets developed or strengthened in response to climate change related flood impacts.

The design and implementation of this project focuses on maximizing the size of the 'concrete' interventions under component 3 (2/3) to directly benefit the most vulnerable populations through two main resilience building interventions: (1) improved drainage systems to reduce floods and (2) improved sanitation systems that won't overflow during floods and lead to health issues. The total direct and indirect beneficiaries per concrete intervention are as follows (see also table 4: Concrete interventions and supporting activities above.

- 1. Flood protection and drainage infrastructure
  - □ Direct with interventions area: 29.865 (15.270 women)
     □ Total target community: 33.829 (17.253 women)
  - $\Box$  Indirect cross-community: 26.221 (13.449 women)
- 2. Flood resilient latrines
  - $\hfill\square$  Direct with interventions area:
  - □ Total target community:
  - □ Indirect cross-community: 104.71
- 6.064 (> 3.092 women) Female headed house holds are primarily targeted
  89.439 (45456 women)
  104.710 + inhabitants (53.402 women)

|                             | •                 |                  |
|-----------------------------|-------------------|------------------|
|                             |                   |                  |
| Table 4b: Sex disaggregated | population data i | n target Khoroos |

| Khoroo<br>name | Population                     | Man                    | Woman              | Disabled                   | Female headed<br>households |
|----------------|--------------------------------|------------------------|--------------------|----------------------------|-----------------------------|
| 7              | <del>20128</del>               | <del>9869</del>        | <del>10259</del>   | <del>25</del> 4            | 48                          |
| 9              | 13701                          | 6707                   | 6994               | 724                        | 1317                        |
| 12             | 7162                           | 3577                   | 3585               | 213                        | 787                         |
| 13             | 9136                           | 4519                   | 4617               | 239                        | 56                          |
| 16             | 11945                          | 5817                   | 6128               | 288                        | 140                         |
| 24             | 13689                          | 6544                   | 7145               | 213                        | 120                         |
| 25             | 13678                          | 6950                   | 6728               | 290                        | 98                          |
| <u>40</u>      | 10,562                         | 5,073                  | <u>5,489</u>       | <u>184</u>                 | <u>86</u>                   |
| 7 (revised)    | <u>9,506</u>                   | 4,812                  | 4,694              | <u>189</u>                 | <u>49</u>                   |
| Total          | 89 <u>,379</u> 4 <del>39</del> | 43,9 <mark>9983</mark> | 45 <u>,380</u> 456 | 2 <u>340<del>221</del></u> | 2 <u>,653</u> 566           |

Given that communities, and especially vulnerable groups, will be involved throughout the project, they will have the opportunity to directly influence project activities and outcomes, thus influencing their direct project benefits. The design will be adapted to local impacts of floods and storms, but also exposure to air pollution. Moreover, local and durable materials will be used in an energy efficient manner promoting longer term environmental benefits. Increased awareness on health and environmental issues within communities will increase environmental and social resilience

The settlements' vulnerability assessments and planning processes to identify safe areas for development and for understanding the remaining future climate change threats to which the design should respond will also contribute to economic and environmental resilience.

In an environment where there is rapid influx of new migrants placing pressure on already overstretched and inadequate urban/community services the identification of a joint-purpose between host communities and new residents; and working towards a common goal becomes

imperative; at the same time creating a common social thread between the members of the community who have been removed from their tight-knit rural communities and find themselves living in an increasingly overcrowded and 'foreign' environment. At the basis of increasing urban resilience is to create incentives for **all** of the Ger-community to adapt by themselves to recurrent and future challenges, empowering them to become the key stakeholders in their own resilience strategies.

As this would be the first time to implement the Peoples Process in some of the proposed Gerareas it is critical that the local authorities and communities are exposed to the rigorous mechanisms of checks and balances put in place for the successful implementation. The **Management & operations; design & supervision of assets / physical infrastructure component will be driven by** an international advisory technical team, familiar with the roll-out of the People's Process closely working with the national execution team – this capacity and technology transfer will lead to improving the professional capability of national entities, institutions, and teams to implement and replicate participatory mechanisms adapted to suit the local context – contributing to institutional, economic, environmental and social resilience.

Component 4 focuses on the generation, utilization and replication of knowledge on climate resilient urban development in Ulaanbatar. Lessons learned and best practices regarding flood-resilient urban community development will be shared with District and khoroo communities, policy-makers in government and civil society for full transparency.

In parallel, **workshops and trainings will be organised targeting city- and district government officials** with a focus on replication of processes, land use plans and interventions; while at policy level, consultations with the Project Advisory Committee will see how lessons can be integrated into existing strategies and plan and ensure buy-in and the sustainability of project approach for effective replication of best practices.

This component will strengthen urban-level institutional capacity to reduce risks associated with climate-induced socio-economic and environmental losses.

| Type of<br>benefit | Baseline  | With/after project   |
|--------------------|---|--|
| Economic           | Climate change is already<br>leading to economic and liveli-<br>hood losses, especially caused<br>by floods, but also by droughts<br>The risks and vulnerability will<br>be assessed under the project<br>and baselines will be set after<br>the assessment before the<br>proposed project interventions. | Potential risks of assets loss will be reduced for<br>households, businesses and public organiza-<br>tions<br>Government budget and resources for disaster<br>relief activities during and after a potential disas-<br>ter will be reduced and saved<br>Households and public investments to the land<br>development will be increased, and financial se-<br>curity will be improved<br>Community participation in infrastructure<br>Projects will benefit the community through cash<br>income as semi-skilled and skilled labour is to<br>primarily be sourced from the community.<br>Additional resilient technologies will be imparted<br>and may provide future livelihood opportunities. |
| Social             | Climate change is already<br>leading to negative social im-<br>pacts, especially caused by<br>floods, but also by droughts<br>and Dzuds, leading to rural –<br>urban immigration and social   | The climate induced poverty and fatality rates,<br>diseases and food security and safety issues will<br>be reduced<br>The climate induced negative impacts on public<br>mentality will be reduced and prevented<br>Disaster induced negative impacts on  |

**Table 5:** Economic, Social and Environmental benefits

|                    | tension and incoherent devel-<br>opment<br>The risks and vulnerability will<br>be assessed under the project<br>and baselines will be set after<br>the assessment before the<br>proposed project interventions.  | people's access to education and health services<br>will be reduced<br>Social networks of the residents will be strength-<br>ened and improved.<br>New climate resilient infrastructure and services<br>will contribute to social well-being.  |
|--------------------|--|--|
| Environ-<br>mental | Climate change is already<br>leading to negative environ-<br>mental impacts, especially dif-<br>ferences in temperature and<br>precipitation, leading to floods<br>and droughts, which in turn<br>leads to above and erosion,<br>deforestation, etc.<br>The risks and vulnerability will<br>be assessed under the project<br>and baselines will be set after<br>the assessment before the<br>proposed project interventions. | Reduction in climate induced environmental deg-<br>radation and losses and waste production be-<br>cause of environmental/ecosystem protection,<br>community-based waste reduction and recycling<br>schemes.<br>Natural water sources such as spring, river, un-<br>derground water table and ground wells will be<br>protected from disaster induced pollution<br>Air and soil will be protected from potential pollu-<br>tion due to a disaster<br>Climate induced exposure to the hazardous<br>waste pollution will be prevented<br>Reduction of environmental health and waste re-<br>lated issues due to the improved flood infrastruc-<br>ture |

# C. Cost effectiveness

As mentioned above, the design and implementation of the project focuses on maximizing the size of the 'concrete' interventions under component 3 (2/3) to directly benefit the most vulnerable populations; thus, limiting the 'soft' components to those activities required to supporting the appropriate implementation of the 'concrete' interventions (component), to further develop a framework to enhance climate resilience through land use planning (component 1) and to ensure sustainability of the whole project (component 4). Although the prioritization of concrete interventions has been done by the Khoroo communities, UN-Habitat analysed the interventions from a cost-perspective and total package point of (besides other selection criteria related to sustainability and risks) to maximize the beneficiaries reached and impacted. This selection has been approved by the Khoroo communities and specific issues and needs identified that further informed the implementation process and technical designs.

Cost-effective rationale component 1: land use planning and zoning is considered to be one of the most cost-effective ways to understand and respond to climate change risks and vulnerability, especially to avoid future development in risk areas (and cost associated with this potential risk, such as destroyed houses and assets. This would also contribute bottom-up knowledge and evidence to feed into existing government led-reviews on land legislation and policies being undertaken by the Government under the direction of Ministry of Construction and Urban Development (MCUD).

Cost-effective rationale component 2: although the project aims to reduce cost of the construction of the selected concrete interventions by pursuing an economy of scale approach where possible, the proposed interventions have been scaled down to a size that they are manageable by communities (i.e. CDC's). This is required to enhance sustainability and mitigate potential social and environmental risks. Related to this, The People's Process, which has been used across multiple cities and sectoral contexts, was found to be the most cost effective compared to larger scale procurement, as it builds on community decision-making, local knowhow and networks and facilitation, where the maximum value of each dollar is utilized to the maximum benefit of the community, in a transparent decision-making process. Below tables provide an overview of the cost-effectiveness rationale of selected concrete interventions under component 3. See also table 4 for an overview of costs per person.

| Concrete in<br>t  | te interventions / ac-<br>tivities g                                   |             | Alternative interventions and rationale why priority interventions/activities have been selected from a  |
|---|--|-------------|--|
| Priority in-<br>vestments   | Detailed activi-<br>ties   | Kho-<br>roo | cost-effectiveness perspective   |
| Drainage<br>system  | Construct a<br>flood retention<br>wall / dike                          | 9           | Alternative is to construct drainage channels in the east-<br>side of the Khoroo. However, this would cost more than<br>the dam. This dam will reduce both direct flooding and<br>stagnant water due to a small dam in the middle of the<br>east part of the Khoroo. It has been considered to re-<br>move this dam, but it could result in negative flood im-<br>pacts downstream.  |
|   | Drainage chan-<br>nels   |             | There are limited alternative options besides a drainage<br>channel in the central area of the Khoroo to protect<br>downhill areas. It has been considered to have a longer<br>drainage channel in this area, but this did not show to be<br>cost effective (looking at the increase of beneficiaries).  |
|   |  | 7           | Alternative would be a larger drainage channel or a dike.<br>However, this would be less cost-effective and less ef-<br>fective to reduce floods that the proposed small scale<br>crucial drainage channels which maximize the benefi-<br>ciaries. Although the total absolute cost for the drainage<br>interventions is high compared to Khoroo 7, the large<br>population / high density justifies it and makes the pro-<br>posed intervention cost-effective, especially taking into<br>account this is the hotspot area of the project, reducing<br>both flood water and stagnant water, also benefitting<br>downstream areas.<br>Moreover the selected area is residential and moving for-<br>ward with the construction will not adversely affect peo-<br>ple's livelihoods or businesses as there are no commer-<br>cial activities of any scale in the area. |
|   |  | <u>40</u>   | The alternative would be a larger drainage channel or<br>dike. However, this would be less cost-effective, less ef-<br>fective in reducing floods and would bring greater envi-<br>ronmental and social risks. Although the absolute cost of<br>drainage interventions is high, the larger, more dense<br>population in the area compared to other areas justifies<br>the intervention, particularly considering the flood related<br>risks in the area.<br>Moreover, the selected area is primarily residential and<br>the construction will not adversely affect people's liveli-<br>hoods or businesses as there are few commercial activi-<br>ties of any scale in the area. There is one private busi-<br>ness, and environmental and social safeguard provisions<br>are made for this in Part II, Section K and Annex 5.                                       |
| Flood resili-<br>ent latrines<br>(+ tree<br>planting pi-<br>lot in<br>muddy /<br>wet areas) | Construct suita-<br>ble latrines (for<br>rocky or muddy<br>underground | All         | The alternative would be to construct drainage channels<br>in Khoroo 12, 13, 16, 24 and 25, which shows to be cost-<br>effective in Khoroo 7 and 9. However, because of lower<br>densities and other situations (i.e. uphill 24 and 25 Kho-<br>roos and swampy / wet, lower-lying Khoroos 12, 13 and<br>16 this would not be cost effective. Moreover, possible<br>drainage channels considered would be less effective in   |

**Table 6:** Proposed interventions cost-effectiveness rationale

| addressing flood waters and swampy situations in these Khoroos.  |
|--|
| Another alternative is to construct a sewerage system,<br>but this is both not in the scope of the project and too ex-<br>pensive. Moreover, with this approach, the most vulnera-<br>ble / poor people will benefit. The interventions will also<br>have significant benefits for downstream areas (indirect<br>beneficiaries) where water pollution will be reduced. Be-<br>cause drainage interventions are already conducted in<br>Khoroo 7 and 9 the percentage of target population will<br>be lower in these Khoroos compared to Khoroos 24 and<br>25 and especially 12, 13 and 16. |

Altogether, the project will be cost-effective by:

- Avoiding future costs associated with damage and loss due to climate change impacts (especially floods) and to ensure the interventions are sustainable;
- Efficient project operations because of 'in-house' technical support options and capacity building expertise and because of direct partnering with the municipality (thereby building their capacity as well as reducing costs);
- Community involvement with development / construction of concrete interventions and because of community capacity building
- Selected technical options based on <u>cost-, feasibility and resilience/sustainability criteria</u>

### D. Consistency with national or sub-national strategies

**Mongolia's National Development Strategy** is strongly aligned with the SDGs and defines the country's policy up to the year 2021. It is intended to enhance Mongolia's capacity to adapt to climate change and to reduce negative effects on the environment and people. **The Nationally Determined Contribution** has identified a need to conduct disaster risk assessments at local and sub- national levels and to enhance human capacity to address local climate change impacts, to which this project responds. Further, the **National Action Programme on Climate Change (NAPCC)** focuses in five strategic objectives, of which 4 are relevant for this project. Mongolia has now entered Phase 2 of the NAPCC (2017-2021) which calls for implementation of concrete climate adaptation (and mitigation) measures which this project would begin addressing immediately. Besides this, the **Green Development Policy 2014-2030**, emphasizes the need of settlement plan in accordance with climate change and resilient sanitation, which this project also responds too.

2010 **National Programme on Water** was approved in 2010 with the overall objectives a) the protection of water resources from deterioration and pollution, b) the proper use of available resources, and c) the creation of conditions enabling the Mongolian people to live in a healthy and safe environment. The project will support achievement of the 2010 National Programme on Water Section 3.2.10 stating "Determine impacts of climate change and land use to the water ecosystem in large river basins, ecosystem biological indicators and monitor according to the international standards". The project will address this under the Component 1 and 2. The project will also address the achievement of Section 3.4 stating "Introduce advanced technologies for proper utilization and conservation of water resources and recycling and treatment of used water; **implementation of comprehensive flood prevention measurements**".

At the city level, all interventions fit under **the Ulaanbaatar Master Plan 2030**, specifically under Priority 1: Ulaanbaatar will be a safe, healthy and green city that is resilient to climate change and Priority 2: Ulaanbaatar will provide a liveable environment for its residents through appropriate land use planning, infrastructure and housing. Besides that, the plan emphasises

the need for flood resilient and drainage infrastructure. UN-Habitat is already a partner working closely with the Municipality and ADB for the redevelopment of areas prioritized under the Master plan. Finally, this project will address some of the key strategic directions, recommendations and target areas within the **Flood Risk Management Strategy of Ulaanbaatar City**, including Reduce flood risk through resilient urban development, land use and waste management, protection of social infrastructure and strengthened utility services.

In the components and financing table x above, references have been made between outputs and national and municipal priorities.

| Policy /<br>Document   | Year sub-<br>mitted /<br>ratified  | Relevant priorities   |
|--|--|---|
| Second<br>National<br>Communi-<br>cation to<br>the UN-<br>FCCC | 2010   | Adaptation actions in the following areas:<br>Pastoral livestock<br>Arable farming<br><b>Water resources</b><br><b>Human health</b><br>Ecosystems adaptation<br>Forestry<br><b>Barriers to adaptation</b><br>Given that Mongolia is more urbanised than many other countries in<br>Asia-Pacific – around 65 percent live in urban areas – urban features<br>heavily throughout various sector priorities, both in adaptation and miti-<br>gation  |
| Nationally<br>Deter-<br>mined<br>Contribu-<br>tion             | 2015 (ratified<br>the Paris<br>Agreement<br>2016)                        | The NDC identifies the following adaptation priorities: <ul> <li>Animal husbandry</li> <li>Arable farming</li> <li>Water resources sector</li> <li>Forest resources</li> <li>Natural disaster management</li> </ul> The mitigation component focuses on: Energy, transport, industry, and agriculture Relevant identified gaps and barriers: <ul> <li>Weak management of disaster risks at local level</li> <li>Insufficient human resources capacity and a lack of technical training on climate change and limited engagement of</li> </ul> |
|  |  | academic institutions.  Relevant adaptation needs:  To conduct disaster risk assessments at local and sub- na- tional levels  |
| National<br>Action Pro-<br>gramme on<br>Climate<br>Change      | 1 <sup>st</sup> phase<br>2011-2016<br>2 <sup>nd</sup> phase<br>2017-2021 | <ul> <li>Five strategic objectives established:</li> <li>1) Set the legal environment, structure, institutional and management frameworks for addressing on climate change.</li> <li>2) Ensure environmental sustainability is maintained and reduce socio-economic vulnerabilities and risks through strengthening</li> </ul>  |
|  |  | the national climate change adaptation capacity   |

**Table 7:** Project alignment with National and Ulaanbaatar priorities

|                     |                                    | 3) Mitigate GHG emissions and establish a low carbon economy through the introduction of environmentally friendly technologies and improvement in energy efficiency   |
|---------------------|------------------------------------|---|
|                     |                                    | 4) Enhance the national climate observation, research and moni-<br>toring network and strengthen employees' capacity  |
|                     |                                    | 5) Conduct public awareness campaigns and support citizen and community participation in actions against climate change   |
|                     |                                    | In the first phase (2011-2016), national mitigation and adaptation capac-<br>ities will be strengthened, legal, structural and management systems<br>will be set up and community and public participation will be improved.  |
|                     |                                    | In the second phase (2017-2021), climate change adaptation measures will be implemented and start up greenhouse gas mitigation actions.   |
| Green de-           | 1 <sup>st</sup> phase<br>2014-2020 | Six strategic objectives established:   |
| policy<br>2014-2030 | 2 <sup>nd</sup> phase<br>2021-2030 | 1) Promote a sustainable consumption and production pattern with effi-<br>cient use of natural resources, low greenhouse gas emissions, and re-<br>duced waste generation   |
|                     |                                    | 2) Sustain ecosystem's carrying capacity by enhancing environ-<br>mental protection and restoration activities, and reducing environ-<br>mental pollution and degradation   |
|                     |                                    | 3) Increase investment in natural capital, human development and clean technology by introducing financing, tax, lending and other incentives for supporting a green economy  |
|                     |                                    |   |
|                     |                                    | 4) Engrain a green lifestyle by reducing poverty and promoting green jobs   |
|                     |                                    | <ul> <li>4) Engrain a green lifestyle by reducing poverty and promoting green jobs</li> <li>5) Encourage education, science, and technology to serve as the catalyst for green development, and develop cultural values and livelihoods that are in harmony with nature</li> </ul>  |
|                     |                                    | <ul> <li>4) Engrain a green lifestyle by reducing poverty and promoting green jobs</li> <li>5) Encourage education, science, and technology to serve as the catalyst for green development, and develop cultural values and livelihoods that are in harmony with nature</li> <li>6) Develop and implement a population settlement plan in accordance with climate change, while considering the availability of natural resources and the resilience of regions</li> </ul>  |
|                     |                                    | <ul> <li>4) Engrain a green lifestyle by reducing poverty and promoting green jobs</li> <li>5) Encourage education, science, and technology to serve as the catalyst for green development, and develop cultural values and livelihoods that are in harmony with nature</li> <li>6) Develop and implement a population settlement plan in accordance with climate change, while considering the availability of natural resources and the resilience of regions</li> <li>In the first phase (2014-2020), Lay the foundation for green development</li> </ul>  |
|                     |                                    | <ul> <li>4) Engrain a green lifestyle by reducing poverty and promoting green jobs</li> <li>5) Encourage education, science, and technology to serve as the catalyst for green development, and develop cultural values and livelihoods that are in harmony with nature</li> <li>6) Develop and implement a population settlement plan in accordance with climate change, while considering the availability of natural resources and the resilience of regions</li> <li>In the first phase (2014-2020), Lay the foundation for green development</li> <li>In the second phase (2021-2030), Transformation to green development</li> </ul>  |
|                     |                                    | <ul> <li>4) Engrain a green lifestyle by reducing poverty and promoting green jobs</li> <li>5) Encourage education, science, and technology to serve as the catalyst for green development, and develop cultural values and livelihoods that are in harmony with nature</li> <li>6) Develop and implement a population settlement plan in accordance with climate change, while considering the availability of natural resources and the resilience of regions</li> <li>In the first phase (2014-2020), Lay the foundation for green development</li> <li>In the second phase (2021-2030), Transformation to green development</li> <li>Relevant proposed interventions:</li> </ul>  |
|                     |                                    | <ul> <li>4) Engrain a green lifestyle by reducing poverty and promoting green jobs</li> <li>5) Encourage education, science, and technology to serve as the catalyst for green development, and develop cultural values and livelihoods that are in harmony with nature</li> <li>6) Develop and implement a population settlement plan in accordance with climate change, while considering the availability of natural resources and the resilience of regions</li> <li>In the first phase (2014-2020), Lay the foundation for green development</li> <li>In the second phase (2021-2030), Transformation to green development</li> <li>Relevant proposed interventions:</li> <li>2.3. Strengthen national capacity for the climate change negative impact mitigation and adaptation – nr 4: Release adaptation measure versions by key economic and social sectors and develop a national adaptation strategy.</li> </ul> |
|   |      | <ul> <li>2.11. Support initiatives to use conserved water by harvesting rain, snow and storm water, projects to use surface water collection, and research and development on ground water restoration and increasing of the resource.</li> <li>6.2. Reduction of air, water and soil pollution by implementing improved plan for urban land use, construction zoning and infrastructure and creating appropriate legal framework on accountability</li> </ul>  |
|---|------|---|
| National<br>Pro-<br>gramme on<br>Water<br>2010-2021                               | 2010 | <ul> <li>The National Programme on Water was approved in 2010. The implementation was scheduled in two phases – a first phase of intensive development from 2010 to 2015 and a second phase of stable development from 2016 to 2021.</li> <li>The overall objectives of the NPW are: <ul> <li>a) the protection of water resources from deterioration and pollution,</li> <li>b) the proper use of available resources, and</li> <li>c) the creation of conditions enabling the Mongolian people to live in a healthy and safe environment; and they are to be implemented through the following strategic goals:</li> </ul> </li> <li>1. Protection of Mongolia's water resources, support of the formation of these, and conservation of their purity and natural replenishment;</li> <li>2. Establishment of a comprehensive network for the monitoring of water resources and adoption of new management and information management technologies;</li> <li>3. Creation of conditions necessary for an accumulation of water resources, provision of drinking water meeting health standards, and improvement of the agricultural and industrial water supply for a sustainable development;</li> <li>4. Improvement of the use and management of water resources, development of the legislative and institutional environment so as to coordinate the multiple requirements for the use of water, and capacity building;</li> </ul> <li>5. Fostering civil participation and the provision of the public with information on the protection and proper use of water resources and advanced technologies</li> |
| National<br>Pro-<br>gramme on<br>Environ-<br>mental Pol-<br>lution Re-            | 2017 | <ul> <li>Seven strategic objectives established:</li> <li>1) Reduce negative impacts of air pollution to human health through air quality improvement</li> <li>2) Improve water quality and safety and reduce impacts of soil pollution to human health</li> <li>3) Improve quality of environmental health survey and study</li> <li>4) Build and attemption the realignees for alignets abapted induced</li> </ul>  |
| 2017  |      | <ul> <li>4) Build and strengthen the resilience for climate change induced potential hazards and risks to human health</li> <li>5) Improvement of solid waste management system for health organizations.</li> <li>6) Improve occupational safety and hygiene</li> <li>7) Survey and study impacts of chemical substances to human health The programme is to be implemented in 2017-2020.</li> </ul>   |
| Ulaanbaa-<br>tar 2020<br>master<br>plan and<br>develop-<br>ment ap-<br>proach for | 2014 | Priority 1: Ulaanbaatar will be a safe, healthy and green city that is<br>resilient to climate change<br>Priority 2: Ulaanbaatar will provide a liveable environment for its<br>residents through appropriate land use planning, infrastructure<br>and housing.   |
| 2030  |      | Storm water and flood management: Engineering flood protection measures will include managing infrequent spring floods, draining rain-<br>water from roads and squares, securing groundwater, strengthening   |

|  |                           | channels and reducing land degradation.   |
|--|---------------------------|---|
|  |                           | <b>Protection:</b> The Master Plan plans 59.5km of channel (C1 – C24) is planned and C-1, C-2, C-3, C-11, C-13, C-14, C-20, C-21, and C-24 flood protection channel infrastructure to be built. C-3, C-14, C-15 will be built with flood protection dams. Further flood protection dams will be built at Dari-Ekh, Sharkhad, UrgakhNaran and Unurkhoroolol where there are deep ravines.  |
|  |                           | <b>Storm water:</b> 82.5km of storm water infrastructure will be built to ensure rainwater run-off is directed out of Ulaanbaatar during periods of high rainfall. The Master Plan plans for category 1 and category 2 roads to have open and underground road storm water management systems.  |
|  |                           | <b>Extreme (1percent probability) flood protection:</b> Some of Ulaanbaa-<br>tar's developed areas are in low-lying areas and within the river flood-<br>plain. To address these issues, flood protection infrastructure will be<br>built to protect the areas along the Tuul, Uliastai, Selbe and Tolgoit riv-<br>ers. Proposed interventions to address flood risk is in the recently final-<br>ized FRMS referenced in the following document. |
| Flood Risk<br>Assess-<br>ment and<br>Flood Risk<br>Manage-<br>ment Strat-<br>egy<br>(FRMS) of<br>Ulaanbaa-<br>tar City | 2015 1.<br>2.<br>3.<br>4. | <ol> <li>Reduce flood risk and protect the environmental assets through im-<br/>proving risk knowledge and rehabilitating ecosystem of river basins<br/>and watersheds;</li> </ol>  |
|  |                           | 2. Reduce flood risk through resilient urban development, land use and waste management, protection of social infrastructure and strength-<br>ened utility services;  |
|  |                           | 3. Protect the social and economic assets from flood through provision of structural protection with multifunctional and high-quality engineering services;   |
|  |                           | 4. Reduce vulnerability of people, households and communities through improving social and emergency services, and building capacity for resilience and sustainable livelihoods;  |
|  |                           | 5. Implement good governance and effective flood risk management<br>through mindset change and institutional transformation with ad-<br>vance of science and technology and through strengthening econ-<br>omy, improving cost effectiveness of flood investment, and develop-<br>ing multi-sourced risk financing  |

# E. Compliance with relevant national technical standards

 Table 8: Compliance with relevant notional technical standards

| Expected concrete output/inter-<br>vention   | Relevant rules, regulations,<br>standards and procedures<br>(to comply to AF principle 1)  | Compliance, procedure and authorizing offices   | Potential risks and im-<br>pacts identified during<br>project preparation (for<br>which risk preventive<br>or mitigation measures<br>have been proposed) |
|--|--|---|--|
| Output 1.1.         One (1) Ulaanbaatar northern Ger-         Area (including the three (3) target         districts) Territorial Land Use Plan         and legal framework recommenda-         tions with specific focus on flood         risk reduction - building on 1.2         Output 1.2.         Simulation model for forecasting         future impacts of climate change         and flooding in UB city & Ger-ar-         eas established         Output 1.3.         Seven (7) Detailed Ger-khoroo         level Land Use Plans with specific         focus on flood risk reduction and         building resilience of the most vul-         nerable areas and people | <ul> <li>Related Laws:</li> <li>Law on Land</li> <li>Law on Water</li> <li>Law on Urban Development</li> <li>Law on Capital City Entitlement</li> <li>Law on Cities and Townships Entitlement</li> </ul> | <ul> <li>The Ger-Area territorial land use plan including the 7 detailed Khoroo level Land Use Plans proposal should be developed by a licensed company selected through a competitive procurement process</li> <li>The contract with the company shall be formulated with the requirements to ensure that the listed laws are adhered to.</li> <li>The Project Implementing Unit will monitor the implementation of the contract in compliance of related laws.</li> <li>The final proposal shall be integrated into respective district land use plan and submitted for approval to the City Council through District Council</li> <li>A land use plan proposal should be developed by a licensed company selected through a competitive procurement process</li> <li>The proposal shall be integrated into respective district land use plan and submitted for approval to the City Council through District Council</li> <li>A land use plan and submitted for approval to the City Council through District Council</li> <li>The proposal shall be integrated into respective district land use plan and submitted for approval to the City Council through District Council</li> <li>Authorizing offices:</li> <li>Urban Development and Master Plan Department Land Department of Ulaanbaatar City and District and Ulaanbaatar City Councils</li> <li>Furthermore, the Ministry of Construction and Urban development (UN-Habitat's counterpart Ministry in country)</li> </ul> | All principles will be<br>taking into account<br>when developing land<br>use plans, thus ensur-<br>ing compliance  |

|   |   | shall act as resource ministry and provide technical and<br>institutional inputs during the development and finalization<br>of land-use plans, to ensure project stays in line with the<br>latest requirements and adjustments being made to land<br>related and planning regulations at all levels.                  |   |
|---|---|---|---|
| <b>Output 2.1</b> .<br>Seven (7) Khoroo-level floods re-<br>silience action plans to implement<br>the interventions under component<br>3; a series of District, Khoroo and<br>community level consultations /<br>workshops introducing the Peo-<br>ple's Process and Community<br>Based Disaster Risk Reduction<br>approach, focused on building so-<br>cial cohesion and consensus on<br>community level implementation of<br>interventions under component 3. | The Peoples Process 'Opera-<br>tional Manual' will be developed<br>and contain all the necessary<br>guidelines, procedures and<br>forms for ensuring integrity and<br>transparency for community-<br>level action planning and imple-<br>mentation. The project stake-<br>holders at municipal, district<br>and khoroo levels will be trained<br>on the essential procedures and<br>requirements for implementa-<br>tion. | The project manual prepared by the principal Executing<br>Entity will be cleared by the Regional Office of UN-Habitat,<br>the Implementing entity.<br>The project manual will be reviewed, discussed and en-<br>dorsed by the Project Advisory Committee (PAC) – the<br>highest decision-making body for the project. | When 'organizing' and<br>planning with commu-<br>nities it will be ensured<br>that vulnerable groups<br>will be involved (re-<br>lated to AF principles<br>2, 3 and 5. Af principle<br>4 and 6 always apply |
| <b>Output 2.2.</b><br>Khoroo / Community level inter-<br>ventions operation and mainte-<br>nance (and potential risks mitiga-<br>tion) awareness campaigns and<br>trainings to support the sustaina-<br>ble implementation of interventions<br>under component 3.   |   |   |   |
| Output 2.3.   | Related laws:<br>Law on Land  | <ol> <li>TORs to be issued by the Engineering Department of<br/>Ulaanbaatar Mayor's Office</li> </ol>   | All principles will be taking into account  |

| Technical studies – Engineering<br>and hydrological - required to im-<br>plement the interventions under<br>component 3.  | <ul> <li>Law on Water</li> <li>Urban Development Law</li> <li>Disaster Management Law</li> <li>Building Code</li> </ul>   | <ol> <li>Competitive procurement process to be done to select<br/>a company with licenses for engineering and hydro-<br/>logical studies</li> <li>The contract with the company shall be formulated to<br/>ensure that the listed laws are adhered to.</li> <li>The contract implementation will be closely monitored<br/>by the Project Implementing Unit and reported to the<br/>PAC</li> </ol>   | when these studies<br>are conducted, thus<br>ensuring compliance |
|---|---|---|--|
| <ul> <li><u>Output 3.1.</u> Physical assets developed in response to climate change related flood impacts as prioritized by Khoroos. <ul> <li>Flood retention wall and drainage infrastructure</li> </ul></li></ul> | <ul> <li>Related laws:</li> <li>Law on Land</li> <li>Law on Water</li> <li>Urban Development Law</li> <li>Disaster Management Law</li> <li>Building Code</li> <li>Norms &amp;Standards:</li> <li>Basic Procedure for Hydro-<br/>technical Construction De-<br/>sign BND-33-01-03</li> <li>River Hydrotechnical Con-<br/>struction BND-33-01-05</li> <li>Hydrotechnical Construc-<br/>tion Foundation BND-33-<br/>04-09</li> <li>Capacity and Performance<br/>of Hydrotechnical Construc-<br/>tion BND-33-05-09</li> <li>Concrete and Ferrocon-<br/>crete Structure for Hydro-<br/>technical Construction<br/>BND-33-06-09</li> <li>Norms and Regulations for<br/>Estimation of Hydrological<br/>Characteristics BND-201-<br/>14-86</li> </ul> | <ul> <li>Design Development</li> <li>1. TORs to be issued by the Engineering Department of<br/>Ulaanbaatar Mayor's Office</li> <li>2. Selection of a Design Company.</li> <li>3. The contract with the company shall be formulated in<br/>a way that the listed laws and standards are complied.</li> <li>4. The contract implementation will be monitored by the<br/>Project Implementing Unit</li> <li>5. Design Company shall accomplish the following under<br/>the design budget: <ul> <li>a. Contract with a Licensed Geodesy Company<br/>to get the topographic base map of the area<br/>developed</li> <li>b. Develop the detailed design</li> <li>c. Get the design approved by the Experts Com-<br/>mittee under the MCUD</li> <li>d. Submit the design to the Client.</li> </ul> </li> <li>Construction <ul> <li>Selection of Construction company</li> <li>Contract with Design Company for Author's Supervision</li> <li>The above contracts shall be formulated to ensure<br/>that the listed laws and standards are complied.</li> </ul> </li> <li>10. The contract implementation will be monitored by the<br/>Project Implementation will be monitored by the<br/>Project Implementation use that the listed laws and standards are complied.</li> </ul> | Principles 2, 3, 4, 6, 8,<br>12 and 13 have been<br>triggered    |

|                                 |   | Mayor's office of Ulaanbaatar City<br>Land Department of Ulaanbaatar City and respective Dis-<br>tricts<br>Urban Development and Master Plan Department of<br>Ulaanbaatar City<br>Hydro-technical Construction Department of Ulaanbaatar<br>City |   |
|---------------------------------|---|--|---|
| - Resilient sanitation delivery | <ul> <li>Related Laws:</li> <li>Constitution of Mongolia</li> <li>Law on Hygiene</li> <li>Law on Urban Water Supply and Sanitation System</li> <li>Law on Cities and Townships Entitlement</li> <li>Law on Soil Protection and Prevention of Desertification</li> <li>Norms &amp; Standards:</li> <li>MNS 5924: 2015 Pit latrine and Sewage Pit, Technical requirements</li> <li>MNS3342:82 Nature and Environmental protection. General requirements for protecting ground water and hydrosphere from pollution.</li> <li>MNS 6055:2009 General environmental and space requirements for the disabled in the civil construction planning</li> <li>MNS 6279:2011 Water supply and sanitation facilities. Terms, definitions glossary</li> </ul> | Community contracts will be formulated on the basis that<br>the related standards for sanitation facilities will be ad-<br>hered to.<br>The contract implementation will be monitored by the Pro-<br>ject Implementing Unit                      | Principles 2, 3, 6 and<br>13 have been trig-<br>gered |

| Output 3.2  | Not relevant | Not relevant |  |
|---|--------------|--------------|--|
| Management and operations de-   |              |              |  |
| sign & supervision of assets /  |              |              |  |
| physical infrastructure – procured  |              |              |  |
| as consulting services.   |              |              |  |
| <b>Output 4.1.</b><br>Lessons learned and best prac-<br>tices regarding flood-resilient ur-<br>ban community development are<br>generated, captured and distrib-<br>uted to other Districts and khoroo<br>communities, civil society, and pol-<br>icy-makers in government appro-<br>priate mechanisms. | Not relevant | Not relevant | When organizing work-<br>shops and trainings it<br>will be ensured that<br>groups will be involved<br>(related to AF princi-<br>ples 2, 3 and 5. Af<br>principle 4 and 6 al-<br>ways apply |
| Output 4.2<br>Workshops and trainings are or-<br>ganised targeting city- and district<br>government officials with a focus<br>on replication of processes, land<br>use plans and interventions and to<br>discuss how lessons can be inte-<br>grated into existing strate-gies and<br>plans              |              |              |  |

## **F.** Duplication with other funding sources

UN-Habitats has worked with Ger- communities in UB city on the sectors of Water Sanitation and infrastructure services as well as urban health systems strengthening, urban planning and affordable housing in partnership with the Municipality of Ulaanbaatar and other stakeholders. The agency also has regional level expertise on climate change in urban areas through its long running Cities and Climate Change Initiative (CCCI) which has been successfully implemented in multiple cities across 12 countries in Asia Pacific.

UN-Habitat is currently implementing community development projects, in some of the target Ger-areas Bayankhoshuu and Selbe sub-centres where the agency leads the key component of community mobilization and consultations for UB city and all partners for the ongoing Ulaanbaatar Urban Services and Ger Areas Development Investment Programme of ADB, through the establishment of Community Development Councils (CDC's) a key component of the agency's flagship People's Process. The agency also has prior experience implementing major WASH infrastructure projects in the other proposed locations of Songinokhairkhan District (SKhD).

Due to ongoing presence and good working relationships with stakeholders in these areas, the project setup and implementation of activities could begin quite smoothly with minimum delays.

| Relevant projects/pro-<br>gramme (incl. amount and<br>impl agency)  | Lessons learned  | Complimentary potential  |
|---|--|--|
| AF: UNDP (US\$5,5 million<br>grant for Ecosystem-based<br>Adaptation to Maintaining<br>Water Security in Critical<br>Water Catchments in Mongo-<br>lia) | Project to coordinate to integrate<br>knowledge regarding EBA (Eco-<br>system Based Adaptation) and<br>integrated climate change resili-<br>ence while strengthening<br>knowledge management of na-<br>tional institutions and dissemi-<br>nating of findings. | <ul> <li>-document threats to ecosystem<br/>function and resilience to provide<br/>recommendations for avoiding and<br/>mitigating impacts.</li> <li>- land use and water resources moni-<br/>toring and decision-making system in<br/>two eco-regions.</li> <li>-adaptation assessment and monitor-<br/>ing implemented in two target water-<br/>sheds.</li> <li>- suite of physical measures to im-<br/>prove ecosystem resilience estab-<br/>lished in two target watersheds.</li> <li>-introduction of regulatory and finan-<br/>cial management techniques</li> <li>- Institutional support for integrating<br/>climate change risks in land and wa-<br/>ter resource management planning.</li> </ul> |
| GEF-SCCF: IFAD (US\$1,5<br>million grant for Mongolia<br>Livestock Sector Adaptation<br>Project)  | Project is focused upon develop-<br>ing herder productivity, including<br>concepts such as fodder produc-<br>tion and marketing.   | -empowering poor rural population to<br>achieve higher incomes through sus-<br>tainable improvements in their liveli-<br>hoods through a) Market<br>development; b) Pasture<br>management and c) climate   |

#### **Table 9:** Duplication with other funding sources

|  |  | change adaptation.   |
|--|--|--|
|  |  | -focused on resource user side of cli-<br>mate change adaptation in market<br>development, improved pasture<br>management, establishment of an<br>early warning system and disaster in-<br>surance schemes.  |
| GCF, GCF Readiness: Xac-<br>Bank, GIZ, UNEP (US\$60<br>million grant for business<br>loan programme for GHG<br>emissions reduction, US\$300<br>thousand grant for support to<br>the NDA, US\$3 million grant<br>for further readiness project<br>(exact details unclear) | Promoting the use of energy effi-<br>cient and renewable energy so-<br>lutions in the Mongolian MSME<br>market.<br>The MSME program will main-<br>stream energy efficiency and re-<br>newable energy investments in<br>the Mongolian private sector. It<br>will do so by developing market<br>conditions conducive to RE and<br>EE investment, allowing it to<br>compete alongside the tradition-<br>ally cheaper, conventional, high-<br>emission alternatives. | <ul> <li>-encourages national institutions to get direct access to the Fund, with the ultimate goal to enhance country ownership and to access and allocate the fund's resources effectively.</li> <li>-aims to develop the capabilities to nominate potential implementing entities and to establish the enabling environments that will promote submission of project proposals in consistency with strategic objectives of national development policies and counter climate change programs.</li> <li>- prepare the country to act quickly, and encade with the Fund efficiently.</li> </ul> |
| WB: ADB (Ulaanbaatar city  | -Upper Tuul area has a high  | in the future.   |
| water resources manage-<br>ment project; Economic<br>Value of the Upper Tuul Eco-<br>system in Mongolia)   | economic value and contributes<br>to the income and marketed<br>products in many sectors.<br>-conservation is necessary as<br>ecosystem degradation and bio-<br>diversity loss will result to costly<br>results.   | valuation method that generates in-<br>formation about the economic bene-<br>fits of environment conservation  |
|  | -conservation will result to more benefits in the future.  |  |
|  | -local land and resource users<br>must bear through limiting their<br>activities to ecologically sustain-<br>able levels.  |  |
| WB: UNDP (Improving Dis-<br>aster Risk Management in<br>Mongolia; Climate change<br>adaptation project;)   | Policy and regulatory frame-<br>works enable clearer roles and<br>responsibilities for improved dis-<br>aster risk reduction and man-  | -reduced risks and consequences of<br>natural and man-made disasters at<br>national and community levels   |
|  | agement.<br>Local-level disaster manage-<br>ment mechanisms have proce-<br>dures and competencies tailored<br>for urban and rural vulnerabili-<br>ties.  | -improved sustainability of natural re-<br>sources management and resilience<br>of ecosystems and vulnerable popu-<br>lations to the changing climate<br>-facilitated decentralized disaster<br>management through sustainable   |
|  | Feasible local level mechanisms<br>for disaster risk reduction and<br>response further replicated  | tion mechanisms, thus reducing vul-<br>nerabilities of urban and rural poor.   |

|  |   | - enhance disaster management ca-<br>pacities by clarifying roles and re-<br>sponsibilities, formalizing local-level<br>disaster management mechanisms<br>and applying tailored approaches for<br>disaster prevention, preparedness<br>and response in urban and rural set-<br>tings.  |
|--|---|--|
| Asia Foundation: Securing<br>our future: Mongolia Water-<br>shed Monitoring Network<br>component   | This project generated materials<br>related to community monitoring<br>of water resources that will be<br>utilized to enhance land and wa-<br>ter resource monitoring/ plan-<br>ning, maintenance of ecosystem<br>integrity and water security and<br>to support ecosystem-based ad-<br>aptation implementation.  | <ul> <li>-purpose of the project</li> <li>is to engage teachers and</li> <li>students, community groups,</li> <li>citizen and river movement</li> <li>advocates, and government</li> <li>officials in scientific data</li> <li>collection on river water</li> <li>conditions and share that</li> <li>information among members</li> <li>to improve the environment.</li> <li>-through the initiative,</li> <li>Mongolian teachers and</li> <li>citizens in target area were</li> <li>taught to conduct river quality</li> <li>monitoring.</li> </ul>   |
| Japan Fund for Poverty Re-<br>duction, managed by the<br>Ministry of Environment and<br>Tourism and the Asian De-<br>velopment Bank: Managing<br>Soil Pollution in Ger Areas<br>through Improved On-site<br>Sanitation Project | The project will not only include<br>sanitation facilities in Ger areas,<br>it will include developing of regu-<br>lations of wastewater manage-<br>ment systems and wastewater<br>treatment, which focus on small<br>and medium sized enterprises<br>and residents of Ger areas.<br>They will work in areas of waste<br>storage, collection, transporta-<br>tion, fertilizers, waste disposal<br>and related controls.<br>The project is commenced in<br>2017 and being implemented<br>only for 6 months, so there are<br>limited lessons learned. | The project will introduce improved<br>sanitation facilities for households in<br>Ger districts of Chingiltei Khoroo 12,<br>13 and Bayanzurkh Khoroo 27 kho-<br>roo. There is no geographical over-<br>lap.<br>UN-Habitat has already established<br>a communication with the project<br>team and agreed to collaborate on<br>identification of suitable designs or<br>structures for the resilient household<br>sanitation facility. In this regard, UN-<br>Habitat intends to coordinate with the<br>project to share information and ap-<br>proaches and lessons during the<br>course of project implementation;<br>and facilitate cooperation between<br>municipal/district authorities and the<br>Ministry of Environment and Tourism<br>around the issue of floods and sani-<br>tation facilities to generate<br>tools/methodologies to be applied<br>consistently across Ger-Areas with a<br>view to supporting the MoET develop<br>an institutional framework for floods<br>resilience in Ger Areas. |
| EBRD financed Ulaanbaatar<br>Wastewater Expansion  | The project has not started yet<br>but this project will monitor the<br>implementation and possible<br>lessons learned.   | There is no linkage nor duplication<br>with the EBRD financed Ulaanbaatar<br>Wastewater Expansion project.<br>EBRD<br>Ulaanbaatar Wastewater Expansion<br>project is aiming to build two<br>wastewater treatment plants as part  |

| UNDP/NEMA Strengthening<br>local level capacities for dis-<br>aster risk reduction, manage-<br>ment and coordination in<br>Mongolia (2013-2016)<br>\$1,860,000<br>(Project brief DRR) | Combination of policy and local<br>level disaster management sys-<br>tems established: EWS en-<br>hanced including weather fore-<br>casting, and dissemination<br>modes established<br>National Disaster Management<br>Plan and soum, khoroo level dis-<br>aster preparedness plans, train-<br>ings conducted.   | <ul> <li>which is planned in an industrial area<br/>in outskirt of Ulaanbaatar city. The<br/>proposed project's target areas are<br/>located in the most vulnerable 6 resi-<br/>dential areas in the urban center</li> <li>Output 1: Policy and regulatory<br/>frameworks enable clearer roles and<br/>responsibilities for improved disaster<br/>risk reduction and management.</li> <li>Output 2.Local-level disaster man-<br/>agement mechanisms have proce-<br/>dures and competencies tailored for<br/>urban and rural vulnerabilities.</li> <li>Output 3: Feasible local level mecha-<br/>nisms for disaster risk reduction and<br/>response further replicated</li> <li>Lessons learned and best practices<br/>prepared; inputs provided to reformu-<br/>late relevant policies and laws</li> </ul> |
|---|--|--|
| ADB – Ger Area Develop-<br>ment Investment Project<br>(2016-present). Infrastructure<br>and basic services focusing<br>on the Ger areas of<br>Ulaanbaatar                             | This large blending (i.e. grant<br>and loan) programme supports<br>numerous urban development<br>objectives, including access to<br>banking, lending and other fi-<br>nancial facilities; upgrading<br>transport systems; improving<br>land use planning; upgrading<br>water supply and waste-water<br>systems; and improving heating<br>systems.<br>Tranche 2 of the project, which<br>got underway in 2019, after the<br>project was already approved<br>(and as implementation was<br>commencing) began implemen- | The new ADB funded infrastructure,<br>not foreseen at the time this project<br>was being developed, will be located<br>in Khoroo 40 on a roughly north-<br>south axis, in parallel to the site of<br>the formerly proposed infrastructure<br>(coloured in red in Annex 3). This<br>overlap is one of the primary drivers<br>of the re-design of this infrastructure.<br>However, the broader ADB project<br>provides great opportunities for other<br>complementarity. Improved sanita-<br>tion, for example, will reduce the po-<br>tentially damaging secondary im-<br>pacts of floods, while improved heat-<br>ing systems will have climate change   |
|   | tation of improved sanitation in-<br>frastructure in Khoroo 40   | mitigation benefits.   |

### G. Learning and knowledge management

A dedicated Component (4) addresses Awareness raising, knowledge management and communication. Whilst this provides the cornerstone for capturing and disseminating lessons learned, other project components directly contribute to knowledge management mechanisms and dissemination of lessons learned from local to national and to international levels (see table below).

Assessments at the municipal level combined with simulation modelling done and maintained with the Ministry (MoET) will foster information sharing, and allow for capacity transfer to municipal level authorities thus allowing local authorities to react strategically, with foresight, and make evidence and knowledge based decisions on climate adaptation measures and urban resilience issues.

At the local level, a participatory approach (involving communities and local authorities in planning and implementation activities) will lead to increased local knowledge on climate change adaptation, especially related to urban floods. Project demonstration sites will contribute, from the start and in an on-going way, to sharing lessons and training through local disseminators/community mobilizers. During the project implementation, Public information tools such as noticeboards, leaflets will be prepared and distributed to target communities and a complaints/issues redressal mechanism setup directly to UN-Habitat. The project will also maintain a gender and age disaggregated database of direct beneficiaries and stakeholders involved within the project.

As the national and local level disaster risk and emergency response capacities have been strengthened through establishment of disaster committees and Early warning systems, synergies will be explored with the NEMA committee within the municipality, for participation and delivery of trainings and awareness building around urban resilience issues and for transmission of key/urgent messages to other (non-target) Ger-communities during project implementation. Where relevant, any disaster committees already established at district and khoroo level, will be brought on board during the inception and planning phase of the project and for dissemination of public information. Lessons learned from disaster risk reduction projects will be reviewed and recommendations applied as appropriate.

Community level trainings will be held on identified needs such as climate/environmental risks, hygiene education, community leadership and management. The project will also use a participatory monitoring process, which will enable the beneficiary communities to work directly with the project's M&E and Public Information officers, to highlight issues in delivery and to strengthen adaptation benefits, including in replication and sustaining the project's gains. Opportunities for bringing on board and harnessing the potential of youth, for the implementation of awareness building, trainings, and knowledge products generation through the use of ICT and innovation, will be explored – particularly for the implementation of the social media component to disseminate 'live' progress and results of the project -which will be implemented by the M&E and Public Information officers for the project.

At the national level, the government will be able to draw from lessons learned through this project, including replication and scale-up of good practices. Information will be consolidated in reports and tools methodologies, guidelines and public information products. A direct linkage will be established, through the partnering departments of the various line ministries at the city/town level, with the ministries at the national level facilitating countrywide dissemination to other urban areas/cities/towns, informal settlements, policy-makers and civil society. All knowledge products generated will be made available on a digital format in Mongolian and English and uploaded on the Municipality of Ulaanbaatar's' web portal and spatial database: http://www.ubgeodata.mn/geocity (as well as linked tothe geo-spatial databases of the Ministry of Construction and Urban development). The simulation model will be maintained by the Ministry of Environment and Tourism and be an on-going data-sharing and risk analysis collaboration between the Municipality of Ulaanbaatar and the Ministry.

Lessons regarding increasing the flood resilience of communities as well as land-use planning mechanisms need to be captured and municipal and district level government officials trained on the best practices and knowledge products to ensure the sustainability of this project and effective replication of best practices.

At the regional level, the lessons, tools, methodologies and guidelines from the project will be consolidated and added to the regional knowledge database and shared with the Regional Climate Change focal point/team and other country offices through the Knowledge Management focal point within the UN-Habitat Regional office for Asia Pacific.

At the international level, the lessons from the project will be shared with the UN-Habitat best practices unit within HQ through the Knowledge Management focal point for dissemination to all countries; and similarly through the Regional Climate Change focal point/team with the Climate Change Planning Unit within the Urban Planning and Design Branch for consolidation of all knowledge products related to Climate Change – this will complete the cycle in linking to

UN-Habitat's regional Cities and Climate change Initiative (CCCI) for Asia and the Pacific.

 Table 10:
 Learning and knowledge management

| Expected Concrete Outputs   | Learning objectives (lo) &<br>indicators (i)   | Knowledge products   |
|---|--|--|
| Output 1.1<br>One (1) Ulaanbaatar northern Ger-<br>Area* Territorial Land Use Plan,<br>with zoning, legal framework recom-<br>mendations and a specific focus on<br>flood risk reduction - building on 1.2<br>* (includes the three (3) high risk tar-<br>get districts covering the seven (7)<br>most vulnerable khoroos)  | (lo): First ever large scale <b>Ter-</b><br><b>ritorial Land Use Plan</b> devel-<br>oped for Ulaanbaatar Ger area<br>with comprehensive and de-<br>tailed information on proposed<br>areas – with buy in and owner-<br>ship from stakeholders through<br>in depth consultative process.  | -One (1) Ulaanbaatar<br>northern Ger-Area* Ter-<br>ritorial Land Use Plan &<br>Report<br>-Seven (7) Detailed Ger-<br>community level land use  |
| Output 1.2.<br>Simulation model for forecasting fu-<br>ture impacts of climate change flood-<br>ing in UB city & Ger-areas estab-<br>lished<br>Output 1.3<br>Seven (7) Detailed Ger-khoroo<br>level Land Use Plans with specific<br>focus on flood risk reduction and<br>building resilience of the most vulner-<br>able areas and people   | <ul> <li>(lo): First Simulation Model for<br/>forecasting future climate<br/>change flooding impacts –<br/>launched in collaboration be-<br/>tween Ministry and Municipal-<br/>ity and staff capacitated to<br/>populate and analyze data.</li> <li>(i)</li> <li>Number of institutions and<br/>stakeholders involved</li> <li>Number of consultations held</li> <li>Number of risks identified</li> <li>Number and types of vulnera-<br/>bility</li> <li>Number of data types/sets</li> </ul> | plans<br>-Documentation of Stake-<br>holder Analysis and Map-<br>ping<br>-Collected data including<br>the evidence bases<br>-Simulation Model for<br>forecasting future climate<br>change flooding impacts –<br>which could later be ex-<br>panded to include other<br>climate risks.                                      |
| Output 2.1<br>Seven (7) Khoroo-level floods re-<br>silience action plans to implement<br>the interventions under component 3;<br>A series of District, Khoroo and com-<br>munity level consultations / work-<br>shops introducing the People's Pro-<br>cess and Community Based Disaster<br>Risk Reduction approach, focused<br>on building social cohesion and con-<br>sensus on community level imple-<br>mentation of interventions under<br>component 3 | (lo): First ever Khoroo-level<br>Floods Resilence Action Plans<br>in high risk Ger area – with<br>comprehensive and detailed<br>information on proposed inter-<br>ventions – with buy in and<br>ownership from stakeholders<br>through in depth consultative<br>process.   | - Seven (7) Khoroo-level<br>floods resilience action<br>plans  |
| Output 2.2<br>Khoroo -community level interven-<br>tions operation & maintenance*<br>and awareness campaigns and<br>trainings to support the sustainable<br>implementation of interventions un-<br>der component 3.<br>An Estimated 20.nos. of trainings<br>*(Awareness will also cover potential<br>risks mitigation)<br>Output 2.3<br>Technical studies – Engineering   | <ul> <li>(i)</li> <li>-Number of interventions/actions defined</li> <li>-Number of stakeholders involved</li> <li>-Number of Community resilience building actions defined</li> <li>-Number of consultations held</li> <li>I(o): Training on implementation modality and on People's Process Operational Manual for project</li> <li>(i)</li> </ul>  | <ul> <li>A number of Engineering<br/>and Technical hydrologi-<br/>cal studies finalized with<br/>inputs from technical focal<br/>points and stakeholders</li> <li>Documentation of consul-<br/>tations</li> <li>Documentation of action<br/>planning processes</li> <li>Documentation of train-<br/>ing modules</li> </ul> |

| and hydrological - required to im-<br>plement the interventions under com-<br>ponent 3.  | <ul> <li>Number and type of trainings<br/>conducted</li> <li>(lo): Engineering and Tech-<br/>nical hydrological studies dis-<br/>seminated to technical focal<br/>points and stakeholders and<br/>inputs solicited.</li> <li>Number of technical and hy-<br/>drological studies</li> </ul>  |   |
|--|---|---|
| Output 3.1.<br>Physical assets developed in re-<br>sponse to climate change related<br>flood impacts as prioritized (by Kho-<br>roos drainage and sanitation) – im-<br>plemented through community con-<br>tracting  | (lo): Flood control facilities de-<br>veloped based on the compre-<br>hensive risk and vulnerability<br>assessment and climate<br>change impacts simulation   | -Beneficiary database of<br>direct beneficiaries and<br>stakeholders for the pro-<br>ject – with gender/age dis-<br>aggregated data.  |
| Output 3.2<br>Management & operations; design<br>& supervision of assets / physical<br>infrastructure – procured as con-<br>sulting services   | <ul> <li>(lo): Floods resilient sanitation facilities developed based on the comprehensive risk and vulnerability assessment and climate change impacts simulation</li> <li>(i) -Number and types of flood-control facilities -Number of sanitation facilities constructed -Number of direct beneficiaries -Number of indirect beneficiaries -Stimated capacity/impact of the constructed facilities to reduce climate risk for vulnerable communities (measured through future adverse floods) - Reduction in incidence of waterborne public health breakouts/disease</li> </ul> | Operational manual – de-<br>signed to suit Mongolian<br>urban context - for the im-<br>plementation of the Peo-<br>ples Process for Floods<br>Resilience Project - in-<br>cluding all forms, tem-<br>plates and workflows for<br>checks and balances.<br>The Operational manual<br>will also contain gender<br>and youth responsive im-<br>plementation measures,<br>annexing the Gender Ac-<br>tion plan |
| Output 4.1.<br>Lessons learned and best prac-<br>tices regarding flood-resilient ur-<br>ban community development are<br>generated, captured and distrib-<br>uted to other Districts and khoroo<br>communities, civil society, and pol-<br>icy-makers in government appropri-<br>ate mechanisms. | (lo):<br>-Documentation of lessons<br>learned and best practices re-<br>garding flood-resilient urban<br>community development<br>-Creation of project social me-<br>dia platform – using twitter, In-<br>stagram, facebook etc for in-<br>creased awareness by stake-<br>holders   | -Documentations of les-<br>sons learned and good<br>practices<br>-Documentation of 'repli-<br>cation' package including<br>Operations Manual and<br>tools, for other Ger-areas<br>-Documentation of train-<br>ing modules   |
| Output 4.2.<br>Workshops and trainings will be   | (i)   |   |

| organised targeting city- and dis-<br>trict government officials with a fo-<br>cus on replication of processes, land<br>use plans and interventions and to<br>discuss how lessons can be inte-<br>grated into existing strategies and<br>plans. | - a database of lessons<br>learned and best practices de-<br>veloped<br>-number of awareness ses-<br>sions/trainings conducted<br>-number of existing strategies<br>and plans that are updated as<br>a result of the project<br>-Number of local authori-<br>ties/stakeholders expressing<br>interest for replication. | -Knowledge products up-<br>loaded digital format in<br>Mongolian and English<br>and easily accessible<br>online |
|---|--|---|
|---|--|---|

#### H. Consultative process

This design of the project has been informed by in-depth khoroo community level consultations and district level consultations with presiding Governor's, conducted as part of a rapid needs assessment on climate vulnerability in the three target areas (7 Khoroos).

Meetings were conducted with the designated khoroo representatives and consultations were made with the 7 Khoroos communities including the most vulnerable groups; disabled, elderly, informal people, indigenous people, and recent migrants.

Demographic and technical information were collected around the following categories (1) Beneficiary Information (2) Climate change impacts, barriers for adaptation, possible interventions (3) Strengthened Institutional capacity (4) Health issues around climate change (5) Urban development and housing (6) Physical infrastructure (7) Water resources and sanitation (8) Waste and waste infrastructure (9) Natural assets for protection, rehabilitation and (10) Improved policies regulations. (10) A community vulnerability and risk map was also developed as part of the consultation. The full details of the Rapid Settlements Needs Assessments are attached as Annex 1,2 to the concept proposal.

Preliminary discussions were held with city officials working in the areas of hydrology, meteorology and pollution, waste management to understand the urban climate context and supporting policy environment as well as most pressing adaptation needs; and with the head of the Mayor's office to understand recent initiatives of UB City on climate change, and their position on the greatest risks and most urgent needs, for which UN-Habitat support and expertise are needed.

UN-Habitat has been a longstanding partner for the Municipality of Ulaanbaatar and the agencies expertise in dealing with Ger communities and ability to implement upgrading and adaptation projects on a significant scale recognized and valued by all partners. A list of UN-Habitat projects interventions in Ger settlements in Ulaanbaatar, are included in Annex 4.

The relevant hazards (and adaptation measures) identified (especially floods) are related and will be acerbated by climate change. Sand and dust storms, air pollution and severe cold spells are either less directly related to climate change, the impacts are felt more long-term or addressing the impacts lies beyond the control of local government. However, for the full proposal, synergies for addressing the impacts of these hazards have been studied and measures proposed where possible. For instance, freezing of contaminated water (by waste) after floods has been identified during consultations as a health risk when water defreezes.

Climate change related hazards identified during the community consultations and potential measures to address the issues were discussed and validated in the meetings with Ulaanbaatar city Governor's Office, which will be the main partner during the project implementation.

The City officials requested UN-Habitat to address the flood resilience building, as it is one of the top priority issues of the Ulaanbaatar city local government, which they were not able to address until today due to lack of funding and appropriate methodology. According to Ulaanbaatar city Governor's Office, the project demonstrated model can be replicated further by the local government in other areas as required. Therefore, flood resilience was selected to be addressed under the project. Other environmental hazards were discussed in the meetings but not included based on the needs of special adaptation policy at national level and bigger investment.

To identify special issues, impacts and needs of women, elderly, disabled, youth and children for the proposed project interventions, Focus Group Discussions (FGD) have been conducted in each target khoroo. Through the FGDs UN-Habitat team aimed to get vulnerable communities' confirmation on locations of main flood and stagnant water areas defined based on the results of previous community consultations, identification of their main concerns and needs regarding proposed drainage channels and toilet facilities and their ideas on post operation and maintenance arrangement.

As shown in detail in annex 1, three rounds of consultations have been conducted with the following outcomes:

| Ro | und of consulta-   | Outcome   | Incorporation into project design  |
|----|--|---|--|
| 1. | Rapid vulnerabil-<br>ity assessment<br>in 7 Khoroos  | Identification of key<br>vulnerabilities<br>through community<br>member inputs (see<br>column on the right)   | <ul> <li>Identification of disaggregated data per community, localized climate change hazards, effects of hazards on communities, underlying vulnerabilities and barriers to adapt (see table 1)</li> <li>Identification of risk areas (see figures 10, 11, 12 and 13</li> <li>Identification of community needs and benefits of possible interventions</li> </ul>   |
| 2. | Community iden-<br>tification and pri-<br>oritization of cli-<br>mate change re-<br>silience building<br>interventions in 7<br>Khoroos   | Priority lists of resili-<br>ence building inter-<br>ventions per com-<br>munity  | <ul> <li>Insertion of community and vulnerable groups priority<br/>interventions into the document in part II.A and table 1<br/>(last column) and table 4</li> </ul>   |
| 3. | Risk screening<br>and impact as-<br>sessment of se-<br>lected interven-<br>tions with benefi-<br>ciary groups<br>(after screening<br>out of non-cost-<br>effective and<br>non-relevant in-<br>terventions) | Identification and<br>confirmation of risk<br>areas and mitiga-<br>tion measures with<br>beneficiaries;<br>Selection of low-<br>risk interventions or<br>interventions for<br>which risks are<br>manageable | <ul> <li>In table 13 an overview of potential and social risks and impacts and measures to prevent or mitigate these risks has been provided based on inputs from beneficiaries</li> <li>In annex 5 a detailed overview of potential risks, probabilities and impact of these risks is provided with mitigation measures for those risks that require risk management for the flood protection and drainage infrastructure and resilient sanitation delivery related interventions.</li> </ul> |

Table 10 a: overview of outcomes of consultations and how these have been incorporated in the project design

Table 10b: Participants attended in focus groups discussions

| Khoroo<br>name | Participants | Man | Woman | Disabled | Retired | Parents with<br>kindergarten<br>and school age<br>children |
|----------------|--------------|-----|-------|----------|---------|--|
| 7              | 6            | 3   | 3     | 2        | 1       | 2  |
| 9              | 8            | 3   | 5     | 0        | 4       | 1  |
| 12             | 13           | 2   | 11    | 1        | 5       | 3  |
| 13             | 7            | 1   | 6     | 2        | 1       | 2  |
| 16             | 6            | 2   | 4     | 1        | 2       | 2  |
| 24             | 5            | 1   | 4     | 1        | 2       | 4  |
| 25             | 9            | 2   | 7     | 1        | 2       | 3  |
| Total          | 54           | 14  | 40    | 8        | 17      | 17   |

Table 10c: Participants attended in intervention needs assessments and risks and impacts assessment

| Khoroo<br>name | Participants | Man | Woman | Disabled | Retired | Female headed household |
|----------------|--------------|-----|-------|----------|---------|-------------------------|
| 7              | 40           | 13  | 27    | 2        | 10      | 0                       |
| 9              | 20           | 6   | 14    | 0        | 4       | 7                       |
| 12             | 48           | 17  | 31    | 1        | 2       | 1                       |
| 13             | 29           | 6   | 23    | 1        | 3       | 2                       |
| 16             | 26           | 7   | 19    | 0        | 9       | 7                       |
| 24             | 17           | 6   | 11    | 1        | 1       | 2                       |
| 25             | 34           | 17  | 17    | 0        | 3       | 0                       |
| Total          | 214          | 72  | 142   | 5        | 32      | 19                      |

Detailed information of all the consultation outputs / outcomes including attendance sheets and photos, etc. is provided in annex 1.

 Table 11: Consultations and Meetings with key stakeholders

| Stakeholder, incl.<br>role/function   | Consultation ob-<br>jective  | Outcome   | Conclusion  |
|---|--|---|---|
| Climate Change Re-<br>search Department, Hy-<br>drology and Meteorology<br>Institute, Ministry of Envi-<br>ronment and Tourism<br>(MoET)<br>Dates: 19-25 Apr 2017 | Discuss the cli-<br>mate change ad-<br>aptation and miti-<br>gation context for<br>Mongolia and UB<br>city | The focus so far was found<br>to be on national level cli-<br>mate change adaptation.<br>The need for urban policies<br>on climate change and<br>more information and data<br>at city level<br>A simulation model would<br>be extremely useful for<br>forecasting risks and will be<br>an entry point for MOET<br>and local government coop-<br>eration for real-time data<br>sharing and further replica-<br>tion of the initiative for other<br>areas. City officials require<br>capacity building. Public<br>Education and Awareness<br>on climate and resilience in | Agreed on the need for<br>city level climate risk<br>and impact assessment<br>particular focus on Ger-<br>areas necessary, includ-<br>ing increasing Public<br>Education and Aware-<br>ness on climate and ca-<br>pacity building |

| Stakeholder, incl.<br>role/function   | Consultation ob-<br>jective  | Outcome   | Conclusion  |
|---|--|---|---|
|   |  | Cor gross yory low  |   |
| Working group for Waste<br>Management Law revi-<br>sion<br>Ministry of Environment<br>and Tourism (MoET)<br>Dates: 19-25 April 2017   | Discuss the cli-<br>mate change ad-<br>aptation and miti-<br>gation context for<br>Mongolia and UB<br>city   | Team briefed on the results<br>of their assessment of<br>country and UB city current<br>situation of waste manage-<br>ment and suggested some<br>of sanitation and waste<br>management issues as po-<br>tential interventions under<br>the scope of CC adaptation   | Agreed to work further<br>to discover more needs<br>of CC adaptation in UB<br>Ger areas and ex-<br>changed some of ideas<br>and existing data.  |
| Ulaanbaatar City Gover-<br>nor's office<br>Dates: 4 May 2017<br>One of its responsibilities<br>is UB city engineering<br>preparedness for any dis-<br>aster and operation and<br>maintenance of engineer-<br>ing infrastructure includ-<br>ing flood and drainage fa-<br>cilities | Explore their in-<br>terest in the area<br>of urban resili-<br>ence and climate<br>change adapta-<br>tion for Ger Areas  | Of the areas of air pollution,<br>waste management, water<br>resource management and<br>flooding which are most im-<br>pacted by Climate Change,<br>the Mayor's office priori-<br>tized the issue of floods re-<br>silience as the key priority<br>that requires international<br>support. The UB city flood<br>risk management strategy<br>documents (FRMS) were<br>shared and support was re-<br>quested for adaptation on<br>flood risks in Ger areas. | UN-Habitat agrees to fo-<br>cus on the thematic area<br>of floods resilience in<br>line with agencies prior<br>work in the sectors and<br>in Ger-areas, and build-<br>ing on the recent flood<br>risk assessment and<br>management strategy<br>developed by the city<br>government. |
| Songinokhairkhan District<br>– 24, 25 and 7 <sup>th</sup> Khoroo<br>Governors, officials and<br>Communities (6)<br>Dates: 20-21 July 2017   | Meetings with the<br>Khoroo Gover-<br>nors in the Ger-<br>areas designated<br>as most at risk as<br>per UB city FRMS<br>to confirm their<br>urgent needs and<br>interest in part-<br>nering in project | All Governors confirmed in-<br>creased and frequent flood-<br>ing and shared information<br>on high risk areas. Gover-<br>nors provided their local au-<br>thority teams to supply ac-<br>cess and any information<br>required by UN-Habitat<br>team leader and community<br>mobilizers. <sup>32</sup>  | Consensus to be a tar-<br>get location for climate<br>change adaptation and<br>floods resilience  |
| Sukhbaatar District 12, 13<br>and 16 <sup>th</sup> Khoroo Gover-<br>nors, Officials and Com-<br>munities (see table be-<br>low)<br>Dates:24-25 July 2017  | Meetings with<br>representative<br>and communities<br>including the<br>most vulnerable<br>groups; disabled,<br>elderly, informal<br>people, indige-<br>nous people, and<br>migrants                    | Communities were very re-<br>sponsive and participated<br>in the UN-Habitat rapids<br>needs assessments - See<br>Annex 1,2 for the results<br>from Rapid Settlements<br>Needs Assessment  | Target communities are<br>highly vulnerable and re-<br>quire assets strengthen-<br>ing for adaptation to<br>floods and management<br>of water resources, as<br>well as for air quality im-<br>provement, waste man-<br>agement, and water<br>sanitation infrastructure.             |
| Bayanzurkh District, 9 <sup>th</sup><br>Khoroo Governor, Offi-<br>cials and Communities   | Meetings with<br>representative<br>and communities<br>including the<br>most vulnerable   | Communities were very re-<br>sponsive and participated<br>in the UN-Habitat rapids<br>needs assessments - See<br>Annex 1, 2 for the results   | Target communities are<br>highly vulnerable and re-<br>quire assets strengthen-<br>ing for adaptation to<br>floods and management   |

<sup>&</sup>lt;sup>32</sup>An additional Governer from Khoroo 25 (a newly established settlement) was not ready to partner on the initiative as they cited they did not experience flood impacts. Khoroo 25 is located upstream and outfall flows down to other Khoroos from this location

| Stakeholder, incl.<br>role/function  | Consultation ob-<br>jective  | Outcome   | Conclusion  |
|--|--|---|---|
| Dates: 25 July 2017  | groups; disabled,<br>elderly, informal<br>people, indige-<br>nous people, and<br>migrants  | from Rapid Settlements<br>Needs Assessment  | of water resources, as<br>well as for air quality im-<br>provement, waste man-<br>agement, and water<br>sanitation infrastructure.  |
| Community Consultations<br>in Khoroo 7, 9, 12, 13, 16,<br>24, 25 –the identified high<br>risk settlements for floods<br>in Ger areas in north of<br>Ulaanbaatar city.<br>July - December 2017  | Three rounds of<br>community con-<br>sultations (rapid<br>risk and vulnera-<br>bility assessment,<br>prioritization and<br>vulnerable groups<br>consultations to<br>identify specific<br>issues and<br>needs)  | Social mobilizers provided<br>an introduction to climate<br>change globally and how it<br>impacts Mongolia and took<br>the voluntary participants<br>through a series of consul-<br>tations via the Peoples Pro-<br>cess<br>(1) Identification of issues<br>relevant to climate change<br>(2) Discussion and prioriti-<br>zation of key issues in<br>groups. (3) Possible priority<br>projects to address key is-<br>sues (4) Depiction on map<br>and presentation to the<br>group.             | Finalized priority inter-<br>ventions by communities<br>documented<br>Link to folders of three<br>consolation reports with<br>attendance sheets (an-<br>nex will be too large)<br>Include consultations re-<br>lated to technical feasi-<br>bility (engineer) |
| Ministry of Construction<br>and Urban Development<br>Meeting with MCUD –<br>Counterpart Ministry of<br>UN-Habitat with 10 Year<br>MOU for Cooperation on<br>Human Settlements -<br>2010-2020<br>Attended by Mr.Gunbold<br>Baatar, Director, Depart-<br>ment of Urban Develop-<br>ment & Land Affairs pol-<br>icy Implementation and<br>Coordination; and foreign<br>affairs officer. | -Briefing on Asia<br>Pacific Portfolio<br>and regional<br>strategy priorities,<br>and 'Peoples Pro-<br>cess' operational<br>approaches;<br>-Briefing on Ad-<br>aptation Fund -<br>urban resilience<br>work on climate<br>change adapta-<br>tion, being pro-<br>posed by UN-<br>Habitat team for<br>Mongolia<br>-Briefing by Minis-<br>try on status of<br>launch of 'human<br>settlements pro-<br>gramme' in coun-<br>try - and request<br>for support partic-<br>ularly around the<br>areas of land ten-<br>ure, zoning, regu-<br>lations | Ministry representatives<br>have been briefed as per<br>the objectives of the meet-<br>ing.<br>Had a discussion around<br>Habitat III and Habitat III re-<br>port for Mongolia (to be<br>published by Ministry),<br>NUA/SDGs, and the up-<br>coming World Urban Forum<br>and municipal financing.<br>Ministry working on a com-<br>prehensive review of land<br>legislation and regulations<br>for the country and re-<br>quested specific technical<br>assistance and support by<br>UN-Habitat | Agreement to keep<br>MCUD updated of pro-<br>gress on AF project se-<br>curing and work to-<br>gether on the areas<br>where MCUD needs<br>technical assistance and<br>support.  |
| UN Resident Coordinator<br>and UNDP Resident Rep-<br>resentative Ms Beate  | Discussion on<br>Adaptation Fund<br>proposal, and  | Recommendations to check on work conducted by   | Agreement to keep agency updated of pro-  |

| Stakeholder, incl.<br>role/function  | Consultation ob-<br>jective  | Outcome   | Conclusion  |
|--|--|---|---|
| Trunkmann; and climate<br>change officer UNDP –<br>Date: 11 December 2017  | other topics.  | NEMA on disaster risk re-<br>duction as potential syner-<br>gies<br>Possibility of having UNDP<br>on board as advisory ca-<br>pacity for stakeholder con-<br>sultation  | gress on AF project se-<br>curing.  |
| Meeting with Mr. Arnaud<br>Heckman, ADB Senior<br>Officer in charge of MFF<br>and Urban Development<br>Specialist.<br>Date: 14 December 2017   | -Update on status<br>of Tranche 1 and<br>2; and Affordable<br>housing pro-<br>gramme loan to<br>MUB, via GCF,<br>as well as other<br>Technical Assis-<br>tance possibilities<br>by ADB and time-<br>lines.<br>-Update on Adap-<br>tation Fund pro-<br>posal by UN-Hab-<br>itat   | Discussion around syner-<br>gies with Tranche 2 human<br>settlements upgrading in<br>overlapping Ger areas and<br>the 'levels' of investment/in-<br>tervention of floods resili-<br>ence measures proposed  | Agreement that UN-<br>Habitat proposed inter-<br>ventions would fully<br>complement the last<br>mile intervention at com-<br>munity level and the<br>large scale resilience<br>measures being planned<br>by ADB for overlapping<br>areas.<br>Agreement hat ADB and<br>UN-Habitat keep the<br>other institution posted<br>on the plans and con-<br>crete interventions |
| Mr. Avirmed Dangaa,<br>Head of Programme Man-<br>agement Office (PMO)<br>and City Coordinator, Mu-<br>nicipality of Ulaanbaatar<br>(MUB) and Member<br>Ulaanbaatar city Council.<br>Date: 12 December 2017   | -Briefing on Brief-<br>ing on ROAP<br>Portfolio, regional<br>programmes and<br>normative and<br>operational 'Peo-<br>ples Process' ap-<br>proaches<br>-Discussion ongo-<br>ing Community<br>Engagement and<br>SME Develop-<br>ment Project with<br>MUB and ADB<br>Affordable Hous-<br>ing project<br>-Briefing on Ad-<br>aptation Fund<br>proposal | <ul> <li>-Municipality appreciated<br/>UN-Habitat's ongoing sup-<br/>port and community en-<br/>gagement expertise in pro-<br/>ject implementation in Ger<br/>areas.</li> <li>-Agreement on lack of ca-<br/>pacity on urban resilience<br/>at all levels of the munici-<br/>pality particularly for climate<br/>change issues.</li> <li>-Municipality welcomes the<br/>support and welcomes UN-<br/>Habitat's community en-<br/>gagement expertise in pro-<br/>ject implementation in Ger<br/>areas.</li> </ul> | Commitment to support<br>the implementation of<br>Adaptation Fund project   |
| Official meeting with Min-<br>istry of Environment and<br>Tourism; specifically with<br>the Climate Change Na-<br>tional Designated Official<br>– with Dr. Batjargal<br>Zamba, National Desig-<br>nated Official for all Cli-<br>mate Programmes; and<br>Ms. Chuluunkhuu Baatar,<br>Project Manager for the<br>National communications | -Introduction to<br>UN-Habitat and<br>the regional pro-<br>gramme<br>-Briefing on sta-<br>tus of Adaptation<br>Fund proposal<br>development and<br>substance in-<br>cluded   | -Discussion around national<br>climate change strategies<br>and priorities and status.<br>-Importance of inclusivity<br>during project setup incep-<br>tion and implementation<br>-Commitment of Ministry<br>National Project Manager<br>to accompany UN-Habitat<br>team during community<br>consultations around pro-<br>posed interventions on<br>floods resilience   | -Agreement on im-<br>portance of urban resili-<br>ence for Mongolia<br>-Welcomes the focus on<br>concrete adaptation<br>measures in line with<br>NAPCC Phase II prior-<br>ity.<br>-Secured commitment of<br>MoET endorsement  |

| Stakeholder, incl.<br>role/function  | Consultation ob-<br>jective | Outcome | Conclusion |
|--|-----------------------------|---------|------------|
| to UNFCC, Climate Fi-<br>nance Specialist, Climate<br>change Project Imple-<br>mentation Unit, Nature<br>Conservation Fund<br>Date: 12 December 2017 |                             |         |            |

BD Engineering, the sub-contractor selected by World Vision Mongolia, the executing entity, started its hydrology study in October 2019. When the project proposal was prepared in 2017 the layouts of proposed interventions in Khoroo 7 (now Khoroo 40) were shared with the Project Management Office (PMO) of Ger area Development and Investment Programme (GADIP) financed by an ADB Loan for their consideration and integration into their plans. However, when the GADIP heating solution was changed from a local thermo substation to central heating system, the areas where the flood facilities planned under FRUGA were used for a heating pipeline construction as it was the only suitable area in that neighborhood for the pipeline construction. The GADIP project team informed the FRUGA team when the hydrology study started on this new development.

With this in mind BD Engineering was tasked to define an alternative layout for the proposed interventions and also reflect GADIP developments into the design. From October 2019 to February 2020 FRUGA and GADIP teams along with the engineering firm have worked to-gether by exchanging information and joining forces and defined alternative layouts to the original proposal in Khoroo 7. The GADIP team had to reflect the proposed flood interventions into their plan.

In addition, a consultation took place with the new Khoroo 40 Governor. Because the governor is new, and because the governance arrangements have changed since the formulation of the project, a consultation with the new governor was necessary. Based on the consultation, the new Khoroo 40 governor provided a letter of approval for the revised project, which can be provided on request.

The PEU worked with BD Engineering, the firm designing the drainage, to undertake additional consultations with the communities. A total of 9 consultations were held from October 2019 onwards with the communities. In these consultations, communities highlighted the continued need for drainage and flood management infrastructure, in the context of increased incidences of flooding in recent years. The draft final layouts and environmental and social impacts and risk assessments were presented back to the beneficiary communities for their feedback and comments. The communities' requests and ideas for the potential solutions were heard by BD Engineering and have been taken into consideration in the designs presented in this revised proposal. The communities voted on and agreed to the revised designs. Meeting minutes were taken and can be provided to the Adaptation Fund upon request.

Finally, a consultation also took place with Dr. Batjargal Zamba, Special Envoy on Climate Change and National Focal Point for the UNFCCC and Adaptation Fund at the Ministry of Environment and Tourism in January 2020. Dr. Zamba welcomed the proposed changes and highlighted that most pressing need was to continue to comply with the policies of the government of Mongolia and the evelopment plans of Ulaanbaatar City. Dr. Zamba provided and endorsement letter for the amendment to the project, which is provided in Part IV.

## I. Justification

The proposed project components, outcomes and outputs fully align with national and local government/institutional priorities and gaps identified, with identified community and vulnerable groups needs and with the Adaptation Fund outcomes as stated will be stated in the Adaptation Fund results framework at the full proposal stage. This alignment has resulted in the design of a comprehensive approach in which the different components strengthen each other and in which outputs and activities are expected to fill identified gaps of Mongolia's and Ulaanbaatar's current climate change response and corresponding institutional capacities. The project aims to maximizing the funding amount for the concrete adaptation component (component 3); funding allocation to the other (softer) components is required for complementarity/support for component 3 and sustainability and quality assurance of the project. The table below provides a justification for funding requested, focusing on the full cost of adaptation reasoning, by showing the impact of AF funding compared to no funding (baseline) related to expected project outcomes.

| Outcomes/planned<br>activities   | Baseline (without<br>AF)   | Additional (with AF)  | Comment and alterna-<br>tive adaptation sce-<br>nario's   |
|--|--|---|---|
| Outcome 1.1.<br>Relevant threat and<br>hazard information /<br>evidence and recom-<br>mendations for re-<br>ducing vulnerability<br>at the municipal and<br>community level<br>generated | Detailed/specific cli-<br>mate change threat<br>and hazard infor-<br>mation / evidence is<br>not available for<br>Ulaanbaatar, which<br>means the govern-<br>ment and communi-<br>ties can't plan for ad-<br>aptation / resilience<br>measures | The activities related<br>to this outcome will al-<br>low the municipal gov-<br>ernment of Ulaanbaa-<br>tar and communities to<br>collect information to<br>start planning for ad-<br>aptation / resilience<br>measures, especially<br>related to floods, also<br>besides and /or be-<br>yond the project | Without relevant threat<br>and hazard information /<br>evidence and recom-<br>mendations for increas-<br>ing resilience, especially<br>at the community level,<br>interventions will not be<br>appropriate.<br>The government lacks<br>the capacity and finan-<br>cial resources to execute<br>activities related to this<br>outcome without support                        |
| Outcome 2.1.<br>Target community<br>members are aware<br>of climate change<br>impacts and partici-<br>pate in resilience ac-<br>tion planning activi-<br>ties                            | Ulaanbaatar munici-<br>pality and communi-<br>ties can't plan for ad-<br>aptation / resilience<br>measures without ef-<br>fective planning pro-<br>cesses based on ac-<br>tivities executed un-<br>der outcome 1.1.                            | The activities related<br>to this outcome will al-<br>low the municipal gov-<br>ernment of Ulaanbaa-<br>tar and communities to<br>plan for adaptation /<br>resilience measures,<br>especially related to<br>floods.   | The municipal govern-<br>ment and communities<br>lack the capacity to or-<br>ganize communities and<br>plan effectively for adap-<br>tation / resilience.<br>Without capacity devel-<br>opment trainings and<br>workshops planning for<br>adaptation / resilience<br>measures will risk ineffi-<br>ciency and the selection<br>of interventions that are<br>not appropriate |
| Outcome 3.1.<br>Increased adaptive<br>capacity within rele-<br>vant development<br>and natural resource<br>sectors at the com-<br>munity level   | Target communities<br>have no options (ca-<br>pacity and financial<br>resources) to protect<br>their people and as-<br>sets against climate  | The activities related<br>to this outcome will al-<br>low target communities<br>to protect inhabitants<br>and assets against cli-<br>mate change impacts,<br>especially floods  | Large scale interven-<br>tions have the risk of not<br>being community driven<br>and appropriate, which<br>would lead to adaptation<br>benefits for fewer people<br>with the same project   |

 Table 12a:
 Overview of impact of AF funding compared to no funding (baseline) related to expected project outcomes

|   | change impacts, especially floods  |   | cost and a greater<br>chance of negative so-<br>cial and environmental<br>impacts.<br>Alternative adaptation<br>scenarios are resettle-<br>ment or construction of<br>more structural buildings<br>(e.g. flats), which are  |
|---|--|---|---|
|   |  |   | both not in line with<br>needs of the communi-<br>ties and are more costly.   |
| Outcome 4.1.<br>Project implementa-<br>tion is fully transpar-<br>ent. All stakeholders<br>are informed of prod-<br>ucts and results and<br>have access to<br>these for replication | Communities and the<br>municipal and na-<br>tional government<br>have limited<br>knowledge of resili-<br>ent planning and pro-<br>tection of towns,<br>communities and as- | Communities and the<br>municipal and national<br>government have in-<br>creased knowledge of<br>resilient planning and<br>protection of towns,<br>communities and as-<br>sets | Communities and the<br>municipal and national<br>government need to de-<br>velop their own capacity<br>and knowledge products<br>related to resilient urban<br>development, especially<br>in response to floods.  |
|   |  |   | Without activities related<br>to outcome 4.1. there is<br>a risk that interventions<br>won't be replicated and<br>sustained and demand<br>for adopting similar ap-<br>proaches is not gener-<br>ated; and high level sup-<br>port and engagement for<br>the proposed approach<br>is not mobilized |

<u>Please see the separate Justification Note that has been provided that explains why the proposal is being revised and new infrastructure being proposed at this stage. This is provided in Annex 7.</u>

## J. Sustainability

The project sees that the main way to sustain the achievement of the project in the long run is by linking the adaptation initiatives and lessons to the establishment of an institutional framework, which supports the community-led climate resilience building and its further replication.

By fully engaging settlement households in project activities, including assessments, the development of plans/ strategies and monitoring, the project aims to achieve building of communities' awareness and capacities and furthermore ownership and leadership in the area of disaster management and urban resilience at community level. The establishment of CDC's through the People's Process has also been a demonstrated success as a cornerstone for community governance which has continued to function long after the end of the project, for the maintenance and management of the strengthened social and physical infrastructure assets produced by this project, and in future, around the needs and priorities as defined by communities themselves. Investing in increasing the resilience of vulnerable physical, natural, and social assets and ecosystems is a sustainable economic approach. It will not only avoid future costs related to climate change and disaster impacts but it will also enhance livelihood options, improve the health and security of the community.

The city and community level resilience, recovery and upgrading plans will also be considerate of the environment, including for instance the protection of ecosystems or the reduction of waste production to ensure environmental sustainability.

Component 1 of the project which aims to generate evidence and information to better understand climate change related impacts and risks in the most vulnerable and high-risk communities of Ulaanbaatar. The generation of a City wide Ger-area Land Use Plan and the Gerkhoroo level Land Use Plans for the 3 most-at-risk Ger-areas, with in-depth stakeholder consultation will instil the municipality, district authorities and khoroo communities with the know-how and skills to replicate Land-use plan development at the level of their jurisdiction as well as consider the underlying risk factors that are vital for consideration during urban planning. Furthermore, the development of a simulation model maintained in partnership with the Ministry of Environment and the Municipality of Ulaanbaatar, will strengthen national-municipal links for sharing data for decision-making - moreover the Land Use Plans (LUP's) and knowledge products generated will also be shared with the urban data banks and platforms of the Ministry of Construction & Urban development widening the circulation and use. Ownership by two separate government entities will enhance the sustainability of initiatives - the model will be designed for the city level with the possibility of scaling up the geographical coverage to include detailed assessments from other high risk areas in the city and beyond; as well as the potential to simulate other climate induced threats (such as water availability and issues also related to mitigation, air pollution - data collection and systems for which could be funded from other sources). - contributing to institutional cooperation and sustainability.

Component 2 is aimed at generation of Khoroo-level **floods resilience action plans**, fully involving communities in the planning and execution of the proposed interventions under Component 3. The trainings conducted for **the management and maintenance of flood resilient infrastructure** via the Community Development Councils (CDC's) that are formed as part of the People's Process will ensure the sustainability and longevity of infrastructure and adaptation measures through the generation of maintenance plans. Experience from many countries has shown that involving the communities through their primary groups and CDCs not only ensures their participation during the planning and implementation of the activities but also facilitates in putting in place a plan for the maintenance of the infrastructure. Various approaches like creating savings schemes and establishing maintenance fund have been implemented elsewhere. These issues and approaches will be discussed during the meetings of the CDCs and appropriate and acceptable system will be implemented.

Where possible women and youth will be involved in the execution of maintenance plans. The awareness raising campaigns that accompany will target youth and children who are particularly quick to adapt healthy habits and behaviours as advocates for behaviour change – also towards their parents and elders, in hygiene campaigns. General trainings on current and future climate risks will generate the understanding of the need for, and the means for communities and local authorities to protect the physical assets from potential climate induced economic risks. The **technical engineering and hydrology studies** will ensure the assets are properly designed to a high quality, to suit the unique Mongolian context, maximizing the impact and sustainability of these concrete interventions. Furthermore, the technical data generated from these studies will be shared with relevant institutions so that institutional capacities for responding to such risks will be sustainably strengthened.

With Component 3 as the main focus of the project, (2/3 of project value) the sustainability of **Physical assets developed or strengthened in response to climate change related flood** 

**impacts** will directly benefit the most vulnerable populations in the cites' Ger-areas through two main resilience building interventions: (1) improved drainage systems to reduce floods and (2) improved sanitation systems that won't overflow during floods and lead to health issues.

Community involvement throughout the project via the People's Process, and the opportunity to directly influence project activities and outcomes to best suit the community dynamics as a whole, will ensure buy-in and sustainability of the project interventions over and beyond the duration of the project. Communities working together towards common goals will build mutual trust and strengthen bonds between longer-term host residents and new in-migrant communities generating a positive community spirit and resilient and sustainable social fabric in Gerareas. The use of local materials and designs and local capacities will ensure environmental benefits and economies of scale, allowing project funds to remain/circulate within the local communities who have a vested interest in their self-development. Accompanying awareness components on health and environmental issues within communities will increase adoption of hygienic, safe behaviours and project management training will enhance the management, negotiation and cooperation capacities leading to environmental and social resilience of the communities.

The **Management & operations; design & supervision of assets / physical infrastructure component, driven by** the international advisory technical team, will ensure professional capacity building and technology transfer leading to improvement of the professional capability of national entities, institutions and national project teams to implement and replicate participatory mechanisms adapted to suit the local context – contributing to sustainable enhancement of national institutional, multi-level municipal and community capacities for implementing concrete adaptation project initiatives.

Component 4 on generation of knowledge, advocacy and dissemination, through **lessons learned and best practices; and workshops and trainings regarding climate (flood) re-silient urban development and land use planning** will be targeted district and khoroo communities, policy-makers in government and civil society will allows transparency and city- and district government officials, respectively.

The inception workshop planned for the onset of the project which will bring all key stakeholders at national and local government level, communities, IFI's, donors and civil society with an interest and stakes in the sustainable development of the city, on board, to ensure their inputs and buy in – allowing for a wide ownership and sustainability of the project and ensuing results.

At the policy level, consultations with the Project Advisory Committee on enhancing existing policies, strategies and plan will also ensure sustainability through embedding the knowledge and technical data within binding legal and regulatory frameworks.

Table 12b: overview of concrete interventions under components 3 and measures to sustain / maintain these

| Concrete interventions / activities |                     | Tar-               |   |  |
|-------------------------------------|---------------------|--------------------|---|--|
| Priority in-<br>vestments           | Detailed activities | get<br>Kho<br>roos | Interventions required for sustainable management and maintenance (this is part of component 2) |  |

|   |   |           | - |   |
|---|---|-----------|---|---|
| Flood protec-<br>tion and<br>drainage in-<br>frastructure | Construct a flood re-<br>tention wall / dike                            | 9         |   | Raise awareness and train community members about flood risk<br>areas and how to reduce risks by:<br>Not dumping waste into the drainage system<br>Introducing protection options and techniques<br>Community groups will be formed for implementation of projects  |
|   | Drainage channels   | 9         |   | (involving Khoroo/District officials) and to raise awareness / dis-<br>cuss disposal of sludge on roads, proper removal of sludge, not<br>throwing waste in canals.   |
|   |   | 7         |   | Agreement between community groups and officials about<br>maintenance; District Landscaping and Common Services Divi-<br>sion will be in charge of O & M of the flood protection interven-<br>tion. However, community groups of HHs live nearby to the flood<br>facilities to conduct monitoring over the O&M of the facilities with |
|   |   | <u>40</u> |   | help of Kheseg Leaders<br>Involve Khoroo and District officials during project selection, im-<br>plementation, certification of transfer of funds installments, over-<br>sight, etc.  |
| Flood resili-<br>ent latrines                             | Construct suitable<br>latrines (for rocky or<br>muddy under-<br>ground) | 24<br>25  |   | Raise awareness and train community members about risk of<br>overflowed toilets and related health risks and benefits of hand<br>washing<br>10% contribution from construction price to ensure ownership  |
|   |   | 9<br>12   |   | and to be used for replication<br>Community groups will be formed for implementation of projects<br>(involving Khoroo/District officials) and to raise awareness / dis-<br>cuss disposal of sludge on roads, proper removal of sludge, not<br>throwing waste in canals.   |
|   |   | 13<br>16  |   | Formation of Primary Groups and Community Development<br>Councils in areas where toilets and drainage being constructed<br>in order to provide community structure and forum to discuss is-<br>sues related to implementation and maintenance.  |
|   |   |           |   | Involve Khoroo and District officials during project selection, im-<br>plementation, certification of transfer of funds installments, over-<br>sight, etc.  |
|   | 1   | 1         |   | A tripartite agreement can be signed between the project. HH  |

### K. Environmental and social impacts and risks

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP), and its 15 safeguard areas, Gender Policy (GP), Further to Section II.E above on compliance with standards, outlined below is a summary of the findings of the project development phase screening and assessment process that has been carried out to identify and evaluate environmental and social risks and impacts of proposed interventions and based on that, of the entire project. With this information, the entire project has been categorized, and risks mitigation measures proposed, where needed.

Part III.C further describes the essence of the environmental and social management plan and the risk monitoring system, while Annex 5 demonstrates in detail how this project will comply with the AF ESP, which is especially related to dealing with concrete interventions under component 3.

Normative, planning and capacity development activities (i.e. non-concrete interventions) under components 1, 2 and 4 have been screened against the 15 AF principles and potential risks are not significant. Despite this, measures will be taken to ensure that no environmental or social impacts can occur (see also Section II.E and Annex 5).

Activities under components 3 are 'concrete' interventions. During project preparation some potential risks were identified, most of low significance. This is because of the scope of the proposed activities, that are numerous, small scale and very localized, and proposed and managed by communities where possible, who have a stake in avoiding environmental and

social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely. Given this, cumulative impacts are also unlikely. However, two risks (nr 4 and 8) were identified as more significant (medium) for the northern drainage intervention in Khoroo 7. These risks have been reduced through mitigation measures, as shown in Annex 5.

Because of the nature of some activities under components 3, the entire project is regarded as a medium risk (Category B) project. Therefore, an ESMP has been developed, and included in Annex 5.

The project has been designed to generate positive economic, social and environmental impacts, using inputs from especially women and marginalized and vulnerable groups in target communities and by incorporating best practices from other projects. The adaptation measures proposed have been selected together by the communities and local authorities, making sure they are culturally appropriate and local.

| Checklist of environmen-   | No further assessment req  | Further assessment and /  |  |
|--|--|---|--|
| tal and social principles  | Summary risks and impacts screening /<br>assessment process during project<br>preparation  | Identified potential risks and impacts and prevention or mitigation measures proposed commensurate with potential risks   | or management required<br>for ESP compliance during<br>project implementation  |
|  | (For details and Amov 5)   | (For details see Annex 5)   |  |
| <ol> <li>Compliance with the<br/>Law</li> <li>Potential risk: Insufficient<br/>alignment with laws and<br/>technical standards, espe-<br/>cially related to implementa-<br/>tion of concrete interven-<br/>tions under components 3.</li> </ol>  | <ul> <li>(For details see Annex 5)</li> <li>Screening / assessment process:</li> <li>1. Identified all relevant rules, regulations, standards and procedures that apply to all project outputs / interventions (but especially the concrete interventions under component 3) and how to comply to these during project execution, including authorizing offices</li> <li>2. Confirmed above with relevant authorizing offices (ministries and municipality) and engineers</li> </ul>   | As per AF ESP this principle always applies.<br>However, the risk is not significant / low) (see part II.E). The project de-<br>signed the interventions as such that EIA are not required by national law.<br>This has been confirmed by government authorities.<br>It will be ensured that each person associated with the project is aware of<br>domestic and international laws and compliance needs to technical stand-<br>ards requirements (see section E).<br><u>No new risks (and thus potential impacts) have been identified for the re-<br/>vised infrastructure per a review up legislation conducted in January 2020.</u><br><u>No legal compliance issues were raised in consultation with government</u><br>(city or national) or with communities.   | <ol> <li>General management<br/>and monitoring arrange-<br/>ments for ESMP</li> <li>(For details see Annex 5)</li> </ol>   |
| <ol> <li>Access and Equity         Potential risk: activities             would exclude any poten-<br/>tially affected stakeholders             from fully participating in             decisions that may affect             them; risk of unequal distri-<br/>bution among target popu-<br/>lation / communities and             households of project bene-<br/>fits.         <i>3. Marginalised and Vul-<br/>nerable Groups</i> </li> <li>Potential risk: some vulner-<br/>able affected groups may         not participate in decisions             making processes regard-<br/>ing design and planning of     </li> </ol> | <ol> <li>Screening / assessment process:</li> <li>Potential risks and impacts on vulnerable groups have been identified during community and vulnerable groups consultations – see more details below *</li> <li>Based on above, risks screening and impact analysis have been conducted for concrete interventions (under component 3)</li> <li>'Supporting' activities under component 1-2 and 4, such as community decision-making processes, trainings, etc. have been screened for ES risks and impacts as well.</li> </ol> | Risks under component 3: exclusion of any potentially affected stakehold-<br>ers or vulnerable group from fully participating in decisions that may affect<br>them during project implementation.<br>Risks under normative, planning and capacity development activities (all<br>other outputs): exclusion of any potentially affected stakeholders or vul-<br>nerable group from fully participating in decisions that may affect them<br>during project implementation<br>Measure to ensure equal access and benefits of interventions during pro-<br>ject execution: Community organization processes (through Community<br>Development Councils) and quotas (> 50 percent women and to-be-de-<br>fined percentages for other groups) will be used to ensure vulnerable<br>groups are represented during meetings, trainings, decision-making.<br>For the drainage interventions, all households potentially affected by the<br>construction of the channels are included in decision-making processes.<br>These interventions are proposed to be constructed in residential areas<br>where there are no shops or restaurants, which will not disrupt existing lo- | <ol> <li>General management<br/>and monitoring arrange-<br/>ments for ESMP</li> <li>Confirm beneficiaries'<br/>selection criteria for la-<br/>trine interventions</li> <li>For details see Annex 5)</li> </ol> |

| Table 13: Overview of | potential environmental and social im | pacts and risks measures to | prevent or mitigate these.  |
|-----------------------|---------------------------------------|-----------------------------|---|
|                       |                                       |                             | and the second |

| activities that may affect      |  | cal livelinoods and income generation activities. Interventions are also de-     |                           |
|---------------------------------|--|--|---------------------------|
|                                 |  | mobility – in addition to guaranteeing access to plots at all times there will   |                           |
|                                 |  | be no restrictions on access to main roads.                                      |                           |
|                                 |  |  |                           |
|                                 |  |  |                           |
|                                 |  | For the latrines, criteria for beneficiaries' selection (including poverty rate, |                           |
|                                 |  | women-headed households, willingness to make contribution) have been             |                           |
|                                 |  | established but will be confirmed again with community members / vulner-         |                           |
|                                 |  |  |                           |
|                                 |  | The risks and impacts identified here are still largely applicable to the re-    |                           |
|                                 |  | vised drainage infrastructure. The plot by plot location of the channel is       |                           |
|                                 |  | shown in Figures A8-A10 in Part II, Section A. One private company (a            |                           |
|                                 |  | light industry/warehouse) is affected by the drainage, which will run under      |                           |
|                                 |  | part of the property. However, consultations have taken place with the           |                           |
|                                 |  | company and while there will be some minimal disruption during the con-          |                           |
|                                 |  | company (directly or indirectly) to earn income. No other husinesses are         |                           |
|                                 |  | affected and no loss of livelihood can reasonably be expected. Aside from        |                           |
|                                 |  | this, all original findings of the risk and impact assessment remain the         |                           |
|                                 |  | same   |                           |
| 4. Human Rights                 | Screening / assessment process:                          | As per AF ESP this principle always applies.                                     | 1. General management     |
|                                 | 1. Potential risks and impacts on vulnera-               |  | and monitoring arrange-   |
| Risk that land and tenure       | ble groups have been identified during                   | Risks under component 3: the risks of violating tenure security and prop-        | ments for ESMP            |
| arrangements and/or com-        | community and vulnerable groups con-                     | erty rights in the flood wall and other drainage channel in Knoroo 9 is low,     | 2. Management of the      |
| rights are affected: failure to | <ul> <li>2 Based on above risks screening and</li> </ul> | wall and drainage channel in Khoroo 9 are on public land and on the side         | Councils                  |
| proactively protect the         | impact analysis have been conducted                      | of the road. Inhabitants requested a foot bridge for elderly and disabled to     | Councilo                  |
| rights (i.e. international      | for concrete interventions (under com-                   | pass.  | For details see Annex 5)) |
| standards) of all stakehold-    | ponent 3) – potential risks and impacts                  |  | <i>"</i>                  |
| ers affected by the project     | have been identified and discussed                       | The risks of violating tenure security and property rights of the proposed       |                           |
|                                 | with engineers and inhabitants and risk                  | three northern drainage sections in Khoroo 7 is a bit more significant:          |                           |
|                                 | prevention measures proposed appro-                      | there is 1 km of planned underground drainage. This drainage channel is          |                           |
|                                 | 3 'Supporting' activities under compo-                   | habitants 'impacted' by this intervention agreed with the intervention           |                           |
|                                 | nent 1-2 and 4, such as community de-                    | through an open-close approach, a risk preventive measure is still pro-          |                           |
|                                 | cision-making processes, trainings,                      | posed to ensure activities will only be executed when all inhabitants di-        |                           |
|                                 | etc. have been screened for ES risks                     | rectly benefitting / being affected fully agree with the process and all activ-  |                           |
|                                 | and impacts as well.                                     | ities.   |                           |
|                                 |  |  |                           |
|                                 |  | Community Development Councils will be formed with membership of all             |                           |
|                                 |  | nousenoids benefitting from construction. The design of drainage sections        |                           |

|  | will be managed in neighborhood sections which are small enough so that<br>they can be managed by these Community Development Councils.<br>Construction of the drainage channels will only start when all possibly af-<br>fected households sign that they agree with the intervention. This will be<br>done through a participatory planning process through the Community De-<br>velopment Councils. Besides that, a clause will be included in all contracts<br>stating that contractors will comply to human rights markers (and other rel-<br>evant safeguard areas). The intervention is budgeted in a way that inhab-<br>itants can be compensated for expenses if they need to temporary relo-<br>pate during empty to human rights markers phone how |  |
|--|---|--|
|  | developed (and has already been considered) if inhabitants don't agree.<br>The UN-Habitat Human rights officers and PAG will check compliance.<br>The intervention is budgeted in a way that inhabitants can be compen-<br>sated for expenses if they need to temporary relocate during construction.   |  |
|  | Risks under normative, planning and capacity development activities (all other outputs): none (low) <u>.</u>  |  |
|  | The revised drainage infrastructure will affect 4 private residential plots and 1 private company (described above). This is fewer plots than the   |  |
|  | original design. All plot holders have been consulted and their permission gained for the works. All drainage will be covered and in no cases will it   |  |
|  | run under the house itself (only the garden area of the plot, which is used<br>for parking or storage, not for vegetable growing). No new human rights<br>issues have amorged, and all other findings from the rick and impact as   |  |
|  | sessment remain the same.   |  |

| 5 Gender Equity and Screening / assessment process: As per AF ESP this principle always applie  | ۹                                  | 1 General management      |
|---|------------------------------------|---------------------------|
| Women's Empower. 1 Potential risks and impacts on vulnera-  | 5.                                 | and monitoring arrange-   |
| ment hle groupe have heen identified during Pieke under component 2: women and me   | n do not have equal opportuni      | ments for ESMD            |
| ment ble gloups have been derinned during hists under component 5. wonen and de net   | hanofit aqually from intervon      |                           |
| Betentiel right women and   | benefic equally norm interven-     | (For dataila and Appay 5) |
| role nations women and suitations – see more details below tions  |                                    | (FOI details see Annex 5) |
| men do not nave equal op-<br>2. Based on above, risks screening and Diale under the strength and Diale under the strength and th |                                    |                           |
| portunities to participate in impact analysis have been conducted Risks under normative, planning and capacity  | city development activities (all   |                           |
| the project and do not ben-<br>for concrete interventions (under com-<br>other components): women and men do not  | ot nave equal opportunities to     |                           |
| efit equally from interven- ponent 3) participate in the project and do not benefit   | equally from interventions         |                           |
| tions 3. Supporting activities under compo-   |                                    |                           |
| nent 1-2 and 4, such as community de- Measure to ensure equal participation in pl   | anning and decision-making         |                           |
| cision-making processes, trainings, processes for women and to enable them a  | as agents of change: It will be    |                           |
| etc. have been screened for ES risks ensured women will be able to participate t  | hrough participation quota. The    |                           |
| and impacts as well. project included gender targets and involve  | es existing women committees       |                           |
| at Khoroo level and women representatives   | s at the ministerial level. Train- |                           |
| ings only inviting women will be organized  | (see also the 'gender' annex).     |                           |
|   |                                    |                           |
| No new risks or impacts identified relating t   | to gender equality and women's     |                           |
| empowerment have been identified, and as  | s such the risk and impact iden-   |                           |
| tification plus the gender action plan in Ann   | nex 6 remain valid                 |                           |
| 6. Core Labour Rights Screening / assessment process: As per AF ESP this principle always applier   | S.                                 | 1. General management     |
| 1. Potential risks and impacts on vulnera-  |                                    | and monitoring arrange-   |
| Potential risk: employing ble groups have been identified during Risks under component 3: not adhere to th  | e ILO labour Standards and         | ments for ESMP            |
| underage people and to community and vulnerable groups con- national labour laws.   |                                    |                           |
| support underpayment and sultations – see more details below *  |                                    | (For details see Annex 5) |
| unsafe working conditions; 2. Based on above, risks screening and Risks under normative, planning and capacity  | city development activities (all   |                           |
| executing entities for the impact analysis have been conducted other outputs): not adhere to the ILO labou  | r Standards and national labour    |                           |
| project may not adhere to for concrete interventions (under com- laws.  |                                    |                           |
| the ILO labour Standards ponent 3) – potential risks and impacts  |                                    |                           |
| and national labour laws. have been identified and discussed Measure to ensure compliance to ILO stan   | dards during construction: em-     |                           |
| with inhabitants and risk prevention ployment and working conditions following  | ILO standards will be included     |                           |
| measures proposed appropriate to in legal agreements with all subcontractor.  |                                    |                           |
| their needs / requests.   |                                    |                           |
| <b>3.</b> 'Supporting' activities under compo- The project will monitor that international a  | nd national labour laws and        |                           |
| nent 1-2 and 4, such as community de- codes are respected, for any work that may  | y be carried out in relation to    |                           |
| cision-making processes, trainings, the project. This includes the eight Internat   | ional Labour Organization Con-     |                           |
| etc. have been screened for ES risks vention (ILO) core labour standards related  | to fundamental principles and      |                           |
| and impacts as well. rights of workers, as well as ILO Conventic  | n No. 169, which concerns          |                           |
| rights of indigenous and tribal peoples.  | ·                                  |                           |
|   |                                    |                           |
| Almost all the same conditions exist as dur   | ing the risk and impact assess-    |                           |
| ment. However, the emergency of the Covi  | id19 pandemic from about Feb-      |                           |
| ruary 2020 onwards creates a new elemen   | t of risk. While Mongolia has      |                           |

|   |   | experienced relatively few cases, the government has implemented nu-<br>merous public health protection measures and it is essential to ensure<br>that these are complied with through, for example, social distancing. This<br>issue is discussed further in the Public Health Principle, below.   |  |
|---|---|---|--|
| 7. Indigenous Peoples<br>Potential risk: Indigenous<br>groups may not participate<br>in decisions making pro-<br>cesses regarding design<br>and planning of activities<br>that may affect them. | <ol> <li>Screening / assessment process:         <ol> <li>Potential risks and impacts on vulnerable groups have been identified during community and vulnerable groups consultations – see more details below *</li> <li>Based on above, risks screening and impact analysis have been conducted for concrete interventions (under component 3)</li> <li>'Supporting' activities under component 1-2 and 4, such as community decision-making processes, trainings, etc. have been screened for ES risks and impacts as well.</li> </ol> </li> </ol>  | No indigenous groups have been identified in the target areas.<br><u>There are still no indigenous groups in the project's target area, and as</u><br><u>such this principle still doesn't apply.</u>   |  |
| <ul> <li>8. Involuntary Resettlement</li> <li>Potential risk: temporary or permanent and full or partial physical displacement (see also principle 4)</li> </ul>                                | <ol> <li>Screening / assessment process:         <ol> <li>Potential risks and impacts on vulnerable groups have been identified during community and vulnerable groups consultations – see more details below *</li> <li>Based on above, risks screening and impact analysis have been conducted for concrete interventions (under component 3) – potential risks and impacts have been identified and discussed with engineers and inhabitants and risk prevention measures proposed appropriate to their needs / requests.</li> <li>'Supporting' activities under component 1-2 and 4, such as community decision-making processes, trainings, etc. have been screened for ES risks and impacts as well.</li> </ol> </li> </ol> | Risks under component 3: the risks of displacement related to the flood<br>wall and other drainage channel in Khoroo 9 is low, as well as the latrine<br>interventions under component 3. The flood retention wall and drainage<br>channel in Khoroo 9 are on public land and on the side of the road. Inhab-<br>itants requested a foot bridge for elderly and disabled to pass.<br>The risks of displacement related to the proposed three northern drainage<br>sections in Khoroo 7 is a bit more significant: there is 1 km of planned un-<br>derground drainage. This drainage channel is underground because it will<br>go through 37 private plots. Although the inhabitants 'impacted' by this in-<br>tervention agreed with the intervention through an open-close approach, a<br>risk preventive measure is still proposed to ensure activities will only be<br>executed when all inhabitants directly benefitting / being affected fully<br>agree with the process and all activities.<br>Community Development Councils will be formed with membership of all<br>households benefitting from construction. The design of drainage sections<br>will be managed in neighborhood sections which are small enough so that<br>they can be managed by these Community Development Councils.<br>Construction of the drainage channels will only start when all possibly af-<br>fected households sign that they agree with the intervention. This will be<br>done through a participatory planning process through the Community De-<br>velopment Councils. Besides that, a clause will be included in all contracts | <ol> <li>General management<br/>and monitoring arrange-<br/>ments for ESMP</li> <li>Management of the<br/>Community Development<br/>Councils</li> <li>(For details see Annex 5)</li> </ol> |

|   |  | <ul> <li>stating that contractors will comply to human rights markers (and other relevant safeguard areas). During project implementation, UN-Habitat will monitor and guarantee access to plots by all affected householders in Khoroo 7. The intervention is budgeted in a way that inhabitants can be compensated for expenses if they need temporary accommodation during construction, following agreement by all parties via the People's Process consultations The UN-Habitat Human rights officers and PAG will check compliance.</li> <li>Risks under normative, planning and capacity development activities (all other outputs): none (low)</li> <li>As highlighted under Principle 4: Human Rights, there is a reduction in the number of plots affected by the drainage, as it will now affect 4 private plots and 1 commercial plots, rather than 37 private plots. This is fewer plots than the original design. All plot holders have been consulted and in no cases will it run under the house itself (only the garden area of the plot, which is used for parking or storage, not for vegetable growing). There drainage will be covered once construction is complete. While construction is underway there will be some temporary disruption, but this will not lead to temporary or permanent resettlement. People will still have access to their homes and be able to reside normally in their homes. There will be some minor inconvenience from noise and construction work. This has been consulted with the plot holders.</li> </ul> |  |
|---|--|--|--|
| 9. Protection of Natural<br>Habitats          | <ul> <li>Screening / assessment process:</li> <li>Potential risks and impacts on vulnerable groups have been identified during community and vulnerable groups consultations – see more details below *</li> </ul> | Initial consultations and risk screening assessments have not identified<br>potential risks related to these principles for any output under the four<br>components. The concrete interventions are planned in urban areas<br>where no natural habitats or biodiversity is present. According to the engi-<br>neer no maladaptation is expected from the flood retention wall. This is   | <ul> <li>General management<br/>and monitoring arrange-<br/>ments for ESMP</li> <li>(For details see Annex 5)</li> </ul> |
| 10. Conservation of Biolog-<br>ical Diversity | <ol> <li>Based on above, risks screening and<br/>impact analysis have been conducted<br/>for concrete interventions (under com-<br/>ponent 3)</li> <li>'Supporting' activities under compo-</li> </ol>             | because it only 'catches' a small stream of the river.<br>However, the project will ensure the principle will be taking into account<br>when developing land use plans and technical studies, thus ensuring<br>compliance to the AF ESP also for the 'supporting' measures under com-  |  |
| 11. Climate Change                            | nent 1-2 and 4, such as community de-<br>cision-making processes, trainings,<br>etc. have been screened for ES risks   | ponent 1-2. Standard clauses requiring the compliance with the safeguard areas will be included in AoC and contracts and the plans will be screening for consideration of the risk areas.  |  |

|                               | and impacts as well.                       |   |                           |
|-------------------------------|--|---|---------------------------|
|                               |  | The revised drainage infrastructure will ultimately drain water into the      |                           |
|                               |  | same stream as the originally proposed infrastructure, and as such no         |                           |
|                               |  | new natural habitat, biodiversity or climate change risks or impacts are en-  |                           |
|                               |  | visaged and the original analysis presented above is still accurate.          |                           |
| 12. Pollution Prevention      | Screening / assessment process:            | Risks under component 3: non-sustainable purchase of construction ma-         | 1. General management     |
| and Resource Effi-            | 1. Potential risks and impacts on vulnera- | terials. The drainage related interventions will require cement, soil and     | and monitoring arrange-   |
| ciency                        | ble groups have been identified during     | rock. Although the practice is that these are purchased through Mongolian     | ments for ESMP            |
|                               | community and vulnerable groups con-       | companies, a risk preventive measure is proposed to ensure soil and           |                           |
| Potential risk: consumption   | sultations – see more details below *      | rocks are not mined from areas where it can have a negative effect, such      | (For details see Annex 5) |
| of raw materials will have a  | 2. Based on above, risks screening and     | as from the river.  |                           |
| negative effect (elsewhere)   | impact analysis have been conducted        |   |                           |
|                               | for concrete interventions (under com-     | This will be done by checking the sources of material before purchase by      |                           |
|                               | ponent 3)                                  | companies   |                           |
|                               | 3. 'Supporting' activities under compo-    |   |                           |
|                               | nent 1-2 and 4. such as community de-      | Risks under normative, planning and capacity development activities (all      |                           |
|                               | cision-making processes, trainings,        | other outputs): none (low)  |                           |
|                               | etc. have been screened for ES risks       |   |                           |
|                               | and impacts as well.                       | The revised drainage has only changed location, other design and mate-        |                           |
|                               |  | rial requirements are the same, and as such no new risks are envisaged        |                           |
|                               |  | here.   |                           |
| 13. Public Health             | Screening / assessment process:            | Risks under component 3: elements of activity construction, operation, or     | 1. General management     |
|                               | 1. Potential risks and impacts on vulnera- | decommissioning pose potential safety risks to local communities              | and monitoring arrange-   |
| Potential risk: elements of   | ble groups have been identified during     |   | ments for ESMP            |
| activity construction, opera- | community and vulnerable groups con-       | It will be ensured that ICSC international health and safety standards are    |                           |
| tion, or decommissioning      | sultations – see more details below *      | clearly accessible and understood. e.g. by putting clearly visible signs de-  | (For details see Annex 5) |
| pose potential safety risks   | 2. Based on above, risks screening and     | tailing health and safety standards to be located at projects sites and by    |                           |
| to local communities (see     | impact analysis have been conducted        | supplying protective equipment.   |                           |
| also principle 6)             | for concrete interventions (under com-     |   |                           |
|                               | ponent 3) – potential risks and impacts    | Risks under normative, planning and capacity development activities (all      |                           |
|                               | have been identified and discussed         | other outputs): none  |                           |
|                               | with inhabitants and risk prevention       |   |                           |
|                               | measures proposed appropriate to           | The above findings remain in place for the new infrastructure siting, and     |                           |
|                               | their needs / requests.                    | no new risks or impacts have been identified. However, the Covid-19 pan-      |                           |
|                               | 3. 'Supporting' activities under compo-    | demic from February 2020 onwards means that new safeguard measures            |                           |
|                               | nent 1-2 and 4, such as community de-      | are required to ensure that construction work and other project activities    |                           |
|                               | cision-making processes, trainings,        | don't act as a vector for the disease. At present, the government doen't al-  |                           |
|                               | etc. have been screened for ES risks       | low further construction activities, consultations or other gatherings of     |                           |
|                               | and impacts as well.                       | people, and at the time of writing (April 2020) it is unclear when these re-  |                           |
|                               |  | strictions will be lifted.  |                           |
|                               |  |   |                           |
|                               |  | However, when restrictions are lifted, it is likely that some forms of social |                           |
|                               |  | distancing plus improved hygiene practices will be necessary. This is a       |                           |

|  |   | rapidly evolving situation, but the project will comply with Government of<br>Mongolia or WHO guidelines on hygiene and social distancing (whichever<br>is perceived for provide a higher standard) and such requirements and<br>protections will be extended to all subcontractors and community benefi-<br>ciaries.  |  |
|--|---|--|--|
| <ul> <li>14. Physical and Cultural<br/>Heritage</li> <li>Potential risk: proposed in-<br/>terventions will affect physi-<br/>cal or cultural heritage neg-<br/>atively.</li> <li>15. Lands and Soil Con-<br/>servation</li> <li>Potential risk: proposed in-<br/>terventions will have a neg-<br/>ative effect on lands and<br/>soil conservation</li> </ul> | <ol> <li>Screening / assessment process:         <ol> <li>Potential risks and impacts on vulnerable groups have been identified during community and vulnerable groups consultations – see more details below *</li> <li>Based on above, risks screening and impact analysis have been conducted for concrete interventions (under component 3) – potential risks and impacts have been identified and discussed with inhabitants and risk prevention measures proposed appropriate to their needs / requests.</li> <li>'Supporting' activities under component 1-2 and 4, such as community decision-making processes, trainings, etc. have been screened for ES risks and impacts as well.</li> </ol> </li> </ol> | Initial consultations and risk screening assessments have not identified<br>potential risks related to these principles for any of the four project compo-<br>nent and related outputs. No heritage sites are situated within the target<br>areas. Although the drainage channels and flood retention wall include<br>some digging, no negative effects are expected because the locations are<br>next to the road or in an area already used.<br>However, the project will ensure the principle will be taking into account<br>when developing land use plans and technical studies, thus ensuring<br>compliance to the AF ESP also for non-concrete measures under compo-<br>nent 1-2. Standard clauses requiring the compliance with the safeguard<br>areas will be included in AoC and contracts and the plans will.<br>No new risks have been identified under these principles. There are no<br>sites of cultural or heritage significance in the path of or close by the new<br>infrastructure construction. As such, all other risk and impact assessment<br>information remains the same as in the original proposal. | <ol> <li>General management<br/>and monitoring arrange-<br/>ments for ESMP</li> <li>(For details see Annex 5)</li> </ol> |

\*

<sup>1&</sup>lt;sup>st</sup> round of community-level consultations: vulnerability assessment to capture climate change related issues and needs of vulnerable groups and collect disaggregated data 2<sup>nd</sup> round of community-level consultations: prioritization of interventions with communities and vulnerable groups 3<sup>rd</sup> round of community-level consultations focused on confirming proposed interventions and identifying specific design needs and concerns of vulnerable groups
### **PART III: IMPLEMENTATION ARRANGEMENTS**

### A. Arrangements for project management

#### **KEY STAKEHOLDERS & IMPLEMENTATION ROLES**

The project will be implemented by UN-Habitat as an integral part of the UN-Habitat Mongolia Country Programme with inputs from the UN-Habitat Climate Change in Cities Initiative via the Regional Office for Asia and the Pacific, through establishment of a *Project Implementing Unit (PIU)*.

UN-Habitat will engage with **UNOPS** for the execution of the hardware components for climate adaptation in the Ger-areas, harnessing their operational capacity to deliver technical infrastructure outputs as done in other countries in Asia Pacific through establishment of a *Project Execution Unit (PEU)*.

April 2020 – Note that at project inception World Vision Mongolia was chosen as the project's executing entity. This was primarily a cost-related decision – UN-Habitat determined that World Vision could deliver the same services for lower cost than UNOPS. Note that the project management arrangements and activities to be executed are the same as the project proposal. World Vision Mongolia has replaced UNOPS in the remainder of the proposal.

The project will be implemented in close coordination with two key national partners, i.e. **the Municipality of Ulaanbaatar** and **the Ministry of Environment and Tourism**, who will be the main national executing entities. The day-to-day project implementation activities will be carried about by the Ulaanbaatar-based PIU, and PEU to be situated in the districts of Ulaanbaatar city where the proposed project sites are located.

The following section identifies the main stakeholders and their key functions, roles and responsibilities for the project. The project organogram, which follows the management arrangement section, depicts the key stakeholders for the project and how they will coordinate with each other.

#### The Ministry of Environment and Tourism (MoET)

The Ministry is the key custodian of the Adaptation Project within the Government of Mongolia and will retain oversight and provide policy guidance through its role as co-chair of the **Project Advisory Committee (PAC)** – the main advisory board for the project

The Ministry will also be the National Level Executing Entity with joint-custodianship of all 'soft' knowledge products generated to support the resilience building of urban ger-areas along with the Municipality of Ulaanbaatar, and directly benefit from the component on forecasting future climate impacts via the climate simulator. The MoET as lynchpin for all national/city level strategies is a key stakeholder for many of the issues to be addressed by this project and as such the Ministry is well placed to coordinate and ensure stakeholder engagement, as well as main-streaming project findings into policies

**The Ministry** will provide all necessary guidance, support and information for the successful implementation of the Project, including the following:

- a) Support in all environment related administrative issues for the construction of flood facilities in the selected project sites in Ger areas
- b) Assistance for the completion of administrative formalities related to environmental

impact assessment, permission, approval, and related matters

- c) Support for the organisation of policy dialogues and capacity development activities
- d) Provision of staff time for Policy Advisory Committee (see section 3 below)

#### The Municipality of Ulaanbaatar (MUB) and Local Authorities

The Municipality will be the main city level Executing Entity with joint-custodianship of all 'soft' knowledge products generated to support the resilience building of urban ger-areas along with the MoET, and directly benefit from the component on forecasting future climate impacts via the creation and launch of the climate simulator.

Building on UN-Habitat's existing and ongoing relationship with the Municipality, UN-Habitat will work closely with the Mayor's office under the Mayor, the relevant District level Governors, the Khoroo Governors and ger-communities to capacitate them in implementing via the People's Process. The main recipients of the trainings to be conducted as part of the People's Process will be the Municipal, District and Khoroo level authorities identified as partners for the project areas; to also include the municipal level NEMA team working on disaster response – providing the link between city level disaster response and emergency preparedness and climate adaptation and response.

The Municipality will provide all necessary support and information for the successful implementation of the Project, including the following:

- a) Establishment of the Project Coordination Unit.
- b) Support in all administrative issues for the construction of flood facilities in the selected project sites in ger areas including the land issues
- c) Assistance for the completion of administrative formalities related to construction design, permission, approval, and related matters
- d) Support for the organisation of policy dialogues and capacity development activities
- e) Identify synergies between the National Emergency Management Agency (NEMA) and the project goals; particularly through establishing direct linkage with the municipal level team, around the training and capacity building activities
- f) Provision of staff time for Policy Advisory Committee and Project Coordination Unit (see section 3 below)

#### Project Coordination Unit (PCU)

This unit will be the main technical and operational wing of the Government for the project, maintained within the municipality for implementation oversight, technical and operational clearance of standards and procedures and ensuring compliance and consistency with national and city level strategies and plans. They will also facilitate day to day coordination and of the Peoples Process Approach adapted to the Ulaanbaatar context and remove institutional and legal delays and bottlenecks ensuring the project will be delivered in a timely manner.

The PCU will be run by a committee chaired by the General Manager under the Mayor's Office of UB City and co-chaired by the Implementing Entity Project Manager in the Mongolia Country Office, supported by the UN-Habitat Regional Office for Asia and the Pacific as necessary. Khoroo Governors, Project Field Engineers and Social Mobilizers will be key members of the PCU; and Community Development Council (CDC) representatives will be invited to participate at all formal sessions.

The PCU will formally meet every four months (and every 2 months during the construction season) to review the following:

- review status of all planning aspects of the physical works in the area

- review status of all AOC signing, disbursement and implementation status
- review the financial statement / progress
- review the physical progress of the activities
- assist in solving issues at community level and at official level
- provide suggestions on managing the project

#### Project Implementing Unit (PIU)

This Unit will provide project management support and oversight, will serve as the secretariat to the Project Advisory Committee and will take the role of quality assurance within the project. UN-Habitat has been a longstanding partner for the Municipality of Ulaanbaatar and the agencies expertise in dealing with ger communities and ability to implement upgrading and adaptation projects on a significant scale is recognized and valued by all partners (see list of projects interventions in ger settlements in Ulaanbaatar included in Annex 4).

- (i) PIU will ensure:
  - a) efficient and effective implementation of project activities;
  - b) efficient coordination with project partners;
  - c) efficient coordination with ROAP-Fukuoka for necessary supervision and support to the project implementation;
  - d) identify bottlenecks and potential impediments to project execution and raise with the project advisory committee to ensure decisions and action are taken
  - e) identify synergies with potential project partners to add value to project and facilitate cooperation as necessary and
  - f) any other activities, as necessary.
- (ii) PIU will consist of:
  - a) UN-Habitat ROAP: Human Settlements Officer -Team Leader (International 1); Programme Management Team
  - b) UN-Habitat Mongolia Office: Project Manager & Gender Specialist /focal point (National 1), Coordination/ Communications Specialist (National 1), Monitoring and Reporting Officer (National 1)

The PIU will work consistently with the PCU and all executing entities to ensure the project will be implemented in a timely manner, in view of the critical time window available for construction in Mongolia. With the project focusing on 2/3 of the project funds on the implementation of concrete adaptation measures, and the construction season being very short, any delays would significantly hinder the smooth implementation of the physical measures. The proposed Management Arrangements are designed with this critical issue in mind, particularly the Project Execution Unit within UNOPSWorld Vision Mongolia, which will be designed for quick delivery of hard infrastructure complemented by the equally important quality checks and community consultation compliance by the Peoples Process execution team to be carried out by an executing INGO.

The PIU will also raise potential issues with the Adaptation Funds designated focal point/team and solicit advice and views for any proposed changes to the project design and or delays to the project execution

Furthermore the PIU will be responsible for ensuring that cross cutting issues such as gender and youth responsiveness, ensuring human rights throughout the implementation of the project. The assurance of gender, youth and human rights will be the role of the PIU National Project Manager as Country representative of UN-Habitat in Mongolia, but the day to day monitoring around these issues will substantively fall into and be explicitly stated in the Terms of Reference of the National Coordination and Communications Specialist, and also the Monitoring and Reporting Officer for monitoring gender and youth issues at field execution level. The Monitoring and Reporting Officer will be responsible for delivering a training (in close cooperation with International Advisors for the project) to the Social Mobilizers of the Executing Entities on approaches for addressing Gender and Youth issues during project execution via the People's Process; and monitoring their compliance during project delivery. An additional training will be done on human rights and the community grievance mechanism. The Coordination and Communications Specialist will work with the International Advisors for the project to identify specific measures on addressing gender and youth issues during the project inception phase which will be reviewed with all stakeholders during the inception workshop – and moreover will work with the Monitoring and Reporting Officer to carry out a rapid Knowledge Attitude and Practices (KAP) survey through targeted focus groups of women and youth at the beginning and end of the project to review and evaluate the impact of the project on gender and youth within target communities – and particularly whether the project provided benefits to these vulnerable groups in terms of skills development, employment – key issues prevalent in Mongolia

#### Project Execution Unit (PEU)

The management, design, and operational setup of administration and logistics for all of the components will be done via a Project Execution Unit setup with executing entities <u>World Vision Mongolia</u>UNOPS and INGO. Due to the complex setup and nature of the project UN-Habitat will be involved in the selection of international advisory team for both executing entities, who will have a strong background in complex community development projects and institutional strengthening. All international advisors and direct project execution team will be part of the technical management and substantive monitoring consultancy services signed between UN-Habitat, <u>World Vision Mongolia</u>UNOPS and INGO

UN-Habitat decided to engage with another UN agency and an INGO rather than a national executing agency due to the complex nature of the operational and monitoring setup and stringent checks and balances required of the People's Process; and also based on prior experience implementing projects with <u>World Vision Mongolia</u>UNOPS and INGO, via the Peoples Process in other countries in Asia and the Pacific and globally. The contracting modality between the UN-Habitat, <u>World Vision Mongolia</u>UNOPS and INGO will be a UN to UN agreement and AOC respectively, negotiated at the regional level and cleared by respective head-quarters.

- i. PEU will ensure:
  - a) Efficient and effective implementation of project activities;
  - b) Efficient coordination with beneficiary communities;
  - c) Efficient coordination with the key stakeholders for successful implementation of the project; and
  - d) Any other activities, as necessary.
- ii. PEU will consist of:
  - a. Climate Change Advisor (International 1); Community Development & Contract Advisor (International 1);
  - b. Field Engineer (National 1); Urban Planner (National 1); Operations/Finance Officer (National 1); Social Mobilizers (National 6);

PEU will also include a short term knowledge management advisor to support the activities related to high level advocacy and advisory inputs for rollout of ICT initiatives such as the simulator; supported by a national coordination and communications officer who will ensure field level monitoring & public information as well as knowledge dissemination and social media support for Components 3 an 4 respectively.

<u>World Vision Mongolia</u>UNOPS will facilitate the administration of Agreements of Cooperation (AoCs) related to Output 3.1. The INGO<sup>33</sup> will provide technical advisory support on the aspects related to the People's Process and community contracting. UN-Habitat will sign community contracts (Community Implementation Agreements) directly with the Community Development Councils.

#### Ger Communities

The Ger Communities will be key executing entities for community level infrastructure adaptation works through the formation of Community Development Councils (CDC's) of which one will be setup per khoroo, and depending on the scale of the work planned for the location. Primary Groups (PG's) consisting 20 or so households per group will be setup and recipient of one community contract with UN-Habitat.

The formation of the CDC's and the Primary Groups through the People's Process undergo lengthy consultation steps where consensus is sought and gained across the entire community, by the community, before moving ahead to the next stage of project execution. Furthermore the selection of the representatives that form these groups are done by the community through a vote using the principle of participation, hence the communities will take extra care in the selection of individuals they believe would represent their best interests as a whole and who would not engage in activities that are detrimental to the financial/economic, physical/environmental and human/social dimensions of the project and would be questioned by the communities themselves in such events, thus minimizing risk. This approach fosters trust, strengthens the social fabric and builds resilient communities

Below are the roles and functions of the CDC's and the Primary Group's in relation to the People's Process.

#### Primary Groups

- Group of 20 households, including 4 female-headed households will form Primary Group of the beneficiaries interested in installing improved latrines
- They will elect one Chair, one Vice Chair, one Treasurer and one Secretary, maintaining a gender balance
- With the assistance of the Social Mobilizer and Field Engineer the PG will prepare plan for implementing the improved latrines (format provided)
- They will receive contract from their CDC to implement improved toilets in their plot in given format
- The AOC (see above) will be countersigned by the Khoroo Governor
- Funds will be disbursed in three instalments based on 75% work completion of each tranche/instalment, confirmed by PEU.
- Upon completion of the construction they will submit financial report for the amount received and completion report in format provided
- They will be responsible for collecting 10% household contribution before the disbursement of the first instalment
- Social Mobiliser and Field Engineer will provide assistance to prepare the community contract for signature with the CDC

<sup>&</sup>lt;sup>33</sup> Details of Proposed INGO: Strategic Centre for Disaster Risk Reduction (SCDRR) was registered in Nepal in 2011 as a non-governmental organization. The focus of the organization is to protect and prevent loss of life, property and environment from disaster (natural and man-day) and climate change adaptation by preparing the community through community organization, pre-disaster risk reduction, mitigation, education, outreach and training programs. The organization seeks to collaborate with both national and international agencies in these efforts. The team members of the organization have focused their activities in post-earthquake reconstruction training; bio-engineering in physical construction for slope stabilization; assessment (seismic, vulnerability, floods and landslide prone zones); etc. Two of the team members have extensive experience in community mobilization and involvement in many different contexts in Nepal, India, Bangladesh, Indonesia, South Sudan, Mongolia, Afghanistan, etc.

#### Community Development Councils

- The Chair of each Primary Group will be the member of the CDC
- They will elect one Chair, one Vice Chair, one Treasurer and one Secretary, maintaining a gender balance
- With the assistance of the Social Mobilizer and Field Engineer the CDC will prepare an integrated schedule of plans received from the PGs.
- In Year 2: They will receive contract from UN-Habitat for the following:
   40% of the improved latrines units allocated for the Khoroo
- In Year 3: They will receive contract from UN-Habitat for the following:
- 60% of the improved latrines units allocated for the Khoroo
- The AOC will be countersigned by the Khoroo Governor
- The CDC will sign community contract with the respective Primary Groups who have collected 10% of their contribution
- The CDC will make subsequent disbursement based on physical progress and financial report certified by the Project Engineer and Social Mobilizer
- The CDC will prepare progress report and financial report and submit to UN-Habitat every three months
- The CDC will meet every four months (every 2 months during the construction season) to
  - review status of all planning aspects of the physical works in the area
  - review status of all AOC signing, disbursement and implementation status
  - review the financial statement / progress
  - assist in solving issues at community level and at official level
  - provide suggestions on managing the project

#### **RISKS MANAGEMENT ARRANGEMENTS**

- (i) Direct management responsibility of the ESMP will be under the national project manager. The overall project manager will have oversight / final compliance responsibility. Changes or additional activities will need to be approved by the project management committee. Inputs from the technical advisory group, including Ulaanbaatar municipality, will be requested to provide inputs to risk assessment of potential risks, if these are required.
- (ii) All project activities have been screened against the 15 environmental and social risks areas during project preparation phase. Outcomes will need to be confirmed when the project commences (i.e. inception). When changes in activities or additional activities are required, a 'screening safeguarding procedure' (see figure 18 in Annexe 5) will be used, together with a sub-project risks screening tool (see figure 19 in Annexe 5). This process includes beneficiaries' vulnerable groups consultations. The grievance mechanism (see below) can also be used to express concerns regarding possible risks and impacts.
- (iii) A gender specific approach has been developed to comply to the Adaptation Fund's principles-based Gender Policy (GP) and its accompanying Gender Action Plan (GAP) and ESP principle 5. This approach is summarized in Annex 6

There are no specific budget requirements for project compliance to the ESP and GP. The proposed interventions will not require residents to resettle elsewhere during the construction period. For instance, the drainage design proposed for Khoroo 7 will not require temporary resettlement of the 37 plot inhabitants (who have provided their written consent for the project along with local authorities responsible for the Kheseg & District) as during implementation via the People's Process, UN-Habitat (through *community engagement social mobilizers* and *M&E focal points*) will monitor access to the area and guarantee all affected householders will

have access to their plots at all times. Any other costs which do arise due to minor inconveniences during construction phase, or if it is deemed necessary to provide temporary accommodation, and agreed as necessary to include/consider in consultation with all stakeholders (beneficiary communities, local authorities and project coordination team) – this can be accommodated within the overall budget of the three northern drainage section in Khoroo 7, which is double the value of the other drainage sections because of the open-close approach.

#### **GENDER ARRANGEMENTS**

The principle Gender Focal Point for the project will be the National Project Manager of the Implementing Entity, UN-Habitat. The counterpart gender focal point within Government will be the designated gender focal point of the Municipality of Ulaanbaatar. Furthermore, a gender focal point will be established for each executing entity and partner as a condition of project participation. ToR's and contracts will include detailed reference to the ESMP, the 15 ESP Principles and especially compliance to law (principle 1), human rights (principle 4), gender approach (principle 5) and labour and safety standards (principle 6 and 13).

Capacity Building Strategy: The CDC's to be established as part of the People's Process will aim for gender equality in the composition of training participants and will also ensure gender parity and gender considerations in the planning and implementation of the hardware Components 2 & 3. Women will be encouraged to be involved in the execution of operations & maintenance plans and mechanisms for concrete interventions.

Although Mongolian women play a key and vital role in community and khoroo level planning and implementation activities they are currently under-represented in higher level government, institutional and political decision making levels.

The Project Advisory Committee & Secretariat will aim to ensure gender equality in the composition of members and aim for a minimum of 35-40% members as women and actively work towards increasing that percentage and/or their participation and engagement in higher level decision making processes through other modalities during the implementation of the project.

Targeting equal representation of women who are currently under-represented within higher level government and decision making structures for trainings and knowledge sharing under Components 1 & 4 will instill new skills and capacities that further empower them and prepare them for new roles and responsibilities and particularly leadership roles.

The gender focal point within UN-Habitat will check project compliance to the AF GP during the project implementation and will play the assurance role of overall project compliance to the Gender Action Plan as defined in Annex 6.

#### LEGAL AND FINANCIAL ARRANGEMENTS

UN-Habitat, the Ministry of Environment and Tourism, the Municipality of Ulaanbaatar (MUB) and the General Manager and Head of the Governor's Office of Ulaanbaatar, the District Governors and Ger-Communities within Songinokhairkhan, Bayanzurkh and Sukhbaatar will sign a joint **Memorandum of Understanding** to which this Project Document will be attached, to ensure that all partners are fully committed to the project.

The PEU will develop an operational manual that clearly outlines the roles and responsibilities of the key project stakeholders and contain all the necessary tools, forms and templates required to administer the project. The operation manual will be shared with the Project Coordination Unit (PCU) for inputs, cleared by the Project Implementation Unit (PIU) of UN-Habitat and endorsed by the Project Advisory Committee (PAC).

#### **GOVERNANCE ARRANGEMENTS**

At the national level, the Project will be supported by a **Project Advisory Committee** (PAC). The PAC will be formed to oversee and keep abreast of project progress and facilitate the implementation of the project, including overseeing and cooperating with the project implementing and project executing team, the technical advisory groups,.

The PAC will be chaired by the Mayor and the Vice Chair will be the Special Envoy for Climate Change of the MoET. The Secretariat services will be provided by UN-Habitat. The voting member from UN-Habitat will be the responsible officer at the Regional Office for Asia and the Pacific (Team Leader) or his/her designate. Other voting members will be the members as shown in the organigram.

The PAC will: (1) approve annual work plans and review key project periodical reports; (2) will review and approve the contractual agreements, including work plans, with a particular emphasis on environmental and social safeguards, budgets and payment schedules; (3) review any deviations and consider amendments to work plans and contractual arrangements. The PAC will meet at least once every six-months and whenever needed in fulfillment of the above functions.

#### LAUNCH OF PROJECT

At the launch of the project UN-Habitat's PIU together with the PEU will organize a **high-evel inception workshop** inviting all key stakeholders cited within project as well as INGO's, academia, civil society and donors and representatives of the community, in order to present the concept, approach and the proposed outputs of the project, discuss impact and solicit feedback and inputs on a wide scale in a participatory manner. Comments and feedback will be sought, captured and incorporated for designing the most appropriate implementation workplan for the project. The plan for the inception workshop will be presented to the Project Advisory Committee (PAC) within two month of securing the project. UN-Habitat will hold the inception workship within three months of approval of the project by Adaptation Fund and clearance through UN-Habitat systems.

#### **ORGANOGRAM OF THE PROJECT**



### **B.** Measures for financial and project risk management

Under guidance of the UN-Habitat Regional Team Leader, supported by the Project Manager, the Field Monitoring Officer will monitor the status of financial and project management risks, including those measures required to avoid, minimise or mitigate these risks, throughout the project (please see also Section D, Part III

The main financial and project risk are related to short construction seasons due to cold weather and the lack of high level decision makers / ministerial support due to regular changes of government over the recent years. Moreover, the lack of national capacity regarding land use planning, community organization and high quality and resilient infrastructure delivery requires carefully managed quality control from UN-Habitat side.

The table below gives an overview of overall project management and financial risks, an assessment of the significance of the pertaining risks in terms of probability and impact and outlines measures that have been embedded in the project design in order to manage and/or mitigate these risks.

| Nr | Category and risk  | Rating of<br>probability<br>and im-<br>pact<br>(1: Low;<br>5: High) | Management/mitigation measure   |
|----|--|---|---|
| 1. | Environmental/social:<br>Current climate and sea-<br>sonal variability and long<br>winters (October – April) re-<br>sult in infrastructure con-<br>struction delays  | Impact: 4<br>Prob: 2<br>(medium)                                    | <ul> <li>It is proposed that the project will start in October so that there will be three (3) summers within the project duration and enough time for the technical design and approval of it.</li> <li>Due to the revision of the project (described in this revised proposal) there is an increased risk of delays to the project, as the revised design has fund-flow implications. Also, the Covid-19 pandemic from February onward in 2020 also risks delaying project implementation as further public gatherings and consultations are not presently permitted.</li> </ul>  |
| 2. | Institutional:<br>Loss of government sup-<br>port (at ministerial and mu-<br>nicipal level) for the project<br>(activities and outputs) may<br>result in lack of prioritiza-<br>tion of AF project activities. | Impact: 2<br>Prob: 3  | <ul> <li>Establishment of a project advisory and coordinator committees and the overall participatory and inclusive project design will improve national, municipal/ district and beneficiary level ownership throughout and thus enhance government support for project implementation.</li> <li>UN-Habitat will establish agreements (MoUs and AoCs) to ensure executing entities will deliver project activities and outputs. UN-Habitat will facilitate planning processes to deliver these outputs at all levels of government and in communities.</li> <li>A strong participatory approach at the community level is required to ensure ownership and support of communities</li> </ul> |
| 3. | Institutional:   | Impact: 2<br>Prob: 2  | A strong participatory approach at the commu-<br>nity level is required to ensure ownership and   |

Table 14: overview of financial and management risks and measures to mitigate these

|    | Loss of government sup-<br>port (at Khoroo / commu-<br>nity level) for the project<br>(activities and outputs) may<br>result in lack of prioritiza-<br>tion of AE project activities: |                      | support of communities<br>UN-Habitat already has strong ties in the target<br>Khoroos from former projects  |
|----|---|----------------------|---|
|    | Due to communist history<br>and many immigrant com-<br>munities, organisation is<br>limited.  |                      | Participatory peoples process will organize and<br>bring together different community sub-groups<br>including host residents and new migrants fos-<br>tering community spirit.  |
| 4. | Institutional:<br>Capacity constraints of lo-<br>cal institutions, communi-<br>ties and the private sector<br>may limit the effective im-   | Impact: 2<br>Prob: 2 | The project has a strong capacity building and training component (component 2), designed to promote effectiveness and sustainability at the community level.   |
|    | plementation of interven-<br>tions  |                      | UN-Habitat will contract expert in the field of cli-<br>mate change and land use planning, commu-<br>nity organization and technical design and M&E<br>to ensure quality control from UN-Habitat side.  |
| 5. | Financial:  | Impact: 3<br>Prob: 2 | All budgets will be in US\$   |
|    | Inflation and instability of<br>the national currency lead-<br>ing to budget issues and in-<br>creased prices for infra-<br>structure delivery  |                      | Include clause in contract with private sector<br>that they can't increase the costs during the<br>project duration.  |
| 6. | Financial:  | Impact: 3<br>Prob: 2 | All budgets will be in US\$   |
|    | Inflation and instability of<br>the national currency lead-<br>ing to budget issues and in-<br>creased prices for infra-<br>structure delivery  | 1100.2               | Include clause in contract with private sector/ex-<br>ecuting partners that they can't increase the<br>costs during the project duration.   |
| 7. | Institutional:<br>Communities may not<br>adopt activities during or af-<br>ter the AF project, including  | Impact: 3<br>Prob: 1 | To ensure ownership and sustainability, com-<br>munity members will need to bring in 10 per-<br>cent of the value of the latrines.  |
|    | infrastructure maintenance  |                      | Capacity building and training of communities<br>will be undertaken to improve their awareness<br>and understanding of the benefits of the activi-<br>ties, including infrastructure maintenance (com-<br>ponent 2).  |
|    |   |                      | Communities will be involved in project imple-<br>mentation/decision making throughout the pro-<br>ject. In depth community consultations will take<br>continue to take place   |
| 8. | Financial:  | Impact: 2<br>Prob: 1 | Financial management arrangements have been defined during project preparation.   |
|    | Complexity of financial<br>management and procure-<br>ment. Certain administra-<br>tive processes could delay<br>the project execution or<br>could lack integrity                     |                      | UN-Habitat's control framework, under the fi-<br>nancial rules and regulations of the UN secre-<br>tariat, will ensure documentation of clearly de-<br>fined roles and responsibilities for manage-<br>ment, internal auditors, the governing body,<br>other personnel and demonstrates prove of<br>payment / disbursement. |

|    |                            |                      | - |  |
|----|----------------------------|----------------------|---|--|
|    |                            |                      |   | ties as agreed through AoCs (with relevant con-<br>ditions). The project manager and the project<br>team have a certifying role (for key procure-<br>ments / expenditures). The Project Manage-<br>ment Officer (PMO) in ROAP will have the over-<br>sight responsibility<br>UN-Habitat will assist communities with con-<br>tracting appropriate private sector partners, in-<br>cluding clear conditions and binding arrange-<br>ments in the contract |
| 9. | Institutional:             | Impact: 1<br>Prob: 1 |   | The Project Advisory Committee under the lead-<br>ership of the MoET is to ensure coordination.  |
|    | A lack of coordination be- |                      |   | Should UN-Habitat observe coordination prob-   |
|    | tween and within national  |                      |   | lems, the agency will try to resolve issues di-  |
|    | government Ministries and  |                      |   | rectly with concerned parties and or the PAC.  |
|    | Departments.               |                      |   |  |

### C. Measures for the management of environmental and social risks

Sections II.E and II.K show the outcome of a systematic screening and assessment process that has been done based on information from consultation with national and local government stakeholders, a wide range of other concerned stakeholders as well as the target communities. The project design has benefitted from this process.

Based on a screening against the stipulated principles in the AF ESP, the project has been Categorized as a B category risk project. As of April 2020 this categorization remains valid – the new alignment of the drainage infrastructure doesn't warrant lifting the project's categorization above B.

An Environmental and Social Risk Management Plan has been developed (see Annex 5) to ensure that risks are avoided, and that, where this is not the case, they are timeously detected and appropriately mitigated. The ESMP lists all potential risks identified and the preventive / mitigation measures proposed to reduce potentially adverse environmental and social impacts to acceptable levels. The plan also shows how these potential risks and mitigation measures will be further monitored, including responsibilities. The ESMP covers Risk Management Arrangements; General environmental and social risks reduction measures; Risks monitoring arrangements & Grievance mechanisms.

### D. Arrangements for monitoring, reporting and evaluation

The AF project will comply with formal guidelines, protocols and toolkits issued by the AF, UN-Habitat and the government of Mongolia. The Monitoring and Evaluation (M & E) of progress in achieving project results will be based on targets and indicators established in the Project Results Framework (see below). Besides that, the status of identified environmental and social risks and the ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks, will be monitored throughout the project (at the activity level and through annual project performance, mid-term and terminal reports). The same applies to financial and project management risks and mitigation measures.

#### Monitoring and Evaluation Framework

UN-Habitat will ensure the timeliness and quality of project implementation. The oversight and general guidance of the project will be provided by the Project Advisory Committee. UN-Habitat will ensure that the project team and the key national executing partners are fully

briefed on the M&E requirements.

The Gender Action Plan will be incorporated in the overall monitoring and evaluation of the project, and indicators will be included in the project monitoring and evaluating systems and tools. The monitoring of the GAP will be done using a participatory approach with the key stakeholders at the kheseg, khoroo, district, and municipal levels

Activities for Component 3 will be detailed through consultation with the local stakeholders through their Community Development Councils and with the participation of the local authorities (Khoroo/District). Local indicators and targets will be reviewed and fine-tuned during the planning workshop. This exercise will facilitate participatory, results-based monitoring by the communities themselves.

Activities related to other components will be planned and monitored by the Project Implementation Unit and approved by the Project Advisory Committee.

Audit of the project's financial management will follow UN finance regulations and rules and applicable audit policies.

The M&E plan will be implemented as proposed in the table below.

| Type of M&E Ac-<br>tivities                              | Responsible Parties   | Time Frame  | Reporting                  |
|--|---|---|----------------------------|
| Inception Work-<br>shop and Report                       | Project Manager Project<br>Implementation Unit<br>Project Advisory Commit-<br>tee<br>UN-Habitat ROAP                  | Workshop: within<br>first two months of<br>start<br>Report: within first<br>quarter | Inception Re-<br>port      |
| Periodic status/<br>progress reports                     | Project Manager and PIU team members  | Quarterly   | Quarterly Re-<br>port      |
| Final Evaluation   | Project Manager and PIU<br>team members<br>UN-Habitat ROAP<br>Project Advisory Commit-<br>tee<br>External Consultants | At least three<br>months before the<br>end of project im-<br>plementation           | Final Evaluation<br>Report |
| Project Terminal<br>Report                               | Project Manager and PIU<br>team members<br>UN-Habitat ROAP<br>Local consultant  | At least three<br>months before the<br>end of the project                           | Terminal Report            |
| Audit  | UN-Habitat ROAP<br>Project Manager and PIU<br>team members  | As per UN-Habitat regulations   | Audit Reports              |
| Community con-<br>sultations / work-<br>shops / training | Project Manager and PIU team members  | Within one week af-<br>ter each event   | Documentation              |
| Visits to field sites                                    | UN-Habitat ROAP<br>Project Advisory Commit-<br>tee<br>Government representa-<br>tives                                 | Every six months  | Field Report               |

#### Table 15: M & E plan

For the M & E budget and a breakdown of how implementing entity fees will be utilized in the supervision of the M&E function, please see the detailed budget (section G). For related data, targets and indicators, please see the project proposal results framework (section E).

#### **M&E** Activities

#### a. Project Advisory Committee

The Project Advisory Committee will meet every six months, and ad-hoc meetings will be held as needed. The meeting will review the delivery of inputs and outputs, project progress and provide guidance and coordination. The first Project Advisory Committee meeting will be held within the first two months of the start of the project.

#### b. Periodic Project Site Visits

Members of the Project Advisory Committee and representatives of UN-Habitat will visit project sited and hold meetings with the local stakeholders to review the implementation of project activities.

#### c. Community Level Participatory Monitoring

At the community level, the Primary Groups and Community Development Councils will prepare a plan for the community level activities. Annual targets to measure progress will be established through a participatory process/workshop which will be facilitated by the project field staff (social mobilizers).

Project activities implemented at the community level as part of Component 3 will be primarily monitored by the Primary Groups and Community Development Councils according to the targets and indicators set in the annual plan. A participatory community monitoring system will be the basis for measuring project progress. Particularly for the improved latrines, the Primary Groups will collect household beneficiary data, map location of the beneficiaries in the Khoroo and photo document progress of construction.

The findings will be discussed during the monthly meetings of the Primary Groups and Community Development Councils and documented through written minutes. This will not only involve the communities in data collection but also provide opportunity to discuss issued in project implementation, replication and maintenance.

The reports from the community level will be aggregated and feed into the overall project monitoring and reporting.

To track the gender and youth responsiveness and impact of the project a rapid survey on Knowledge Attitudes and Practices (KAP) will be organized by the national implementation team through targeted Focus Group Discussions with women and youth during the project.

#### d. Final Evaluation

Three months before the end of the project and before the final meeting of the Project Advisory Committee meeting, a final evaluation will be conducted following UN-Habitat guidelines. It will be conducted by an independent team of international and national experts.

The scheduling of the final evaluation and the terms of reference will be discussed at the

Project Advisory Committee and consulted with the donor. The Terms of Reference will be prepared by UN-Habitat focusing on delivery of project activities as initially planned (or modified after the mid-term evaluation) and will also look at the impact and sustainability of the results. The evaluation will provide recommendations for follow-up activities.

The evaluation process will include community feedback, with women and men from diverse groups.

#### e. Financial Audits

A professional, certified organization will review the financial management of the project and adherence to required standards and regulations.

#### f. Monitoring of the potential intervention risks and mitigation measures

For risk identification - Part II. E (Table 8 – Compliance with technical standards) shows which of the risk areas (i.e. principles) have been triggered per project output / activity and per concrete intervention. This is based on a risk screening and impacts assessment (see Annex 5), which in turn are based on community inputs (from consultation rounds 2-3) and field visits. For the non-concrete activities, information is provided about how to minimize risks Monitoring / reporting on these will be done annually as shown below.

The Environment and Social Management Plan (ESMP) in Annex 5 includes monitoring indicators and frequency and monitoring responsibilities for monitoring for identified potential risks and mitigation measures for the flood protection and drainage and resilient latrines concrete interventions and supporting measures under other components

Risks monitoring arrangements:

- (i) This monitoring program commensurate with actions identified below and will report on the monitoring results to the Fund in the mid-term, annual, and terminal performance reports. Monitoring will be done to ensure that actions are taken in a timely manner and to determine if actions are appropriately mitigating the risk / impact or if they need to be modified in order to achieve the intended outcome.
- (ii) Annual reporting will include information about the status of implementation of this ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary.
- (iii) Direct monitoring responsibilities will be under the national project manager. The overall project manager will have oversight / final compliance responsibility. When changes or additional activities are required, monitoring indicators will be changed or added as well.
- (iv) Gender specific indicators and targets have been developed as shown in the results framework and summarized in annex 6
- (v) There are no specific budget requirements for risks monitoring other than show in part III.D and the budget.

#### Reporting

#### a. Inception Workshop and Report

By the end of the first quarter of the start of project implementation, an Inception Report will be submitted to the Project Advisory Committee and the donor.

A Project Inception Workshop will be held within the first three months of the start of the project to help build ownership of the project. It will be participated by members of the Project Advisory Committee, representative from the Khoroo/District level, representatives from the community and members of the Project Implementation Unit. One of the outputs of the workshop will be to prepare the annual work plan for year one.

The Inception Workshop will address a number of key issues, including:

- a. assist all participants to fully understand the project objectives and activities and take ownership of the project
- b. discuss the organizational structure of the project
- c. discuss the roles and responsibilities of all agencies involved in the project including decision making, reporting, and lines of communication
- d. discuss conflict resolution mechanisms.
- e. review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- f. prepare and framework finalize the annual work plan for year one.
- g. discuss project monitoring, evaluation and reporting requirements
- h. discuss financial procedures.

#### b. Quarterly Reports

The Project Implementation Unit will be responsible for preparing the Quarterly Reports to be submitted to the Project Advisory Committee and the donor. The Project Manager will prepare the report based on information the field staff and reports from the CDCs. A qualitative Biannual Report will be prepared once a year and an Annual report including a financial status report once a year. The report will be submitted by the end of the first month of the next quarter.

The Social Mobilizers (Field Coordinators) will prepare quarterly reports if the field activities in consultation with the Khoroo CDCs and discussed at the Khoroo Level Coordination Unit. After that the report will be provided to the UN-Habitat Project Manager as input for the Project Quarterly Report.

#### c. Annual Project Reports

The Project Implementation Unit will be responsible for preparing the Annual Reports to be submitted to the Project Advisory Committee and the donor. The Project Manager will prepare the report based on information the field staff and reports from the CDCs. The Annual Report will include project activities implemented from 1 January to 31 December and submitted by 31 January.

The Social Mobilizers (Field Coordinators) will prepare quarterly reports for the field activities in their area of responsibility in consultation with the Khoroo CDCs and discussed at the Project Coordination Unit. After that, the report will be provided to the UN-Habitat Project Manager as input for the Project Annual Quarterly Report.

The Annual Report will include:

 progress made towards the project objectives and project outcome with indicators for cumulative progress

- project outputs delivered as per annual targets in the annual plan
- lessons learned and better practices identified
- comments on risk assessment and adaptive measures
- environmental and social risks (i.e. status of implementation of ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary;
- project financial and management risks (same as per above).
- financial status
- other issues, concerns, observations.

#### d. Site Visit and Community Level Meeting /Workshop / Training Reports

The Social Mobilizers (Field Coordinators) will prepare photo documented site visit reports and reports on all community-level meetings, workshops, and training within one week of the event.

#### e. Final Evaluation Report

The Team Leader of the team of independent consultant will prepare the Final Evaluation Team which will describe the achievements made by the project based on the project reports, field visits and consultations with all stakeholders. The report will provide reasons for discrepancies between the expected and actual results and also elaborate on the impact and sustainability of the results.

#### f. Terminal Report

The Project Manager and members of the Project Implementation Unit will prepare a comprehensive Terminal Report during the last three months of the project. It will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems and other relevant issues.

## E. Project proposal results framework

#### **Table 16:** Project results framework with indicators, their baseline, targets, risks & assumptions and verification means.

| Expected Result                   | Indicators                    | Baseline      | Targets               | Risks & assumptions                | Data collection method        | Fre-         | Respon-        |  |  |  |  |  |  |
|-----------------------------------|-------------------------------|---------------|-----------------------|------------------------------------|-------------------------------|--------------|----------------|--|--|--|--|--|--|
| Project objective: enhance the    | climate change resilience     | of the sove   | ns most vulnerable    | Car khoroo sattlamants focus       | ing on flooding in Lilaanhaat | ar City      | Sibility       |  |  |  |  |  |  |
| Project objective. efficience the | climate change resilience     | tion / evider | ce for increasing re  | silience and developing land u     | sing off hooding in Oldahbaat | ience at the | city District  |  |  |  |  |  |  |
| and Khoroo level                  | ig hazard and hisk informat   |               | ice for increasing re | sillence and developing land a     |                               | lence at the | city, District |  |  |  |  |  |  |
| Outcome 1 1                       | Dutcome 1.1 See below outputs |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
| Relevant threat hazard infor-     |                               |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
| mation, evidence and recom-       | (In line with AF outcome      | 1: reduced    | exposure at nation    | al level (which is also city level | in Mongolia) to climate-relat | ed hazards a | and            |  |  |  |  |  |  |
| mendations (on land use and       | threats)                      |               |                       |                                    | 3,                            |              |                |  |  |  |  |  |  |
| zoning) generated for increas-    | ,                             |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
| ing resilience at the city level  |                               |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
| Output 1.1.                       | Number of Territorial         | 0             | One (1)               | Ensure criteria to assess          | Compile and analyse           | Baseline     | UN-Habi-       |  |  |  |  |  |  |
| One (1) Ulaanbaatar northern      | land use plans with           | •             |                       | the plans and model and            | data on current threats       | mid-term     | tat            |  |  |  |  |  |  |
| Ger-Area* Territorial Land Use    | identified flood risks        |               |                       | how they are managed are           | and hazards information       | and end      |                |  |  |  |  |  |  |
| Plan, with zoning, legal frame-   | developed                     |               |                       | clear                              | (sector, scale and inter-     |              |                |  |  |  |  |  |  |
| work recommendations and a        |                               |               |                       |                                    | vention) as baseline. Col-    |              |                |  |  |  |  |  |  |
| specific focus on flood risk re-  | In line with AF indica-       |               |                       |                                    | lect data from govern-        |              |                |  |  |  |  |  |  |
| duction - building on 1.2 *(in-   | tor 1.1. No. and type of      |               |                       |                                    | ment staff managing the       |              |                |  |  |  |  |  |  |
| cludes the three (3) high risk    | projects that conduct         |               |                       |                                    | plans and models              |              |                |  |  |  |  |  |  |
| target districts covering the     | and update risk and           |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
| seven (7) most vulnerable         | vulnerability assess-         |               |                       |                                    | Participation lists and       |              |                |  |  |  |  |  |  |
| khoroos)                          | ments                         |               |                       |                                    | photos                        |              |                |  |  |  |  |  |  |
|                                   |                               |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
|                                   | Women participating in        |               | > 50 % women          |                                    |                               |              |                |  |  |  |  |  |  |
| Output 1.2                        | planning process              | 0             | One (simulation       |                                    |                               | Deceline     |                |  |  |  |  |  |  |
| Output 1.2.                       | Number of flood simu-         | 0             | One (simulation       |                                    |                               | Baseline,    | UN-Habi-       |  |  |  |  |  |  |
| Simulation model for forecast-    | and                           |               | model                 |                                    |                               | and and      | เลเ            |  |  |  |  |  |  |
| change flooding in LIB city &     | oped                          |               |                       |                                    |                               | anu enu      |                |  |  |  |  |  |  |
| Ger-areas established             | In line with AF indicator     |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
|                                   | 1.1 No and type of            |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
|                                   | projects that conduct         |               |                       |                                    |                               |              |                |  |  |  |  |  |  |
|                                   | and update risk and           |               |                       |                                    |                               |              |                |  |  |  |  |  |  |

|  | vulnerability assess-   |                             |  |   |  |                                  |   |
|--|---|-----------------------------|--|---|--|----------------------------------|---|
| <b>Output 1.3.</b><br>Seven (7) Detailed Ger-khoroo<br>level Land Use Plans with<br>specific focus on flood risk re-<br>duction and building resilience<br>of the most vulnerable areas<br>and people                      | Number of Territorial<br>land use plans with<br>identified flood risks<br>developed<br>In line with AF indicator<br>1.1. No. and type of<br>projects that conduct<br>and update risk and<br>vulnerability assess-<br>ments  | 0                           | Seven (7)                                    |   |  | Baseline,<br>mid-term<br>and end | UN-Habi-<br>tat                                     |
|  | Women participating in<br>planning process  |                             | > 50 % women                                 |   |  |                                  |   |
| Project Component 2: Particip<br>operate and maintain - and mitig  | ative planning and capacit<br>gate any potential risks rela   | y developm<br>ated to - the | ent for flood resilier<br>interventions unde | nce in Ger-areas at the district<br>r component 3).   | / khoroo and community leve  | el (including a                  | activities to                                       |
| Outcome 2.1<br>Target inhabitants are aware<br>of resilience building and cli-<br>mate risk reduction processes<br>and have ownership over pro-<br>posed interventions at the Dis-<br>trict, Khoroo and community<br>level | Percentage of targeted<br>population aware of<br>predicted flood risks<br>and appropriate re-<br>sponses<br>In line with AF indicator<br>3.1. Percentage of tar-<br>geted population aware<br>of predicted adverse<br>impacts of climate<br>change, and of appro-<br>priate responses | 0                           | Mid-term: 30 %<br>End: 50 %<br>> 50 % women  | Active engagement in ac-<br>tion planning – to be rec-<br>orded in community consul-<br>tations | Surveys: use scale from 1<br>to 5 to summarize find-<br>ings of analysis   | Baseline,<br>mid-term<br>and end | Execut-<br>ing enti-<br>ties                        |
| Output 2.1.<br>Seven (7) Khoroo-level floods<br>resilience action plans to im-<br>plement the interventions un-<br>der component 3; A series of<br>District, Khoroo and commu-   | Number of Khoroo-<br>level flood resilience<br>action plans<br>In line with AF indicator<br>3.1.1 No. and type of<br>risk reduction actions   | 0                           | Seven (7)                                    | Ensure criteria to assess<br>the plans and how they are<br>managed are clear                    | Compile and analyse<br>data on current threats<br>and hazards information<br>(sector, scale and inter-<br>vention) as baseline. Col- | Baseline,<br>mid-term<br>and end | Execut-<br>ing enti-<br>ties and<br>UN-Habi-<br>tat |

| nity level consultations / work-<br>shops introducing the People's<br>Process and Community<br>Based Disaster Risk Reduc-<br>tion approach, focused on<br>building social cohesion and<br>consensus on community level<br>implementation of interven-<br>tions under component 3   | or strategies intro-<br>duced at local level<br>Women participating in<br>planning process   |              | > 50 % women   |  | lect data from govern-<br>ment staff managing the<br>plans and models<br>Participation lists and<br>photos   |                                  |                 |  |  |  |
|--|--|--------------|--|--|--|----------------------------------|-----------------|--|--|--|
| Output 2.2.<br>Khoroo / community level in-<br>terventions operation &<br>maintenance* and awareness<br>campaigns and trainings to<br>support the sustainable imple-<br>mentation of interventions un-<br>der component 3. *(Aware-<br>ness will also cover potential<br>risks mitigation)   | Number of awareness<br>campaigns and train-<br>ings<br>In line with AF indicator<br>3.1.1 No. and type of<br>risk reduction actions<br>or strategies intro-<br>duced at local level<br>Women participating | 0            | 4 per Khoroo<br>> 50 % women   | Awareness raising cam-<br>paigns and trainings are fo-<br>cused on operation and<br>maintenance needs of con-<br>crete interventions and to<br>mitigate potential risks. | Training reports - count of<br>trainings and of response<br>to needs (operation,<br>maintenance and mitiga-<br>tion).<br>Participation lists and<br>photos | Baseline,<br>mid-term<br>and end | UN-Habi-<br>tat |  |  |  |
| Output 2.3.<br>Technical studies – Engineer-<br>ing and hydrological - required<br>to implement the interventions<br>under component 3.  | Number of studies  | 0            | Four (4) for the<br>flood protection<br>and drainage in-<br>tervention (1x<br>Khoroo 7, 2x<br>Khoroo 9 and 1<br>x Khoroo 24) | The studies need to comply<br>to both national and AF re-<br>quirements for risks as-<br>sessment  | Assess studies with pur-<br>pose to identify compli-<br>ance   | Baseline,<br>mid-term<br>and end | UN-Habi-<br>tat |  |  |  |
| Project component 3: Enhance   | e resilience of community I  | evel flood p | orotection assets  |  |  |                                  |                 |  |  |  |
| utcome 3.1       See below outputs         icreased adaptive capacity<br>ithin prioritized community<br>ssets       In line with AF indicator 4.2. Physical infrastructure improved to withstand climate change and variability-induced stress         n line with AF outcome 4: in-<br>reased adaptive capacity<br>ithin relevant development<br>nd natural resource sectors).       In line with AF indicator 4.2. Physical infrastructure improved to withstand climate change and variability-induced stress |  |              |  |  |  |                                  |                 |  |  |  |

| Output 3.1                             | Number of physical as-      | 0            | Four (4) for the      | Interventions will be subdi-     | Count the number of as-       | Baseline.   | UN-Habi- |
|--|-----------------------------|--------------|-----------------------|----------------------------------|-------------------------------|-------------|----------|
| Physical assets developed or           | sets strengthened.          | -            | flood protection      | vided into sections man-         | sets that the project has     | mid-term    | tat      |
| strengthened in response to            | constructed, and/or         |              | and drainage in-      | ageable by community             | strengthened, con-            | and end     |          |
| climate change related flood           | modified, to reduce or      |              | tervention:           | groups (see budget): these       | structed, and/or modified.    |             |          |
| impacts as prioritized (by Kho-        | withstand floods            |              | 1x Khoroo 407         | needs to be arouped for          |                               |             |          |
| roos drainage and sanitation)          |                             |              | 2x Khoroo 9           | monitoring and evaluation        | Assess appropriateness        |             |          |
| - implemented through com-             | In line with AF indicator   |              | 1 x Khoroo 24         |                                  | of assets through surveys     |             |          |
| munity contracting                     | 4.1.2. No. of physical      |              |                       | Calculate the number of as-      |                               |             |          |
| ······································ | assets strengthened or      |              | Seven (7) for         | sets that have been fully        |                               |             |          |
|  | constructed to with-        |              | the sanitation in-    | completed during the pe-         |                               |             |          |
|  | stand conditions result-    |              | terventions:          | riod under review.               |                               |             |          |
|  | ing from climate varia-     |              | 7 x in 7 Khoroos      |                                  |                               |             |          |
|  | bility and change (by       |              | (see detailed         | Criteria to measure appro-       |                               |             |          |
|  | asset types)                |              | numbers in            | priateness of toilets for        |                               |             |          |
|  |                             |              | budget)               | women, elderly and disa-         |                               |             |          |
|  | Toilets are appropriate     |              | a a a g e i y         | bled need to be clearly de-      |                               |             |          |
|  | for women, elderly and      |              | >50 % of toilets      | fined                            |                               |             |          |
|  | disabled where re-          |              | adapted to spe-       |                                  |                               |             |          |
|  | quired                      |              | cific needs           |                                  |                               |             |          |
| Output 3.2                             | Not relevant                | •            | •                     |                                  | •                             |             | •        |
| Management & operations;               |                             |              |                       |                                  |                               |             |          |
| design & supervision of assets         |                             |              |                       |                                  |                               |             |          |
| / physical infrastructure - pro-       |                             |              |                       |                                  |                               |             |          |
| cured as consulting services           |                             |              |                       |                                  |                               |             |          |
| Project component 4: Awarene           | ess raising, knowledge ma   | nagement a   | and communication     |                                  |                               |             |          |
| Outcome 4.1                            | See output below            | 0            |                       |                                  |                               |             |          |
|  |                             |              |                       |                                  |                               |             |          |
| Institutional capacity strength-       | In line with AF indicator 2 | 2: Strengthe | ened institutional ca | apacity to reduce risks associat | ed with climate-induced socio | oeconomic a | nd envi- |
| ened to develop and replicate          | ronmental losses            | 5            |                       | . ,                              |                               |             |          |
| this approach                          |                             |              |                       |                                  |                               |             |          |
| Output 4.1.                            | Number of institutions      | 0            | >1 municipal          | Approach to replicate the        | Training reports - count of   | Regular     | UN-Habi- |
| Lessons learned and best               | trained                     |              | >3 districts          | approach should be agreed        | trainings and of response     | Ŭ           | tat      |
| practices regarding flood-resil-       |                             |              |                       | upon between the munici-         | to needs (operation,          |             |          |
| ient urban community devel-            |                             |              |                       | pality, districts and Khoroos    | maintenance and mitiga-       |             |          |
| opment are generated, cap-             | In line with AF indicator   |              |                       |                                  | tion).                        |             |          |
| tured and distributed to other         | 2.1. No. and type of        |              |                       |                                  |                               |             |          |
| Districts and khoroo communi-          | targeted institutions       |              |                       |                                  | Participation lists and       |             |          |
| ties, civil society, and policy-       | with increased capacity     |              |                       |                                  | photos                        |             |          |

| makers in government appro-<br>priate mechanisms. | to minimize exposure<br>to climate variability<br>risks |              |  |  |
|---|---|--------------|--|--|
| Workshops and trainings will                      |   |              |  |  |
| be organised targeting city-                      | Women participating                                     | > 50 % women |  |  |
| and district government offi-                     |   |              |  |  |
| cials with a focus on replica-                    |   |              |  |  |
| tion of processes, land use                       |   |              |  |  |
| plans and interventions and to                    |   |              |  |  |
| discuss how lessons can be                        |   |              |  |  |
| integrated into existing strate-                  |   |              |  |  |
| gies and plans.                                   |   |              |  |  |

#### Table 17 Activities and milestones

| Project Com-<br>ponents  | Milestones  | Main Activities   |   |   |   | 19  |   | 20  | )20 |   | 202 | 21 |
|--|---|---|---|---|---|-----|---|-----|-----|---|-----|----|
|  |   |   | 4 | 1 | 2 | 3 4 | 4 | 1 2 | 3   | 4 | 1 2 | 3  |
| component 1:   | Output 1.1. and 1.3.  | Procurement preparation and administration for land use plans   | Х | X | x | X   | - |     | -   | - |     | -  |
| Producing haz-<br>ard and risk in-<br>formation / evi-<br>dence for in-<br>creasing resili-<br>ence and devel-<br>oping land use | Territorial land use<br>plans with identified<br>flood risks devel-<br>oped | Development of land use plans that especially include identification and response to flood risks areas through a) analysis of past climate variables (rainfall, temperature etc) in the targeted area; b) study on basin coverage of dry beds and small rivers around the Ulaanbaatar city, especial attention to percentage of urbanization, urbanization effect basin cover change (and also basin morphometry); c) estimate of flash flood discharge with different return period of small rivers and dry beds by different flood estimation methods and technologies in the selected study area, etc. |   | x | x | x   |   |     |     |   |     |    |
| plans to in-   | Output 1.2.   | Procurement preparation and administration for the development of the simulation model  | Х | Х | х | х   |   |     |     |   |     |    |
| crease this resil-<br>ience at the city,<br>District and Kho-<br>roo level.  | Simulation Model developed  | Development of city wide simulation models forecasting impacts of Climate Change and flooding, which includes a) simulation of extreme flood case using hydro meteorological model; b) projection and downscaling of climate change and extreme event (flood, heat wave etc) frequency and intensity; c) flood producing rainfall intensity analysis around the Ulaanbaatar city; d) impact and risk assessment of flood on targeted area   |   |   | x | x   |   |     |     |   |     |    |
|  |   | Hazard maps development for Ulaanbaatar city/ger areas  |   |   |   | х   |   |     |     |   |     |    |
| Component 2.   | Output 2.1.   | Khoroo-level High-risk Ger areas resilience action plan development through consultative workshops with key stakeholders including target area communities  | х | х | x |     |   |     |     |   |     |    |

| Participative<br>planning and ca-<br>pacity develop-            | Khoroo-level floods<br>resilience action<br>plans developed  | Organization of Resilience Action Plans Validation and Information Sharing Workshops at<br>city/district level   |   | x | x |     |   |   |   |   |     |   |
|---|--|--|---|---|---|-----|---|---|---|---|-----|---|
| ment for flood<br>resilience in                                 | Output 2.2.  | Community mobilization and organization at the target khoroos: Primary groups and Com-<br>munity Development Councils establishments and capacity building   | х | Х | х | x x | х | х | х | х | xx  | x |
| Ger-areas at the<br>district / khoroo<br>and community<br>level | Khoroo / community<br>level interventions<br>operation & mainte-<br>nance and aware-<br>ness campaigns   | Establish and train a Community Risk Reduction Committee composed of Community De-<br>velopment Councils' members and khoroo staff at khoroo level with the responsibilities to<br>reduce climate induced risks in khoroo area, monitor O&M of flood control facilities, gener-<br>ate, capture and distribute lessons learned and best practices regarding resilient develop-<br>ment |   |   | x | x x | x | x | x | x | x x | x |
|   | and trainings con-<br>ducted   | Trainings on community-based disaster risk reduction and assets protection and O&M of flood control facilities   |   |   |   |     | x | х | х | x | xx  | ( |
|   | Trainings on environmental hygiene, water and air borne disease preventions, solid wast<br>management and safe disposals of household waste for community health education an<br>behavioural changes |  |   |   |   |     |   | x | х | х | ××  | x |
| Component 3   | Output 3.1.  | Procurement of detailed design services  | х | х |   | x   | х |   |   |   |     |   |
| Enhance resili-   |  | Detailed design development of the planned flood control facilities  | Х | Х |   | X   | Х |   |   |   |     |   |
| ence of commu-  | Physical assets de-  | Approval process   |   | х |   |     | х |   |   |   |     |   |
| nity level flood  | veloped or strength-   | Land freeing for the start of construction activities including community agreement  |   | Х |   |     | Х |   |   |   |     |   |
| protection as-  | climate change re-   | Procurement of construction  |   | Х |   |     | Х |   |   |   |     |   |
| 3613  | lated flood impacts  | Construction of planned flood control facilities and monitoring and supervision during the<br>construction   |   |   | x | х   |   | x | х |   |     |   |
|   |  | Handing over the constructed facilities to Ulaanbaatar Municipality and District governors offices   |   |   |   |     |   |   |   | х | xx  | x |
|   |  | Resilient sanitation improvements for the selected households through community con-<br>tracting   |   |   | x | x   |   | х | х |   |     |   |
| Component 4<br>Awareness rais-                                  | Output 4.1.  | Information and education materials development and dissemination using different means of communication   |   |   |   | хх  | x | х | х | x | x x | x |
| ing, knowledge  | Workshops and  | Project evaluation   |   |   |   |     |   |   |   |   | хх  | x |
| management<br>and communica-<br>tion                            | trainings organised  | Information dissemination and knowledge sharing workshops with city, district and khoroo levels for further replication of the project interventions   |   |   |   |     |   |   |   |   | x x | x |

## F. Project alignment with the Adaptation Fund results framework

| Project Outcome  | Project Outcome<br>Indicator  | Fund Outcome   | Fund Outcome<br>Indicator  | Grant<br>Amount<br>(USD) |  |  |  |
|--|---|--|--|--------------------------|--|--|--|
| Outcome 1.1:<br>Relevant threat, haz-<br>ard information, evi-<br>dence and recom-<br>mendations (on land<br>use and zoning) gen-<br>erated for increasing<br>resilience at the city<br>level  | See related out-<br>puts below  | Outcome 1: Re-<br>duced exposure<br>at national (and<br>city) level to cli-<br>mate-related haz-<br>ards and threats       1. Relevant threat<br>and hazard infor-<br>mation generated<br>and disseminated<br>to stakeholders on<br>a timely basis       3 |  |                          |  |  |  |
| Outcome 2.1.<br>Target inhabitants<br>are aware of resili-<br>ence building and cli-<br>mate risk reduction<br>processes and have<br>ownership over pro-<br>posed interventions<br>at the District, Kho-<br>roo and community<br>level | Percentage of tar-<br>geted population<br>aware of pre-<br>dicted flood risks<br>and appropriate<br>responses   | Outcome 3:<br>Strengthened<br>awareness and<br>ownership of ad-<br>aptation and cli-<br>mate risk reduc-<br>tion processes at<br>local level   | 3.1. Percentage of<br>targeted popula-<br>tion aware of pre-<br>dicted adverse im-<br>pacts of climate<br>change, and of<br>appropriate re-<br>sponses | 442,186                  |  |  |  |
| Outcome 3.1.<br>Increased adaptive<br>capacity within priori-<br>tized community as-<br>sets   | See related out-<br>puts below  | Outcome 4:<br>Increased adap-<br>tive capacity<br>within relevant<br>development and<br>natural resource<br>sectors  | 4.2. Physical infra-<br>structure improved<br>to withstand cli-<br>mate change and<br>variability-induced<br>stress                                    | 2,660,000                |  |  |  |
| Outcome 4.1.<br>Institutional capacity<br>strengthened to de-<br>velop and replicate<br>this approach  | See related out-<br>puts below       Outcome 2:       2.1. Strengthened       2         Strengthened in-<br>stitutional capac-<br>ity to reduce risks<br>associated with<br>climate-induced<br>socioeconomic<br>and environmen-<br>tol losses       2.1. Strengthened       2 |  | 255,694  |                          |  |  |  |
| Project Output   | Project Output<br>Indicator   | Fund Output  | Fund Output In-<br>dicator   | Grant<br>Amount<br>(USD) |  |  |  |
| Output 1.1.<br>One (1) Ulaanbaatar<br>northern Ger-Area*<br>Territorial Land Use<br>Plan, with zoning, le-<br>gal framework rec-<br>ommendations and a<br>specific focus on  | Number of Terri-<br>torial land use<br>plans with identi-<br>fied flood risks de-<br>veloped  | Output 1.<br>Risk and vulnera-<br>bility assess-<br>ments conducted<br>and updated at a<br>national level  | 1.1. No. and type<br>of projects that<br>conduct and up-<br>date risk and vul-<br>nerability assess-<br>ments  | 91,790                   |  |  |  |

**Table 18** Project alignment with the Adaptation Fund results framework

| flood risk reduction -<br>building on 1.2* ( <i>in-cludes the three</i> (3)<br><i>high risk target dis-<br/>tricts covering the</i><br><i>seven</i> (7) <i>most vul-</i><br><i>nerable khoroos</i> )  |  |   |   | F0.000  |
|---|--|---|---|---------|
| Simulation model<br>for forecasting future<br>impacts of climate<br>change flooding in<br>UB city & Ger-areas<br>established  | Number of flood<br>simulation models<br>developed  | Risk and vulnera-<br>bility assess-<br>ments conducted<br>and updated at a<br>national level  | 1.1. No. and type<br>of projects that<br>conduct and up-<br>date risk and vul-<br>nerability assess-<br>ments | 50,000  |
| Output 1.3<br>Seven (7) Detailed<br>Ger-khoroo level<br>Land Use Plans with<br>specific focus on<br>flood risk reduction<br>and building resili-<br>ence of the most vul-<br>nerable areas and<br>people  | Number of Terri-<br>torial land use<br>plans with identi-<br>fied flood risks de-<br>veloped | Output 1:<br>Risk and vulnera-<br>bility assess-<br>ments conducted<br>and updated at a<br>national level                                   | 1.1. No. and type<br>of projects that<br>conduct and up-<br>date risk and vul-<br>nerability assess-<br>ments | 250,000 |
| Output 2.1.<br>Seven (7) Khoroo-<br>level floods resilience<br>action plans to imple-<br>ment the interven-<br>tions under compo-<br>nent 3; A series of<br>District, Khoroo and<br>community level con-<br>sultations / work-<br>shops introducing<br>the People's Process<br>and Community<br>Based Disaster Risk<br>Reduction approach,<br>focused on building<br>social cohesion and<br>consensus on com-<br>munity level imple-<br>mentation of inter-<br>ventions under com-<br>ponent 3. | Number of Kho-<br>roo-level flood re-<br>silience action<br>plans                            | <b>Output 3</b> : Tar-<br>geted population<br>groups participat-<br>ing in adaptation<br>and risk reduction<br>awareness activi-<br>ties    | 3.1.1 No. and type<br>of risk reduction<br>actions or strate-<br>gies introduced at<br>local level            | 195,390 |
| Output 2.2.<br>Khoroo / community<br>level interventions<br>operation & mainte-<br>nance* and aware-<br>ness campaigns and<br>trainings to support<br>the sustainable im-<br>plementation of inter-   | Number of aware-<br>ness campaigns<br>and trainings  | <i>Output 3:</i><br>Targeted popula-<br>tion groups partic-<br>ipating in adapta-<br>tion and risk re-<br>duction aware-<br>ness activities | 3.1.1. No and type<br>of risk reduction<br>actions or strate-<br>gies introduced at<br>local level            | 196,796 |

| ventions under com-<br>ponent 3.<br>*(Awareness will also<br>cover potential risks<br>mitigation)   |   |   |  |           |
|---|---|---|--|-----------|
| Output 3.1:<br>Physical assets de-<br>veloped or strength-<br>ened in response to<br>climate change re-<br>lated flood impacts<br>as prioritized (by<br>Khoroos drainage<br>and sanitation) – im-<br>plemented through<br>community contract-<br>ing  | Number of physi-<br>cal assets<br>strengthened,<br>constructed,<br>and/or modified.<br>to reduce or with-<br>stand floods | Output 4:<br>Vulnerable physi-<br>cal, natural, and<br>social assets<br>strengthened in<br>response to cli-<br>mate change im-<br>pacts, including<br>variability | 4.1.2. No. of phys-<br>ical assets<br>strengthened or<br>constructed to<br>withstand condi-<br>tions resulting<br>from climate varia-<br>bility and change<br>(by asset types) | 2,265,904 |
| Output 4.1<br>Lessons learned and<br>best practices re-<br>garding flood-resili-<br>ent urban community<br>development are<br>generated, captured<br>and distributed to<br>other Districts and<br>khoroo communities,<br>civil society, and pol-<br>icy-makers in gov-<br>ernment appropriate<br>mechanisms.<br>Workshops and train-<br>ings will be organ-<br>ised targeting city-<br>and district govern-<br>ment officials with a<br>focus on replication<br>of processes, land<br>use plans and inter-<br>ventions and to dis-<br>cuss how lessons<br>can be integrated<br>into existing strate-<br>gies and plans. | Number of institu-<br>tions trained   | <i>Output 2:</i><br>Strengthened capacity of national<br>and regional cen-<br>tres and networks<br>to respond rapidly<br>to extreme<br>weather events             | 2.1. No. and type<br>of targeted institu-<br>tions with in-<br>creased capacity<br>to minimize expo-<br>sure to climate<br>variability risks                                   | 255,694   |

## Table 19 Indicative Core Indicator Targets

| Adaptation Fund Core In-<br>dicators | Indicative<br>Targets   | Comments  |
|--------------------------------------|---|---|
| 1 Number of Beneficiaries            | 50 % of target communities<br>Flood protection and drainage in-<br>frastructure<br>□ Direct with interventions area:<br>29.865 (15.270 women) | A percentage of targets benefi-<br>ciaries applies. Beneficiaries of<br>supporting / soft activities are<br>not considered here but are in<br>place in the results framework. |
|                                      | Total target community:   |   |

|                            | 33.829 (17.253 women)               |                                 |
|----------------------------|-------------------------------------|---------------------------------|
|                            |                                     |                                 |
|                            | Flood resilient latrines            |                                 |
|                            | Direct with interventions area:     |                                 |
|                            | 6.064 (> 3.092 women)               |                                 |
|                            | Female headed house                 |                                 |
|                            | holds are primarily tar-            |                                 |
|                            | geted                               |                                 |
|                            | Total target community:             |                                 |
|                            | 88.439 (45.456 women)               |                                 |
|                            |                                     |                                 |
| 3. Assets Produced, Devel- | Four (4) for the flood protection   |                                 |
| oped, Improved, or         | and drainage intervention:          |                                 |
| Strengthened               | 1x Khoroo 7                         |                                 |
|                            | 2X Knoroo 9                         |                                 |
|                            | T X KNOFOO 24                       |                                 |
|                            | Seven (7) for the sanitation inter- |                                 |
|                            | ventions:                           |                                 |
|                            | 7 x in 7 Khoroos                    |                                 |
|                            |                                     |                                 |
|                            | (see more details in the budget)    |                                 |
| 4. Increased income, or    | Numbers can't be estimated          | Community infrastructure is ex- |
| avoided decrease in in-    |                                     | pected to contribute to in-     |
| come                       |                                     | creased income generation in-   |
|                            |                                     | and health as effect from re-   |
|                            |                                     | duced flooding impacts          |

Methodology to apply: https://www.adaptation-fund.org/wp-content/uploads/2016/04/AF-Core-Indicator-Methodologies.pdf

## G. Detailed budget

#### Table 20 Detailed Budget

| Project Components  | Expected Concrete Outputs  | Expected Concrete Outcomes  | TOTAL     | Year<br>1 | Year<br>2 | Year<br>3 | Year<br>4 | 0/,   |
|---|--|---|-----------|-----------|-----------|-----------|-----------|-------|
| rioject components  | Expected Concrete Outputs  | Expected Concrete Outcomes  | IUIAL     | 3 m       | -<br>12 m | 12 m      | -<br>9 m  | 70    |
| Component 1<br>National/City Level<br>Producing hazard and risk<br>information / evi-dence for<br>increasing resilience and devel-<br>oping land use plans to increase this   | Output 1.1<br>One (1) Ulaanbaatar northern Ger-Area* Territorial<br>Land Use Plan, with zoning, legal framework<br>recommendations and a specific focus on flood risk<br>reduction - building on 1.2 *(includes the three (3)<br>high risk target districts covering the seven (7) most  | Outcome LL<br>Relevant threat, hazard information, evidence and<br>recommendations (on land use and zon-ing) generated<br>for increasing resilience at the city level<br>(In line with AF outcome 1: reduced exposure at<br>national (and city) level to climate-related hazards and  | 91,790    | 23,263    | 68,526    | -         | -         | 2.0%  |
| resili-ence at OB City level.   | Output 1.2.<br>Simulation model for forecasting future impacts of<br>climate change flooding in UB city & Ger-areas<br>established   |   | 60,000    | 5,000     | 55,000    | -         | -         | 1.3%  |
|   | Output 1.3<br>Seven (7) Detailed Ger-khoroo level Land Use Plans<br>with specific focus on flood risk reduction and<br>building resilience of the most vulnerable areas and  |   | 250,000   | -         | 250,000   | -         | -         | 5.6%  |
| Component 2<br>Khoroo/Community level<br>Participative planning and capacity<br>devel-opment for flood resilience in<br>Ger-areas at the district / khoroo and<br>community level (including<br>activities to operate and maintain -<br>and mitigate any po-tential risks<br>related to - the interventions under | Output 2.1<br>Seven (7) Khoroo-level floods resilience action plans<br>to implement the interventions under component 3;<br>A series of District, Khoroo and community level<br>consultations / workshops introducing the People's<br>Process and Community Based Disaster Risk<br>Reduction approach, focused on building social<br>cohesion and consensus on community level | Outcome 2.1<br>Target community members are aware of<br>resilience building and climate risk reduction processes<br>and have ownership over proposed interventions at the<br>District, Khoroo and community level<br>(In line with AF outcome 3: strengthened awareness<br>and ownership of adaptation and climate risk<br>reduction processes at local local | 195,390   | 48,463    | 146,926   | -         | -         | 4.3%  |
| component 3).   | Output 2.2<br>Khoroo -community level in-terventions operation &<br>maintenance and awareness campaigns and trainings<br>to support the sustainable implementation of inter-<br>ventions under component 3. (An Estimated 20.nos   |   | 212,956   | 41,334    | 71,104    | 61,104    | 39,414    | 4.7%  |
|   | Output 2.3<br>Technical studies – Engineering and hydrological -<br>required to implement the interventions under<br>component 3.  |   | 50,000    | -         | 50,000    | -         | -         | 1.1%  |
| <u>Component 3</u><br>Enhance resilience of community<br>level flood protection assets  | Output 3.1<br>Physical assets developed or strengthened in response<br>to elimate change related flood impacts as prioritized<br>(drainage and sanitation) – implemented through<br>community contracting  | Outcome 3.1<br>Increased adaptive capacity within prioritized<br>community assets<br>(In line with AF outcome 4: increased adaptive<br>capacity within relevant development and natural<br>resource.sectors)  | 2,225,904 | -         | 1,029,384 | 1,041,670 | 154,850   | 49.5% |
|   | Output 3.2<br>Management & operations; design & supervision of<br>assets / physical infrastructure – procured as<br>consulting services  |   | 418,780   | 51,883    | 141,268   | 141,268   | 84,361    | 9.3%  |

|   |   |   |           | Year    | Year      | Year      | Year    |        |
|---|---|---|-----------|---------|-----------|-----------|---------|--------|
| Project Components  | Expected Concrete Outputs   | Expected Concrete Outcomes  | TOTAL     | 1       | 2         | 3         | 4       | %      |
|   |   |   |           | 3 m     | 12 m      | 12 m      | 9 m     |        |
| Component 4<br>Awareness raising, knowledge<br>management and communication | Output 4.1<br>Lessons learned and best practices regarding flood-<br>resilient urban community development are<br>generated, captured and distributed to other Districts<br>and khoroo communities, civil society, and policy-<br>makers in government appropriate mechanisms.<br>Workshops and trainings will be organised targeting<br>city- and district government officials with a focus on<br>replication of process-es, land use plans and<br>interventions and to discuss how lessons can be<br>integrated into existing strategies and plans | Outcome 4.1<br>Institutional capacity strengthened to de-velop and<br>replicate this approach<br>(In line with AF outcome 2: Strengthened institutional<br>capacity to reduce risks associated with climate-<br>induced socioeconomic and environmental losses) | 244,682   | 41,641  | 69,564    | 93,990    | 39,486  | 5.4%   |
| Sub-total Programme Costs   |   |   | 3,749,501 | 211,584 | 1,881,773 | 1,338,033 | 318,111 | 83.4%  |
| Project Execution Costs   | Project Manager   |   | 17,000    | 4,250   | 4,250     | 4,250     | 4,250   |        |
|   | National Operational Staff  |   | 226,404   | 18,867  | 75,468    | 75,468    | 56,601  |        |
|   | Travel Related to Execution   |   | 12,000    | 3,000   | 3,000     | 3,000     | 3,000   |        |
|   | Operations  |   | 108,189   | 9,016   | 36,063    | 36,063    | 27,047  |        |
|   | Evaluation  |   | 30,000    | -       | 4,000     | 4,000     | 22,000  |        |
|   | Sub-total Project Execution Costs   | 9.50%   | 393,593   | 35,133  | 122,781   | 122,781   | 112,898 | 8.8%   |
|   |   |   |           |         |           |           |         |        |
| SUB-TOTAL   |   |   | 4,143,094 | 246,717 | 2,004,554 | 1,460,814 | 431,009 | 92.2%  |
|   |   |   |           |         |           |           |         |        |
| Programme Cycle Management Fee  | Project Support Cost (ROAP)<br>- Project Management Committee Meetings<br>- IE staff salaries / supervision of reports etc.<br>- Project supervision missions   | 1.16%   | 48,060    | 2,862   | 23,253    | 16,945    | 5,000   |        |
|   | Evaluation Support costs (HQ)   |   | 10,000    | 1,500   | 2,800     | 3,900     | 1,800   |        |
|   | PSC 7 percent on total operational budget including<br>components below) approx 7 percent   | 7.00%   | 294,081   | 17,576  | 142,142   | 103,716   | 30,647  |        |
|   | Sub-total Programm Cycle Managament Fee   | 8.50%   | 352,141   | 21,937  | 168,195   | 124,562   | 37,446  | 7.8%   |
| Amount of Financing Requested   |   |   | 4,495,235 | 268,655 | 2,172,749 | 1,585,375 | 468,456 | 100.0% |

#### **Project Execution Cost**

a. The Human Settlement Officer at the Regional Office of UN-Habitat will provide oversight support for which \$4,250 is budgeted every year with a total budget of \$17,000 for the project period.

b. The above Officer will visit the Project area for monitoring the activities. Four missions are scheduled for the project period for which \$12,000 is allocated.

c. Following national staff are budgeted:

- Deputy Program Manager for 36 person-months at \$4,645 per month with a total allocation of \$167,220. The staff member will be contracted through UNDP or LICA.

- Two drivers for 72 person-months at \$822 per month with a total allocation of \$59,184.

- d. Following Operations costs are budgeted:
- Operation of two vehicles including fuel, maintenance, insurance, parking at \$1,000 per month. Total budget \$36,000.
- Communication costs at \$100 per month. Total budget \$3,600.
- Office rent at \$1,400 per month. Total budget \$50,400.
- Office operations at \$350 per month. Total budget \$12,600.
- Office supplies and stationery at \$155 per month. Total budget \$5,589
- e. \$30,000 has been budgeted for project evaluation including support from UN-Habitat HQ.

#### **Project Cycle Management Fee**

a. Project Support Cost by the UN-Habitat Regional Office is budgeted at 1.15% of total cost.

- b. UN-Habitat HQ Project Support Cost is budgeted at 7% of total cost.
- c. \$10,000 has been budget for UN-Habitat HQ Evaluation Unit support to the project

#### Table 21 Budget notes

|  |          | TOTAL     | Year   | Year      | Year      | Year    |   |     | Salary   |        | Year | Year | Year | Year | Year |
|--|----------|-----------|--------|-----------|-----------|---------|---|-----|----------|--------|------|------|------|------|------|
| Components                             |          |           | 1      | 2         | 3         | 4       |   | No. | Base     | Rate   | 1    | 2    | 3    | 4    | Т    |
|  |          |           | 6 m    | 12 m      | 12 m      | 6 m     |   |     | Rate     |        | 6    | 12   | 12   | 6    | 36   |
| Output 1.1                             |          |           |        |           |           |         |   |     |          |        |      |      |      |      |      |
| Main Partner                           | AOC      | 50,000    | 10,000 | 40,000    | -         | -       |   |     |          |        |      |      |      |      |      |
| Workshops, Consultations               |          | 2,400     | 800    | 1,600     | -         | -       |   |     |          | 400    | 2    | 4    |      |      | 6    |
| Report                                 |          | 2,000     | -      | 2,000     | -         | -       |   |     |          | 1,000  |      | 2    |      |      | 2    |
| Climate Change Assessment Specialist   | IICA     | 20,218    | 6,739  | 13,478    | -         | -       |   | 1   | 6,200    | 6,739  | 1    | 2    |      |      | 3    |
| Travel / Mission                       | ne       | 17,172    | 5,724  | 11,448    | -         | -       |   |     |          | 5,724  | 1    | 2    |      |      | 3    |
| Sub-total                              |          | 91,790    | 23,263 | 68,526    | -         | -       |   |     |          |        |      |      |      |      |      |
| Output 1.2                             | Į        |           |        |           |           |         | ļ |     |          |        |      |      |      |      |      |
| Main Partner                           | AOC      | 50,000    | -      | 50,000    | -         | -       | ļ |     |          |        |      | ļ    |      |      |      |
| Knowledge Management Specialist        |          | 10,000    | 5,000  | 5,000     | -         | -       |   | 1   |          | 5,000  | 1    | 1    |      |      |      |
| Sub-total                              |          | 60,000    | 5,000  | 55,000    | -         | -       |   |     |          |        |      |      |      |      |      |
| Output 1.3                             | ļ        |           |        |           |           |         | ļ |     |          |        |      | ļ    |      |      |      |
| Main Partner                           | AOC      | 250,000   | -      | 250,000   | -         | -       |   |     |          | 35,714 |      | 7    |      |      |      |
| Sub-total                              | 8        | 250,000   | -      | 250,000   | -         | -       |   |     |          |        |      | 8    |      |      |      |
| TOTAL                                  | 8        | 401,790   | 28,263 | 373,526   | -         | -       |   |     |          |        |      | 8    |      |      |      |
| Output 2.1                             |          | 100.000   |        | 100.000   |           |         | ļ |     |          |        |      | ļ    | ļ    |      |      |
| Main Partner                           | AOC      | 130,000   | 30,000 | 100,000   | -         | -       |   |     |          |        |      |      |      |      |      |
| Climate Change Assessment Specialist   | IICA     | 20,218    | 6,739  | 13,478    | -         | -       |   | 1   | 6,200    | 6,739  | 1    | 2    |      |      | 3    |
| Travel / Mission                       | ļ        | 17,172    | 5,724  | 11,448    | -         | -       | ļ |     |          | 5,724  | 1    | 2    | ļ    |      | 3    |
| Report                                 | Į        | 10,000    | -      | 10,000    | -         | -       | ļ |     |          | 1,000  |      | 10   |      |      | 10   |
| Workshops, Consultations, Action Plan  |          | 18,000    | 6,000  | 12,000    | -         | -       |   |     |          | 1,000  | 6    | 12   |      |      | 18   |
| Sub-total                              | 8        | 195,390   | 48,463 | 146,926   | -         | -       |   |     | <u> </u> |        |      |      |      |      |      |
| Output 2.2                             | ļ        | ļ         |        |           |           |         | ļ |     |          |        |      | ļ    | ļ    |      |      |
| Community Deve and Infras Advisor      | INGO     | 48,000    | 12,000 | 12,000    | 12,000    | 12,000  | ļ | 1   |          | 12,000 | 1    | 1    | 1    | 1    | 4    |
| Travel / Mission                       | Ļ        | 22,896    | 5,724  | 5,724     | 5,724     | 5,724   | ļ |     |          | 5,724  | 1    | 1    | 1    | 1    | 4    |
| Urban Planner                          | LICA     | 23,346    | 3,891  | 7,782     | 7,782     | 3,891   | ļ | 1   | 1,100    | 1,297  | 3    | 6    | 6    | 3    | 18   |
| Social Mobilizers                      |          | 79,974    | 13,329 | 26,658    | 26,658    | 13,329  |   | 3   | 1,270    | 1,481  | 3    | 6    | 6    | 3    | 18   |
| Report                                 | INGO     | 10,000    | -      | 10,000    | -         | -       |   |     |          | 1,000  |      | 10   |      |      | 10   |
| Workshops, Consultations, Action Plan  | ING0     | 13,440    | 3,840  | 3,840     | 3,840     | 1,920   |   |     |          | 320    | 12   | 12   | 12   | 6    | 42   |
| Training                               | INGO     | 15,300    | 2,550  | 5,100     | 5,100     | 2,550   |   |     |          | 425    | 6    | 12   | 12   | 6    | 36   |
| Sub-total                              |          | 212,956   | 41,334 | 71,104    | 61,104    | 39,414  |   |     |          |        |      |      |      |      |      |
| Output 2.3                             |          |           |        |           |           |         |   |     |          |        |      |      |      |      |      |
| Main Partner                           |          | 50,000    | -      | 50,000    | -         | -       |   |     |          |        |      |      |      |      |      |
| Sub-total                              |          | 50,000    | -      | 50,000    | -         | -       |   |     |          |        |      |      |      |      |      |
| TOTAL                                  |          | 458,346   | 89,797 | 268,030   | 61,104    | 39,414  |   |     |          |        |      |      |      |      |      |
| Output 3.1                             |          |           |        |           |           |         |   |     |          |        |      |      |      |      |      |
| Physical Infrastructure Implementation | UNOPS    | 1,455,534 | -      | 722,164   | 733,370   | -       |   |     |          |        |      |      |      |      |      |
| Improved Latrine construction support  | Comm Con | 749,250   | -      | 299,700   | 299,700   | 149,850 |   |     |          |        |      | 1    |      |      |      |
| Audit                                  | 1        | 15,000    | -      | 5,000     | 5,000     | 5,000   |   |     |          | 5,000  |      | 1    | 1    | 1    |      |
| AOC processing costs                   | 1        | 6,120     | -      | 2,520     | 3,600     | -       | m |     |          |        |      |      |      |      |      |
| TOTAL                                  |          | 2,225,904 | -      | 1,029,384 | 1,041,670 | 154,850 |   |     |          |        |      |      |      |      |      |
| Output 3.2                             |          |           |        |           |           | - ,     |   |     |          |        |      |      |      |      |      |
| Community Deve and Infras Advisor      | İ        | 72.000    | 12,000 | 24.000    | 24.000    | 12,000  |   | 1   |          | 12.000 | 1    | 2    | 2    | 1    | 6    |

| Travel / Mission                             | 100       | 45,792  | 5,724  | 17,172  | 17,172  | 5,724   |       |   |       | 5,724  | 1 | 3  | 3  | 1 | 8      |
|--|-----------|---------|--------|---------|---------|---------|-------|---|-------|--------|---|----|----|---|--------|
| Sub-total                                    | l         | 117,792 | 17,724 | 41,172  | 41,172  | 17,724  |       |   |       |        |   |    |    |   |        |
| Community Consultations                      |           | 2,800   | 700    | 700     | 700     | 700     |       |   |       | 100    | 7 | 7  | 7  | 7 | 28     |
| Urban Planner                                | LICA      | 23,346  | 3,891  | 7,782   | 7,782   | 3,891   |       | 1 | 1,100 | 1,297  | 3 | 6  | 6  | 3 | 18     |
| Social Mobilizers                            | LICA      | 79,974  | 13,329 | 26,658  | 26,658  | 13,329  | m     | 3 | 1,270 | 1,481  | 3 | 6  | 6  | 3 | 18     |
| Field Engineer                               | LICA      | 93,384  | 7,782  | 31,128  | 31,128  | 23,346  |       | 2 | 1,100 | 1,297  | 3 | 12 | 12 | 9 | 36     |
| Finance Officer                              | UNDP/LICA | 101,484 | 8,457  | 33,828  | 33,828  | 25,371  |       | 1 | 2,500 | 2,819  | 3 | 12 | 12 | 9 | 36     |
| Sub-total                                    | l         | 300,988 | 34,159 | 100,096 | 100,096 | 66,637  |       |   |       |        |   |    |    |   |        |
| TOTAL  |           | 418,780 | 51,883 | 141,268 | 141,268 | 84,361  |       |   |       |        |   |    |    |   | 000000 |
| Output 4.1 and 4.2                           |           |         |        |         |         |         |       |   |       |        |   |    |    |   |        |
| Climate Change Assessment Specialist         |           | 20,218  | -      | -       | 13,478  | 6,739   |       | 1 | 6,200 | 6,739  | 0 | 0  | 2  | 1 | 3      |
| Travel / Mission                             |           | 17,172  | -      | -       | 11,448  | 5,724   |       |   |       | 5,724  | 0 | 0  | 2  | 1 | 3      |
| Field Monitoring, Comm & Coordination Office | ILICA     | 46,692  | 3,891  | 15,564  | 15,564  | 11,673  | [ ] ] | 1 | 1,100 | 1,297  | 3 | 12 | 12 | 9 | 36     |
| Measurement of Means of Varification,        |           | 30.000  | 30,000 | _       | _       | _       |       |   |       |        |   |    |    |   |        |
| Inception Report                             |           | 50,000  | 50,000 |         | -       | -       | ļļ    |   |       |        |   |    |    | ļ | Į      |
| Community Consultations                      |           | 2,000   | 200    | 800     | 800     | 200     | L     |   |       | 200    | 1 | 4  | 4  | 1 | 10     |
| Project Steering Committee Meetings          |           | 3,000   | 500    | 1,000   | 1,000   | 500     |       |   |       | 500    | 1 | 2  | 2  | 1 | 6      |
| Local Steering Committee Meetings            |           | 2,500   | 250    | 1,000   | 1,000   | 250     |       |   |       | 250    | 1 | 4  | 4  | 1 | 10     |
| Seminar / Training / Workshops               |           | 47,500  | 5,000  | 20,000  | 17,500  | 5,000   |       |   |       | 2,500  | 2 | 8  | 7  | 2 | 19     |
| International Workshops & Conferences        |           | 40,000  | -      | 20,000  | 20,000  | -       |       |   |       | 20,000 |   | 1  | 1  | L | 2      |
| Studies Surveys, Reports                     |           | 14,000  | -      | 4,000   | 6,000   | 4,000   |       |   |       | 1,000  |   | 4  | 6  | 4 | 14     |
| Visibility, Web Development, Advocacy        |           | 21,600  | 1,800  | 7,200   | 7,200   | 5,400   |       |   |       | 600    | 3 | 12 | 12 | 9 | 36     |
| TOTAL  | -         | 244,682 | 41,641 | 69,564  | 93,990  | 39,486  |       |   |       |        |   |    |    |   |        |
| PROJECT EXECUTION COST                       |           |         |        |         |         |         |       |   |       |        |   |    |    |   |        |
| Team Leader                                  |           | 17,000  | 4,250  | 4,250   | 4,250   | 4,250   |       | 1 |       | 4,250  | 1 | 1  | 1  | 1 |        |
| National Staff                               |           |         |        |         |         |         |       |   |       |        |   |    |    |   |        |
| Deputy Project Manager                       | UNDP/LICA | 167,220 | 13,935 | 55,740  | 55,740  | 41,805  |       | 1 | 4,200 | 4,645  | 3 | 12 | 12 | 9 | 36     |
| Drivers                                      | LICA      | 59,184  | 4,932  | 19,728  | 19,728  | 14,796  |       | 2 | 660   | 822    | 3 | 12 | 12 | 9 | 36     |
| Travel Related to Execution                  |           |         |        |         |         |         |       |   |       |        |   |    |    |   |        |
| Travel / Mission                             |           | 12,000  | 3,000  | 3,000   | 3,000   | 3,000   |       | 1 |       | 3,000  | 1 | 1  | 1  | 1 | 4      |
| Operations                                   |           |         |        |         |         |         |       |   |       |        |   |    |    |   |        |
| Vehicle Operations & Maintenance             |           | 36,000  | 3,000  | 12,000  | 12,000  | 9,000   |       |   |       | 1,000  | 3 | 12 | 12 | 9 | 36     |
| Communication                                |           | 3,600   | 300    | 1,200   | 1,200   | 900     |       |   |       | 100    | 3 | 12 | 12 | 9 | 36     |
| Office Rent                                  |           | 50,400  | 4,200  | 16,800  | 16,800  | 12,600  |       |   |       | 1,400  | 3 | 12 | 12 | 9 | 36     |
| Office Operations                            |           | 12,600  | 1,050  | 4,200   | 4,200   | 3,150   |       |   |       | 350    | 3 | 12 | 12 | 9 | 36     |
| Office Supplies and Stationery               |           | 5,589   | 466    | 1,863   | 1,863   | 1,397   |       |   |       | 155    | 3 | 12 | 12 | 9 | 36     |
| Project Evaluation                           |           | 30,000  | -      | 4,000   | 4,000   | 22,000  |       |   |       |        |   |    |    |   |        |
| TOTAL  |           | 393,593 | 35,133 | 122,781 | 122,781 | 112,898 |       |   |       |        |   |    |    |   |        |

#### Table 22 Flood protection and drainage and resilient latrines

|   |          | TOTAL     | Year | Year      | Year      | Year    |    |    | Salary |       | Year     | Year | Year | Year | Year  |
|---|----------|-----------|------|-----------|-----------|---------|----|----|--------|-------|----------|------|------|------|-------|
| Components                                |          |           | 1    | 2         | 3         | 4       | N  | o. | Base   | Rate  | 1        | 2    | 3    | 4    | Т     |
|   |          |           | 3 m  | 12 m      | 12 m      | 9 m     |    |    | Rate   |       | 3        | 12   | 12   | 9    | 36    |
| Drainage system                           |          |           |      |           |           |         |    |    |        |       |          |      |      |      |       |
|   | TAI      | 177,620   | -    | -         | 177,620   | -       |    |    |        | 535   |          |      | 332  |      | 332   |
|   | <u> </u> | 24,030    | -    | -         | 24,030    | -       | L  |    |        | 270   |          |      | 89   |      | 89    |
|   | 74.7     | 158,895   | -    | -         | 158,895   | -       |    |    |        | 535   |          |      | 297  |      | 297   |
| Khron 7                                   | [        | 19,170    | -    | -         | 19,170    | -       |    |    |        | 270   |          |      | 71   |      | 71    |
| Drainage channels                         | 7A3      | 233,795   | -    | -         | 233,795   | -       | ll |    |        | 535   | <u>.</u> |      | 437  |      | 437   |
| Lyamage channels                          | 7A4      | 62,100    | -    | 62,100    | -         | -       |    |    |        | 270   |          | 230  |      |      | 230   |
|   | 7A5      | 178,200   | -    | 178,200   | -         | -       |    |    |        | 270   |          | 660  |      |      | 660   |
|   | 7A6      | 180,360   | -    | 180,360   | -         | -       |    |    |        | 270   |          | 668  |      |      | 668   |
|   | 7A7      | 90,720    | -    | 90,720    |           | -       | L  |    |        | 270   |          | 336  |      |      | 336   |
| Khoroo 9                                  |          |           |      |           |           |         |    |    |        |       |          |      |      |      |       |
| Dam at source of secondary stream to lead |          | 73,500    | -    | -         | 73,500    | -       |    |    |        | 150   |          |      | 490  |      | 490   |
| water.into.main.river                     |          |           |      |           | ļ         |         |    |    |        |       |          |      |      |      |       |
| Khoroo 9                                  |          | 200 750   |      | 184 750   | 25.000    |         |    |    |        | 107   |          | 1065 |      |      | 1.065 |
| Drainage channels                         |          | 209,750   | -    | 164,750   | 25,000    | -       |    |    |        | 197   |          | 1005 |      |      | 1,005 |
| Bridge                                    |          | 5,000     | -    | 5,000     | -         | -       |    |    |        | 5,000 |          | 1    |      |      |       |
| Design and Supervision required by Law    |          | 42 204    |      | 21.024    | 21.260    |         |    |    |        |       | }        |      |      |      |       |
| (3%)                                      |          | 44,394    |      | 21,034    | 21,500    |         |    | _  |        |       |          |      |      |      |       |
| Sub-tota                                  | 1        | 1,455,534 | -    | 722,163   | 733,370   | -       |    |    |        |       |          |      |      |      |       |
| Resilient toilets                         |          |           |      |           |           |         | ļ  |    |        |       |          |      |      |      |       |
| Khoroo 7                                  |          | 22,500    |      | 9,000     | 9,000     | 4,500   | ļ  |    |        | 450   | ļ        | 20   | 20   | 10   | 50    |
| Khoroo 24                                 |          | 144,000   | -    | 57,600    | 57,600    | 28,800  | ļ  |    |        | 450   | Į        | 128  | 128  | 64   | 320   |
| Khoroo 25                                 |          | 123,750   |      | 49,500    | 49,500    | 24,750  |    |    |        | 450   | ļ        | 110  | 110  | 55   | 275   |
| Khoroo 9                                  |          | 33,750    | -    | 13,500    | 13,500    | 6,750   | ļ  |    |        | 450   | ļ        | 30   | 30   | 15   | 75    |
| Khoroo 12                                 |          | 117,000   |      | 46,800    | 46,800    | 23,400  | ļļ |    |        | 450   | ļ        | 104  | 104  | 52   | 260   |
| Khoroo 13                                 |          | 168,750   | -    | 67,500    | 67,500    | 33,750  |    |    |        | 450   | ļ        | 150  | 150  | 75   | 375   |
| Khoroo 16                                 |          | 139,500   |      | 55,800    | 55,800    | 27,900  | ļļ |    |        | 450   | ļ        | 124  | 124  | 62   | 310   |
|   |          | -         |      | -         | -         | -       |    |    |        |       |          |      |      |      |       |
| Sub-tota                                  | 1        | 749,250   | -    | 299,700   | 299,700   | 149,850 |    |    |        |       | -        | 666  | 666  | 333  | 1,665 |
|   |          |           |      |           |           |         |    |    |        |       |          |      |      |      |       |
| Sub-total                                 |          | 2,204,784 | -    | 1,021,863 | 1,033,070 | 149,850 |    |    |        |       |          |      |      |      |       |
| AOC management costs                      |          | 6,120     | -    | 2,520     | 3,600     | -       |    |    |        | 360   |          | 7    | 10   | -    | 17    |
| TOTAL                                     |          | 2,210,904 | -    | 1,024,383 | 1,036,670 | 149,850 |    |    |        |       |          |      |      |      |       |

#### Table 23 M&E budget

| Type of M & E Activity   | Row | Total   | 1      | 2      | 3      | 4      |
|--|-----|---------|--------|--------|--------|--------|
| Measurements of means of verification<br>(baseline assessment and M & E plans)   | 57  | 30,000  | 30,000 | -      | -      | -      |
| Direct Project Monitoring and Quality<br>Assurance including progress and financial<br>reporting, project revisions, technical assistance<br>and risk management | 56  | 46,692  | 3,891  | 15,564 | 15,564 | 11,673 |
| Independent terminal avaluation  | 79  | 30,000  | -      | 4,000  | 4,000  | 22,000 |
| independent terminal evaluation  | PCM | 10,000  | 1,500  | 2,800  | 3,900  | 1,800  |
| Project management committee meetings  | 59  | 5,500   | 750    | 2,000  | 2,000  | 750    |
| Travel   | 71  | 12,000  | 3,000  | 3,000  | 3,000  | 3,000  |
| Total  |     | 134,192 | 39,141 | 27,364 | 28,464 | 39,223 |

#### <u>Output 1.1</u>

#### One (1) Ulaanbaatar northern Ger-Area (including the three (3) target districts) Territorial Land Use Plan and legal framework recommendations with specific focus on flood risk reduction - building on 1.2

a. An agreement of cooperation (AOC) will be signed with an external partner to prepare land use plans in three target districts for which \$50,000 has been budgeted as a lump sum. b. Consultations at the community level and workshops will be organized during the preparation of the plan and presentation of the findings. \$2,400 has been budget for this. c. \$2,000 has been budgeted for the preparation of three draft and final reports.

d. Three person-months (over 18 months) of technical and supervisory support by an International Climate Change Assessment Specialist is budgeted at \$6,739 per month. Travel and DSA (14 days for each mission) for the Consultant is budgeted at \$5,724 per mission for three missions during this period. The total budget is \$20,218 for Consultant fees for three months and \$17,172 for three missions.

#### Output 1.2

# Simulation model for forecasting future impacts of climate change and flooding in UB city & Ger-areas established

a. An agreement of cooperation (AOC) will be signed with an external partner to prepare a simulation model for which \$50,000 has been budgeted as a lump sum.

b. The Knowledge Management Specialist will supervise the preparation of the model. A lump sum of \$10,000 has been provided for the inputs from the Specialist.

b. Technical supervisory support by Climate Change Assessment Specialist is budgeted in Output 1.1.

#### Output 1.3

# Seven (7) Detailed Ger-khoroo level Land Use Plans with a specific focus on flood risk reduction and building resilience of the most vulnerable areas and people

a. An agreement of cooperation (AOC) will be signed with an external partner to prepare seven land use plans for which \$250,000 has been budgeted as a lump sum.

b. Technical supervisory support by Climate Change Assessment Specialist is budgeted in Output 1.1.

#### Output 2.1

Seven (7) Khoroo-level floods resilience action plans to implement the interventions under component 3; a series of District, Khoroo and community level consultations / workshops introducing the People's Process and Community Based Disaster Risk Reduction approach, focused on building social cohesion and consensus on community level implementation of interventions under component 3.

a. An agreement of cooperation (AOC) will be signed with an external partner to prepare seven flood resilience action plans for which \$130,000 has been budgeted as a lump sum.
b. Consultations at the community level and workshops will be organized during the preparation of the plan and presentation of the findings. \$18,000 has been budgeted for this.
c. \$10,000 has been budgeted for the preparation of seven draft and final reports.

d. Three person-months (over 18 months) of technical and supervisory support by an International Climate Change Assessment Specialist is budgeted at \$6,739 per month. Travel and DSA (14 days for each mission) for the Consultant is budgeted at \$5,724 per mission for three missions during this period. The total budget is \$20,218 for Consultant fees for three months and \$17,172 for three missions.

#### Output 2.2

Khoroo / Community level interventions operation and maintenance (and potential risks mitigation) awareness campaigns and training to support the sustainable implementation of interventions under component 3.

a. An INGO will be contracted to manage this component for which following provisions have been made in the budget.

- One person-month of advisor support every year (total 4 person-months over the project period) by one international Community and Infrastructure Development Advisor is budgeted at \$12,000 per month. Travel and DSA (14 days for each mission) for the Consultant is budgeted at \$5,724 per mission for one mission per year (total four missions). The total budget is \$48,000 for Consultant fees for four months and \$22,896 for three missions.
- Training at community level (community organizations, local officials) is budgeted at \$15,300 for the project period. Training will be provided to all the Community Development Councils (12 to 15) in the 7 Khoroos on community organization, construction management, management of funds, monitoring, operations & maintenance and preparation of progress reports.
- Community consultations and workshops to prepare community action plans to implement the physical infrastructure activities proposed in Output 3.1 is budgeted at \$13,440. Each Community Development Council (12 to 15) in 7 Khoroos will prepare an annual plan, monitor and review progress, and update their annual plan every year.
- \$10,000 is budgeted to prepare quarterly progress reports to be submitted to the project management.
- b. One national Urban Planner (part-time, 18 person-months) and three national Social Mobilisers (part-time, 54 person-months) will be recruited through a LICA contract to provide field support. The monthly salary is budgeted at \$1,297 per month for Urban Planner (total \$23,346) and \$1,481 per month for each Social Mobilizer (total \$79,974).

#### Output 2.3

# Technical studies – Engineering and hydrological - required to implement the interventions under component 3.

a. An agreement of cooperation (AOC) will be signed with an external partner to prepare engineering and hydrological studies for which \$50,000 has been budgeted as a lump sum. b. Technical supervisory support by Climate Change Assessment Specialist is budgeted in Output 1.1.

#### Output 3.1

# Physical assets developed or strengthened in response to climate change related flood impacts as prioritized by Khoroos.

# Flood retention wall and drainage infrastructure Resilient sanitation delivery

a. Following physical infrastructure construction activities are proposed in the budget:

i. Following drainage construction activities will be contracted through World Vision Mongolia UN-OPS:

| Activity                     |  | Khoroo |                 | Length | Budget                | Location  |
|------------------------------|--|--------|-----------------|--------|-----------------------|---|
| Flood pro-<br>tection and    | Construct a flood retention wall/ dike | 9      | Pkg A           | 490m   | \$73,500              | B: From #1016, Sharhad 61<br>to #844, Sharhad 61            |
| drainage in-<br>frastructure | Drainage chan-<br>nels                 | 9      | Pkg B<br>Bridge | 1065m  | \$209,750<br>\$ 5,000 | A: From #832, Sharhad 64<br>to #959, Sharhad 64 and bridge  |
|                              |  | 7      | Pkg A1a         | 332m   | \$177,620             | A1i: From #23, Bayankhoshuu 39<br>to #41, Bayankhoshuu 39   |
|                              |  |        | Pkg A1b         | 79m    | \$24,030              | A1ii: From #14a, Bayankhoshuu<br>38 to #41, Bayankhoshuu 39 |
|                              |  |        | Pkg A2a         | 297m   | \$158,895             | A2i: From #41, Bayankhoshuu 39 to #8, Bayankhoshuu 35.      |
|                              |  |        | Pkg A2b         | 71m    | \$19170               | A2ii: From #1, Bayankhoshuu 35<br>to #8, Bayankhoshuu 35    |
|                              |  |        | Pkg A3          | 437m   | \$233795              | A3: From #8, Bayankhoshuu 35<br>to #17, Bayankhoshuu 29     |
|                              |  |        | Pkg A4          | 230m   | \$62,100              | A4: From #8, Bayankhoshuu 29<br>to #17, Bayankhoshuu 29     |
|                              |  |        | Pkg A5          | 660m   | \$178,200             | A5: From #17, Bayankhoshuu 29<br>to #45, Tsergiin angi 1    |
|                           |                        |           | Pkg A6     | 668m         | \$180,360        | A6: From #8, Tsergiin angi 2<br>to #45Tsergiin angi 2 |
|---------------------------|------------------------|-----------|------------|--------------|------------------|---|
|                           |                        |           | Pkg A7     | 336m         | \$90,720         | A6: From #45, Tsergiin angi 2<br>to #6, Namag 1       |
| Flood pro-<br>tection and | Drainage chan-<br>nels | <u>40</u> | <u>SO1</u> | <u>460m</u>  | <u>\$185,399</u> | From #23, Bayankhoshuu 39 to<br>#26a, Monlaa 6        |
| drainage in-              |                        | <u>40</u> | <u>SO2</u> | <u>860m</u>  | <u>\$346,616</u> | From #2, Bayankhoshuu 35 to<br>#30, Monlaa 1          |
| Inditideture              |                        | <u>40</u> | <u>SO3</u> | <u>1471m</u> | <u>\$592,875</u> | From #9, Khiliin tsereg 0119 to<br>#48, Bayanbu-lag 4 |

- The total budget for this component is \$1,455,534.

#### ii. Following units of resilient toilets will be constructed through Community Contracting:

| Flood re-             | Khoroo | Units | Location  |
|-----------------------|--------|-------|---|
| silient               | 24     | 320   | Households in Salhitiin zadgai and Zeeliin zadgai streets   |
| latrines<br>Construct | 25     | 275   | Households in Khairkhan 7 <sup>th</sup> , 8 <sup>th</sup> and 9 <sup>th</sup> streets, and Odont 24 <sup>th</sup> and 25 <sup>th</sup> streets              |
| suitable<br>latrines  | 7      | 50    | Households in Tsergiin angi 1-4 <sup>th</sup> streets, Monlaa 2 <sup>nd</sup> street,<br>Bayankhoshuu 29 <sup>th</sup> street, Namag 1 <sup>st</sup> street |
| (for rocky            | 9      | 75    | Households in Sharhad 60-62 <sup>nd</sup> and 64 <sup>th</sup> streets  |
| or muddy              | 12     | 260   | All households in Khangai 1-23 <sup>rd</sup> streets  |
| under-<br>ground)     | 13     | 375   | Households in Rashaan 9, 10, 14,15, 16 <sup>th</sup> streets, Nogoon talbai 1-5 <sup>th</sup> streets   |
|                       | 16     | 310   | Households in Belkh 11-14 <sup>th</sup> Streets   |
| TOT                   | TAL    | 1665  |   |

- b. Upon approval of the project design by the respective government department, it is officially stipulated that 3% of the project cost is allocated for supervision and completion certification.
- c. Annual audit is budget at \$5,000 for which a qualified national auditor firm will be recruited.
- d. It is estimated that there will be 17 AOCs to be signed with <u>World Vision Mon-goliaUNOPS</u> and Community Development Councils. \$360 has been budgeted as processing cost for each AOC.

#### Output 3.2

# Management and operations design & supervision of assets / physical infrastructure – procured as consulting services.

- a. An INGO will be contracted to manage this component for which following provisions have been made in the budget.
- One person-month of advisor support every year (total 4 person-months over the project period) by one international Community and Infrastructure Development Advisor is budget at \$12,000 per month. Travel and DSA (14 days for each mission) for the Consultant is budgeted at \$5,724 per mission for one mission per year (total four missions). The total budget is \$48,000 for Consultant fees for four months and \$22,896 for three missions.
- \$2,800 is allocated for Community Consultations. Additional budget for community consultations and workshops to prepare community action plans to implement the physical infrastructure activities is included in Output 2.2.
- Training at community level (community organizations, local officials) is included in Output 2.2.
- Budget for reporting is included in Output 2.2.
- b. Following national staff will be recruited through LICA contracts to provide field support:Full time (two Field Engineer, one Finance Officer)
  - Two Field Engineers (72 person-months) will be recruited through LICA contracts to provide field support. The monthly salary is budgeted at \$1,297 per month (total \$93,384).
  - One Finance (36 person-months) will be recruited through UNDP or LICA contract to provide field support. The monthly salary is budgeted at \$2,819 per month (total

\$101,484).

- Part-time (one Urban Planner, three Social Mobilisers)

- One Urban Planner (18 person-months) and three Finance Officer (54 person-months) will be recruited through LICA contracts to provide field support. The monthly salary is budgeted at \$1,297 per month for Urban Planner (total \$23,346) and \$1,481 per month for each Social Mobilizer (total \$79,974).

#### Output 4.1

Lessons learned and best practices regarding flood-resilient urban community development are generated, captured and distributed to other Districts and khoroo communities, civil society, and policy-makers in government appropriate mechanisms.

### Output 4.2

Workshops and training are organised targeting city- and district government officials with a focus on replication of processes, land use plans and interventions and to discuss how lessons can be integrated into existing strategies and plans

a. Three person-months (over 18 months) of technical and supervisory support by an International Climate Change Assessment Specialist is budgeted at \$6,739 per month. Travel and DSA (14 days for each mission) for the Consultant is budgeted at \$5,724 per mission for three missions during this period. The total budget is \$20,218 for Consultant fees for three months and \$17,172 for three missions.

b. One national Field Monitoring, Communication and Coordination Officer will be recruited for 36 person-months for which \$46,692 has been budgeted (\$1,297 per month).

c. A lump sum of \$30,000 is allocated for measurement of Means of Verification and preparation of Inception Report

d. Project Steering Committee will be scheduled every six months, Local Steering Committee (at Khoroo level) will be scheduled every four months. Likewise, community consultations will be scheduled every four months. \$7,500 has been budgeted to cover expenses for these meetings.

e. National level seminars/workshops/consultations will be organized to discuss project experience and findings and seek professional inputs. \$47,500 has been budgeted for this.

f. A budget of \$20,000 in year 2 and 3 (total \$40,000) has been allocated to cover costs for participation in climate change related international conference/workshop by senior government officials.

g. Production of various studies, survey and reports is budget at \$14,000 for the project period.

h. Production of various project visibility and advocacy material and development of web page and maintenance is budgeted at \$21,600.

### H. Disbursement schedule

#### Table 24 Disbursement schedule

|           | Year 1  | Year 2  | Year 3   | Year 4  | Total |
|-----------|---|---|--|---|-------|
|           | 1 <sup>st</sup> disbursement – upon<br>agreement signature  | <ul> <li>2<sup>nd</sup> disbursement – One Year after project start</li> <li>Upon First Annual Report</li> </ul>  | <ul> <li>3<sup>rd</sup> disbursement - Two years after project start</li> <li>Upon Second Annual Re-</li> </ul>  | <ul> <li>4<sup>th</sup> disbursement – Third Year<br/>after Project Start</li> <li>Upon Third Annual Report</li> </ul>  |       |
|           |   | <ul> <li>Upon financial report indicating<br/>disbursement of at least 70%<br/>of funds</li> </ul>  | <ul> <li>port</li> <li>Upon financial report indicating disbursement of at least 70% of funds</li> </ul>   | <ul> <li>Upon financial report indi-<br/>cating disbursement of at<br/>least 70% of funds</li> </ul>  |       |
| Milestone | Milestones (by end of<br>year)<br>- Inception workshop re-<br>port<br>- 1 risk reduction action or<br>strategy introduced at lo-<br>cal level (assessment and<br>planning tools developed)<br>- 1 demo project for infra-<br>structure/natural assets<br>developed<br>- Website established<br>- Advocacy materials pro-<br>duced<br>- Steering Committee | Milestones (by end of year)<br>- X local authorities integrate re-<br>silience in local planning<br>schemes<br>- X (new) khoroo-wide assess-<br>ments conducted and x assess-<br>ments updated<br>- 6 khoroo-wide hazard maps<br>- khoroo-wide climate change ac-<br>tion plans for 6 participating kho-<br>roo.<br>- X urban planners/resilience of-<br>ficers established.<br>- Community-based climate vul-<br>nerability assessments in 6 Ger<br>communities<br>- Community-level resilience, re-<br>covery and upgrading plans in 6<br>Ger-communities | <ul> <li>Milestones (by end of year)</li> <li>Adaptation and risk reduction<br/>assessment and awareness<br/>activities for X targeted popula-<br/>tion groups.</li> <li>x (50%) strengthened house-<br/>hold and community livelihood<br/>strategies in relation to climate<br/>change impacts.</li> <li>Advocacy materials produced</li> <li>50% of infrastructure/natural<br/>assets constructed / developed</li> <li>Steering Committee</li> </ul> | Milestones (by end of year)<br>- Advocacy materials pro-<br>duced<br>- Regional advocacy<br>- 100% of infrastructure/natu-<br>ral assets constructed / de-<br>veloped<br>- Steering Committee |       |

| <ul> <li>Adaptation and risk reduction<br/>assessments and awareness ac-<br/>tivities for 3 (50%) targeted popu-<br/>lation groups.</li> <li>10% of household and commu-<br/>nity livelihood strategies strength-<br/>ened in relation to climate change<br/>impacts (X total)</li> </ul> |  |  |
|---|--|--|
| <ul> <li>- 10% of infrastructure/ natural assets developed</li> <li>- Advocacy materials produced</li> <li>- Steering Committee</li> </ul>  |  |  |

| Schedule date              | October 2018<br>Or Upon Signing | April 2019 | April 2020 | January 2021 | TOTAL     |
|----------------------------|---------------------------------|------------|------------|--------------|-----------|
| A. Project Funds<br>(US\$) | 832,569                         | 1,702,338  | 1,001,459  | 213,135      | 3,749,500 |
| B. Programme<br>Execution  | 75,650                          | 122,781    | 119,520    | 75,642       | 393,593   |
| C. Programme<br>Cycle Mgt  | 77,442                          | 153,796    | 95,814     | 25,089       | 352,141   |
| Sub-total                  | 153,092                         | 276,577    | 215,333    | 100,731      | 745,734   |
| TOTAL                      | 985,662                         | 1,978,915  | 1,216,792  | 313,865      | 4,495,234 |

### PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

### A. Record of endorsement on behalf of the government<sup>34</sup>

| Dr. Batjargal Zamba                 | Date: April 6th, 2018 |
|-------------------------------------|-----------------------|
| Special Envoy for Climate           |                       |
| Change                              |                       |
| National Focal Point UNFCC,         |                       |
| IPCC, GCF                           |                       |
| Ministry of Environment and         |                       |
| Tourism of Mongolia                 |                       |
| Suite: 22-7G                        |                       |
| Amar Street, 8 <sup>th</sup> khoroo |                       |
| Ulaanbaatar - 14200                 |                       |
| Tel: 976-7000 0743                  |                       |
| Fax: 976-11-310743                  |                       |
| e-mail: zbatjargal@mne.gov.mn       |                       |

<sup>&</sup>lt;sup>6.</sup> Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

#### MINISTRY OF ENVIRONMENT. AND TOURISM

7th floor, 22 building, Amar street, 8th micro-district, Sukhbaatar district, Ulaanbaatar, Mongolia Tel: (976-11) 310753, Fax: (976-11) 310743 E-mail: contact@ncf.mn, http://www.ncf.mn

No

HQ

To: The Adaptation Fund Board Secretariat c/o Global Environment Facility Secretariat1818H Street, NW. ENVIRONMENT AND CLIMATE FUND MSN P-4-400Washington DC, United State of America Email: secretariate@adaptation-fund.org Fax: +1 2025223240/5

Subject: Endorsement of the project proposal: "Flood Resilience in Ulaanbaatar Ger Areas (FRUGA) - Adaptation through community-driven small-scale protective and basic-services interventions

Dear Sir/Madam.

Date 2018.04.06

In my capacity as Designated Authority for the Adaptation Fund in Mongolia, I confirm that the above national project is in accordance with the government's national priorities in implementing adaptation activities to reduce the adverse impacts and risks posed by climate change and enhance resilience in Mongolia.

Accordingly, I am pleased to endorse the above project proposal for support from the Adaptation Fund. If approved, the project will be implemented by the United Nations Human Settlements Programme (UN-Habitat) and executed by the Ministry of Environment and Tourism, the Municipality of Ulaanbaatar (MUB) and Ger-Communities within Songinokhairkhan, Bayanzurkh and Sukhbaatar Districts of Ulaanbaatar via a Programme Execution Unit set up with United Nations Office for Project Services (UNOPS). Several other line ministries/departments, district and sub-district (khoroo) authorities and non-governmental organizations will also be involved in the implementation of this project.

The project proposal builds on the national, municipal and district level strategies and priorities which seek to address key and urgent climate change adaptation requirements being faced by vulnerable Ger-communities in Ulaanbaatar. To this end, following consultation with key stakeholders, a series of in-depth community consultations were conducted in 3 priority districts and 7 sub-district (khoroo) communities, to support the project development process. These most-vulnerable communities in high-risk areas were identified in collaboration with the Mayor's office and municipal authorities; in support of the urgent thematic priorities identified in close consultation with Ministry of Environment and Tourism and key national government entities.

In addition to being fully aligned with the Ulaanbaatar 2020 Master Plan and Development Directions for 2030 as well as the Ulaanbaatar Floods Risk Management Strategy 2015; the project proposal aims to support the implementation of commitments in the Mongolia National Action Programme on Climate Change (Phase II - 2017-2021); the National Green Development Policy (2014-2030) and the Intended Nationally Determined Contributions (INDC) to the 2015 Agreement under the United Nations Framework Convention on Climate Change (UNFCCC). Furthermore, the project would be able to demonstrate concrete adaptation measures in line with the second phase of the National Adaptation Plan for Climate Change (NAP) from 2017-2021 focusing on the implementation of climate change adaptation measures.

In this regards, this project proposal is fully endorsed by the DA of Mongolia for the AF.

Yours sincerely,

Dr. Batjargal Zamba

Special Envoy for Climate Change National Focal Point for the UNFCCC & DA for the Adaptation Fund Ministry of Environment and Tourism of Mongolia

| MINISTRY OF ENVIRONMENT,<br>AND TOURISM   | Endorsement of the Proposed Changes to<br>the Ongoing Project: Flood Resilience in the<br>Ger Areas (FRUGA) – Adaptation through<br>community- driven, small-scale protective<br>and basic services interventions |
|---|---|
| ENVIRONMENT AND CLIMATE FUND<br>7th floor, 22 building, Amar street, 8th micro-district,<br>Sukhbaatar district, Ulaanbaatar, Mongolia<br>Tel: (976-11) 70000753, Fax: (976-11) 70000743<br>E-mail: contact@ncf.mn, http://www.ncf.mn |   |
| Date_ <u>2020.04.16_</u> № <u>89</u>  |   |

Dear Sir/Madam,

In my capacity as the Designated Authority for the Adaptation Fund in Mongolia. I confirm that the revised project is still in accordance with the government's national priorities in implementing adaptation activities to reduce the adverse effects of climate change for people in Mongolia.

I understand that the revisions to the originally submitted proposal are necessary to avoid conflict with other, under-construction infrastructure, and the revised designs have been engineered, consulted with communities and costed in a way that they will be at least equally beneficial as the originally proposed designs. The revised infrastructure designs still serve vulnerable communities in a way that is in line with national development priorities.

Furthermore, the revisions to the project are still in line with and supports the implementation of the relevant national and local policies, including the Mongolia National Action Programme on Climate Change (Phase II, 2017-2021), the National Green Development Policy, and the Nationally Determined Contribution to the Paris Agreement under the United Nations Framework Convention on Climate Change, Ulaanbaatar 2020 Master Plan, Development Directions for 2030 and the Ulaanbaatar Flood Risk Management Strategy 2015.

In this regard, the revised project is fully endorsed by the DA of Mongolia for the Adaptation Fund.

Yours Sincerely

Dr. Batjargal Zamb Special Envoy on Elimate Change, National Focal Point for the UNFCCC and DA for the Adaptation Fund Ministry of Environment and Tourism

### **B.** Implementing Entity certification

#### Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans including Mongolia's National Development Strategy, Second National Communication under the UNFCCC, Mongolia National Action Programme on Climate Change (Phase II - 2017-2021), National Climate Risk Management Strategy, National Green Development Policy and Action Plan (2015), Ulaanbaatar Master Plan 2030, and the Flood Risk Management Strategy of Ulaanbaatar City, and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme. Rafael Tuts Director, Programme Division **UN-Habitat** Date: April 13, 2018 Tel and email: +254-20-762-3726 Raf.Tuts@un.org Project Contact Person: Nadine Waheed, Human Settlements Officer, Regional Office for Asia and the Pacific Tel.: +81-92-724-7121 Email: Nadine.Waheed@un.org

# Annex 1 Results of the three-rounds of in-depth community consultations and Focus Group Discussions

### Round 1: Rapid climate change vulnerability assessments and needs assessment

| No. | District         | Khoroo | Position                         | Name          | Contact  |
|-----|------------------|--------|----------------------------------|---------------|----------|
|     |                  |        | Khoroo Governor                  | Dolgormaa     | 96653039 |
| 1   |                  | 12     | Social worker                    | Amarjargal    | 96002645 |
|     |                  |        | Community health center          | Conver        | 96653039 |
|     |                  |        | Khoroo Governor                  | Bayar-Erdenee | 96002645 |
| 2   | Sukhbaatar       | 13     | Manager                          | Tuvshin       | 91887211 |
|     |                  |        | Community health center          | Sankol        | 11358005 |
|     |                  |        | Khoroo Governor                  | Erdenesukh    | 99114391 |
| 3   |                  | 16     | Manager                          | Khajidmaa     | 88067766 |
|     |                  |        | Community health center          | Mandam        | 11358006 |
|     |                  | 9      | Khoroo Governor                  | Gankhuyag     | 99242399 |
| 4   | Bayanzurkh       |        | Manager                          | Tuul          | 99249666 |
|     |                  |        | Community health center          | Enkh-enerel   | 93230393 |
|     |                  | 7      | Khoroo Governor                  | Oyunchimeg    | 99985044 |
|     |                  |        | Manager                          | Nyambayar     | 99828898 |
|     |                  |        | 2 <sup>th</sup> kheseg leader    | Uranchimeg    | 95117443 |
| 5   |                  |        | 7 <sup>th</sup> kheseg leader    | Badamkhand    | 89827779 |
|     |                  |        | 9 <sup>th</sup> kheseg leader    | Dorjmaa       | 88552710 |
|     |                  |        | 10 <sup>th</sup> kheseg leader   | Munkhtsetseg  | 99173749 |
|     | Songinokhairkhan |        | 11 <sup>th</sup> kheseg leader   | Altangerel    | 88246226 |
|     |                  |        | Khoroo Governor                  | Tumurbaatar   | 93130024 |
| 6   |                  | 24     | Manager                          | Tsend-Ayush   | 88071143 |
|     |                  |        | Community council representative | Myagmardorj   | 88896952 |
|     |                  |        | Khoroo Governor                  | Batchuluun    | 99196740 |
| 7   |                  | 25     | Manager                          | Sevjidsuren   | 89918808 |
|     |                  |        | Social worker                    | Otgonchimeg   | 88405861 |

| Table 24a: List of district office | governors and officials surve | eyed during Rapid Assessments |
|------------------------------------|-------------------------------|-------------------------------|
|------------------------------------|-------------------------------|-------------------------------|

# RAPID SETTLEMENT ASSETS SURVEY – Covering all target communities

BUILDING URBAN CLIMATE RESILIENCE

### **UN-HABITAT - ADAPTATION FUND**

### BAYANKHOSHUU SUB-CENTER Songinokhairkhan District

| No. | Municipality/ District   |                        |                        |                        |  |  |
|-----|--|------------------------|------------------------|------------------------|--|--|
|     | Name of community  | Songinokhairkhan       |                        |                        |  |  |
|     |  | 7 Khoroo               | 24 Khoroo              | 25 Khoroo              |  |  |
| 1   | Total population   | 20,128                 | 13,689                 | 13,680                 |  |  |
| 2   | Number of Female   | 10,259                 | 7,145                  | 7,082                  |  |  |
| 3   | # of < age 14  | 6,241                  | 931                    | -                      |  |  |
| 4   | # of age 15-24   | 2,752                  | 936                    | -                      |  |  |
| 5   | # of age 25-60   | 9,931                  | 445                    | -                      |  |  |
| 6   | # of > age 60  | 775                    | 706                    | -                      |  |  |
| 7   | # of disabled population   | 254                    | 45                     | -                      |  |  |
| 8   | # of indigenous people   | -                      | -                      | -                      |  |  |
| 9   | # of immigrants  | -                      | 689                    | 342                    |  |  |
| 10  | # of informal people   | -                      | 690                    | -                      |  |  |
| 11  | # of households  | 5,510                  | 4,040                  | 3,481                  |  |  |
| 12  | Poverty rate (%)   | 2,645 households (48%) | 1,616 households (40%) | 1,044 households (30%) |  |  |
| 13  | How many people will benefit from the following proposed interventions in the community:   |                        |                        |                        |  |  |
|     | <ul> <li>Physical/structural interventions (specify what is relevant):</li> <li>Drainage canals in most vulnerable areas</li> <li>Improved (eco) pit latrines</li> </ul> | 75%                    | 50%                    | 10%                    |  |  |

#### 1. Beneficiaries

|    | Tree plantation (through involvement of  |   |   |   |
|----|--|---|---|---|
|    | school children)   |   |   |   |
|    | Trainings  | 50%   | 60%   | 25%   |
|    | Communication  | 90%   | 70%   | 30%   |
|    | Information  | 80%   | 60%   | 40%   |
| 14 | Are there early warning systems in place<br>covering different types of hazards (e.g.<br>floods, cyclones, storms, droughts, etc.) | No  | No  | No  |
| 15 | Existence of drainage system   | 1 narrow drainage canal exists near<br>Mon Laa but insufficient because it<br>overflows due to blockage by gar-<br>bage | No  | No  |
| 16 | Existence of sewage system   | No  | No  | No  |
| 17 | Existence of different groups (ethnic,<br>women, elderly, disabled, youth) who are<br>treated differently. If so, how?             | No  | Some households have religious and political difference | No  |
|    |  | Elderly receive pension and disabled  | receive monthly allowance (equivalen                    | t to minimum wage)  |
| 18 | Participation of women in decision-mak-<br>ing process. If no, why?  | High participation  | Moderate participation                                  | High participation  |
| 19 | Main livelihoods / sources of income in community?   |   | - garbage collecting                                    | <ul> <li>kitchen gardening</li> <li>some have household level pro-</li> </ul> |
|    |  | - seasonal part time jobs   |   | duction (felt making, sewing, etc).   |
|    |  | <ul> <li>government allowance (child support<br/>- government and private sector em<br/>nance services)</li> </ul>      | ps, restaurants, repair and mainte-                     |   |
| 20 | Main environmental problems (Choose  | 2. waste water from other neigh-  | 2. on the west side of this khoroo                      | - the khoroo is relatively new set-   |
|    | <u>Top 3)</u>  | boring areas and ceramic industry   | river valleys are common so                             | tlement so no particular problems   |
|    | 1) River flooding  | waste water is collected in this  | ground water comes up and over-                         | reported yet  |
|    | 2) Surface Flooding (rainwater)  | khoroo  | flows flooding the area with gar-                       | -   |
|    | 3) River Bank Erosion (soil disappear-   |   | bage  |   |
|    | ing)   | 5. air pollution during winter from   | 5. air pollution during winter from                     | 5. air pollution during winter from   |
|    | 4) Inland erosion  | burning coal for heating  | burning coal for heating                                | burning coal for heating  |

| 5) Pollution (dirty air, dirty water, dirty |                                       |                                      |  |
|---|---------------------------------------|--------------------------------------|--|
| soil)                                       | 6. due to narrow flood canal gar-     | 8. on the east side of the khoroo    |  |
| 6) Rubbish (waste management)               | bage floats into streets and house-   | the area is rocky mountainous so it  |  |
| 7) Drainage (e.g. blocked drains)           | hold plots                            | is difficult to dig beneath 1.5m for |  |
| 8) Sanitation (problems with toilet)        |                                       | pit latrines                         |  |
| 9) Decline in forest areas                  | 8. frozen pit latrine melts and over- | - due to strong winds and storms     |  |
| 10) Plant Disease                           | flows on to the streets and plots in  | ger houses and fences collapse       |  |
| 11) Insects or bugs (flies, mosquitoes)     | spring/summer times affecting the     |                                      |  |
| 12) agriculture sustainability              | environment                           |                                      |  |

2. Climate change - impacts, barriers for adaptation and possible interventions analysis

| No. | Municipality/<br>District | Name of community | Most problematic climatic hazard  | Effects on the community  | Factors stopping your com-<br>munity from coping with cur-  | Possible resilience building<br>interventions identified  |
|-----|---------------------------|-------------------|---|---|---|---|
|     |                           |                   |   |   | rent impacts  |   |
| 1   | Ulaanbaatar               | 7 khoroo          | <ul> <li>unclean environment: garbage floats due to flood water</li> <li>air pollution during during winter from burning coal for heating</li> <li>cannot dig pit latrines below 1.5 meter therefore overflow during spring and during flooding</li> <li>people feel that the weather is getting warmer and air quality is too dry</li> <li>flood water coming from khoroo 24 (and also khoroo 25 and 8) create water log-</li> </ul> | <ul> <li>toilet waste and grey water<br/>freezes during the winter<br/>then melts during spring<br/>leading to pollution</li> <li>air pollution during winter<br/>is a perennial hazard</li> <li>streets and roads are not<br/>pedestrian friendly</li> </ul> | <ul> <li>financial difficulty for kho-<br/>roo</li> <li>residents lack knowledge to<br/>fix canals</li> <li>dependency on coal for<br/>cooking and heating particu-<br/>larly during winter</li> <li>poor or non existent drain-<br/>age</li> <li>lack of central sewerage<br/>system to dispose grey water<br/>and for connecting latrines</li> <li>lack of awareness and em-<br/>powerment to respond to<br/>risks</li> </ul> | <ul> <li>introduction of improved<br/>pit latrines and shared la-<br/>trines</li> <li>to plant trees around the<br/>dam area and in community<br/>plots</li> <li>use proper chemical for<br/>waste disposal</li> <li>community awareness<br/>about waste disposal, hand<br/>washing, disaster prepared-<br/>ness, etc.</li> </ul> |

|   |           | - waste from ceramic indus-<br>try in khoroo 8 also comes to<br>this khoroo   |  |  |  |
|---|-----------|---|--|--|--|
| 2 | 24 khoroo | <ul> <li>air pollution during winter<br/>from burning coal for heating</li> <li>strong wind and storm</li> <li>soil pollution due to lack of<br/>waste disposal</li> <li>dry dusty environment</li> <li>warmer weather</li> </ul> | <ul> <li>toilet waste and grey water<br/>freezes during the winter<br/>then melts during spring<br/>leading to pollution</li> <li>diarrhea and other infec-<br/>tious disease are caused by<br/>soil contamination</li> <li>children and elderlies suffer<br/>from heatstroke</li> <li>ger houses, fences and pri-<br/>vate properties collapse due<br/>to strong wind and wind-<br/>storm endangering people's<br/>lives</li> </ul> | <ul> <li>dependency on coal for<br/>cooking and heating particu-<br/>larly during winter</li> <li>poor or non existent drain-<br/>age</li> <li>lack of central sewerage<br/>system to dispose grey water<br/>and for connecting latrines</li> <li>lack of awareness and em-<br/>powerment to respond to<br/>risks</li> </ul> | <ul> <li>plant trees and create<br/>green spaces</li> <li>plant trees in dusty streets<br/>and in individual com-<br/>pounds</li> <li>build waste recycling facil-<br/>ity</li> <li>promote use of improved<br/>toilet</li> <li>(ADB project has built one<br/>community improved toilet<br/>for 20 household</li> </ul> |
| 3 | 25 khoroo | Few   | Few  | -  | -  |

### 3. Strengthened institutional capacity

| No. | Municipality/District   |          |            |           |
|-----|---|----------|------------|-----------|
|     | Name of community   | 7 Khoroo | 24 Khoroo  | 25 Khoroo |
| 1   | Is there a community plan for<br>hazard risk reduction/ climate<br>change adaptation? | No       | In process | No        |

| 2 | Have there been any training on risk reduction and resilience?                            | Certain amount of information is<br>given by the khoroo but insufficient<br>and ineffective | <ul> <li>training is provided once a year by<br/>the district office.</li> <li>State Emergency Department pro-<br/>vided 2 training sessions in spring and<br/>fall seasons (annually)</li> </ul> | Training provided by khoroo for over 400 residents |
|---|---|---|---|--|
| 3 | Is there a municipal CC and resili-<br>ence plan incorporated into plan-<br>ning schemes? | Not clearly incorporated  | Yes   | Unknown  |
| 4 | Is there any community level<br>awareness of exposure to at least<br>one key hazard?      | Very few residents have information and conscience  | Not likely  | Yes  |

### 4. Health issues related to climate change

| No. | Municipality/ District            |   |  |                    |
|-----|-----------------------------------|---|--|--------------------|
|     | Name of community                 | 7 Khoroo                                  | 24 Khoroo                                  | 25 Khoroo          |
| 1   | # of households to report an oc-  | - 50% of children aged 0-5 years suf-     | - heatstroke particularly for children     | - not many reports |
|     | cupant with diarmea in last 3     | of proper bugiene prestices               | the area                                   |                    |
|     | months in this settlement         | rospiratory infactious disease is in      | childron suffers from diarrhoa ro          |                    |
|     |                                   | crossing due to sir pollution             | sulting from lack of proper bygione        |                    |
|     |                                   |   | practices                                  |                    |
| 2   | # of households to report an oc-  | Respiratory diseases due to allergic      | Due to sever dryness, skin disease al-     | -                  |
|     | cupant with malaria/ dengue last  | reactions                                 | lergy asthma and throat disease            |                    |
|     | year                              |   |  |                    |
| 3   | Existence of drainage issues that | No  | Few reports of mosquito and mites          | -                  |
|     | may give rise to mosquito borne   |   | bites.                                     |                    |
|     | diseases                          |   |  |                    |
| 4   | Main health problems/ issues      | - cardiovascular disease and hyper-       | - cardiovascular disease and blood         | -                  |
|     |                                   | tension                                   | pressure increase                          |                    |
|     |                                   | - malfunction of stomach, liver           | - heatstroke                               |                    |
|     |                                   | (for all ages)                            | - lack of health care trainings            |                    |
|     |                                   | - infections due to lack of awareness al  | bout hand washing (hand and mouth dis      | eases)             |
|     |                                   | - diarrhea, infectious disease, respirato | ry disease, chickenpox, allergic reactions |                    |

## 5. Urban development and housing

| INO. | Municipality/ District   |  |   |                        |
|------|--|--|---|------------------------|
|      | Name of community  | 7 Khoroo   | 24 Khoroo   | 25 Khoroo              |
| 1    | Is this community organised/built according to an urban plan? (or Is | Informal settlement  | Informal settlement   | Informal settlement    |
|      | this settlement considered infor-<br>mal?)                           | No group   | There is one Red Cross community group for disaster relief purpose  | No group               |
| 2    | # of dwellings with 'average' or<br>'poor' quality walls             | Mostly average (>5500)   | Mostly average (>4000)  | Mostly average (>3400) |
| 3    | # of overcrowded dwellings   | Mostly dense settlement  | Not dense settlement  | Not dense settlement   |
| 4    | # of dwellings destroyed by last hazard                              | 28 households affected by flood<br>78 household apartment basement<br>affected by flood cutting off electric-<br>ity | 5 ger houses and fences collapsed<br>due to strong wind and storm in 2016<br>30 cars drowned in flood when con-<br>crete bridge collapsed in 2000 | No                     |

### 6. Physical infrastructure

| No. | Municipality/ District               |                           |                                       |                           |
|-----|--------------------------------------|---------------------------|---------------------------------------|---------------------------|
|     | Name of Community                    | 7 Khoroo                  | 24 Khoroo                             | 25 Khoroo                 |
| 1   | Are the streets and roads in this    | No                        | 3,5m asphalt road planned in the      | No                        |
|     | settlement planned and paved?        |                           | main road                             |                           |
|     |                                      |                           | 2,7m dirt road improved for even sur- |                           |
|     |                                      |                           | face                                  |                           |
| 2   | How many schools are there in        | 1 school                  | 2 school                              | 1 school                  |
|     | this settlement? Are they built in a | 3 kindergarten            | 2 kindergarten                        | 1 kindergarten            |
|     | resilient manner?                    |                           |                                       |                           |
| 3   | How many hospitals/health posts      | 1 community health center | 1 community health center             | 1 community health center |
|     | are there in this settlement? Are    |                           |                                       |                           |
|     | they built in a resilient manner?    |                           |                                       |                           |
| 4   | Are the necessary protective infra-  | No                        | No                                    | -                         |
|     | structures in place (e.g. damns,     |                           |                                       |                           |

|   | walls) to reduce impact of flood-<br>ing, storms, etc. in this commu-<br>nity?   |    | Need to build dam by the Baruun Sa-<br>laa Bridge and canals are needed<br>along the riverside |   |
|---|--|----|--|---|
| 5 | Does this settlement have an op-<br>erational drainage system? Is it<br>sufficient to drain precipitation<br>and avoid flooding? | No | Flood canal was recently built near<br>School No. 128  | - |

### 7. Water resources and sanitation

| No. | Municipality/ District              |   |   |   |
|-----|-------------------------------------|---|---|---|
|     | Name of Community                   | 7 Khoroo                                | 24 Khoroo                               | 25 Khoroo                               |
| 1   | # of households with toilet         | 2204                                    | 1616                                    | 1392                                    |
| 2   | % of households using following     | - 86 households in public housing       | - 2 public toilets                      | - 100% pit latrines                     |
|     | types of toilets:                   | with shared community toilet            |   |   |
|     | 1) Shared community toilet          |   | -10 households in "Erh chuluu           |   |
|     | 2) Share neighbors                  | 20% apartment complex "Khilchin         | hothon" apartment complex is con-       |   |
|     | 3) Connected to septic tank         | hothon" is connected to sewerage        | nected to sewerage system               |   |
|     | 4) Straight pipe                    | network                                 |   |   |
|     | 5) Connected to town sewerage       | 78% pit latrines                        | 90%pit latrines                         |   |
|     | system                              |   |   |   |
| 3   | Average type of toilet:             | 78% pit latrines                        | 90% pit latrines                        | 100% pit latrines                       |
|     | 1) Water seal 2) Flush 3) Pit       |   |   |   |
| 4   | # of households with toilet dis-    | 0                                       | 1000 household is in the swampy ar-     | -                                       |
|     | charging directly into the environ- |   | eas of 7th and 9th kheseg. Their pit    |   |
|     | ment (unimproved pit toilet or      |   | latrines might be affecting the water-  |   |
|     | straight pipe to sea/river/etc.)    |   | way.                                    |   |
| 5   | Main water resource                 | - 4 water kiosk sell / provide water to | - 1 water kiosk sell / provide water to | - 3 water kiosk sell / provide water to |
|     |                                     | the community (water trucked)           | the community (water trucked)           | the community (water trucked)           |
|     |                                     | - 12 ground wells                       | -24 ground wells                        | -19 ground wells                        |
| 6   | How to dispose of used toilets?     | Bury and dig new one                    |   |   |
|     | - Take out to throw away            |   |   |   |
|     | - Suction out                       |   |   |   |
|     | - Bury and dig new one              |   |   |   |

| 7 | # of households that own (not   | 22% | 10% | 0 |
|---|---------------------------------|-----|-----|---|
|   | shared) formal water connection |     |     |   |
|   | with meter                      |     |     |   |

### 8. Waste and waste infrastructure

| No. | Municipality/ District   |  |                |           |  |
|-----|--|--|----------------|-----------|--|
|     | Name of Community  | 7 Khoroo   | 24 Khoroo      | 25 Khoroo |  |
| 1   | Existence of regular waste collec-<br>tion by council or private organi-<br>zation | Yes  | Yes            | Yes       |  |
|     |  | Municipality urban service company is responsible for waste collecting and waste management but since it is a public service company, the service is insufficient and ineffective. |                |           |  |
| 2   | # of households to dispose waste<br>in river, creek, or sea                        | Only when garbage disposal service has not come on time  |                | -         |  |
| 3   | # of households to burn or bury<br>waste   | 551 households (burns tires, clothing, shoes etc.)   | 130 households | -         |  |

### 9. Natural assets protected or rehabilitated

| No. | Municipality/ District           |   |  |                                       |
|-----|----------------------------------|---|--|---------------------------------------|
|     | Name of community                | 7 Khoroo  | 24 Khoroo                              | 25 Khoroo                             |
| 1   | Does this community report is-   | - waste and pollution due to flood                  | 0                                      | 0                                     |
|     | sues with pollution/ environmen- | - streets are not pedestrian friendly               |  |                                       |
|     | tal degradation (e.g. forest or  |   |  |                                       |
|     | mangroves)? And how many peo-    |   |  |                                       |
|     | ple affected (livelihoods)       |   |  |                                       |
| 2   | Has any steps been taken in this | - the water inside the flooded plot                 | - provided ger house to 12 house-      | - distributed trees to 100 households |
|     | community to improve/ main-      | was pumped by the State Emergency                   | holds affected by the strong wind-     | to prevent dryness and dust           |
|     | tain/reduce impacts on natural   | Department.   | storm                                  |                                       |
|     | assets? If not, why?             | <ul> <li>kheseg leaders work to pump wa-</li> </ul> | - build pit latrines for 40 households |                                       |
|     |                                  | ters from residents' plots                          | that did not have toilets              |                                       |
|     |                                  | - residents want to take action, but it             | - distribute trees to 300 households   |                                       |
|     |                                  | can not be implemented because of                   | to prevent dryness and dust            |                                       |
|     |                                  | financial problems.                                 |  |                                       |

### 10. Improved policies & regulations

| NO. | Municipality/ District  |                               |           |           |
|-----|---|-------------------------------|-----------|-----------|
|     | Name of community   | 7 Khoroo                      | 24 Khoroo | 25 Khoroo |
| 1   | Does the city/community has the<br>necessary building regulations for<br>resilient development? Are they<br>enforced properly in this commu-<br>nity? | Yes but implementation is low | Yes       | Unknown   |
| 2   | Has any policy been introduced or<br>adjusted to address climate<br>change in the community?  | In khoroo and district level  | No        | -         |

# RAPID SETTLEMENT ASSETS SURVEY – Covering all target communities

BUILDING URBAN CLIMATE RESILIENCE UN-HABITAT - ADAPTATION FUND

SUKHBAATAR and BAYANZURKH DISTRICTS

| 1. Ber | Beneficiaries          |                |            |           |            |  |  |  |
|--------|------------------------|----------------|------------|-----------|------------|--|--|--|
| No.    | Municipality/ District | ct Ulaanbaatar |            |           |            |  |  |  |
|        | Name of community      |                | Sukhbaatar |           | Bayanzurkh |  |  |  |
|        |                        | 12 Khoroo      | 13 Khoroo  | 16 Khoroo | 9 Khoroo   |  |  |  |
| 1      | Total population       | 7,268          | 9,119      | 11,945    | 13,766     |  |  |  |
| 2      | Number of Female       | -              | 4,568      | 6,128     | 7,023      |  |  |  |
| 3      | # of < age 14          | 2,114          | 2,572      | 3,697     | 2,355      |  |  |  |
| 4      | # of age 15-24         | 1,013          | 1,351      | 1,664     | 2,149      |  |  |  |
| 5      | # of age 25-60         | 3,741          | 4,694      | 5,826     | 6697       |  |  |  |
| 6      | # of > age 60          | 400            | 447        | 758       | 670        |  |  |  |

| 7  | # of disabled population                   | 213                        | 239                      | 288                          | 724                        |
|----|--|----------------------------|--------------------------|------------------------------|----------------------------|
| 8  | # of indigenous people                     | -                          | -                        | -                            | -                          |
| 9  | # of immigrants                            | 518                        | 40                       | 179                          | 194                        |
| 10 | # of informal people                       | 276                        | 76                       | 100                          | 95                         |
| 11 | # of households                            | 2,189                      | 2,522                    | 3,127                        | 3,,785                     |
| 12 | Poverty rate (%)                           | 657 households (30%)       | 180 households (7%)      | 396 households (13%)         | 572 households (15%)       |
| 13 | How many people will benefit from the      |                            |                          |                              |                            |
|    | following proposed interventions in the    |                            |                          |                              |                            |
|    | community:                                 |                            |                          |                              |                            |
|    | Physical/structural interventions (specify | 50%                        | 75%                      | 50%                          | 95%                        |
|    | what is relevant):                         |                            |                          |                              |                            |
|    | - Drainage canals in most vulnerable ar-   |                            |                          |                              |                            |
|    | eas  |                            |                          |                              |                            |
|    | - Improved (eco) pit latrines              |                            |                          |                              |                            |
|    | - Construction of fence around dams        |                            |                          |                              |                            |
|    | - Tree plantation (through involvement     |                            |                          |                              |                            |
|    | of school children)                        |                            |                          |                              |                            |
|    | Trainings                                  | 30%                        | 90%                      | 30%                          | 90%                        |
|    | Communication                              | 60%                        | 90%                      | 40%                          | 90%                        |
|    | Information                                | 50%                        | 90%                      | 50%                          | 90%                        |
|    | - including: Analysis of catchment area    |                            |                          |                              |                            |
|    | (rather than political boundaries) to      |                            |                          |                              |                            |
|    | study flood control measures needs         |                            |                          |                              |                            |
| 14 | Are there early warning systems in place   | - information is posted on | - kheseg leaders go      | - no public warning sys-     | - written warning is given |
|    | covering different types of nazards (e.g.  | кногоо оптсе Facebook      | around houses to deliver | tem at knoroo level          | by knoroo and kneseg       |
|    | floods, cyclones, storms, droughts, etc.)  | page                       | communicate warnings     | - district office has public | leaders to households lo-  |
|    |  |                            |                          | (loud speaker)               | cated in areas which       |
| 15 | Fuistance of during an evidence            |                            | da                       | (loud speaker)               | could be affected by flood |
| 15 | Existence of drainage system               | no drainage canal but one  | uam (770m)               | 1 oorth dom with no concre   | to coating                 |
| 10 |  |                            |                          | Dely 10 by since facilities  |                            |
| 10 | Existence of sewage system                 | No central sewage system   |                          | only to business facilities  | No central sewage system   |
|    |  |                            |                          | are connected to the cen-    |                            |
|    |  |                            |                          | trai system                  |                            |

| 17<br>18<br>19 | Existence of different groups (ethnic,<br>women, elderly, disabled, youth) who are<br>treated differently. If so, how?<br>Participation of women in decision-mak-<br>ing process. If no, why?<br>Main livelihoods / sources of income in  | 518 Chinese immigrants<br>get welfare from the gov-<br>ernment but do not par-<br>ticipate in election<br>Elderly receive pension and<br>High participation   | No<br>disabled receive monthly all<br>High participation   | No<br>owance (equivalent to minim<br>High participation  | No<br>um wage)<br>High participation  |
|----------------|---|---|--|--|---|
|                | community?  | services)<br>Few households have<br>kitchen garden  | Some residents have part<br>time employment in con-<br>struction material shop /<br>market area  |  | Some have household<br>level production (felt<br>making, sewing, etc.)  |
| 20             | <ul> <li>Main environmental problems (Choose<br/>Top 3)</li> <li>1) River flooding</li> <li>2) Surface Flooding (rainwater)</li> <li>3) River Bank Erosion (soil disappearing)</li> <li>4) Inland erosion</li> <li>5) Pollution (dirty air, dirty water, dirty soil)</li> <li>6) Rubbish (waste management)</li> <li>7) Drainage (e.g. blocked drains)</li> <li>8) Sanitation (problems with toilet)</li> <li>9) Decline in forest areas</li> <li>10) Plant Disease</li> <li>11) Insects or bugs (flies, mosquitoes)</li> <li>12) agriculture sustainability</li> </ul> | <ul> <li>2. some houses are built<br/>in swampy, unsafe areas<br/>(basin way blocking natu-<br/>ral flow of water)</li> <li>houses and streets<br/>flooded in 2006</li> <li>5. air pollution during<br/>winter from burning coal<br/>for heating</li> <li>soil pollution due to lack<br/>of waste disposal</li> <li>garbage floats from<br/>neighboring district<br/>(Chingiltei)</li> <li>8. pit latrines are often<br/>dug 1 meter from be-<br/>cause of hard surface fill-<br/>ing up and overflowing</li> </ul> | <ol> <li>2. water is collected in the streets during rain, flood</li> <li>5. soil pollution from lack of proper disposal of grey water and pit latrines         <ul> <li>air pollution during winter from burning coal for heating</li> </ul> </li> <li>8. pit latrines are often overflowing</li> </ol> | <ul> <li>2. surface flooding of<br/>roads and compounds<br/>(no reported flood issue<br/>for past 2 years)</li> <li>5. air pollution during<br/>winter from burning coal<br/>for heating</li> <li>8. pit latrines are often<br/>overflowing <ul> <li>ground elevated due to<br/>frozen soil</li> </ul> </li> </ul> | <ul> <li>2. surface flooding of roads and compounds</li> <li>5. air pollution from burning of garbage <ul> <li>air pollution during winter from burning coal for heating</li> <li>waste from hospital and from waste disposal center comes to the area due to lack of proper disposal</li> <li>8. pit latrines are often overflowing</li> </ul> </li> </ul> |

| No. | Municipality/<br>District | Name of<br>community | Most problematic climatic<br>hazard   | Effects on the community  | Factors stopping your com-<br>munity from coping with cur-<br>rent impacts   | Possible resilience building in-<br>terventions identified   |
|-----|---------------------------|----------------------|---|---|--|--|
| 1   | Ulaanbaatar               | SB 12 kho-<br>roo    | <ul> <li>cannot dig pit latrines<br/>below 1 meter therefore<br/>they overflow frequently<br/>particularly during spring<br/>and when it rains (also<br/>grey water)</li> <li>air pollution is particu-<br/>larly accumulated in this<br/>area during winter from<br/>burning coal for heating</li> <li>soil pollution due to lack<br/>of waste disposal</li> <li>dam situated in the mid-<br/>dle of the khoroo is highly<br/>polluted because some<br/>households and construc-<br/>tion companies dispose<br/>waste in it</li> </ul> | <ul> <li>toilet waste and grey water<br/>freezes during the winter then<br/>melts during spring leading to<br/>pollution</li> <li>air pollution during winter is<br/>a perennial hazard to health<br/>for the people</li> <li>households are prone to dis-<br/>eases due to waste disposal<br/>surrounding dam areas</li> </ul> | <ul> <li>most khoroo /international<br/>agency projects are not ad-<br/>dressing resident's health is-<br/>sues</li> <li>a community project of 4<br/>household sharing one toilet<br/>was introduced but could not<br/>be implemented due to finan-<br/>cial issues</li> <li>surveillance camera is in-<br/>stalled and operated by the<br/>police. Police and khoroo of-<br/>fice's cooperation is weak in<br/>surveillance of garbage dis-<br/>posal</li> <li>top down process of policies</li> </ul> | <ul> <li>residents are more likely to<br/>solve such problems within<br/>small groups</li> <li>introduction of improved pit<br/>latrines and shared latrines</li> <li>plant trees around the dam<br/>and in community plots</li> <li>fence the dam area to pre-<br/>vent people from throwing<br/>trash</li> <li>install street lights and sur-<br/>veillance camera</li> <li>use proper chemical for<br/>waste disposal</li> <li>community awareness about<br/>waste disposal, hand washing,<br/>disaster preparedness, etc.</li> </ul> |
| 2   |                           | SB 13 kho-<br>roo    | <ul> <li>cannot dig pit latrines<br/>below 1 meter therefore<br/>they overflow frequently<br/>particularly during spring<br/>and when it rains (also<br/>grey water)</li> <li>air pollution is particu-<br/>larly accumulated in this<br/>area during winter from<br/>burning coal for heating</li> </ul>   | <ul> <li>toilet waste and grey water<br/>freezes during the winter then<br/>melts during spring leading to<br/>pollution</li> <li>air pollution during winter is<br/>a perennial hazard to health<br/>for the people</li> <li>households are prone to dis-<br/>eases due to waste disposal<br/>surrounding dam areas</li> </ul> | <ul> <li>financial difficulty</li> <li>khoroo does not have independent budget for flood control</li> <li>no incentive or community for those who try to clean the area</li> <li>residents try to fix canals but lack professional know how</li> </ul>   | <ul> <li>residents are more likely to<br/>solve such problems within<br/>small groups</li> <li>introduction of improved pit<br/>latrines and shared latrines</li> <li>plant trees around the dam<br/>and in community plots</li> <li>fence the dam area to pre-<br/>vent people throwing trash</li> </ul>  |

2. Climate change - impacts, barriers for adaptation and possible interventions analysis

|            |                  | (and burning of tires and<br>construction materials)<br>- soil pollution due to lack<br>of waste disposal<br>- flooding especially after<br>rain<br>- dam is highly polluted<br>because some households<br>and construction compa-<br>nies dispose waste  |   | - 5 people are in charge of<br>cleaning the khoroo for small<br>salary but it is not stable as<br>cleaning happens only before<br>important events or national<br>holidays | <ul> <li>street lights, surveillance</li> <li>camera</li> <li>use proper chemical for</li> <li>waste disposal</li> <li>community awareness about</li> <li>waste disposal, hand washing,</li> <li>disaster preparedness, etc.</li> </ul>  |
|------------|------------------|---|---|--|--|
| 3 SI<br>rc | 5B 16 kho-<br>oo | <ul> <li>cannot dig pit latrines</li> <li>below 1 meter therefore</li> <li>they overflow frequently</li> <li>particularly during spring</li> <li>and when it rains (also</li> <li>grey water)</li> <li>air pollution is particularly accumulated in this</li> <li>area during winter from</li> <li>burning coal for heating</li> <li>(and burning of tires and construction materials)</li> <li>as the waste recycle center is located on top of the</li> <li>ridge, waste and burnt materials comes down to the</li> <li>residential areas</li> <li>lack proper disposal of</li> <li>hospital waste</li> </ul> | <ul> <li>toilet waste and grey water<br/>freezes during the winter then<br/>melts during spring leading to<br/>pollution</li> <li>air pollution during winter is<br/>a perennial hazard to health<br/>for the people</li> <li>households are prone to dis-<br/>eases due to waste disposal<br/>surrounding dam areas</li> </ul> | - financial difficulties for the<br>khoroo<br>- electricity bills become bur-<br>den for households  | <ul> <li>sewerage canals need to be<br/>built and connected to central<br/>connection</li> <li>electric heating system<br/>needs to be introduced</li> <li>residents are more likely to<br/>solve such problems within<br/>small groups</li> <li>introduction of improved pit<br/>latrines and shared latrines</li> <li>plant trees around the dam<br/>and in community plots</li> <li>fence the dam area to pre-<br/>vent people throwing trash</li> <li>street lights, surveillance<br/>camera</li> <li>use proper chemical for<br/>waste disposal</li> <li>community awareness about<br/>waste disposal, hand washing,<br/>disaster preparedness, etc.</li> </ul> |

| 4 | BZ  | 2 9 kho- | - cannot dig pit latrines      | - toilet waste and grey water    | - financial problems for kho- | - concrete existing earth dam, |
|---|-----|----------|--------------------------------|----------------------------------|-------------------------------|--------------------------------|
|   | roo | C        | below 1 meter therefore        | freezes during the winter then   | roo                           | connect through pipe, road in  |
|   |     |          | they overflow frequently       | melts during spring leading to   |                               | swampy areas                   |
|   |     |          | particularly during spring     | pollution                        |                               | - residents want to move or    |
|   |     |          | and when it rains (also        | - air pollution during winter is |                               | improve Tsagaan davaa recy-    |
|   |     |          | grey water)                    | a perennial hazard to health     |                               | cle center (waste disposal)    |
|   |     |          | - air pollution is particu-    | for the people                   |                               | - redevelop bus stop, connect  |
|   |     |          | larly accumulated in this      | - due to waste disposal in the   |                               | public amenities to central    |
|   |     |          | area during winter from        | dam areas surrounding            |                               | water and sewage system        |
|   |     |          | burning coal for heating       | households are prone to dis-     |                               | - residents are more likely to |
|   |     |          | - lack of proper waste dis-    | eases                            |                               | solve such problems within     |
|   |     |          | posal from the hospital        |                                  |                               | small groups                   |
|   |     |          | - as the final bus stop is lo- |                                  |                               | - introduction of improved pit |
|   |     |          | cated here and as there        |                                  |                               | latrines and shared latrines   |
|   |     |          | are no public toilets, peo-    |                                  |                               | - plant trees around the dam   |
|   |     |          | ple void in the open pol-      |                                  |                               | area and in community plots    |
|   |     |          | luting the area                |                                  |                               | - fence the dam area to pre-   |
|   |     |          |                                |                                  |                               | vent people throwing trash     |
|   |     |          |                                |                                  |                               | - street lights, surveillance  |
|   |     |          |                                |                                  |                               | camera                         |
|   |     |          |                                |                                  |                               | - use proper chemical for      |
|   |     |          |                                |                                  |                               | waste disposal                 |
|   |     |          |                                |                                  |                               | - community awareness about    |
|   |     |          |                                |                                  |                               | waste disposal, hand washing,  |
|   |     |          |                                |                                  |                               | disaster preparedness,         |

## 3. Strengthened institutional capacity

| NO. | Municipality/ District         |                      |                      |                      |                     |
|-----|--------------------------------|----------------------|----------------------|----------------------|---------------------|
|     | Name of community              | Sukhbaatar 12 Khoroo | Sukhbaatar 13 Khoroo | Sukhbaatar 16 Khoroo | Bayanzurkh 9 Khoroo |
| 1   | Is there a community plan for  | Yes                  | Yes                  | Yes                  | Yes                 |
|     | hazard risk reduction/ climate |                      |                      |                      |                     |
|     | change adaptation?             |                      |                      |                      |                     |

| 2 | Have there been any training on risk reduction and resilience?                            | Training provided once by district office | Training provided by<br>World Vision 3 times last<br>year   | Training provided once by district office   | Training provided by State<br>Emergency Department |
|---|---|---|---|---|--|
| 3 | Is there a municipal CC and resili-<br>ence plan incorporated into plan-<br>ning schemes? | Yes                                       | Yes   | Yes   | Yes  |
| 4 | Is there any community level  | Yes                                       | Yes   | Yes   | Yes  |
|   | awareness of exposure to at least<br>one key hazard?                                      | Insufficient                              | Insufficient<br>10-30 people participated<br>in last training session<br>which happened in the<br>streets where people are<br>most likely to meet | <ul> <li>insufficient awareness of<br/>flood.</li> <li>written warnings are pro-<br/>vided only to households<br/>who could be affected</li> <li>earthquake training has<br/>been regularly provided</li> </ul> | Insufficient                                       |

### 4. Health issues related to climate change

| No. | Municipality/ District  |   |                                       |                      |                     |  |
|-----|---|---|---------------------------------------|----------------------|---------------------|--|
|     | Name of community   | Sukhbaatar 12 Khoroo  | Sukhbaatar 13 Khoroo                  | Sukhbaatar 16 Khoroo | Bayanzurkh 9 Khoroo |  |
| 1   | # of households to report an oc-<br>cupant with diarrhea in last 3<br>months in this settlement | 5 people  | 1 person<br>3 suffered from dysentery | 6 people             | 5 people            |  |
| 2   | # of households to report an oc-<br>cupant with malaria/ dengue last<br>year                    | No  | No                                    | No                   | No                  |  |
| 3   | Existence of drainage issues that<br>may give rise to mosquito borne<br>diseases                | No  | No                                    | No                   | No                  |  |
| 4   | Main health problems/ issues  | <ul> <li>- infections due to lack of awareness about hand washing (hand and mouth diseases)</li> <li>- diarrhea, infectious disease, respiratory disease, chickenpox</li> </ul> |                                       |                      |                     |  |

### 5. Urban development and housing

| No. | Municipality/ District             |                           |                              |                              |                             |
|-----|------------------------------------|---------------------------|------------------------------|------------------------------|-----------------------------|
|     | Name of community                  | Sukhbaatar 12 Khoroo      | Sukhbaatar 13 Khoroo         | Sukhbaatar 16 Khoroo         | Bayanzurkh 9 Khoroo         |
| 1   | Is this community organised/built  | Informal settlement       | Informal settlement          | Informal settlement          | Informal settlement         |
|     | according to an urban plan? (or is | There is a community      | There is a community         | No group                     | There is community group    |
|     | this settlement considered infor-  | group of 6 people in each | group of 20 people in each   |                              | to manage redevelopment     |
|     | mal?)                              | kheseg to manage commu-   | kheseg to manage commu-      |                              | issues                      |
|     |                                    | nity issues.              | nity issues.                 |                              |                             |
| 2   | # of dwellings with 'average' or   | Mostly poor (>2000)       | Mostly poor (>2400)          | Mostly poor (>3100)          | Mostly poor (>3780)         |
|     | 'poor' quality walls               |                           |                              |                              |                             |
| 3   | # of overcrowded dwellings         | Mostly dense settlement   | Mostly dense settlement      | Old areas are dense settle-  | As this is newer settlement |
|     |                                    |                           | except for swampy areas      | ments                        | the settlement is not dense |
|     |                                    |                           |                              | Newer settlements are not    |                             |
|     |                                    |                           |                              | dense                        |                             |
| 4   | # of dwellings destroyed by last   | 0                         | - 28 households near         | - 1 affected by flood        | - 60th street basin over-   |
|     | hazard                             |                           | Nogoon Talbai were af-       | - 10 houses in river valleys | flowed and 162 household    |
|     |                                    |                           | fected by flood last year    | affected                     | were in state of emergency  |
|     |                                    |                           | - toilet water overflowed in |                              | during flood (as listed by  |
|     |                                    |                           | most plots                   |                              | the State Emergency De-     |
|     |                                    |                           |                              |                              | partment)                   |

### 6. Physical infrastructure

| No. | Municipality/ District            |                         |                           |                                  |                              |
|-----|-----------------------------------|-------------------------|---------------------------|----------------------------------|------------------------------|
|     | Name of community                 | Sukhbaatar 12 Khoroo    | Sukhbaatar 13 Khoroo      | Sukhbaatar 16 Khoroo             | Bayanzurkh 9 Khoroo          |
| 1   | Are the streets and roads in this | - all improved except 2 | - some are graveled (only | - 3 streets improved with        | - one paved street           |
|     | settlement planned and paved?     | streets                 | temporary improvement)    | gravel but as the streets        |                              |
|     |                                   |                         |                           | got elevated, plots become       |                              |
|     |                                   |                         |                           | lower and water comes            |                              |
|     |                                   |                         |                           | through the slopes into the      |                              |
|     |                                   |                         |                           | plots                            |                              |
|     |                                   |                         |                           | - as the area is located on the  | e ridge slope roads are par- |
|     |                                   |                         |                           | ticularly difficult during winte | er season                    |

| 2 | How many schools are there in<br>this settlement? Are they built in a<br>resilient manner?   | no kindergarten                      | 1 kindergarten<br>1 planned (200 children) | no kindergarten  | 1 kindergarten<br>(250 children)        |
|---|--|--------------------------------------|--|--|---|
| 3 | How many hospitals/health posts<br>are there in this settlement? Are<br>they built in a resilient manner?  | 1 community health center            | 1 community health center                  | 1 community health center<br>1 nursing home                | 1 community health center<br>1 hospital |
| 4 | Are the necessary protective infra-<br>structures in place (e.g. dams,<br>walls) to reduce impact of flood-<br>ing, storms, etc. in this commu-<br>nity? | No drainage canal but one dam (770m) |  | No drainage canal but 1 earth dam with no concrete coating |   |
| 5 | Does this settlement have an op-<br>erational drainage system? Is it<br>sufficient to drain precipitation<br>and avoid flooding?                         | No                                   | 1 canal but insufficient                   | No   | No                                      |

## 7. Water resources and sanitation

| INO. | Municipality/ District          |                      |                          |                            |                             |
|------|---------------------------------|----------------------|--------------------------|----------------------------|-----------------------------|
|      | Name of community               | Sukhbaatar 12 Khoroo | Sukhbaatar 13 Khoroo     | Sukhbaatar 16 Khoroo       | Bayanzurkh 9 Khoroo         |
| 1    | # of households with toilet     | 1000 pit latrines    | 1569 pit latrines        | 2200 pit latrines          | 1081 pit latrines           |
| 2    | % of households using following | 100% pit latrines    | - 1 public toilet        | - 5 public toilets (for 50 | - 4 public toilets          |
|      | types of toilets:               |                      | - 10 houses connected to | households)                | - 12 public facilities have |
|      | 1) Shared community toilet      |                      | sewerage network         |                            | septic tanks (kindergarten, |
|      | 2) Share neighbors              |                      |                          |                            | khoroo office) and 4        |
|      | 3) Connected to septic tank     |                      |                          |                            | households                  |
|      | 4) Straight pipe                |                      |                          |                            |                             |
|      | 5) Connected to town sewerage   |                      |                          |                            |                             |
|      | system                          |                      |                          |                            |                             |
| 3    | Average type of toilet:         | 100% pit latrines    | 100% pit latrines        | - 95% pit latrines         | 95% pit latrines            |
|      | 1) Water seal 2) Flush 3) Pit   |                      |                          |                            |                             |

| 3 | # of households with toilet dis-<br>charging directly into the environ-<br>ment (unimproved pit toilet or<br>straight pipe to sea/river/etc.) | 0  | 0  | 0  | 0  |
|---|---|--|--|--|--|
| 3 | <ul><li>How to dispose of used toilets?</li><li>a) Take out to throw away</li><li>b) Suction out</li><li>c) Bury and dig new one</li></ul>    | - bury and dig new ones  | <ul> <li>bury and dig new ones</li> <li>few households who can<br/>afford use suction</li> </ul>   | - bury and dig new ones  | - bury and dig new ones<br>- few houses use chemicals<br>to dissolve             |
| 4 | Main water resource   | <ul> <li>4 water kiosk sell / pro-<br/>vide water to the commu-<br/>nity (water trucked)</li> <li>1 water kisok connected<br/>to central system</li> </ul> | <ul> <li>4 water kiosk sell / pro-<br/>vide water to the commu-<br/>nity (water trucked)</li> <li>3 water kisok connected<br/>to central system</li> </ul> | <ul> <li>- 6 water kiosk sell / pro-<br/>vide water to the commu-<br/>nity (water trucked)</li> <li>- 3 ground wells</li> <li>- 4 water kisok connected<br/>to central system</li> </ul> | - 14 water kiosk sell / pro-<br>vide water to the commu-<br>nity (water trucked) |
| 5 | # of households that own (not shared) formal water connection with meter  | 0  | 0  | 0  | 0  |

### 8. Waste and waste infrastructure

| No. | Municipality/ District             |                               |                                 |                                  |                              |
|-----|------------------------------------|-------------------------------|---------------------------------|----------------------------------|------------------------------|
|     | Name of community                  | Sukhbaatar 12 Khoroo          | Sukhbaatar 13 Khoroo            | Sukhbaatar 16 Khoroo             | Bayanzurkh 9 Khoroo          |
| 1   | Existence of regular waste collec- | One private service company   | (Devshil) collects waste        | One private service com-         | Public services company      |
|     | tion by council or private organi- | every day                     |                                 | pany (Suzuki Yume) collect       | (No. 3) collects waste every |
|     | zation                             |                               |                                 | waste every day                  | day                          |
| 2   | # of households to dispose waste   | Few households dispose was    | te in the dam                   |                                  |                              |
|     | in river, creek, or sea            | Construction waste is not col | lected by the service providers | s so is disposed in public place | s (dam)                      |
| 3   | # of households to burn or bury    | 0                             |                                 |                                  |                              |
|     | waste                              |                               |                                 |                                  |                              |

## 9. Natural assets protected or rehabilitated

| NO. | Municipality/ District   |                      |  |   |   |
|-----|--|----------------------|--|---|---|
|     | Name of community  | Sukhbaatar 12 Khoroo | Sukhbaatar 13 Khoroo   | Sukhbaatar 16 Khoroo                        | Bayanzurkh 9 Khoroo   |
| 1   | Does this community report is-<br>sues with pollution/ environmen-<br>tal degradation (e.g. forest or<br>mangroves)? And how many peo-<br>ple affected (livelihoods) | 0                    | Reports that waste thrown<br>in the dams is affecting air<br>quality | Some reports about waste<br>disposal issues | <ul> <li>issues reported with hospital waste disposal</li> <li>issues reported with</li> <li>Tsagaan davaa recycle center – to move the center to a new place</li> </ul>  |
| 2   | Has any step been taken in this<br>community to improve/ main-<br>tain/reduce impacts on natural<br>assets? If not, why?   | 0                    | Have cleaned some parts of<br>the dam                                | No.   | <ul> <li>residents submit their reports to the office while office sends it to municipality but no actions are taken         <ul> <li>office has given small salary to those who cleaned the mountain area where garbage comes from recycle center</li> </ul> </li> </ul> |

### 10. Improved policies & regulations

| No. | Municipality/ District  |                      |                      |                      |                     |
|-----|---|----------------------|----------------------|----------------------|---------------------|
|     | Name of community   | Sukhbaatar 12 Khoroo | Sukhbaatar 13 Khoroo | Sukhbaatar 16 Khoroo | Bayanzurkh 9 Khoroo |
| 1   | Does the city/community has the<br>necessary building regulations for<br>resilient development? Are they<br>enforced properly in this commu-<br>nity? | No                   | No                   | No                   | Νο                  |
| 2   | Has any policy been introduced or<br>adjusted to address climate<br>change in the community?  | No                   | No                   | No                   | No                  |

# Part 2: Documentation of Community Rapid Needs Assessment Workshops for Flood Resilience

### Khoroo 7

A Community Rapid Needs Assessment Workshop for Flood Resilience was organized by UN-Habitat Mongolia team on 12 October 2017 in 7<sup>th</sup> Khoroo (Sub-District) of Songino-Khairkhan District of Ulaanbaatar City. The workshop was attended by 37 participants including Khoroo Governor, Kheseg Leaders and local residents. During the workshop the participants discussed their flood related problems and articulated potential actions for solution. The problems were compiled by the participants as per the following groups.

| Problems      |   |
|---------------|---|
| Environmental | Because of low land, even after a moderate rain and show the entire settlement            |
|               | turns to the puddle of rainfall from the runways and surrounding mountains. Due to        |
|               | low water absorption capacity of soil, the puddles remain in the area until winter and    |
|               | get frozen. When the puddles get frozen, people will have a persistent risk of injury     |
|               | for the people of the area because of icy surface for the entire winter months.           |
|               | For many years the area people have been trying to solve the wet and muddy surface        |
|               | problem individually by putting gravel and soil onto the puddles and on the top of icy    |
|               | surface for their living and safe passages through the area. As result of this, there are |
|               | thick layers of soil and gravel being formed in some places over the wet soil creating    |
|               | following new problems. One of immediate problems is that the piles of soil poured        |
|               | on the puddle without much consideration of stream of rainfall make other areas in        |
|               | the vicinity prone to the flood. The second is that the soil layer cracks sometimes cre-  |
|               | ating small to big holes on the surface and limits the movements of people and vehi-      |
|               | cle on the surface. Every time it has been resulted in the malfunctioning of roads and    |
|               | drainages, in breaking of the normal life leadings of the people including the difficul-  |
|               | ties to access their plots and homes.   |
| Economical    | Due to muddy and rocky road conditions, the cars often get damaged.                       |
|               | Wooden and felt structures of ger and houses such as floor and walls get easily worn      |
|               | out due to regular interaction with the muddy surface.                                    |
|               | Shoes and clothes of people especially children easily get deteriorated                   |
|               | Have to buy often soil and gravel to put onto mud.  |
| Health        | Pit latrines and waste water disposal holes get filled up easily with rainfall water and  |
|               | overflowed contents pollute the surrounding area while creating health risks to the       |
|               | people.   |
|               | Rainfall water sweeps up all the garbage in the gullies and brings to the catchment       |
|               | area. This often results in soil pollution with the potential risk of danger from hazard- |
|               | ous waste.  |
|               | Due to floods the roads get damaged and cracked. People especially children and old       |
|               | fall to the cracks and get injuries.  |
|               | Drinking water from wells gets polluted   |
|               | Water borne infectious diseases spread over the settlement after the flooding             |

During the problem identification, the participants were given the settlement map and marked the existing natural and manmade features relevant to rainfall water movement in the area. Please refer to Map 1 for the information. The orange lines on the Map 1 show the natural gullies which bring the rainfall and snow water from the surrounding mountains and high lands to the settlement. Rose lines are old embankments which don't function any more. Blue lines are Tolgoit river. Blue dots are natural small fountains which were not there before but have appeared on the ground inside of private plots from recent years. Purple lines are existing foot briges over the stangnant water.

After the problems identification potential actions were identified by the particpants as per the below table. Participating communities were expressing their appreciation to the organizers of the workshop



for paying attention to the quality of their lives and bringing up the flood resilience issue for the area people as this was the most pressing issue for the recent years. The organizers were invited by the participants to visit their plots and houses and see the real situation on the ground. The organizer team visited the plots and houses after the workshop and took photos of ground situation.

| Potential actions for improvement |   |  |  |  |
|-----------------------------------|---|--|--|--|
| Medium scale                      | Construction of flood control facilities including drainage, embankment, ditches        |  |  |  |
| Construction                      | and installation of culverts  |  |  |  |
| work                              | Construction of bridges over big gullies and river basin area                           |  |  |  |
|                                   | Connect households and businesses to the central and local sanitation systems           |  |  |  |
|                                   | Improvement of sewerage system  |  |  |  |
|                                   | Construction of septic tanks shared within 5-8 Households                               |  |  |  |
|                                   | Divert the stream of surface runoff into the Baruun Salaa River                         |  |  |  |
|                                   | Establish a rainwater harvesting reservoir to collect and store rainwater for           |  |  |  |
|                                   | green area irrigation purpose   |  |  |  |
|                                   | Establish a surface water reservoir using the natural springs and streams               |  |  |  |
|                                   | Construct a sewerage network  |  |  |  |
|                                   | Learning from international and national good experiences                               |  |  |  |
| Small scale<br>work               | Organize activities to improve water absorption capacity of soil such as planting trees |  |  |  |
|                                   | Landscaping of the streets  |  |  |  |
|                                   | Community flood resilience building activities through community mobilization,          |  |  |  |
|                                   | organization and training   |  |  |  |
|                                   | Train the communities in flood protection, mitigation and adaptation capacities         |  |  |  |
| Households                        | Improve pit latrines and waste water disposal pits of households using the ways         |  |  |  |
| and neighbor-                     | to prevent the pits from flooding by surface water and make them safer for wa-          |  |  |  |
| hood scale                        | ter quality of ground water table   |  |  |  |
| work                              | Organize activities to improve water absorption capacity of soil such as planting       |  |  |  |
|                                   | trees and pumping the excess stagnant surface water                                     |  |  |  |
|                                   | Share experiences between communities and learn from others                             |  |  |  |
|                                   | Organize neighborhoods into self-help groups with common goal of building               |  |  |  |
|                                   | flood resilience and helping each other   |  |  |  |
|                                   | Improve landscaping of the streets  |  |  |  |

Map 1. 7<sup>th</sup> Khoroo area map





### Photos during the workshop



Photos during the field visit.




















**Торіс/Уулзалтын Сэдэв:** Үерээс хамгаалах чадавхийг бэхжүүлэхэд иргэдийн асуудал хэрэгцээг тодорхойлох

| Noted by/Тэмдэглэл            | Reviewed/Тэмдэглэлтэй                   | Nº: 04/17               |
|-------------------------------|---|-------------------------|
| хөтөлсөн:                     | танилцсан:                              |                         |
| НЗопазна                      |   |                         |
| П.ЗОЛЗАЯА                     |   |                         |
| Date/Огноо: 07.12. 2017       | Venue/Байршил: БЗД-ийн 9-р              | At-                     |
|                               | хорооны иргэний танхим                  | tendees/Оролцогчдын     |
|                               |   |                         |
|                               |   | 100.22                  |
| Facilitators/Зохион байгуула  | г <b>чид:</b> Ш.Энхцэцэг/НҮБ-Хабитат, Т | өслийн менежер/,        |
| Н.Золзаяа/НҮБ-Хабитат байгу   | уллага, Нийгэм жендэрийн мэргэж         | илтэн/, Н.Наранбат/НҮБ- |
| Хабитат байгууллага, Хот төл  | өвлөгч/                                 |                         |
| Participants/Оролцогчид: БЗ   | 1-ийн 9-р хорооны оршин суугчид         |                         |
|                               |   |                         |
|                               |   | J                       |
| Meeting purpose/Уулзалтын 3   | <b>зорилго:</b> тухаин газар нутгиин үе | ер усны аюултаи газар   |
| нутаг болон түүнтэй холбоотой | й иргэдэд үүсдэг асуудал бэрхшээ        | лийг тодорхойлох,       |
|                               | · · · · · · · · · · · · · · · · · · ·   |                         |
| арэмоэлэх, зурагт тэмдэглэх   |   |                         |

#### Processing/Явц:

Уулзалтыг НҮБ-Хабитат байгууллагын Нийгэм жендэрийн ажилтан Н.Золзаяа нээж уулзалтын зорилго болон төслийн тухай товч танилцуулга хийлээ. Үүний дараа Уур амьсгалын өөрчлөлтийн талаар мэдээлэл хийлээ. Энэхүү мэдээллийн дараа нийт оролцогчид 3 бүлэгт хуваагдаж цаг уурын өөрчлөлттэй холбоотойгоор иргэдэд тулгардаг асуудлуудаар брхшээлтэй асуудлуудаа тодорхойллоо. Бүлэг бүрээс төлөөлөлөө сонгож



тодорхойлсон асуудал бэрхшээлээ бусдадаа танилцууллаа. Нийт оролцогчид бүлэг бүрийн тодорхойлсон асуудал бэрхшээлээ эрэмбэллээ. Ингэж нэн тэргүүнд шийдвэрлэх шаардлагатай бэрхшээлээ эрэмбэлж гаргасны дараа тэд дахин бүлгийн ажилд оролоо. Оролцогчид бүлэг бүлгээрээ дээрх эрэмбэлсэн бэрхшээлүүдээ шийдвэрлэхийн тулд ямар ажил хийх шаардлагатайг харилцан ярилцаж мөн хамгийн түрүүнд хийх шаардлагатай ажлуудаа эрэмбэллээ. Мөн тэд нэн тэргүүнд хийх шаардлагатай ажлуудаа бусдадаа танилцууллаа. Танилцуулгын явцад 7-р хэсгийн орчимд хадархаг учир жорлон ухаж болдоггүйг тэд ярьж байлаа. Мөн байгалийн нөхцөл байдлаас гадна иргэдийн ухамсар хандлагатай холбоотой асуудал их үүсч байгааг ч тэд дурьдаж байна. Энэ хороон дээр жижг горхи урсдаг тул тэр горхийн ус айл өрхүүдрүү ордог учир тэр горхийн гольдролыг өөрчилж айлуудыг тойруулан өөрчлөх шаардлага байгааг мөн иргэд ярьж байлаа.

#### Иргэдийн санал:

**Иргэн:** Гудамжин дундуур үерийн хоолой тавих шаардлагатай байна. Мөн жалгын эрмэгээр хүн явахад зориулж явган зам хийх шаардлагатай байна.

**Иргэн:** Айл өрхүүд олуулаа нийлж цооног хийх нь боломжийн хувилбар гэж бодож байна. Айлуудын жорлонруу үерийн ус ордог. Үерийн цооног хогоор дүүрдэг асуудал гардаг.

**Иргэн:** Жалга хогоор дүүрсний улмаас үерийн ус хальж урсдагийг болиулах гол арга бол иргэдийн эргүүл, хяналтыг сайжруулах хэрэгтэй байна. Үүний тулд камержуулах шаардлагатай.

**Иргэн:** Иргэдээс өөрсдөөс нь хамаарч байгаа асуудал их байна. Ухуулга сурталчилгааны материалууд тараах, анхааруулах хуудас энд тэндгүй тавих зэргээр иргэддээ л мэдлэг өгөх нь зөв.

#### Photo/3ypar:







### Attendance/Ирцийн бүртгэл:

#### Үерээс хамгаалах чадавхийг бэхжүүлэх төсөл

| Meeting topic/Уулзалт | н нэр: Үерийн улмаас оршин суугчдад тулгарч бүй бэрхшээлийг тодорхойлох, эрэмбэлэх |
|-----------------------|--|
| Venue/ Хаана:         | аянзүрх Дүүргийн 9-р хороо, Иргэний танхим   |

Date/ Огноо: ......2017-12-07..

Өөрт хамааралтай ангилалаа Name Hэр Хүйс Sex чагтална уу please check follow Address/Xaar Утас Telephone Гарын үсэг N₽ Signature 62 -868 Өндөр настан 88162040 soper Хөгжлийн бэрхшээлтэй Эр Sopru per zoca 1 Өрх толгойлсон эмэгтэй Ċ, Эм Өндөр настан 2 JHKTOFTOX. ондор настан Хөгжлийн бэрхшээлтэй Өрх толгойлсон эмэгтэй ₽ эр 10-186 A Menurourige 88181673 ЭМ Өндөр настан 3, Euron - mynus 12-225 🗆 эр Хөгжлийн бэрхшээлтэй 7. Ewan - my res 83272666 Өрх толгойлсон эмэгтэй 19 3M Өндөр настан Хөгжлийн бэрхшээлтэй 42-635 6. Buch Lo. 4 5. Esula - Le 🗆 эр 8616028 Өрх толгойлсон эмэгтэй D IM Өндөр настан 5 6 Lam 🖌 эр Хөгжлийн бэрхшээлтэй Өрх толгойлсон эмэгтэй 89201977 J. Lam 23-348 эм D. Tuymarar Өндөр настан Хөгжлийн бэрхшээлтэй эр 6. 8 Jugnala er am 61-906 86610263 Өрх толгойлсон эмэгтэй □ эр ⊠∕ эм J. Mymobyscan Өндөр настан 7 Хөгжлийн бэрхшээлтэй 60-903-8 J. Ayucan 96603122 Өрх толгойлсон эмэгтэй

Attendance/ Ирцийн бүртгэл



| NՉ          | Name<br>Həp       | Sex<br>Хүйс                 | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                               | Address/Xaar               | Telephone<br>Утас | Signature<br>Гарын үсэг |
|-------------|-------------------|-----------------------------|--|----------------------------|-------------------|-------------------------|
| P           | Co Dages,         | ⊒∕эр<br>□ эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 60-969                     | 8974442           | 6 Sapal                 |
| 9           | M. Jepames        | □ эр<br>№ эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 9771 Xaighnau<br>5-W& 5025 | 8 122502          | FUD                     |
| 10.         | T. Jensyman       | П эр                        | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 33-509                     | 88818007          | Jos /                   |
| 11          | U , Famigron      | □ эр<br>⊡_ эм               | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 62-907 5.                  | 99721619          | Bamyrem                 |
| 12.         | 3. Auno ani       | Г¥гэр<br>□ эм               | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 60 - 975.5.0007            | 8821483           | Mar .                   |
| 13          | 3. Antowahan      | (2∕эр<br>⊡ эм               | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 60-977.007                 | 88910650.         | Al RAT aubor            |
| 14          | 3. hosp cairkon   | □ эр<br>⊻ эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 9.46-6-30                  | 88639783          | In                      |
| 15          | D. Sainteencijim  | □ эр<br>⊽ эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 33-508                     | 99940164          | hal                     |
| <i>1</i> 6. | H. acuy of merger | □ эр<br>Ю∕эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | W/2 64-947                 | 80832054          | Hxbel.                  |
| 17.         | A. Toroogopie     | е́эр<br>□ эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | ufx 30-4715                | 88891050          | B. Toroegopu            |
| 18          | 8, Jax Ecuio up   | , 💎 эр                      | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CH/X J1. 493               | 18721702          | Jinto                   |
| 19.         | B. Mouro + Try    | □ эр<br>иба <sup>эм</sup> и | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | m/x 62 - 620               | \$ 88948220       | aspentle.               |
| 20.         | M Felopmysa.      | □ эр<br>∦ ЭМ                | <ul> <li>Өндөр настан</li> <li>Хөсжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | WA 29-H37                  | 8 820 9199        | Minisa.                 |

| N۵  | Name<br>Həp     | Sex<br>Хүйс   | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                               | Address/Xaяr                   | Telephone<br>Утас | Signature<br>Гарын үсэг |
|-----|-----------------|---------------|--|--------------------------------|-------------------|-------------------------|
| QI. | B. young        | о√ эр<br>□ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 834-9-pX0100<br>WIX 55-7777007 | 88059194          | Brung                   |
| 22. | 9. Criston Parp | П эр<br>⊻ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | N/X 57-790-9A                  | 96487467          | masp                    |
|     | /               | ае<br>ам      | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэркшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> |                                |                   | Y                       |
|     |                 |               | 🗌 Өндөр настан   |                                |                   |                         |

| <b>Торіс/Уулзалтын Сэдэв:</b> Үерээс хамгаалах чадавхийг бэхжүүлэхэд иргэдийн асуудал<br>хэрэгцээг тодорхойлох |                                    |                       |  |  |  |  |  |
|--|------------------------------------|-----------------------|--|--|--|--|--|
| Noted by/Тэмдэглэл хөтөлсөн:   | Reviewed/Тэмдэглэлтэй              | <b>№:</b> 02/17       |  |  |  |  |  |
| Н.Золзаяа  | танилцсан:                         |                       |  |  |  |  |  |
| Date/Огноо: 06.12. 2017  | <b>Venue/Байршил:</b> СБД-ийн 12-р | Attendees/Оролцогчдын |  |  |  |  |  |
|  | хорооны иргэний танхим             | тоо: 31               |  |  |  |  |  |
|  |                                    | М/Эр- F/Эм-           |  |  |  |  |  |



Facilitators/Зохион байгуулагчид: Ш.Энхцэцэг/НҮБ-Хабитат, Төслийн менежер/, Н.Золзаяа/НҮБ-Хабитат байгууллага, Нийгэм жендэрийн мэргэжилтэн/, Н.Наранбат/НҮБ-Хабитат байгууллага, Хот төлөвлөгч/

Participants/Оролцогчид: СБД-ийн 12-р хорооны оршин суугчид

**Meeting purpose/Уулзалтын Зорилго:** Тухайн газар нутгийн үер усны аюултай газар нутаг болон түүнтэй холбоотой иргэдэд үүсдэг асуудал бэрхшээлийг тодорхойлох, эрэмбэлэх, зурагт тэмдэглэх

#### Processing/Явц:

Уулзалтыг НҮБ-Хабитат байгууллагын Нийгэм жендэрийн ажилтан Н.Золзаяа нээж уулзалтын зорилго болон төслийн тухай товч танилцуулга хийлээ. Үүний дараа Уур амьсгалын өөрчлөлтийн талаар мэдээлэл хийлээ. Энэхүү мэдээллийн дараа нийт оролцогчид 3 бүлэгт хуваагдаж цаг уурын өөрчлөлттэй холбоотойгоор иргэдэд тулгардаг асуудлуудаар брхшээлтэй асуудлуудаа тодорхойллоо. Бүлэг бүрээс төлөөлөлөө сонгож тодорхойлсон асуудал бэрхшээлээ бусдадаа танилцууллаа. Нийт оролцогчид бүлэг бүрийн тодорхойлсон асуудал бэрхшээлийг сонссоны дараа тэдгээрээс нэн түрүүнд шийдвэрлэвэл зохих асуудал бэрхшээлээ эрэмбэллээ. Ингэж нэн тэргүүнд шийдвэрлэх шаардлагатай бэрхшээлээ эрэмбэлж гаргасны дараа тэд дахин бүлгийн ажилд оролоо. Оролцогчид бүлэг бүлгээрээ дээрх эрэмбэлсэн бэрхшээлүүдээ шийдвэрлэхийн тулд ямар ажил хийх шаардлагатайг харилцан ярилцаж мөн хамгийн түрүүнд хийх шаардлагатай ажлуудаа эрэмбэллээ. Мөн тэд нэн тэргүүнд хийх шаардлагатай ажлуудаа бусдадаа танилцууллаа. Иргэдийн энэ бэрхшээл, шийдвэрлэх асуудлаа тодорхойлох явцад тэдний орчинд үерийн усны асуудал, жорлон хальдаг гэх мэт бохирын усны асуудал маш их байгаа нь илт байлаа. Оршин суугчид энэ бэрхшээлтэй асуудлаа шийдвэрлэхийг ихээр хүсч байгаа нь анзаарагдлаа.

#### Бохир усны талаар

Эхний ээлжинд төсөлд хамрагдах өрхүүдийг сонгохдоо дараах шалгуурыг баримтлах хэрэгтэйг иргэд хэллээ.

- Айлуудаа нягталж яг хэнд шаардлагатай байна гэдэг талаар шалгах хэрэгтэй
- Жорлон нь байнга дүүрдэг айл өрхүүдийг сонгох
- Жорлонд нь үерийн ус ордог айлууд
- Өөрөө хүсэж байгаа гэх мэт

Жорлонд тавигдах шаардлагыг иргэд дараахь байдлаар гаргасан байна.

- Тав тухтай доторлогоотой
- Зай талбайтай
- Суултууртай
- Цэвэрлэх боломжтой
- Соруулдаг
- Тэргэнцэртэй хүн суухаар био суултуур байдаг ХБИ зориулагдсан
- Суултуур нь өндөр настанд зориулагдсан байх
- Эрэгтэй, эмэгтэйгээр нь тусдаа байх
- Гэрэлтэй байх
- Ханандаа бариултай байх

Ашиглалт арчилгааны талаар иргэд дараахь саналуудыг гаргалаа.

- Муу усны соруулдаг цооногтой байх гудамжиндаа байж болно. Хөршийн холбоогоор соруулах асуудлаа зохицуулах боломжтой.
- Иргэдэд ухуулж ойлгуулах, сурталчилгааг маш сайн хийх, хаана юу яаж хийх талаар зарим хүмүүс муу усны нүхрүү уснаас өөр юм хийдэг тул болохгүй гэдгийг ойлгуулах.
- Камер ажиллуулж хяналтыг сайжруулах
- Бүлэг байгуулаад нэг хүндээ ямар нэгэн урамжуулал өгөөд ашиглалт арчилгааг хариуцуулж болно.

#### Иргэдийн санал:

**Иргэн:** Манайх үерийн сувагтай ойр байдаг. Оршин суугчид хог, муу ус, малын арьс толгой гэх мэт зүйлүүдийг сувагруу хаядаг тул манай хажуу айлын хүүхдүүд их гэдэс нь өвддөг. Иргэд орчин нөхцлөө сайжруулахын тулд өөрсдөө бага зэргийн мөнгө гаргаж чадна. Албан хүчээр ч хийх боломжтой. Орчин сайжирч байхад хүн болгон зөвшөөрнө гэж бодож байна. Манай энэ хавь их намгархаг тул соруулах зүйл хийвэл зүгээр гэж санагдаж байна. Нийтийн бохирын шугамтай л баймаар байна. Метр ухаад л ус гардаг тул соруулдаг л байвал сайн байна. Манайх гэхэд соруулдаг. Энэ нь маш зөв шийдэл гэж бодож байна. Манайх бол жилдээ 2 удаа соруулдаг. Ам бүл олонтой айл бол олон соруулах байх. Манай энд хөлдүүг нь ухаад аваад явдаг гэхдээ хаана хаяж байгаа талаар хяналттай байхгүй бол болохгүй байна лээ энд тэнд хаячихдаг сураг байдаг. Ёнкост тавиад соруулдаг байх нь чухал шүү. Иргэдийг зохион байгуулалтанд оруулах хэрэгтэй. **Иргэн:** Үер их ирдэг, их хүн зорчдог газрууд болон жорлон хальдаг айлуудаа хамгийн түрүүнд сонгох хэрэгтэй. Манай энэ хавь чинь тэр чигтээ үерт ордог. Хамгийн сайн сонголт бол олуулаа нийлж цооног хийх хувилбар гэж бодож байна. Айлуудын жорлонруу үерийн ус ордог. Үерийн цооног хогоор дүүрдэг.

Иргэн: 32-ын буудлын хажууд нийтийн жорлон хийх шаардлагатай байна.

**Иргэн:** Ухуулга сурталчилгааны материалууд тараах, анхааруулах хуудас энд тэндгүй тавих зэргээр иргэддээ л мэдлэг өгөх нь зөв.

#### Зураг:







Attendance/Ирцийн бүртгэл:

Үерээс хамгаалах чадавхийг бэхжүүлэх төсөл

Meeting topic/Уулзалтын нэр: ...... Үерийн улмаас оршин суугчдад түлгарч буй бэрхшээлийг тодорхойлох, эрэмбэлэх.....

Venue/ Хаана: .....СБДүүргийн 12-р хороо, Иргэний танхим.....

Date/ Огноо: ......2017-12-06......

| N₽ | Name<br>Hap   | Хүйс<br>Sex   | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                               | Address/Xaar               | Утас<br>Telephone | Гарын үсэг<br>Signature |
|----|---------------|---------------|--|----------------------------|-------------------|-------------------------|
| 1  | 0. Bfrageau   | ₽́Эр<br>□ Эм  | <ul> <li>Өндөр настан</li> <li>Хесжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | C25012 - 4968              | 94143622          | If the grave and        |
| 2  | A Detartur    | □ эр<br>20 эм | <ul> <li>Өндөр настан</li> <li>Хегжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Chayyon<br>Lan12-1842      | 98162752          | Muff                    |
| 3  | 0 Doyalasa    | ⊡ эр<br>2∕эм  | <ul> <li>Өндөр настан</li> <li>Хасклийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | C3\$<br>X.22.821           | 9512.4062         | acy                     |
| 1  | DE Gyssorany  | qe ti         | <ul> <li>Өндөр настан</li> <li>Хөсжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CED X 12<br>9-36-2         | 9920 8826         | apos                    |
| 5  | D. Bergy      | D ap          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CBQ - 12p-<br>Lapox-9-3628 | 91610785          | Breath                  |
| 5  | Из Эрдэпогиша | П эр<br>У эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 062-12<br>doplar -10-400   | 86957375          | æ                       |
| 7  | d Com         | ∏ эр<br>1√ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 66D-18 29000<br>1-10-998   | 96 049 616        | X long                  |

Attendance/ Ирцийн бүртгэл

| N9 | Name<br>Hap   | Sex<br>Хүйс   | Өөрт хамааралтай ангилалаа<br>чагтална үү<br>please check follow                               | Address/Xanr                          | Telephone<br>Утас | Signature<br>Гарын үсэг |
|----|---------------|---------------|--|---------------------------------------|-------------------|-------------------------|
| 8  | 6. Aury garo  | ⊡ эр<br>≌″эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Chi Il-p Lepel<br>Manteria 23-5031    | 96611997 -        | H.                      |
| 9  | Н. Јпа плузг  | П эр<br>⊮‴эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Cost 11-pdepeo<br>renauta 3-131.      | 99246578.         | Kng/                    |
| 0  | U. Ypantop .  | П эр<br>Пи эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | C6 - 19 - 19 x0/100<br>Nau au 23-5036 | 88811253          | uppe.                   |
| ł  | to onausouson | □ эр<br>⊽ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | СБ 12 ргонос<br>хотой 23-507          | . 8968 1209       | 24                      |
| 2  | J. Hoganenm   | ⊡ эр<br>⊡ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 06-18. Pxepres<br>26-13 495           | 992238 90         | By                      |
| 12 | 5. Judarana   | Ø∕эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 7 d xx0/00-<br>X-12 470               | 91168117          | Ste.                    |
| Ý  | PLypm usel    | □ эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CB & 12 P<br>X 17.664                 | 8815#671          | suppor nour             |
| 5  | Wey mans      | на эр         | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 2. 17 - 688                           | 9431577,          | & & and so              |
| 6  | C. Hepaurman  | □ эр<br>У эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | C53 12<br>A · 1 · 36.                 | 99241685          | Hotel                   |
| 2  | 11 Houcpuse   | □ эр<br>У эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CB212<br>x-E-2969                     | 6885-1714         | 15851.                  |
| 8  | Ropin         | □ эр<br>⊮ эм  | <ul> <li>Өндөр настан</li> <li>Хесжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | COD 12-p.<br>X-7-268.                 | 95260665          | (Xopus)                 |
| 9  | Jaie oyan     | ⊡ эр<br>эм    | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | X . 28 . 505                          | 8883 0709         | Hamby                   |
| 21 | Jana          | ае<br>Эм      | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CB4-12-P<br>X-17-669                  | 99995793          | 190                     |

| Nº | Name<br>Həp                | Sex<br>Хүйс     | Өөрт хамааралтай ангилалаа<br>чагтална үү<br>please check follow                               | Address/Xaar          | Telephone<br>Утас | Signature<br>Гарын үсэг |
|----|----------------------------|-----------------|--|-----------------------|-------------------|-------------------------|
| 4  | Bus Tan bar                | □ эр<br>□ эм    | <ul> <li>Өндөр настан</li> <li>Хегжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | A. 6.219              | 86028788          | Dowdaug                 |
| 2  | H. Myee.                   | Ш эр<br>⊡ эм    | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | R. I.L. 790 b         | 91816115          | TTUJAO.                 |
| 3  | Atrangner                  | ор<br>С         | <ul> <li>Өндөр настан</li> <li>Хогжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | d. 156 601            | 9552 1436         | All                     |
| )y | R.Fansopus                 | Б∕эр<br>□ эм    | <ul> <li>Өндөр настан</li> <li>Хагжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | X. 17-6685.           | 99172087.         | D. Sm Je                |
| 80 | I Jus Thiler               | р<br>Пар<br>Пар | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | X. 18.721             |                   |                         |
| в  | Axach                      | П эр<br>П эм    | <ul> <li>Өндөр настан</li> <li>Хөржлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | X 17-6938             | 88229709          | Azara                   |
| A  | May anosys                 | а эр<br>а эм    | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | x.15-623+             | 88756009          | Mark wirdonda           |
| 8  | alacentorinoo              | □ эр<br>□ эм    | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | g-1-6A.               | 99220385          | Harryuso                |
| 3  | Brstpparran.<br>pricy nt . | а эр<br>а эм    | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | X-10-404.             | 96691104.         | Sprint.                 |
| 0  | D Atanipa                  | □ эр<br>11⁄2 эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 2-21-785 <sup>T</sup> | 99252094          | D. Artan                |
| 1  | M. Byruccus                | П эр            | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 26-23-506             | 25205619          | laug                    |

**Торіс/Уулзалтын Сэдэв:** Үерээс хамгаалах чадавхийг бэхжүүлэхэд иргэдийн асуудал хэрэгцээг тодорхойлох

| Noted by/Тэмдэглэл хөтөлсөн: | Reviewed/Тэмдэглэлтэй              | <b>№:</b> 01/17       |
|------------------------------|------------------------------------|-----------------------|
| Н.Золзаяа                    | танилцсан:                         |                       |
| Date/Огноо: 30.11. 2017      | <b>Venue/Байршил:</b> СБД-ийн 13-р | Attendees/Оролцогчдын |
|                              | хорооны иргэний танхим             | тоо: 29               |

**Facilitators/Зохион байгуулагчид:** Ш.Энхцэцэг/НҮБ-Хабитат, Төслийн менежер/, Н.Золзаяа/НҮБ-Хабитат байгууллага, Нийгэм жендэрийн мэргэжилтэн/, Н.Наранбат/НҮБ-Хабитат байгууллага, Хот төлөвлөгч/

Participants/Оролцогчид: СБД-ийн 13-р хорооны оршин суугчид

**Meeting purpose/Уулзалтын Зорилго:** Тухайн газар нутгийн үер усны аюултай газар нутаг болон түүнтэй холбоотой иргэдэд үүсдэг асуудал бэрхшээлийг тодорхойлох, эрэмбэлэх, зурагт тэмдэглэх

#### Processing/Явц:

Уулзалтыг НҮБ-Хабитат байгууллагын Нийгэм жендэрийн ажилтан Н.Золзаяа нээж уулзалтын зорилго болон төслийн тухай товч танилцуулга хийлээ. Үүний дараа Уур амьсгалын өөрчлөлтийн талаар мэдээлэл хийлээ. Энэхүү мэдээллийн дараа нийт оролцогчид 3 бүлэгт хуваагдаж цаг уурын өөрчлөлттэй холбоотойгоор иргэдэд тулгардаг асуудлуудаар брхшээлтэй асуудлуудаа тодорхойллоо. Бүлэг бүрээс төлөөлөлөө сонгож тодорхойлсон асуудал бэрхшээлээ бусдадаа танилцууллаа. Нийт оролцогчид бүлэг бүрийн тодорхойлсон асуудал бэрхшээлийг сонссоны дараа тэдгээрээс нэн түрүүнд шийдвэрлэвэл зохих асуудал бэрхшээлээ эрэмбэллээ. Ингэж нэн тэргүүнд шийдвэрлэх шаардлагатай бэрхшээлээ эрэмбэлж гаргасны дараа тэд дахин бүлгийн ажилд оролоо. Оролцогчид бүлэг бүлгээрээ дээрх эрэмбэлсэн бэрхшээлүүдээ шийдвэрлэхийн тулд ямар ажил хийх шаардлагатайг харилцан ярилцаж мөн хамгийн түрүүнд хийх шаардлагатай ажлуудаа эрэмбэллээ. Мөн тэд нэн тэргүүнд хийх шаардлагатай ажлуудаа бусдадаа танилцууллаа. Иргэдийн энэ бэрхшээл, шийдвэрлэх асуудлаа тодорхойлох явцад тэдний орчинд үерийн үс айлын хашааруу орж ирдэг үүний үлмаас жорлон хальдаг асуудал гардаг байна. Мөн айл өрхүүд байгалийн усны сувгийн гольдролыг өөрчилдөг, булгийн эхэнд зөвшөөрөлгүй буудаг, үерийн хоолойд хогоо хаясны улмаас үерийн ус хальдаг зэрэг асуудлууд их байна. Замбараагүй газар олгодгоос үүдэн гол усны гольдрол өөрчлөгддөг үүний улмаас бас үер усны аюул үүсдэг байна. Мөн зам барьж байгаа компаниуд ус зайлуулах шугамыг хийдэггүйн улмаас чингэлтэй талын борооны ус энэ хорооны нутаг дэвсгэрлүү ордог тухай иргэд ярьж байлаа. Энэ хорооны газарзуйн байрлалаас хамаарч баруун талын уулархаг хэсгийн бороо цасны ус төв замаа даваад урсаж орж ирдгийг бас иргэд илүү тодотгон хэлж байлаа. Байгалийн нөхцөл байдлаас гадна иргэдийн ухамсар хандлагатай холбоотой асуудал их үүсч байгааг тэд дурьдаж байна.

#### Иргэдийн санал:

**Иргэн:** Иргэд өөрсдөө намган дээр буучихаад намаг гэж яриад байна. Үүнд төрөөс зохицуулалт хиймээр байна. Манай энд 50 см ухаад л ус гардаг тул жорлон ухаж болдоггүй.

**Иргэн:** Манай энэ хавь чинь тэр чигтээ үерт ордог. Хамгийн сайн сонголт бол олуулаа нийлж цооног хийх хувилбар гэж бодож байна. Айлуудын жорлонруу үерийн ус ордог. Үерийн цооног хогоор дүүрдэг.

**Иргэн:** Замын компаниудаар ажил хийлгэхдээ хяналт сайн тавьж байх хэрэгтэй байна. Зам хийхдээ норм ёсоор нь үерийн сувуг шуудууг нь хийхгүй юм. Үүнээс болоод замын борооны ус айлын хашааруу ордог.



**Иргэн:** Иргэдээс өөрсдөөс нь хамаарч байгаа асуудал их байна. Ухуулга сурталчилгааны материалууд тараах, анхааруулах хуудас энд тэндгүй тавих зэргээр иргэддээ л мэдлэг өгөх нь зөв.

**Иргэн:** Зарим барилгын компаниуд барилгын хог хаягдлаа Сэлбийн голын эргээр асгаад байна. Түүн дээр нь иргэд нэмж хог хаяж байна. Камержуулах шаардлагатай байна. Тэгэж байж хэн, хэзээ хог хаяж байгааг хянах боломжтой шүү дээ.



#### Photo/3ypar:

Attendance/Ирцийн бүртгэл:

#### Үерээс хамгаалах чадавхийг бэхжүүлэх төсөл

Venue/ Хаана: ......СБДүүргийн 13-р хороо, Иргэний танхим.....

Date/ Огноо: ......2017-11-30 .....

Attendance/ Ирцийн бүртгэл

| N≘ | Name<br>Hэр               | Хүйс<br>Sex   | Өөрт хамааралтай ангилалаа<br>чагтална үү<br>please check follow                               | Address/Xaar                            | Утас<br>Telephone     | Гарын үсэг<br>Signature |
|----|---------------------------|---------------|--|---|-----------------------|-------------------------|
| 1  | Wengersn gops             | © Эр<br>⊡ Эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | ( J. D. ) 13-p x0p00<br>Koroon A266 7-2 | 99175864              | W. Dabashyu.            |
| 2  | Ганрирнан<br>Гамр сандаре | □ эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | (J. 2, 13/2900<br>202000 Trassari       | 88328107<br>3142 TOOT | for your por            |
| 3  | Ганнин Мурийн туда        | □ эр<br>12∕эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CBD 13-p 20000                          | 80820086<br>88652221  | 4ypuin mysa             |
| 4  | a. Justinner.             | □ эр<br>И эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | СБД. 15хорос<br>наснавния 3541001       | 86611868<br>18613534  | apperte appert          |
| 5  | M. Deckolowy              | □ эр<br>Бу⁄эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CGD 13-20100<br>panjaar 1.144           | 89446565              | Dropp.                  |
| 6  | M. Jux manged             | □ эр<br>⊮ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Ногоф н талбеей<br>3-15                 | 99,88,55,13           | Inx mangal              |
| 4  | Оконен<br>Одоний улгане 2 | □ эр<br>⊊ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Patucantos<br>9.478 nicolas             | 8855 77-31            | 0.8-2                   |

| Nº | Name<br>Hap      | Sex<br>Хүйс    | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                               | Address/Xanr                         | Telephone<br>Yrac | Signature<br>Гарын үсэг |
|----|------------------|----------------|--|--------------------------------------|-------------------|-------------------------|
| 8  | D. sugars        | П эр<br>И эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CB4 13.1 igner<br>pay 1.201          | 88.786134         | Jus 7                   |
| 9  | Ц Доваа наш      | □ эр<br>⊄ эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | ССВ 12-р хорос<br>Ногосн талбай в Ав | 88142898          | Дабоа наш               |
| 10 | Ф. Аридн тунгого | де ор<br>те зм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | cho-13 f xapoo.<br>pace-10-593       | 997/7222.         | s.4.                    |
| 11 | P. BATTOP        | ⊽эр<br>Эм      | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CB2 12 px0000<br>PALLAGNEL 17-611    | 99962187          | Jarras                  |
| 12 | д. Уянга         | □ эр<br>⊠ эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшэалтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | СБЦ 13-рхороо<br>Рашарны 3-373       | 98461.920         | Lane.                   |
| 13 | C. Ind wara      | □ эр<br>5∕ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CZ# 13-4 Lapes<br>H-T 5-39           | 88607536          | manel                   |
| 14 | Hapanusm         | а<br>ар<br>ар  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 10 13pager<br>105 3-40               | 95M7595           | Hoyan ynga              |
| 15 | Innaugren.       | ар<br>Эм       | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | KI - 3 - 397007                      | 4907-4617         | furra,                  |
| 16 | A. Monxtorto X   | □ эр<br>У эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | xa 23-30 Teet                        | 99127118          | USZ .                   |
| 14 | B. Broceau xan   | д эр<br>Э эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | СБЭ - 13 ф. жороо<br>ращаан 5-281    | 93224482          | Finiz                   |
| 13 | er Anyperg       | 2−зр<br>□ эм   | <ul> <li>Фндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | C5 to 15 pages<br>P. 18-789          | 93079325          | itthe                   |
| 19 | А. Багриаа       | □ эр<br>✓ эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | СБД 13-ржерео<br>Р-4-422             | 88668494          | Hhmo                    |
| 20 | 7. Anxin yea     | ⊡ эр<br>эм     | <ul> <li>Өндөр настан</li> <li>Хөсжижин бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | (88-187 2010)<br>4-8-237001          | 866163 08         | Take                    |

| Nº | Name<br>Həp       | Sex<br>Хүйс   | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                               | Address/Xaar                                  | Telephone<br>Утас | Signature<br>Гарын үсэг |
|----|-------------------|---------------|--|---|-------------------|-------------------------|
| 21 | 2. Boutacopon     | □ эр<br>⊽ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 2502 120 2900<br>1000 5-312                   | 80207714          | 3. Doubal               |
| 22 | 11, 2 of co       | □ эр<br>⊵″эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | CDD-20000<br>Bacy and 9-460                   | 98892015          | UlD fg                  |
| 25 | H 208 -           | П эр<br>Г эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Cad-untrantant<br>Horeon Jan Partant<br>8-38? | 951829.20         | 11508 -                 |
| QH | AnxEasp.          | √эр<br>□ эм   | <ul> <li>Өндөр настан</li> <li>Хогжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | chod 13 pages<br>paulacher 9-45               | 96589898          | Auxoarp.                |
| 15 | @ TANSONS         | □ эр/<br>□ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | PAMAAH 517<br>422                             | 91689797          | Th-                     |
| 26 | Recoursple        | П эр          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Hozeon IT                                     | 9992136           | 5 Deversfle             |
| 24 | D. April Kongreeg | р<br>П эр     | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Ногоон толбай<br>7 - 45 ª                     | 80079993          | 2 April                 |
| 28 | O. Alueracegog    | A Jop         | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 1-144   | 95700014          | they                    |
| 29 | T. Gapmenapet     | qe 🗆          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | HT=6=15                                       | 95852971          | Geperenypor             |
|    |                   | □ эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> |   |                   |                         |
|    |                   | ае П          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> |   |                   |                         |

**Торіс/Уулзалтын Сэдэв:** Үерээс хамгаалах чадавхийг бэхжүүлэхэд иргэдийн асуудал хэрэгцээг тодорхойлох

| Noted by/Тэмдэглэл хөтөлсөн: | Reviewed/Тэмдэглэлтэй              | <b>№:</b> 03/17       |
|------------------------------|------------------------------------|-----------------------|
| Н.Золзаяа                    | танилцсан:                         |                       |
| Date/Огноо: 08.12. 2017      | <b>Venue/Байршил:</b> СБД-ийн 16-р | Attendees/Оролцогчдын |
|                              | хорооны иргэний танхим             | тоо: 26               |

Facilitators/Зохион байгуулагчид: Ш.Энхцэцэг/НҮБ-Хабитат, Төслийн менежер/, Н.Золзаяа/НҮБ-Хабитат байгууллага, Нийгэм жендэрийн мэргэжилтэн/, Н.Наранбат/НҮБ-Хабитат байгууллага, Хот төлөвлөгч/

Participants/Оролцогчид: СБД-ийн 16-р хорооны оршин суугчид

Meeting purpose/Уулзалтын Зорилго: Тухайн газар нутгийн үер усны аюултай газар нутаг болон түүнтэй холбоотой иргэдэд үүсдэг асуудал бэрхшээлийг тодорхойлох, эрэмбэлэх, зурагт тэмдэглэх

#### Processing/Явц:

Уулзалтыг НҮБ-Хабитат байгууллагын Нийгэм жендэрийн ажилтан Н.Золзаяа нээж уулзалтын зорилго болон төслийн тухай товч танилцуулга хийлээ. Үүний дараа Уур амьсгалын өөрчлөлтийн талаар мэдээлэл хийлээ. Энэхүү мэдээллийн дараа нийт оролцогчид 3 бүлэгт хуваагдаж цаг уурын өөрчлөлттэй холбоотойгоор иргэдэд тулгардаг асуудлуудаар брхшээлтэй асуудлуудаа тодорхойллоо. Бүлэг бүрээс төлөөлөлөө сонгож тодорхойлсон асуудал бэрхшээлээ бусдадаа танилцууллаа. Нийт оролцогчид бүлэг бүрийн тодорхойлсон асуудал бэрхшээлийг сонссоны дараа тэдгээрээс2нэн түрүүнд шийдвэрлэвэл зохих асуудал бэрхшээлээ эрэмбэллээ. Ингэж нэн



тэргүүнд шийдвэрлэх шаардлагатай бэрхшээлээ эрэмбэлж гаргасны дараа тэд дахин бүлгийн ажилд оролоо. Оролцогчид бүлэг бүлгээрээ дээрх эрэмбэлсэн бэрхшээлүүдээ шийдвэрлэхийн тулд ямар ажил хийх шаардлагатайг харилцан ярилцаж мөн хамгийн түрүүнд хийх шаардлагатай ажлуудаа эрэмбэллээ. Мөн тэд нэн тэргүүнд хийх шаардлагатай ажлуудаа бусдадаа танилцууллаа. Иргэдийн энэ бэрхшээл, шийдвэрлэх асуудлаа тодорхойлох явцад тэдний орчинд үерийн ус айлын хашааруу орж ирдэг үүний улмаас жорлон хальдаг асуудал гардаг байна.

#### Иргэдийн санал:

Иргэн: Манай хороон дээр уулархаг налуу хэсэг ихтэй тул борооны ус айл өрхүүдийн жорлонруу ордог. Бас голын сав дагуу амьдардаг айл өрхүүд байдаг тэр орчимд ус гардаг тул жорлон ухаж болдоггүй.

Иргэн: Бохирын цооногийг шийдэх хамгийн сайн сонголт бол олуулаа нийлж цооног хийх хувилбар гэж бодож байна. Айлуудын жорлонруу үерийн ус ордог. Үерийн цооног хогоор дүүрдэг.

Иргэн: Замын компаниудаар ажил хийлгэхдээ хяналт сайн тавьж байх хэрэгтэй байна. Зам хийхдээ норм ёсоор нь үерийн суваг шуудууг нь хийхгүй юм. Үүнээс болоод замын борооны ус айлын хашааруу ордог.

Иргэн: Иргэдээс өөрсдөөс нь хамаарч байгаа асуудал их байна. Ухуулга сурталчилгааны материалууд тараах, анхааруулах хуудас энд тэндгүй тавих зэргээр иргэддээ л мэдлэг өгөх хэрэгтэй байна.

#### Photo/3ypar:



1. HIOPNOH 64 ) COPYERAX, KENELLE CYYPERYYR . 3 d) HOTIOHIEN LUUNS TREMO to . . CABAL MARTY LABLAXAT ON OBXMST Mgler. toxupex V3 10-20 per muting Josupers 2) 3AMDIH JC JAMAJJANAX XOONOU XCK astron duny graume xeres -8 3). VER'H ANAHT HOMH YPTACTAK 4 CS BOXMPANH WINPAMAHO XONDO 4! JUGAMA FYGAMHANG GANAH PSY OPSYLLE. OTOMOERCOTON HOPACH CYBAR XOONON FADEAXO . .... 0,5) 5. Ониной Бандал, Тээрын Албатай хамтран VEDI4 BM XAAH SYNCAH ANA BOXLY HVVATA4 125 24.1 MUNAMVUARY . Α ΓΑΝΙ ΤΥΛΑΥ. 6. ΗΑΜΑΓΤΑΗ ΓΑЗΑΡΤ δΑΝΓΑΑ ΑΝΑ ΕΡΧΙΥΔΑΓ ΒΥΥΝΟΘΑ ΙΙ ΗΑΜΙΥ ΚΑΘΧ 7. ΧΟΡΟΟ ΓΑΒΤΟΙΗ ΑΛΕΠ ΟΡΙΙΓΟΙ ΕΛΗΔΙΑ ΧΑΝΤΡΑΧ Α ΙΟΥΧΤΑΝ Ενοος ΑΜΑΡΑΛΙΎΗ ΒΑΝΤΑΝ ΕΝΙΚΑ. 6. Hai 7.05 z PARTE 6. YYADIH JOODOOC PYYAN 300 HOMAY BOLWOODEA OTOXEN EX 3 DOXNE HYTAYAAX. 8. 3 VEPLH AMONAAC COPINHADH CUPTAN YESARAM AMANT JE.AAX. MOH GADAH TIT HANRAH XOF KARKING BADAMA ANXARDIAN ШАЛГАНД ХОГ ЦАЖТИЙ ТАЙШАН АЛГАНТУУ КАРЕрнинин хэмэгт тайш харнуулаг төсцөл Алгана KAMEDWUSAN XJRAAT TABWH XADWUJAAT THOUGH A HI MMAX ANYATAN BYCAR AARAARS SICA H XART 9 ANY MAN BICAG ANCAADS YICA H XABE 10. FUY P. (TOA JC VEPANING YES ANDARTHIN PARSON ....

Attendance/Ирцийн бүртгэл:

#### Үерээс хамгаалах чадавхийг бэхжүүлэх төсөл

Meeting topic/Уулзалтын нэр: ....... Үерийн улмаас оршин суугчдад тулгарч буй бэрхшээлийг тодорхойлох, эрэмбэлэх.......

Venue/ Хаана: .....Сүхбаатар Дүүргийн 16-р хороо, Иргэний танхим......

Date/ Огноо: ......2017-12-08.....

Attendance/ Ирцийн бүртгэл

| N₽ | Name<br>Hэp      | Хүйс<br>Sex                        | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                               | Address/Хаяг      | Утас<br>Telephone      | Гарын үсэг<br>Signature |
|----|------------------|------------------------------------|--|-------------------|------------------------|-------------------------|
| 1  | C, Harporer 247. | <ul> <li>Эр</li> <li>Эм</li> </ul> | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Bonx - 53-6-839   | 99757179               | Hayourgan.              |
| 2  | O. Junipryn      | □ эр<br>Эм                         | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Correct 29-625    | 89299499               | and                     |
| 3. | C. Lagueoux      | р<br>эм                            | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Drexnie<br>14-346 | 88445486               | Saha                    |
| 4. | O. Nypologian    | □ эр<br>1 эм                       | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | BOND27-565A       | 8877 <b>99</b><br>- 64 | O. Typol greese         |
| 5. | A. Hornousor     | □ эр                               | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Baxunt            | 88138815               | openio                  |
| 6. | 3. Diogn Suer    | q€ □<br>¶_эм                       | <ul> <li>Ондөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Jonenius 11-318   | 9164 13 83             | 3 biogn Sucor           |
| 7  | D. Dugie Op unt  | п эр<br>п эр<br>п эм               | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 529-638           | 8977 08 68             | 3. Buyen Epieux         |

| N≌  | Name<br>Hap          | Sex<br>Хүйс   | Өөрт хамааралтай ангилалаа<br>чагтална үү<br>please check follow                               | Address/Xaar                  | Telephone<br>Утас      | Signature<br>Гарын үсэг |
|-----|----------------------|---------------|--|-------------------------------|------------------------|-------------------------|
| 8.  | al bagancypos        | □ эр<br>⊠∕ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Hopao<br>Faren 33-H-2.        | 94000200               | Aller                   |
| 9   | 10. Yearin           | □ эр<br>⊡∕эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 140-20100                     | 96008283               | FEIM                    |
| 10. | of Hyraceley         | ол эр<br>□ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 16p najeo<br>20 - 490         | 88249997               | 14 Aug                  |
| 11. | M. O way no a        | Эр<br>Эм      | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 16 p 20100<br>33.6.98         | 8815529                | 2 Hoffing               |
| 12  | B Dyeaperofin        | П эр<br>Ф_ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 16p 000 poo<br>6-33-5-134     | 94933346               | Stops                   |
| 15  | B. Vers Horappa,     | □ эр<br>⊮ эм  | <ul> <li>Өңдөр настан</li> <li>Хөгжлийн бархшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 161 xapas<br>5-8-125          | 96092563               | Mult                    |
| 14  | M. Orguni Fran       | ⊯ эр<br>□ эм  | <ul> <li>Өңдөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | СБД 18-р 0400<br>Хагиан 7 275 | 9865-2350              | deal the                |
| 15  | the Droynepsy        | ар<br>ауэр    | <ul> <li>Өңдөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 662 161 20100<br>5212 8-129   | 99692992               | AQues-                  |
| 16  | M. Doncuaa           | □ эр<br>⊖ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | Saidelik<br>34-15             | 89188032               | Donuca                  |
| D   | 5 Oroegn-<br>ugayeyu | □ эр<br>©∕эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Фрх толгойлсон эмэгтэй</li> </ul> | 5-17-416                      | 994099623              | the                     |
| 18  | 24.<br>Anumar        | П эр<br>12∕эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 5-18-436                      | 88926015               | Янтяре-                 |
| (   | Autorom              | / эр<br>эм    | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 616-328                       | 91529730               | fig n                   |
| 0   | Daremare             | (У эр<br>2 эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 15-16-16-p. reg               | <sup>e-</sup> 91165800 | \$ fronting             |

| Nº | Name<br>Həp | Sex<br>Хүйс   | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                                   | Address/Xaar                 | Telephone<br>Утас | Signature<br>Гарын үсэг |
|----|-------------|---------------|--|------------------------------|-------------------|-------------------------|
|    | Happererere | □ эр<br>∛у эм | <ul> <li>✓ Өндөр настан</li> <li>Хөсжлийн бэрхшээлтэй</li> <li>□ Өрх толгойлсон эмэгтэй</li> </ul> | 16-p × 0000.<br>Josux 29-623 | 999 82922         | Jan                     |
|    | Baspeadrau  | Ç∕эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Фрх толгойлсон эмэгтэй</li> </ul>     | 16-pxopou<br>Балхи - 13-321  | 99370513          | Thing                   |
|    | Jegenseace  | □ эр<br>⊙ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй </li> <li>Өрх толгойлсон эмэгтэй</li> </ul>    | Java 33-4-59                 | 88696854          | Opgoment                |
|    | Harnaa      | □ эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>     | 521X<br>33-4-56              | 88663368          | larnan .                |
|    | Caren enner | □ эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>     | 33-7-199                     | 99831027          | Ceand                   |
|    | Бунитот     | □ эр<br>2⁄эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>     | 15nly 33-6-<br>-835          | 96405252          | Fall                    |
|    |             | □ эр<br>∞ ∞   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>     |                              |                   |                         |
|    |             |               | 🛛 Өндөр настан   |                              |                   |                         |

**Торіс/Уулзалтын Сэдэв:** Үерээс хамгаалах чадавхийг бэхжүүлэхэд иргэдийн асуудал хэрэгцээг тодорхойлох

| Noted by/Тэмдэглэл хөтөлсөн: | Reviewed/Тэмдэглэлтэй              | <b>№:</b> 06/17       |
|------------------------------|------------------------------------|-----------------------|
| Д.Мөнхөө                     | танилцсан:                         |                       |
| Date/Огноо: 29.11. 2017      | <b>Venue/Байршил:</b> СХД-ийн 24-р | Attendees/Оролцогчдын |
|                              | хорооны иргэний танхим             | тоо: 29               |

Facilitators/Зохион байгуулагчид: Ш.Энхцэцэг/НҮБ-Хабитат, Төслийн менежер/, Ц.Цогзолмаа/НҮБ-Хабитат байгууллага, Нийгэмийн мэргэжилтэн/, Н.Наранбат/НҮБ-Хабитат байгууллага, Хот төлөвлөгч/

Participants/Оролцогчид: СХД-ийн 24-р хорооны оршин суугчид

Meeting purpose/Уулзалтын Зорилго: Тухайн газар нутгийн үер усны аюултай газар нутаг болон түүнтэй холбоотой иргэдэд үүсдэг асуудал бэрхшээлийг тодорхойлох, эрэмбэлэх, зурагт тэмдэглэх

#### Processing/Явц:

Уулзалтыг НҮБ-Хабитат байгууллагын Нийгэмийн ажилтан Ц.Цогзолмаа нээж уулзалтын зорилго болон төслийн тухай товч танилцуулга хийлээ. Үүний дараа Уур амьсгалын өөрчлөлтийн талаар мэдээлэл хийлээ. Энэхүү мэдээллийн дараа нийт оролцогчид 3 бүлэгт хуваагдаж цаг уурын өөрчлөлттэй холбоотойгоор иргэдэд тулгардаг асуудлуудаар брхшээлтэй асуудлуудаа тодорхойллоо. Бүлэг бүрээс төлөөлөлөө сонгож тодорхойлсон асуудал бэрхшээлээ бусдадаа танилцууллаа. Нийт оролцогчид бүлэг бүрийн тодорхойлсон асуудал бэрхшээлийг сонссоны дараа тэдгээрээс нэн түрүүнд шийдвэрлэвэл зохих асуудал бэрхшээлээ эрэмбэллээ. Ингэж нэн тэргүүнд шийдвэрлэх шаардлагатай бэрхшээлээ эрэмбэлж гаргасны дараа тэд дахин бүлгийн ажилд оролоо. Оролцогчид бүлэг бүлгээрээ дээрх эрэмбэлсэн бэрхшээлүүдээ шийдвэрлэхийн тулд ямар ажил хийх шаардлагатайг харилцан ярилцаж мөн хамгийн түрүүнд хийх шаардлагатай ажлуудаа эрэмбэллээ. Мөн тэд нэн тэргүүнд хийх шаардлагатай ажлуудаа бусдадаа танилцууллаа. Иргэдийн энэ бэрхшээл, шийдвэрлэх асуудлаа тодорхойлох явцад тэдний орчинд үерийн ус айлын хашааруу орж ирдэг үүний улмаас жорлон хальдаг асуудал гардаг байна. Мөн 720 өрх жорлонгүй, гэрэл цахилгаангүй амьдардаг тухай ярьж байлаа.

#### Иргэдийн санал:

**Иргэн:** Голын сав газар байдаг 720-иод өрх бие засах жорлонгүй тул хэсэг бүлгээр орчиноо бохирдуулахгүй жорлонтой болгох ажил хиймээр байна.

Иргэн: 2, 7, 9 болон 10-р хэсгийн тодорхой газруудад гүүр шаардлагатай байгаа.

Иргэн: Манай энд намаг шалбааг ихтэй тул гүүр, замын ажилхийх шаардлагатай байна. Мөн

Гол горхины хамгаалалтыг хиймээр байна. Хаягжилт болон гудамжны зохион байгуулалт муу байдаг

Photo/3ypar:



Attendance/Ирцийн бүртгэл:



|                |  |               | Community Engagem  | ent and SME Development                     | ax yunanniss               |   |
|----------------|--|---------------|--|---|----------------------------|---|
| Me<br>Ve<br>Da | seting topic/Уүлэалтын нэ<br>nue/ Хаана:<br>te/ Огноо: | 19: Ye        | ph ymaac<br>24 p xqpeo<br>2017-11-2  | OC f mysraph<br>9                           | - dyn Nyxa                 | ymier o<br>Jou                                  |
| Nº             | Name<br>Həp  | Хүйс<br>Sex   | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow                               | Address/Xanr                                | Atter<br>Yrac<br>Telephone | ndance/ Ирцийн бүртг<br>Гарын үсэг<br>Signature |
| 1              | Rynyaraym  | Эр            | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бөрхшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 2400700<br>Carxeri zagiou                   | 94482213                   | Jager upp                                       |
| J.             | Croypy pyre-   | qe 🛛          | <ul> <li>Өндөр настан</li> <li>Хогилийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 2Happer<br>Mercomer zagrad                  | 39990 806                  | preppl.   |
| З.             | P. Qoogness  | DÎ. ∋p<br>™∋m | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 24 proper 2000ga                            | v. 89805354.               | P. Qeccos                                       |
| 31             | 8 Thegest  | ⊡ эр<br>≶∕эм  | <ul> <li>Өндөр настан</li> <li>Хогжлийн бэрлшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 2.11- p xeper<br>zor zagran                 | 862114996                  | Hel:  |
| 5              | 5, Cande us any  | Qe ∋p<br>□ ∋m | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 24-р ×о 600<br>шороот задга                 | 88273748                   | received  |
| 6              | All. Youndarly   | ¥ эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөсклийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 2410 201.00<br>Jorlain 3 agrost             | 88939543                   | The .   |
| 7              | Slanjongory  | № эм          | ондыр настан<br>Хагихийн бархшаалтай<br>Өрх толгойлсон эмэгтэй                                 | 34 p x 0 p 00<br>3 2 2 1 min # 3 a 57 a min | 13778570                   | <i>ј/ия</i> диа                                 |
|                |  |               | 0  |   |                            |   |
| N≘             | Name<br>Həp  | Sex<br>Хүйс   | чагтална уу<br>please check follow   | a Address/Xanr                              | Telephone<br>Ytac          | Signature<br>Гарын үсэг                         |
| 8              | Hausrah  | р<br>С эм     | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 24 x0p 00<br>3921 mit 39920                 | 888985                     | J Harst   |
| 0              |  | 11 30         | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> </ul>                                 | 24 ×900                                     | angland                    | 1   |

|     | нэр             | хүис          | please check follow  |                               | Утас       | Гарын үсэг     |
|-----|-----------------|---------------|--|-------------------------------|------------|----------------|
| 8   | Haustab         | егер<br>В эм  | <ul> <li>Өндөр настан</li> <li>Хегжлийн бархшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       | 24 x0p 00<br>3921 With 3992au | 8889857    | Harstle        |
| 9   | AATAN 70000     | ц эр<br>л эм  | <ul> <li>Өндөр настан</li> <li>Хөтжлийн бэрхшээлтэй</li> <li>Өрх толтойлсон эмэгтэй</li> </ul>       | 24 × 000<br>3001-1 30000      | 88691279.  | JATON WOLDS    |
| 10. | H. Programme    | п эр<br>У эм  | <ul> <li>Өндөр настан</li> <li>Хесклийн баркшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       | 3an. 37-40<br>24 10000        | 89095/49   | 11.0% .        |
| 91  | В. Озаук-угдэнэ | ⊡ эр<br>⊡ эм, | <ul> <li>Өндөр настан</li> <li>Хогиклийн бархшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>      | 24-1 20100.<br>301 + 29-46    | 89806079   | Rafurecolens . |
| 12  | я Даваацузрон   | ⊡ эр<br>Б∕эм  | <ul> <li>Өндөр настан</li> <li>Хагжлийн бармшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       | RH-p respect                  | 88133907   | Idife-         |
| 13  | J Jaugan        | П эр<br>Дагам | <ul> <li>Өндөр настан</li> <li>Хесжлийн бархшаалтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       | 24-р хорос<br>Хустай 7-23     | 94660594,  | Jawysim        |
| 14  | 20g m           | € эр<br>⊡ эм  | <ul> <li>⊖ Өндөр настан</li> <li>✓ Хөгжамйн барашаалтай</li> <li>⊡ Өрх толгойлсон эмэгтэй</li> </ul> | dy payner<br>for on - 9. St   | 801253219  | BAyes.         |
| 195 | 15 Hopau rogm   | ∏ ∋p          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       | 24-p × epos.<br>Xy27ai + 34   | 88374535   | -lsn           |
| 16  | S. Ayraceer m)  | D ∋p          | <ul> <li>Өндөр настан</li> <li>Хасклийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       | Literin 7.                    | 050/3239   | story -        |
| 78  | Samerep         | И эр          | <ul> <li>Өндөр настан</li> <li>Хагжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       | 2N- 3H TODT                   | - 9863/415 | Pano           |
|     | -               | п эр          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       |                               |            | /              |
|     |                 | ge D<br>BW    | <ul> <li>Өндөр настан</li> <li>Хесжлийн Бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>       |                               |            |                |

**Торіс/Уулзалтын Сэдэв:** Үерээс хамгаалах чадавхийг бэхжүүлэхэд иргэдийн асуудал хэрэгцээг тодорхойлох

| Noted by/Тэмдэглэл хөтөлсөн: | Reviewed/Тэмдэглэлтэй       | <b>№</b> : 07/17      |
|------------------------------|-----------------------------|-----------------------|
| Д.Мөнхөө                     | танилцсан:                  |                       |
| Date/Огноо: 14.12. 2017      | Venue/Байршил: СХД-ийн 25-р | Attendees/Оролцогчдын |
|                              | хорооны иргэний танхим      | тоо: 34               |

Facilitators/Зохион байгуулагчид: Ш.Энхцэцэг/НҮБ-Хабитат, Төслийн менежер/, Н.Золзаяа/НҮБ-Хабитат байгууллага, Нийгэмийн мэргэжилтэн/, Н.Наранбат/НҮБ-Хабитат байгууллага, Хот төлөвлөгч/

Participants/Оролцогчид: СХД-ийн 25-р хорооны оршин суугчид

**Meeting purpose/Уулзалтын Зорилго:** Тухайн газар нутгийн үер усны аюултай газар нутаг болон түүнтэй холбоотой иргэдэд үүсдэг асуудал бэрхшээлийг тодорхойлох, эрэмбэлэх, зурагт тэмдэглэх

#### Processing/Явц:

Уулзалтыг НҮБ-Хабитат байгууллагын Нийгэмийн ажилтан Н.Золзаяа нээж уулзалтын зорилго болон төслийн тухай товч танилцуулга хийлээ. Үүний дараа Уур амьсгалын өөрчлөлтийн талаар мэдээлэл хийлээ. Энэхүү мэдээллийн дараа нийт оролцогчид 3 бүлэгт хуваагдаж цаг уурын өөрчлөлттэй холбоотойгоор иргэдэд тулгардаг асуудлуудаар брхшээлтэй асуудлуудаа тодорхойллоо. Бүлэг бүрээс төлөөлөлөө сонгож тодорхойлсон асуудал бэрхшээлээ бусдадаа танилцууллаа. Нийт оролцогчид бүлэг бүрийн тодорхойлсон асуудал бэрхшээлийг сонссоны дараа тэдгээрээс нэн түрүүнд шийдвэрлэвэл зохих асуудал бэрхшээлээ эрэмбэллээ. Ингэж нэн тэргүүнд шийдвэрлэх шаардлагатай бэрхшээлээ эрэмбэлж гаргасны дараа тэд дахин бүлгийн ажилд оролоо. Оролцогчид бүлэг бүлгээрээ дээрх эрэмбэлсэн бэрхшээлүүдээ шийдвэрлэхийн тулд ямар ажил хийх шаардлагатайг харилцан ярилцаж мөн хамгийн түрүүнд хийх шаардлагатай ажлуудаа эрэмбэллээ. Мөн тэд нэн тэргүүнд хийх шаардлагатай ажлуудаа бусдадаа танилцууллаа. Иргэдийн энэ бэрхшээл, шийдвэрлэх асуудлаа тодорхойлсох явцад тэдний орчинд үерийн ус айлын хашааруу орж ирдэг үүний улмаас жорлон хальдаг асуудал гардаг байна. **Иргэдийн санал:** 

**Иргэн:** Иргэд үер усны аюулаас хамгаалах наад захын аргуудыг мэдэж байх хэрэгтэй байна. Ямар нөхцөлд оршин амьдрах нь иргэдээс өөрсдөөс нь шалтгаалах зүйл маш их бий. Иймд сургалт мэдээлэл хэрэгтэй байна.

**Иргэн:** Манай хороон дээр далан шуудуу барих шаардлага байгаа. Бас манай хороон дээр гүүр барих шаардлага байгаа. Төслийн та бүхэн үүнийг бас харгалзаж үзээрэй.

**Иргэн:** Манай хэсэг дээр үер болдог. Үерийг өөр тийш нь зайлуулж урсгах шаардлага байгаа. Иргэд цэцэрлэгжүүлж мод бут тарих ажлыг өөрсдөө хийх боломжтой. Иргэд бас өөрсдөөсөө шалтгаалах зүйлийг хийцгээе.

**Иргэн:** Хогийг ангилдаг болмоор байна. Голын эрэг дагуу хогийн сав байрлуулж гудамжны гэрэлтүүлэг тавих нь хяналт тавихад хэрэгтэй байна.

Photo/3ypar:



Attendance/Ирцийн бүртгэл:



| Ven | ние/ Хаана:       |                  | 25-8 ropeo  | CX.S.                              | -                 |                         |
|-----|-------------------|------------------|---|------------------------------------|-------------------|-------------------------|
| Dat | а/ Огноо:         |                  | 2017-   | 12-14 140                          | и уали.           |                         |
|     |                   |                  |   |                                    | Alte              | ndance/ Ирцийн бүрт     |
| Ng  | Name<br>Hop       | Xyiic<br>Sex     | Ворт хамааралтай ангилалаа<br>чагтална уу<br>picase sheck follow                                | Address/Xaar<br>Position/Awea      | Yrat<br>Telephono | Гарын үсэг<br>Signature |
| 1   | Undergrown Warder | 11 3p            | © Серер настан<br>П Храки-Ан Сэрнознатей<br>Ц Орк грагойасск эмогтэй                            | Segregate Harris<br>Xalitan 9- 328 | 95176161          | 1 Would                 |
| 2   | C. Oyzymy ve.     | -11 эр<br>15 эка | <ul> <li>Ондер кастан</li> <li>Ветклийн бөсэцсэгтэй</li> <li>Өрэ толгойлсон змэттэй</li> </ul>  | Shinoz Racran<br>Yaliyan 11-91     | 896£ 1999         | Croom-                  |
| 3   | H<br>Jeo ës je    | ур<br>Бам        | <ul> <li>Оньдар лостон</li> <li>Ханжтийн бархидэлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | aurop wasare<br>an yaiyaa 11-91    | 887072            | Mary                    |
| 4   | Marcarl           | qe ja            | <ul> <li>Электранация</li> <li>Хотнолён Серешзэлтэй</li> <li>Орк толгойлсон эмэгтэй</li> </ul>  | aponin 23-29                       | 95839/24          | 12                      |
| 5   | Keypopa           | V 30<br>3M       | Ондер настан<br>И херканан биршээлтэй<br>В Өрх телгейлсан эмэнгэй                               | Xargxan- 9-24                      | 80.29 dit15       |                         |
| 6   | Ung (             | 2 30<br>3M       | <ul> <li>Ондор настан</li> <li>Харклийн бархцээлэй</li> <li>Өрх толгойлсон эмэггэй</li> </ul>   | Xagxau 9-27                        |                   | , charles               |
| 7   | Batan             | 06 90<br>ME 0    | <ul> <li>Эндэр настан</li> <li>жегжсийн бөсэшээлэй</li> <li>Эрх толгойлсон эмлгтэй</li> </ul>   | 0. gentar 6-30                     | 186 454 (g)       | Court                   |
| X   | Thester Ville     | 2 30<br>310      | Өндөр настэн<br>Хагылийн бярхазэлтэй  | Byonu 91-179                       | \$\$991865        | bjer                    |

| Ne | Name<br>Hap   | Sax<br>Хуйс  | ведтизмааралтай ангилалаа<br>чагтална уу<br>please check follow                                 | Address/Kawr            | Telephone<br>Yrac | Signature<br>Гарын үсэг |
|----|---------------|--------------|---|-------------------------|-------------------|-------------------------|
| 9  | of goussuur-  | qe D<br>Me D | <ul> <li>Видор настан</li> <li>Хосилийн бархнинтэй</li> <li>Орх толгойлсон эмэг тэй</li> </ul>  | y. 7.170                | 88712906          | Jogenerus               |
| 10 | OLOX GARP     | qe W         | <ul> <li>Ондер настан</li> <li>Хесклове барашээлтэй</li> <li>Орх толгойлсон эмэгтэй</li> </ul>  | x-6-2                   | 99590938          | Coust                   |
| 11 | Vaupas        | ц эр<br>⊽ эм | <ul> <li>Вндор настан</li> <li>Хотклийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>  | (XA-Afont-9<br>0-21-195 | 99745144          | DAM                     |
| 12 | · byponneappe | qe D         | <ul> <li>Өндөр настан</li> <li>Хогкомйн борхшээлтэй</li> <li>Өрх төлгөйлсөн эмэгтэй</li> </ul>  | X1.5- 3-0               | 91180203          | дурон на арасал         |
| 13 | Thoron        | U эр         | <ul> <li>Сндер настан</li> <li>Ханжлийа Сорхидолтой</li> <li>Өрх толгойлосон эконтой</li> </ul> | x15-49                  | 8626 \$671        | Mocon                   |
| 14 | Myye          | ge 🗊         | <ul> <li>Ондар настан</li> <li>Хниклойн Борицоэлтэй</li> <li>Орх толгойлсон эмэгтэй</li> </ul>  | x1-80                   | 89191053          | Myye                    |
| T  | Уранзава      | С эр         | <ul> <li>Вндер настан</li> <li>Хэтэлийн Соохизэлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>  | x1-61.                  | 89400605          | Jeangala                |
| 16 | lyngyi xyy.   | qe 🗇         | <ul> <li>Өндөр настан</li> <li>Хогклийн биркцоолтой</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>  | ×1-14,                  | <b>9</b> 9963026  | Consystay               |
| 17 | Tauop-Drup    | qe IV        | <ul> <li>Ондер настан</li> <li>Хегилийн берхшээлтэй</li> <li>Врх толгойлсан эмэгтэй</li> </ul>  | × 7 -229                | 98942424          | to cop. Our             |
| 18 | C. Fundate    | 1 ap         | Канкор настан<br>Ханконйн борхшэнлэй<br>Өрх толгойлсон эмэстэй                                  | Saufran 7-44.           | 88898705          | C. Story-               |
| 19 | X Tous San    | de a         | <ul> <li>Өндөр настан</li> <li>Хаскочёк бэрмизалтай</li> <li>Өсх толгойлсон эмэгтэй</li> </ul>  | S-12-7 avi              | 9522088           | 7 Tursaary              |

|    |                | and store and store and store and |   |                         |           |                   | and the second |
|----|----------------|-----------------------------------|---|-------------------------|-----------|-------------------|--|
| 20 | Nooys          | 2 30<br>0 5M                      | <ul> <li>Өндөр настан</li> <li>Хөг нинйн бөрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 257×1700<br>Oyonu 21-47 | 95789947  | Gris.             |  |
| 21 | OKIET          | лар<br>С эр                       | <ul> <li>Эндор настан</li> <li>Хетклийн барлшаниний</li> <li>Эрк толгойлсон эмж тэй</li> </ul>  | Xalgran H-45            | 88754720  | Oty               |  |
| 22 | Outrongkay ray | at de                             | <ul> <li>Өндөр настан</li> <li>Хөгжөлдө барашаалай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>   | Xaupxau-11-45           |           | Hoa               |  |
| QB | A manabe       | E ap                              | <ul> <li>Өндөр настан</li> <li>Хогнлайн бэрхшээлтэй</li> <li>Орх толлойлсон эмэггэй</li> </ul>  | Ozorecii 1-1            | 88683815  | granoby.          |  |
| Ly | Mathinaut      | м<br>Мор<br>П эм                  | <ul> <li>Ендер настап</li> <li>Халклийн борхшээлтэй</li> <li>Өрх толгойлсон экигтэй</li> </ul>  | Backer de - 4           | 9935 Y740 | Hornorad          |  |
| 25 | il parse       | обр<br>С эм                       | <ul> <li>Ондер настан</li> <li>Хніжлийн бархцээлтэй</li> <li>Орх толгойлсон эмэгтэй</li> </ul>  | Xaupran<br>2-017        | 91766681  | spirt             |  |
| Ab | J. Martagarg   | qe D                              | <ul> <li>Ондор настан</li> <li>Хетклийн бэрэцийлтэй</li> <li>Орх толгейлсон эмэгтэй</li> </ul>  | Laupsan<br>L-3H         | 9100 9043 | of other          |  |
| 27 | A. byrequead   | qe E                              | <ul> <li>Ондер настан</li> <li>Хегмалан борхизолтой</li> <li>Орх толгойлсон эмэгтэй</li> </ul>  | X-14.32<br>XA-9.        | 99658501  | the for the state | G. pxxx  |
| R  | 4. Hapran      | qe E<br>Me E                      | <ul> <li>Эндор настан</li> <li>Хогилийн бирхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>  | X-20-1<br>XA-1          | 99149859  | the state         | 1-2200   |
| 29 | B. approvacan  | qe D                              | <ul> <li>Видор настан</li> <li>Хагилийн бөрнцоэлтэй</li> <li>Орх толгойлсон эмэттэй</li> </ul>  | 0-25-25<br>XA-42        | 99860436  | ypornacere.       | 12 xaca .  |
| 30 | reaut          | QE D                              | Ондор изстан<br>Ханжгийн бэрхиозлтэй<br>Өсж толгойлсон змэгтэй                                  | 0.21-92                 | 23608787- | unt 5-pxa         | KAF  |

| Nº  | Name<br>Hap     | Sex<br>Хүйс | Оеракамааралгай ангилалаа<br>чагтална үү<br>please check follow                                | Address/Xoar | Telephone<br>Yrac | Signature<br>Гарык үсэг |
|-----|-----------------|-------------|--|--------------|-------------------|-------------------------|
| 31  | Balproce        | ас эр       | <ul> <li>Өндөр настан</li> <li>Хагилийн бэрхшээлтай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | x17-58       | 88981707          | fragt more              |
| 32  | Alman myeg      | de op       | <ul> <li>Өкдөр настан</li> <li>Хогжлийн бэрэшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | ×17-58       |                   | Amanagele               |
| 33  | Yonyood<br>DyHq | ge de       | <ul> <li>Өндөр настан</li> <li>Хогилийн бархияалай</li> <li>Өрх толгойлсон эмэгтэй</li> </ul>  | 024-54       | 98742210          | the                     |
| 34. | Stalnesni N     | П эр        | <ul> <li>Өндөр мастан</li> <li>Хесжлийн бэрхшээлтэй</li> <li>Өрх толгойлсон эмэгтэй</li> </ul> | 08-20        | 96764999          | snaenynen 7px20         |
|     |                 |             | <ul> <li>Ондер настан</li> <li>Хатжлийк бэркшээлтэй</li> </ul>                                 |              |                   |                         |

# Round 2: Community prioritization of possible resilience building interventions

# Khoroo 7

**Community Leaders** 



| Name:            | Туяа             |
|------------------|------------------|
| Position:        | Resident         |
| Address: Khoroo: | 7th khoroo 3-28  |
| District:        | Songinokhairkhan |
| Mobile:          |                  |
| Signature        | /signed/         |



| Name:                         | Пүрэв-Очир  |
|-------------------------------|---|
| Position:                     | Resident  |
| Address: Khoroo:<br>District: | 7 <sup>th</sup> khoroo, Mon-Laa 12-47<br>Songinokhairkhan |
| Mobile:                       | 88095746, 99764790  |
| Signature                     | /signed/  |





| Name:            | Otgondavaa           |
|------------------|----------------------|
| Position:        | .Resident.           |
| Address: Khoroo: | .7th khoroo, 29-120b |
| District:        | Songinokhairkhan     |
| Mobile:          | 89030612             |
| Signature        | /signed/             |

|                                  | -   |
|----------------------------------|---|
| Most problematic climatic hazard | Problems  |
| Flood                            | Due to floods the roads get damaged and cracked. People especially children and old fall to the cracks and get injuries.<br>Wooden and felt structures of ger and houses such as floor and walls get easily worn out due to regular interaction with the muddy surface.<br>Due to floods the roads get damaged and cracked. People especially children and old fall to the cracks and get injuries. |
| Overheat                         | Due to overheat, people especially children and old have a sunstroke and increased flood pressure.  |
| Soil pollution                   | Rainfall water sweeps up all the garbage in the gullies and<br>brings to the catchment area. This often results in soil pollu-<br>tion with the potential risk of danger from hazardous waste.<br>Drinking water from wells gets polluted.  |
| Street planning                  | Difficult to access for police, fire and ambulance due to poor<br>addressing system.<br>Poor access to road due to lack of proper street planning.  |
| Toilet                           | Pit latrines and waste water disposal holes get filled up easily<br>with rainfall water and overflowed contents pollute the sur-<br>rounding area while creating health risks to the people.  |
| Muddy road                       | Due to muddy and rocky road conditions, the cars often get<br>damaged.<br>Shoes and clothes of people especially children easily get de-<br>teriorated<br>Have to buy often soil and gravel to put onto mud.  |

### The magnitude of barriers to adaptation

| Most problematic<br>climatic hazard | What is currently limiting your community from coping<br>with or adapting to the impacts? (What makes it difficult<br>for you to deal with them or makes it difficult to make<br>changes to deal with them)<br>In what ways has your community already adapted to<br>deal with these issues? | Ranking most<br>important fac-<br>tors |
|-------------------------------------|--|--|
| 1. Flood                            |  | 1                                      |
| 2. Soil polution                    |  | 3                                      |
| Toilet                              |  | 2                                      |



| Muddy road | 3 |
|------------|---|

#### Interventions / Activities

| Most problematic<br>climatic hazard | Intervention/activity and/or infrastructure  | Ranking most im-<br>portant activity<br>and/or infrastruc-<br>ture |
|-------------------------------------|--|--|
| 1. Flood                            | <ol> <li>1.1 Construction of flood control facilities including<br/>drainage, embankment, ditches and installation of<br/>culverts.</li> <li>1.2 Construction of bridges over big gullies and river ba-<br/>sin area.</li> <li>1.3 Connect households and businesses to the central<br/>and local sanitation systems</li> <li>1.4 Divert the stream of surface runoff into the Baruun<br/>Salaa River</li> <li>1.5 Community flood resilience building activities<br/>through community mobilization, organization and<br/>training</li> <li>1.6 Train the communities in flood protection, mitigation<br/>and adaptation capacities</li> <li>1.7 Organize neighborhoods into self-help groups with<br/>common goal of building flood resilience and helping<br/>pack other</li> </ol> |  |
| 2. Toilet                           | 2.1 Construction of septic tanks shared within 5-8<br>Households   | 1  |
|                                     | 2.2 Improvement of sewerage system   | 2  |
|                                     | 2.3 Learning from international and national good expe-<br>riences   | 3  |
|                                     | 2.4 Share experiences between communities and learn from others  | 4  |
|                                     | <ul><li>2.5 Improve landscaping of the streets</li><li>2.6</li></ul>   | 5  |
| 3. Soil polution                    | 3.1 Learning from international and national good expe-<br>riences   | 3  |
|                                     | 3.2 Landscaping of the streets   | 1  |
|                                     | 3.3 Organize activities to improve water absorption ca-<br>pacity of soil such as planting trees   | 2  |
|                                     | 3.4 Improve pit latrines and waste water disposal pits of<br>households using the ways to prevent the pits from<br>flooding by surface water and make them safer for<br>water quality of ground water tabl   | 3  |
| 4. Muddy road                       | 4.1 Establish a surface water reservoir using the natural springs and streams  | 1  |
|                                     | 4.2 Improve landscaping of the streets   | 2  |
|                                     | 4.3 Organize activities to improve water absorption ca-<br>pacity of soil such as planting trees and pumping the   | 3  |

Г

# **Community Leaders**

| 11       | Arnapar      | GONNERS | ) 4 | 241 , | ACYX41 | 11  |
|----------|--------------|---------|-----|-------|--------|-----|
| 2 5<br>A | X years up A | 1       |     | H     | ACYX   | 340 |
|          | HARROW A     | 9 =     | 5   | - J=t |        | 2/3 |
| 8-       | A AND        |         | -   | 1     | REAUT  |     |
| Ydr      | THE.         |         | Y   |       | 1      |     |
| S.       | In           |         | 3   |       |        | V   |
| 5.13     | De la        |         |     |       |        |     |

-

| Name:          | Bayarsaikhan                |
|----------------|-----------------------------|
| Position:      | Kheseg leader               |
| Address: Khoro | o:Khoroo-9, Sharkhad 23-348 |
| Dist           |                             |
| Mobile:        | 88639783                    |
| Signature      |                             |



| Name:          | Mungunbumba                   |
|----------------|-------------------------------|
| Position:      |                               |
| Address: Khoro | o:Khoroo-9, Shar khad 62-920b |
| Distri         | ct:Bayanzurkh                 |
| Mobile:        | 88948228                      |

Signature



| Name:        | Enkhdolgion                    |
|--------------|--------------------------------|
| Position:    | _Kheseg leader                 |
| Address: Kho | roo:Khoroo-9, Shar khad 58-810 |
| Dis          | trict:Bayanzurkh               |
| Mobile:      | 88819961                       |
| Signature    |                                |





| Name:     | Khishigjargal                       |
|-----------|-------------------------------------|
| Position: | Kheseg leader                       |
| Address:  | Khoroo: _Khoroo-9, shar khad 64-947 |
|           | District:Bayanzurkh                 |
| Mobile:   | 80832054                            |

Signature

| Problems   |  |  |
|--|--|--|
| 1. Flood   |  |  |
| 2. Permafrost  |  |  |
| 3. Garbage track take garbage not enough                               |  |  |
| 4. Residents throw the garbage and gray water in to gully and drainage |  |  |
| 5. Pit latrine over flow due to rain                                   |  |  |
| 6. Air pollution   |  |  |
| 7. Slippery  |  |  |
| 8. Marsh   |  |  |
| 9. Water kiosk is far  |  |  |
| 10. Lack of the land adjustment  |  |  |
| 11. Households settled in wrong place without permission               |  |  |
| 12. Lack of the street light   |  |  |
| 13. Road without drainage  |  |  |
| 14. Water kiosk throw the water in to street                           |  |  |
| 15. Street light   |  |  |



The magnitude of barriers to adaptation

| Most problematic climatic hazard problems                             | What is currently limiting your community from<br>coping with or adapting to the impacts? (What<br>makes it difficult for you to deal with them or<br>makes it difficult to make changes to deal with<br>them)<br>in what ways has your community already<br>adapted to deal with these issues? | Ranking<br>most im-<br>portant fac-<br>tors |
|---|---|---|
| 1. Flood  | Without dam and drainage  | 3   |
| 2. Permatrost   | Depends on ground water   |   |
| 3. In despite of garbage track take garbage not enough                | Track come to khoroo to take garbage once a month   |   |
| 4. Residents throw the garbage and gray water into gully and drainage | <ul> <li>Track come to khoroo to take garbage once a<br/>month while household's garbage box are over<br/>flow</li> <li>Lack of the awarness of residents</li> </ul>  |   |
| 5. Pit laterine overflow due to rain                                  | The rain water from hiil side to inflood to pit laterine due to without drainage  | 1   |
| 6. Air pollution  |   | 2   |
| 7. Slipery  | <ul> <li>Residents threw the gray water in the streets</li> <li>Residents are irresponsibility</li> </ul>   |   |
| 8. Marsh  | Depends on ground water   |   |
| 9. Water kiosk is far   |   |   |
| 10. Lack of the land adgustment                                       | Depends on land department of district  |   |
| 11. Households settled in wrong                                       | Residents are irresponsibility  |   |
| place without permission  |   |   |
| 12. Lack of the street light  |   | 4   |
| 13. Lack of drainage along roads                                      |   |   |
| 14. Water kiosk threw the water into                                  |   |   |
| street  |   |   |

#### **Interventions / Activities**

| Most problematic<br>climatic hazard | Intervention/activity and/or infrastructure     | Ranking most important activity and/or infrastruc- |
|-------------------------------------|---|--|
|                                     |   | ture   |
| 1. Soil pollution due               | 1.1 Install security cameras to find peaple who | 3  |
| to pit laterine over-               | throw waste                                     |  |
| flow during the rain                | 1.2 Install warming board                       |  |
|                                     | 1.3 Increase garbage truck number               | 2  |
|                                     | 1.4 Organise advocation work for residents'     | 1  |
|                                     | awareness                                       |  |
|                                     | 1.5 Plant trees                                 |  |
|                                     | 1.5 Find best solution of pit laterine          |  |
|                                     | 1.6 Construct septic tank between the 2         | 3  |
|                                     | households                                      |  |
| 2. Air pollution                    | 2.1 Sort and resycle waste of the Tsagaanda-    |  |
|                                     | vaa which is burn waste point                   |  |
|                                     | 2.2 Increase insulation of each houses          |  |
|                                     | 2.3 Support the organizations which are work-   |  |
|                                     | ing against air pollution                       |  |
|                                     | 2.4 Develope new solution of heating/gas. eco   | 3  |
|                                     | fuel /  |  |
|                                     | 2.5 Support poor families through the social    |  |
|                                     | welfare for heat                                |  |
|                                     | 2.6 Create electric from gray and rain water    |  |
|                                     | 2.7 Make discount for apartment advance         | 2  |
|                                     | 2.8 Supply electric heating equipment to        |  |
|                                     | households with discount                        |  |

| 3. Flood due to with- | 3.1 Threw soil into muddy area                | 2 |
|-----------------------|---|---|
| out drainage and      | 3.2 Costruct dam and drainage                 | 1 |
| dam                   | 3.3 Construct drainage where water collection | 3 |
|                       | place   |   |
|                       | 3.4 Increase awareness among the people,      | 4 |
|                       | drainage and culvert block with waste         |   |
| 4. Street light       |   |   |
| -                     |   |   |

### **Community Leaders**

| Name:      Uranber         Position:      Kheseg leader         Address:       Khoroo:      Khoroo-12, Khangai 23         District:      Sukhbaatar district          Mobile:      88811253 | <br>503b<br> |
|---|--------------|
| Position:      Kheseg leader         Address:       Khoroo:         District:      Sukhbaatar district         Mobile:      88811253  | <br>503b<br> |
| Address: Khoroo:Khoroo-12, Khangai 23-         District:Sukhbaatar district         Mobile:88811253   | 503b         |
| District:Sukhbaatar district         Mobile:      88811253  |              |
| Mobile:88811253   |              |
|   |              |
| Signature   |              |
|   |              |
| Name:Ganzorig   |              |
| Position:Resident   |              |
| Address: Khoroo:Khoroo-12,  |              |
| District:Sukhbaatar district  |              |
| Mobile:99172087   | _            |
| Signature   |              |
| Name:Altangerel   |              |
| Position: Member of Resident's representativ  | ve khura     |
| Address: Khoroo: Khoroo-12, khangai 21-785b   |              |
| District: Sukhbaatar district,  |              |
| Mobile:99252094_  |              |
| Signature   |              |



| Name:     | Khosbagana  |
|-----------|---|
| Position: | Resident  |
| Address:  | Khoroo:Khoroo-12, Khangai 17-693b<br>District:Sukhbaatar district |
| Mobile:   | 91168117  |

Signature

| Problems   |  |  |
|--|--|--|
| 1. Flood   |  |  |
| 2. Rain water come from road to plots                              |  |  |
| 3. Marsh   |  |  |
| 4. Waste are come to plot by flood                                 |  |  |
| 5. Due to inflood pit laterine over flow through the flood         |  |  |
| 6. Ground water over flow  |  |  |
| 7. Families trew the gray water in the street                      |  |  |
| 8. Children impossible to play outside                             |  |  |
| 9. Flood come in to home   |  |  |
| 10. Air pollution  |  |  |
| 11. Short circuit due to damage the during the rain                |  |  |
| 12. Rivers flow with waste   |  |  |
| 13. Elder's blood pressure increase due to extreme hot             |  |  |
| <b>14.</b> The foundation of the buildings break during the winter |  |  |

# The magnitude of barriers to adaptation

| Most problematic<br>climatic hazard  | <ul> <li>4) What is currently limiting your community from coping with or adapting to the impacts? (What makes it difficult for you to deal with them or makes it difficult to make changes to deal with them)</li> <li>5) in what ways has your community already adapted to deal with these issues?</li> </ul> | Ranking most<br>important fac-<br>tors |
|--|--|--|
| 1. Flood   |  | 1                                      |
| 2. Rain water come from road to plots  | Roads are created without drainage and culvert   |  |
| 3. Mars  | Residents threw the soil in to marsh   |  |
| 4. Waste are come to plot by floodh  | <ul> <li>Residents lack of responsibility</li> <li>Khoroo and kheseg leaders conduct waste clean activity regularly</li> </ul>   |  |
| <b>5.</b> Soil pollution. Due to inflood pit laterine over flow through the flood  | <ul> <li>Some of residents settled hill area, in this<br/>area cannot dig well pit laterine due to rock</li> <li>Residents haven't any other solution than<br/>current pit laterine</li> </ul>   | 2                                      |
| 6. Ground water over flow  | Lands are allocated in river basin   |  |
| 7. Families trew the gray water in the street  | <ul> <li>Families haven't yet sewerage pit</li> <li>Lack of the residents awarness and responsibility</li> </ul>   |  |
| 8. Children impossible to play outside   | <ul> <li>Families trew the gray water in the street</li> <li>Lack of the residents awarness and responsibility</li> </ul>  |  |
| 9. Flood come in to home   | - Lack of the drainage and culvert   |  |
| 10. Air pollution  | Every households heat by stove with coal   | 3                                      |
| 11. Short circuit due to damage the elec-<br>tric line during the rain   | Residents use not quality cabel  |  |
| <b>12.</b> Rivers flow with waste  | Residents trew the garbage in to river and gully   |  |
| <b>13.</b> Health issue. El-<br>der's blood pressure<br>increases due to ex-<br>treme hot and some<br>disease due to soil<br>pollution | <ul> <li>Extremely hot in summer</li> <li>Disease coused by soil pollution</li> </ul>  | 4                                      |
| <b>14.</b> The foundation<br>of the buildings<br>break during the win-<br>ter  | <ul> <li>Families settled in marsh area, then freeze in<br/>winter</li> <li>Families repaire the house every summer</li> </ul>   |  |
#### **Inverventions / Activities**

| Most problematic<br>climatic hazard | Intervention/activity and/or infrastructure                                     | Ranking most<br>important activ-<br>ity and/or infra-<br>structure |
|-------------------------------------|---|--|
| 1. Flood                            | 1.1 To create drainage to remove the water in-                                  | 2  |
|                                     | 1.2 To biuld the street road with drainage                                      | 1  |
|                                     | 1.3 To install the pipe to remove the soil water                                | 3  |
|                                     | 1.4 Need the any solution to remove the<br>crowded water inside plot after rain | 4  |
| 2. Soil pollution                   | 2.1 To raise and the pit laterine edge  | 5  |
|                                     | 2.2 Improve the drainage and street road  | 4  |
|                                     | 2.3 To creat the drainage in each plot  | 2  |
|                                     | 2.4 To create the sewerage pit in each plot                                     | 1  |
|                                     | 2.5 To monitor the families that trew the gray water in to street               | 3  |
| 3. Air pollution                    | 3.1 To connect the heating central line   | 4  |
|                                     | 3.2 Change the schedule of night discount of electric                           | 2  |
|                                     | 3.3 To create the imprastructure among the 10-20 families                       | 1  |
|                                     | 3.4 To develope the brick fuel  | 3  |
| 4. Healt issue re-                  |   |  |
| lated to extreme hot                |   |  |
| and                                 |   |  |

### Khoroo 13

### **Community Leaders**

| Name:      Ariuntungalag         Position:      Kheseg leader         Address:       Khoroo:      13, Rashaan 10-593         District:      Sukhbaatar         Mobile:      99717222         Signature |
|--|
| Name:   Byambasuren      Position:   Kheseg leader      Address:    Khoroo:   13, Nogoon talbai 6-43      District:   Sukhbaatar      Mobile:   80207714      Signature                                |
| Name:Enkhsaikhan   Position:Kheseg leader   Address: Khoroo:13, Rashaanii 5-281   District:Sukhbaa-   tar   Mobile:88178860   Signature  |



| Name: _          | Usukhbayar          |
|------------------|---------------------|
| Position: _      | Kheseg leader       |
| Address: Khoroo: | 13, Rashaanii 1-144 |
| District         | Sukhbaatar          |
|                  |                     |
| Mobile:          | 89446565            |

Photo



| Name:            | Enkhee         |
|------------------|----------------|
| Position:        | _Kheseg leader |
| Address: Khoroo: | _13,           |
| District:        | _Suhkbaatar    |
| Mobile:<br>88786 | 134            |

Signature:

| Most problematic cli-<br>matic hazard | Problems  |
|---------------------------------------|---|
| Flood                                 | 1. Flood, depends on geographically low level                 |
| Flood                                 | 2. Water of soil in river basin                               |
| Flood                                 | 3. Flood due to lake of drainage and pipe along the river     |
| Flood                                 | 4. Maddy due to nature gully directions are changed           |
| Flood                                 | 5. Main road culvert pit blocked                              |
| Flood                                 | 6. Spring erupted in the plot                                 |
| Flood                                 | 7. Flood due to uncontrolled land allocation                  |
| Flood and soil pollution              | 8.Flood drainage blocked due to waste                         |
| Flood and soil pollution              | 9. Natural gully is blocked due to construction waste         |
| Soil pollution                        | 10. Pit latrine over flow depends on soil water level is high |
| Air pollution                         | 11. Air pollution   |
| Slippery                              | 12. Slippery  |

The magnitude of barriers to adaptation

| Most problematic<br>climatic hazard   | What is currently limiting your community<br>from coping with or adapting to the im-<br>pacts? (What makes it difficult for you to deal<br>with them or makes it difficult to make changes<br>to deal with them)<br>in what ways has your community already<br>adapted to deal with these issues? | Ranking most<br>important fac-<br>tors |
|---|---|--|
| 1. Flood, depends<br>on geographically<br>low level                                   | <ul> <li>Water of soil in river basin</li> <li>Spring erupted in the plot</li> <li>Uncontrolled land allocation</li> </ul>  |  |
| 2. Water of soil in river basin   | <ul> <li>Due to high ground water level, pit laterine<br/>easily over flow</li> <li>Pit latrines fill overdue to flood in to pit latrine</li> </ul>   |  |
| 3. Air pollution  | - Smoke<br>- Dust<br>- Changed the stove<br>- Tree planting   | 6                                      |
| 4. Slippery   | <ul> <li>Residents throw the gray water in the street</li> <li>Location is geographically slope</li> <li>Residents throw the ash on the ice</li> </ul>  |  |
| 5. Flood due to lake<br>of drainage and pipe<br>along the river                       | <ul> <li>Now days roads generally have been built<br/>without drainage and culvert</li> </ul>   | 2                                      |
| 6. Maddy and marsh<br>due to nature gally<br>and drainage direc-<br>tions are changed | - Lack of the awareness of residents  | 1                                      |
| 7. Main road culvert<br>pit blocked   | <ul> <li>Residents threw the waste in to gully</li> <li>Khoroo and residents clean the culvert</li> </ul>   | 3                                      |
| 8. Spring erupted in the plot   | - Families settled in not right place geograph-   |  |
| 9. Flood due to un-<br>controlled land allo-<br>cation                                | - Families are settled in not right place geo-<br>graphically   |  |
| 10.Flood drainage<br>blocked due to<br>waste  | - Residents threw the waste in to gully   |  |
| 11. Natural gully is<br>blocked due to con-<br>struction waste                        | - Construction company throw the construction<br>waste in to gully and river basin  | 5                                      |
| flow  | - Soil water level is nign<br>- Flood water supply in to pit laterine   | 4                                      |

#### Interventions / Activities

| Most problematic<br>climatic hazard   | Intervention/activity and/or infrastructure   | Ranking most<br>important activ-<br>ity and/or infra-<br>structure |
|---|---|--|
| 1. Maddy and marsh<br>due to nature gally<br>and drainage direc-<br>tions are changed | <ul><li>1.1 Improve the residents awareness and attitude</li><li>1.2 Land readjust the families settled on the natural gully.</li></ul> | 3<br>1   |
| tions are changed   | 1.3 To cooperate with khoroo and land investor  | 2  |
| 2. Flood due to lake<br>of drainage and<br>pipe along the road                        | <b>2.1</b> Extend and build drainage and culvert along the road   | 2  |
| pipe along the load   | 2.2 Improve the existing drainage and curvent   | •  |
| 3. Main road culvert<br>pits are blocked by   | <b>3.1</b> Install security camera and street light 3.2 To sort and recycle the waste   | 1<br>2   |
| waste   | 3.3 To improve the sense of responsibility of residents   | 2  |
|   | 3.4 To find when to put the garbage in the street   | 3  |
| 4. Pit laterine over  | <b>4.1</b> Change the toilet by bio latrine   | 3  |
| flow  | 4.2 To connect to the sewerage network  | 1  |
|   | evel  | 2  |
| 5. Natural gully is<br>blocked due to con-  | <b>5.1</b> To find when and what company threw the garbage in the gully   | 4  |
| struction waste   | 5.2 To clean the goint of the garbage and creat   | 2  |
|   | 5.3 To improve the sense of responsibility of   | 3  |
|   | company   |  |
|   | 5.4 To fine   | 1  |
| 6. Air pollution  | 6.1 To connect the heating network  |  |
|   | 6.2 To use the solar panel  |  |

### Khoroo 16

### **Community Leaders**

|   | Name:   Enkhtsetseg      Position:   Kheseg leader      Address:    Khoroo:   Khoroo-16, Belkh29-625      District:   Sukhbaatar      Mobile:   89299499      Signature |
|---|---|
|   |   |
|   | Name:Oyuntsetseg  |
|   | Position:Coomunity patrol   |
|   | Address: Khoroo:Khoroo-16, Belkh 8-129  |
|   | District:Sukhbaatar   |
|   | Mobile:88138815   |
|   | Signature   |
|   |   |
|   | Name:Yanjmaa  |
| NAME & REMARKS  | Position: Kheseg leader   |
| при зарана в уза<br>при нати и урана<br>при нати у урана<br>у уран за у уран в уза<br>у уран за уран в уза<br>у уран у ан | District: Sukhbaatar  |
|   | Mobile:88926015   |
| Photo   | Signature   |



| Name:                       | Chuluunsuren                               |
|-----------------------------|--|
| Position:<br>Address: Khore | Eco investor<br>bo: khoroo-16, Belkh 8-125 |
| Dist                        | ict: Sukhbaatar                            |
| Mobile:                     | 96092363                                   |
| Signature                   |  |

| Problems  |  |  |
|---|--|--|
| 1. Flood  |  |  |
| 2. Marsh  |  |  |
| 3. Snow coused flood                            |  |  |
| 4. Lack of drainage and culvert                 |  |  |
| 5. Drainage and culverts are blocked with waste |  |  |
| 6. Pit laterines overflow                       |  |  |
| 7. Households settled on gully                  |  |  |
| 8. Rain water inflood to plots                  |  |  |
| 9. Flood collection                             |  |  |

## The magnitude of barriers to adaptation

| Most problematic<br>climatic hazard | <ul> <li>6) What is currently limiting your community from coping with or adapting to the impacts? (What makes it difficult for you to deal with them or makes it difficult to make changes to deal with them)</li> <li>7) in what ways has your community already adapted to deal with these issues?</li> </ul> | Ranking most<br>important fac-<br>tors |
|-------------------------------------|--|--|
| 1.Flood                             | <ul> <li>Rain water come to plots from mountain part</li> <li>Lack of drainage and culvert along road</li> <li>Drainage and culvers block with waste</li> <li>Households settled on gully</li> </ul>   | 1                                      |
| 2.Soil pollution                    | <ul> <li>Residents threw waste into gully and drain-<br/>age</li> <li>Pit latrine overflow</li> </ul>  | 1                                      |
| 3.Waste issue                       | <ul> <li>Drainage and culverts are blocked with waste</li> <li>Residents threw waste into gully</li> <li>Lack of awareness among people</li> </ul>   | 2                                      |

#### Interventions / Activities

| Most problematic<br>climatic hazard | Intervention/activity and/or infrastructure | Ranking most<br>important activ-<br>ity and/or infra-<br>structure |
|-------------------------------------|---|--|
|-------------------------------------|---|--|

| 1. Flood          | 1.1 Construct drainage between road and          | 1 |
|-------------------|--|---|
|                   | mountain side                                    | - |
|                   | 1.2 Costruct and improve drainage along roads    | 3 |
|                   | 1.3 Costruct drainage and culvert in each        |   |
|                   | street   | 2 |
|                   | 1.4 Cooperate with emergancy management          |   |
|                   | agency, land department and khoroo officials     | 5 |
|                   | for resettlement to move families settled on     |   |
|                   | aully  |   |
|                   | 1.5 Advocacy work on not threw garbace into      |   |
|                   | aully  |   |
|                   | 1.6 Costruct bridge on the river                 | 4 |
|                   | 1.6 Install warming board                        | 6 |
| 2. Sail pollution |  | 0 |
| 2. 301 pollution  | 2.1 Improve pit latime                           | 2 |
|                   | 2.2 Find solution and technology for pit latrine | Z |
|                   | 2.3 Construct septic tank among 10-20 house-     |   |
|                   | holds  | 3 |
|                   | 2.4 Connect to sewerage network                  |   |
|                   | 2.5 Costruct pit laterine with concrete lining   | 1 |
|                   |  | 4 |
| 3. Waste issue    | 3.1 Sort and recycle waste                       | 1 |
|                   | 3.2 Increase awareness among the people          | 3 |
|                   | 3.3 Install security camera to find and monitor  | 2 |
|                   | people who throw waste                           |   |

## Khoroo 24

## **Community Leaders**



| Name:            | Ya.Puntsagtseren            |
|------------------|-----------------------------|
| Position:        | Resident                    |
| Address: Khoroo: | Salkhit zadgai, 24th khoroo |
| District:        | Songinokhairkhan            |
| Mobile:          | 9448-2213                   |
| Signature        | /signed/                    |



| Name:                         | Battumur                                     |
|-------------------------------|--|
| Position:                     | Resident                                     |
| Address: Khoroo:<br>District: | Zeel -24-54, 24th khoroo<br>Songinokhairkhan |
| Mobile:                       | 88631415                                     |
| Signature                     | /signed/                                     |



| Name:            | Oyun-Erdene             |
|------------------|-------------------------|
| Position:        | Kheseg leader           |
| Address: Khoroo: | Zeel 29-46, 24th khoroo |
| District:        | Songinokhairkhan        |
| Mobile:          | 8980-6079               |
| Signature        | /signed/                |



| Name:                         | N.Shoovdor                                      |
|-------------------------------|---|
| Position:                     | Resident  |
| Address: Khoroo:<br>District: | Zeeliin zadgai, 24th khoroo<br>Songinokhairkhan |
| Mobile:                       | 99981270, 88691279                              |
| Signature                     | /signed/  |

| Most problematic climatic hazard   | Problems  |
|------------------------------------|---|
| Soil pollution                     | 1. Each plots have toilets                              |
|                                    | 2. Contaminated of the water supply                     |
|                                    | 3. No toilet about 720 households                       |
| Flood                              | 1. To outflow water from mountain                       |
|                                    | 2. Street cover water                                   |
|                                    | 3. Come out latrine on land                             |
|                                    | 4. Land sliding   |
|                                    | 5. Failed traditional gers and plots                    |
|                                    | 6. Үерт автаж урсах,                                    |
| Using water gravel                 | 1. People took using water gravel                       |
| Stray dog                          | 1. bite to dog  |
| To low river's level               | 1. To get soil without unlicensed                       |
|                                    | 2. To throw wastes to along to river                    |
| Water pollution                    | 1. About 720 households no toilet which is affected     |
|                                    | clean water of water.                                   |
| Air pollution                      | Stove and car smokes are increasing                     |
| Street muddy                       | 1. After rain and snow all street become muddy along    |
|                                    | to river. People can't go there.                        |
| Overcentralizatiom                 | 1. From 3-4 years ago new households who affected       |
|                                    | re-planning are settled in along to river.              |
| Issues of Latrine                  | 1. 720 households no toilet                             |
| Sliding                            | Land is very marshland due to become sliding cold days  |
|                                    | and muddy in warm days                                  |
| Solid waste                        | Waste track can't go muddy road therefore households    |
|                                    | throw their solid wastes to street.                     |
| Concentrations due to the preplan- | Too much centralization along to river.                 |
| ning of other parts of the city    | Хэтэрхий их төвлөрөлийг би болгож байгаа                |
| Street planning                    | 3. Police, fire and ambulance can't find households due |
|                                    | to poor addressing system.                              |
|                                    | 4. Poor access to road due to lack of proper street     |
|                                    | planning.   |
| Power /electricity/                | Around 720 households no electricity                    |

#### The magnitude of barriers to adaptation

| Most problematic<br>climatic hazard |  | 8)<br>9) | What is currently limiting your commu-<br>nity from coping with or adapting to the<br>impacts? (What makes it difficult for you<br>to deal with them or makes it difficult to<br>make changes to deal with them)<br>in what ways has your community al-<br>ready adapted to deal with these is-<br>sues? | Ranking most<br>important fac-<br>tors |
|-------------------------------------|--|----------|--|--|
| 1.                                  | Flood  | •        | some dum is built by government<br>still have problem  | 1                                      |
| 2.                                  | Issues of Latrine<br>and soil pollu-<br>tion/Toilet/ | •        | didn't do anything now, no finance<br>Still have problem   | 2                                      |
| 3.                                  | Street planning                                      | •        | didn't do anything now<br>still have problem   | 3                                      |

#### Interventions / Activities

| Most problematic<br>climatic hazard | Intervention/activity and/or infrastructure   | Ranking most<br>important activ-<br>ity and/or infra-<br>structure |
|-------------------------------------|---|--|
| 1. Flood                            | 1.8 to build Dam  | 7  |
|                                     | 1.9 to build Bridge   | 6  |
|                                     | 1.10 to do water drainage /6th kheseg and<br>along the river  | 4  |
|                                     | 1.11 Tree planting  | 5  |
|                                     | 1.12 To collect soil water in hole or any big container use to another usefull thing                      | 1  |
|                                     | 1.13 Gardening  | 2  |
|                                     | 1.14 To build new garbage center for flood  | 8  |
|                                     | 1.15 To install rabbish bins and to clean<br>near the river.  | 9  |
|                                     | 1.16 To do ice rink using collection water in winter  | 3  |
|                                     | 1.17 To install street light  | 10   |
| 2. Issues of Latrine                | 2.7 Septic tank with 5-8 household or street  | 1  |
| and soil pollution                  | 2.8 Tree planting in flots  | 2  |
|                                     | 2.9 To form primary groups together clean<br>near the river   | 3  |
|                                     | 2.10 To establish community center for<br>youth and children uses community re-<br>source along the river | 4  |
|                                     | 2.11 Street light   | 5  |
| 3. Street planning                  | 3.1 To built new technology latrine for 720 households located river basin.                               | 1  |
|                                     | 3.2 To become power for 720 households lo-<br>cated river basin.  | 2  |
|                                     | 3.3 To build bridge and foothpath work  | 3  |

|   | SHD 7  |  | BZD9  |  |  |
|---|--|--|---|--|--|
| Attendance                                  | 6: 3 male and 3 female; 2 el<br>school children  | derly, 2 disabled, 2 parents of  | 8: 3 male and 5 female;   | ; 1 parent with school ag  | e child; 3 elderly   |
| Proposed In-<br>tervention<br>Specific con- | Drainage     It would create a dan-  | Resilient sanitation delivery     It was observed that the low   | River Embankment  | Drainage  Nearby private   | Resilient sanitation<br>delivery<br>• To select HHs  |
| cerns                                       | <ul> <li>In word of club a damage of the word of club a damage of the da</li></ul> | <ul> <li>In which observed that the few income HHs which were receiving support and subsidy all the time get used to the support and tend to not take any post responsibility comes with the support</li> <li>It would be better to select HHs who are socially active in the communities' work to encourage them further or select elderly HHs</li> <li>The toilet is the primary need of HHs so the most of HHs would agree to contribute 10 or more % of the required cost of improved latrine</li> <li>HHs can contribute in construction of latrines by their involvement</li> <li>Select HHs settled in the main catchment areas of rain water for latrines improvement</li> <li>It is essential to select the HHs who are willing to improve their latrines and capable to contribute certain portion of the cost for the improvement.</li> </ul> | <ul> <li>of the areas affected to construction of flood facilities needs to be checked with district Land Offices</li> <li>There is likelihood of resistances from HHs who grow vegetable in their plot</li> <li>The movements of children, elderly and disabled will be challenging around the drainage area</li> <li>As there is a military range nearby, heavy tracks often cross the drainage area</li> <li>School buses often cross the drainage area</li> </ul> | <ul> <li>Plots and houses<br/>along the road<br/>may get affected<br/>to the construc-<br/>tion of the chan-<br/>nel</li> <li>The movement of<br/>pedestrians and<br/>vehicles will be<br/>limited</li> <li>There may hap-<br/>pen a complica-<br/>tion during con-<br/>struction due to<br/>noise and dust<br/>distractions to<br/>nearby settlement</li> <li>Underground<br/>electric and fiber<br/>optic wires' break-<br/>age may occur<br/>during the con-<br/>struction</li> </ul> | <ul> <li>who are willing to<br/>improve their la-<br/>trines and take<br/>care of them fur-<br/>ther by them-<br/>selves</li> <li>The residents can<br/>provide 10% of<br/>the cost of latrine</li> <li>Start the improve-<br/>ment of latrines<br/>from swampy ar-<br/>eas</li> <li>Select the HHs<br/>with disabled and<br/>elderly members<br/>but main thing is<br/>that they should<br/>be willing to im-<br/>prove their la-<br/>trines</li> </ul> |

## Round 3: Documentation of risk screening and impact assessment workshops of core interventions in target Khoroos

|                   |   | Select some of vulnerable     households to support them     for latrine's improvement  |   |   |  |
|-------------------|---|---|---|---|--|
| Specific<br>needs | <ul> <li>To grant the movement of pedestrians foot bridges need to be developed in several locations over the drainage</li> <li>For cars movement, at least a bridge to be developed</li> <li>Road signs and safety warnings need to be installed around the bridge</li> <li>Drainage must have curb or fence to protect children to fall</li> <li>In the dark spots around the drainage illumination need to be installed</li> <li>Natural gullies disappeared due to human activities need to restore</li> <li>Public awareness programme and training need to be organized</li> <li>Distribution materials for public</li> </ul> | <ul> <li>Inner lining of septic tanks<br/>should be done with consider-<br/>ation of permafrost interaction</li> <li>Septic tanks to be installed to<br/>make sure that waste water<br/>does not penetrate into the<br/>soil and ground water table</li> <li>On the ground part of the la-<br/>trines should be very simple<br/>to be affordable for HHs</li> <li>However, latrines for male<br/>and female should be sepa-<br/>rate</li> <li>There should be a pan and<br/>supporter for elderly and disa-<br/>bled inside the latrine</li> <li>The latrines should have<br/>enough space for disabled to<br/>fit inside</li> <li>A rail need to be installed to<br/>the wall</li> <li>Latrines should have illumina-<br/>tion</li> <li>Septic tanks should be in-<br/>stalled with consideration of<br/>latter emptying service ac-<br/>cess</li> </ul> | <ul> <li>Land ownership<br/>of the areas af-<br/>fected to con-<br/>struction of flood<br/>facilities needs to<br/>be checked with<br/>district Land Of-<br/>fices</li> <li>A bridge to be de-<br/>veloped for the<br/>movement of<br/>heavy trucks,<br/>buses and pedes-<br/>trians over the fa-<br/>cility</li> <li>Safety warnings<br/>need to be in-<br/>stalled around the<br/>flood facility</li> </ul> | <ul> <li>Land ownership<br/>of the areas af-<br/>fected to con-<br/>struction of flood<br/>facilities needs to<br/>be checked with<br/>district Land Of-<br/>fices</li> <li>To avoid as much<br/>as possible to af-<br/>fect private land<br/>for the construc-<br/>tion of flood facil-<br/>ity</li> <li>Foot bridges and<br/>crossing for cars<br/>over the facility<br/>need to be devel-<br/>oped</li> <li>Surveillance cam-<br/>era and street<br/>lights to be in-<br/>stalled in the area<br/>of crossing and<br/>foot bridges</li> <li>Curb or fences<br/>with safety warn-<br/>ing and road<br/>signs need to be<br/>constructed be-<br/>tween road and<br/>ditches</li> <li>Public awareness<br/>trainings to be<br/>conducted</li> </ul> | <ul> <li>The latrines<br/>should be de-<br/>signed and devel-<br/>oped with ventila-<br/>tion, illumination,<br/>nonslip flooring<br/>and a pan (a<br/>smaller pan for<br/>children)</li> <li>A pit should be<br/>designed as sep-<br/>tic tank with con-<br/>sideration of emp-<br/>tying service ac-<br/>cessibility</li> <li>A latrine should<br/>have enough<br/>space and sup-<br/>port for disabled<br/>person's move-<br/>ment</li> <li>To develop a reg-<br/>ulation to penalize<br/>HHs without sep-<br/>tic tank</li> <li>To put community<br/>monitoring after<br/>residents orga-<br/>nized into com-<br/>munity groups</li> <li>Not to allow to<br/>have many HHs<br/>in a plot</li> <li>Public awareness<br/>program with</li> </ul> |

|                      | <ul> <li>awareness could<br/>be an option to<br/>train the residents</li> <li>Roles and respon-<br/>sibilities of resi-<br/>dents and HHs<br/>need to be clear<br/>enough towards<br/>the O&amp;M of the<br/>drainage</li> </ul>  |  |  | practical guidance<br>to be conducted   |
|----------------------|---|--|--|---|
| Maintenance          | <ul> <li>HHs can be in charge of O&amp;M and cleaning of nearby parts of ditches</li> <li>To prevent illegal garbage dumping in the ditches, to consider installation of surveillance camera and illumination</li> <li>Make the community groups in charge of monitoring of O&amp;M of ditches</li> </ul> | <ul> <li>Septic tank to be installed for<br/>waste water discharge and to<br/>be emptied when filled</li> <li>Public Awareness program<br/>on waterborne diseases and<br/>prevention measures</li> <li>In locations such as dead-end<br/>streets to install street lights<br/>to prevent illegal garbage<br/>dumping and waste water dis-<br/>posal</li> </ul> | <ul> <li>Flood facility shall<br/>be handed over to<br/>the District Gover-<br/>nor's office as the<br/>district's property</li> <li>District Landscap-<br/>ing and Common<br/>Services Division<br/>will be in charge<br/>of O&amp;M of the<br/>flood facility</li> <li>However, com-<br/>munity groups of<br/>HHs live nearby<br/>to the flood facili-<br/>ties can put a<br/>monitoring over<br/>the O&amp;M of the<br/>facilities with help<br/>of Kheseg Lead-<br/>ers</li> <li>Flood facility shall<br/>be handed over to<br/>the District Gover-<br/>nor's office as the<br/>district's property</li> <li>District Landscap-<br/>ing and Common<br/>Services Division<br/>will be in charge<br/>of O&amp;M of the<br/>flood facility</li> <li>However, com-<br/>munity groups of<br/>HHs live nearby<br/>to the flood facili-<br/>ties can put a<br/>monitoring over<br/>the O&amp;M of the<br/>facilities with help<br/>of Kheseg Lead-<br/>ers</li> </ul> | <ul> <li>Every HH should<br/>be in charge of<br/>their latrine's<br/>O&amp;M</li> <li>To penalize the<br/>HHs without sep-<br/>tic tank</li> <li>HHs get orga-<br/>nized into com-<br/>munity groups<br/>and monitor the<br/>O&amp;M of improved<br/>latrines</li> <li>Not to allow to live<br/>many HHs in a<br/>plot</li> </ul> |
| Grievance<br>Redress | <ul> <li>Grievances and com-<br/>plaints for the project<br/>activities shall be sub-<br/>mitted to Khoroo Office<br/>in writing or through<br/>phone call</li> </ul>   | <ul> <li>Grievances and complaints<br/>for the project activities shall<br/>be submitted to Khoroo Office<br/>in writing or through phone<br/>call</li> <li>Khoroo Office shall communi-<br/>cate with the respective ones</li> </ul>  | <ul> <li>Grievances and<br/>complaints for the<br/>project activities<br/>shall be submitted<br/>to District Office<br/>in writing or</li> <li>Grievances and<br/>complaints for the<br/>project activities<br/>shall be submitted<br/>in writing or</li> </ul>  | Grievances and<br>complaints for the<br>project activities<br>shall be submitted<br>to District Office in<br>writing or through<br>phone call   |

|  | Khoroo Office shall<br>communicate with the<br>respective ones and<br>respond back to the<br>residents when com-<br>plaints are addressed | and respond back to the resi-<br>dents when complaints are<br>addressed | through phone<br>call | through phone<br>call |  |
|--|---|---|-----------------------|-----------------------|--|
|--|---|---|-----------------------|-----------------------|--|

|                        | SBD12   | SBD13   | SBD16  | SHD24  | SHD25  |
|------------------------|---|---|--|--|--|
| Attendance             | 13: 2 males and 11female; 4   | 7: 1 male and 6 fe-   | 6: 1 male and 5 females; 3 disa-   | 5: 1 male and 4 fe-  | 9: 2 male and 7 fe-  |
|                        | elderlies, 2 disabled, 4 par-   | male; 3 elderly, 1 dis-   | bled; 3 parents with school age  | male; 2 elderly, 1 dis-  | male; 2 elderly, 1 dis-  |
|                        | ents with school age chil-  | abled, 2 parents with   | children; 2 elderly  | abled; 2 parents with  | abled; 3 parents with  |
|                        | dren  | school age children   |  | school age children  | school age children  |
| Proposed In-           | Resilient sanitation delivery   | Resilient sanitation  | Resilient sanitation delivery  | Resilient sanitation   | Resilient sanitation   |
| tervention             |   | delivery  |  | delivery   | delivery   |
| Specific con-<br>cerns | <ul> <li>The toilet is the primary need of HHs so the most of HHs would agree to contribute 10 or more % of the required cost of improved latrine</li> <li>Toilet improvement can be done as a compulsory campaign activity for the improvement of quality of life of people</li> <li>Select the most flooded and polluted areas by the overfilled pit latrines and where there is higher movement of population for the intervention</li> <li>It would be the best if an improved latrine can be constructed to be shared within number of plots.</li> </ul> | <ul> <li>In the area, there is high number of disorders of digestive system for some reason</li> <li>There are HHs who can and cannot afford 10% of the cost of improved latrine</li> <li>The Eco toilet has been tested by some HHs but it was smelly like ordinary latrines</li> <li>It would be good if the project can foresee and prevent further problems with improvement of the latrines</li> </ul> | <ul> <li>In the area, there is high<br/>number of disorders of di-<br/>gestive system due to the<br/>sewerage problem accord-<br/>ing to the residents.</li> <li>There is high number of flies<br/>and mosquitoes during sum-<br/>mer</li> <li>Some HHs can provide 10%<br/>of the cost of improved toi-<br/>let.</li> <li>If some can afford to pro-<br/>vide more than 10% the por-<br/>tion can be used for the<br/>lower income HHs' toilet im-<br/>provement</li> <li>The priority target of the im-<br/>provement is HHs with disa-<br/>bled and elderly members<br/>under regular care</li> <li>It would be better to select<br/>middle income HHs willing</li> </ul> | <ul> <li>There are HHs<br/>who can and can-<br/>not afford 10% of<br/>the cost of im-<br/>proved latrine</li> <li>Select the HHs in<br/>the swampy areas<br/>for the first round<br/>of improvement</li> <li>Select HHs which<br/>are young, so-<br/>cially active, with<br/>disabled and el-<br/>derly members,<br/>with many chil-<br/>dren, paid regu-<br/>larly the utility bills<br/>and willing to im-<br/>prove their quality<br/>of life</li> <li>To select with rec-<br/>ommendation of<br/>Kheseg leaders</li> </ul> | <ul> <li>Higher number of<br/>disorders of di-<br/>gestive system<br/>happens espe-<br/>cially during win-<br/>ter. People con-<br/>nect this with pol-<br/>lution of ground<br/>water table.<br/>Mainly children<br/>from HHs who<br/>use ground water<br/>for cooking get di-<br/>arrhea.</li> <li>The 10% share<br/>could be accepta-<br/>ble for all as it will<br/>be once in a life<br/>time.</li> <li>It would be better<br/>to improve the toi-<br/>lets of middle in-<br/>come HHs</li> </ul> |

|                   | • | Select the neediest HHs<br>who are willing to im-<br>prove pit latrines<br>A Public Toilet needs to<br>be constructed at the<br>bus stop area close to<br>Sansar Trade Center   | • | HHs need to be<br>selected based<br>on the community<br>consensus other-<br>wise it may cre-<br>ate disputes<br>within community<br>To select the<br>HHs which live<br>on steep slopes<br>where there is<br>high likelihood of<br>latrines overfill<br>and HHs are will-<br>ing and capable<br>to provide 10 or<br>more % of cost | • | to improve their quality of<br>life<br>To select the most responsi-<br>ble HHs which don't dispose<br>HH garbage illegally and ac-<br>tively participate in Khoroo<br>activities such as cleaning<br>the streets and so on<br>A Public toilet need to be<br>constructed in the vicinity<br>area of Dambadarjaa min-<br>eral spring<br>Another public toilet need to<br>be constructed at the last<br>bus stop area<br>The first-round improvement<br>should target the HHs live<br>close to road to reduce the<br>disgusting smell from la-<br>trines.<br>And other priority is to target<br>HHs live close to school and<br>kindergarten. However,<br>those HHs should be willing<br>to improve their toilets and<br>capable to bear the 10% of<br>the cost | • | hence they know<br>every HHs<br>Residents get or-<br>ganized into com-<br>munity groups<br>and select the<br>HHs within the<br>group<br>A public toilet to<br>be constructed at<br>the last bus stop<br>area         | • | To select the HHs<br>with many chil-<br>dren, with disa-<br>bled and elderly<br>members but can<br>afford the 10%<br>share of the cost<br>To select with<br>recommendation<br>of Kheseg leaders<br>hence they know<br>every HHs<br>Residents get or-<br>ganized into com-<br>munity groups<br>and select the<br>HHs within the<br>group<br>A public toilet<br>needed at the for-<br>mer and new last<br>bus stop areas |
|-------------------|---|---|---|---|---|--|---|--|---|--|
| Specific<br>needs | • | It would be the best if<br>can get connected to the<br>nearest sewerage net-<br>work<br>Improved latrines should<br>have lining, a seat com-<br>fortable for disabled and<br>elderly, illumination, sep-<br>tic tank with enough ca-<br>pacity, rail fixed to the<br>wall | • | Latrines should<br>be comfortable<br>and user friendly<br>for the different<br>users such as<br>children, women,<br>elderly and disa-<br>bled<br>The improved la-<br>trines should  | • | The improved latrines<br>should have an Illumination<br>and ventilation, non-slip<br>flooring and steps, toilet<br>seat, rail on the wall, peace-<br>ful to ensure the disabled<br>person movement and not<br>much elevated from the<br>ground   | • | The improved la-<br>trines should have<br>an Illumination<br>and ventilation,<br>non-slip flooring<br>and steps, toilet<br>seat, rail on the<br>wall, peaceful to<br>ensure the disa-<br>bled person<br>movement and | • | The improved la-<br>trines should<br>have an Illumina-<br>tion and ventila-<br>tion, non-slip<br>flooring and<br>steps, toilet seat,<br>rail on the wall,<br>peaceful to en-<br>sure the disabled<br>person movement   |

|             | • | Latrines should be sepa-<br>rate for male and female<br>uses<br>A septic tank can be<br>shared for 5-10 HHs<br>A septic tank for a<br>swampy area should be<br>made of materials per-<br>sistent to permafrost soil<br>interaction                          | • | have an Illumina-<br>tion and ventila-<br>tion, non-slip<br>flooring and<br>steps, toilet seat,<br>rail on the wall,<br>peaceful to en-<br>sure the disabled<br>person move-<br>ment and not<br>much elevated<br>from the ground<br>Outdoor latrines<br>would be better in<br>ger areas |   |  | • | not much ele-<br>vated from the<br>ground<br>A septic tank for a<br>swampy area<br>should be made<br>of materials per-<br>sistent to perma-<br>frost soil interac-<br>tion<br>Public awareness<br>activities should<br>be organized us-<br>ing TV and other<br>methods and<br>through distribu-<br>tion of hygiene<br>promotion materi-<br>als<br>Develop and use<br>a penalty system<br>to correct unhy-<br>gienic habits of<br>communities<br>Organize promo-<br>tional activities for<br>HHs with im-<br>proved latrines | • | and not much ele-<br>vated from the<br>ground<br>Outdoor latrines<br>would be better in<br>ger areas<br>Public awareness<br>activities should<br>be organized us-<br>ing TV and other<br>methods and<br>through distribu-<br>tion of hygiene<br>promotion materi-<br>als |
|-------------|---|---|---|---|---|--|---|---|---|--|
| Maintenance | • | A tripartite agreement<br>can be signed between<br>the project, HH and the<br>latrine developer cover-<br>ing O&M roles and re-<br>sponsibilities<br>Community groups can<br>take O&M responsibility<br>collectively or by assign-<br>ing a member to be in | • | Community<br>groups can take<br>O&M responsibil-<br>ity collectively or<br>by assigning a<br>member to be in<br>charge of with<br>certain incentive<br>For ease of emp-<br>tying service to   | • | HHs should be in charge of O&M of their latrines | • | Community<br>groups can take<br>O&M responsibil-<br>ity collectively or<br>by assigning a<br>member to be in<br>charge of with<br>certain incentive   | • | HHs should be in<br>charge of O&M of<br>their latrines<br>Community<br>groups can take<br>O&M responsibil-<br>ity collectively or<br>by assigning a<br>member to be in   |

|                      | char<br>cent<br>• In sv<br>for a<br>prep<br>while   | rge of with certain in-<br>tive<br>wampy areas, a pit<br>a septic tank must be<br>bared during winter<br>le soil is frozen   | p<br>a<br>d<br>tr<br>d<br>d<br>C<br>it<br>b<br>n<br>c<br>c<br>c<br>c | put antifreeze<br>and fluidifying ad-<br>ditives regularly<br>to the septic tank<br>during winter<br>Community<br>groups can take<br>O&M responsibil-<br>ity collectively or<br>by assigning a<br>member to be in<br>charge of with<br>certain incentive |   |  |   |  | charge of with<br>certain incentive   |
|----------------------|---|--|--|--|---|--|---|--|---|
| Grievance<br>Redress | <ul> <li>Grie<br/>plair<br/>mitte<br/>mini<br/>whe</li> <li>Afte<br/>to su<br/>the o<br/>zatio<br/>the p</li> </ul> | evance and com-<br>nts should be sub-<br>ed to the project ad-<br>istration in writing<br>en project is ongoing.<br>er project completion<br>ubmit complaints to<br>Community organi-<br>on established under<br>project | C     C     C     S     t  | Grievance and<br>complaints<br>should be submit-<br>ted to an admin-<br>stration organi-<br>zation above dis-<br>trict level   | • | Submit complaints to khoroo<br>office<br>In long run, there would be<br>not much complaints com-<br>ing from residents | • | HHs should be in<br>charge of O&M of<br>their latrines<br>If required, to sub-<br>mit complaints to<br>community group<br>leader | For grievance re-<br>dress, meet in person<br>or submit writing com-<br>plaints to the devel-<br>oper |

Meeting topic/Уулзалтын нэр: ......Зорилтот бүлгийн уулзалт...... Venue/ Хаана: <u>СЛ. 9</u> <u>1-/г</u> <u>хертес</u> Date/ Огноо: <u>2011 · 12 · 20</u>

Attendance/ Ирцийн бүртгэл

| N2 | Name<br>Hap    | Хүйс<br>Sex    | Өөрт хамааралтай ангилалаа<br>чагтална үү<br>please check follow   | Address/Xanr                        | Утас<br>Telephone | Гарын үсэг<br>Signature |
|----|----------------|----------------|--|-------------------------------------|-------------------|-------------------------|
| 1  | S. surang of   | Ъ́р<br>⊒Эм     | <ul> <li>Өндөр настан</li> <li>Хегжлийн бэркшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | Men Maa.<br>12 T Sygane.<br>38 Toot | 88586433          | Sur togo                |
| 2  | H Tupan        | 0 эр<br>Өгэм   | <ul> <li>Өндөр настан</li> <li>Хөгнлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | CX 2 + 74 x quer<br>0119 - 3-20 AUT | 99288387          | Hyl-                    |
| 3  | 13 as bagops   | K) ap          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | CXd-H7x0pa                          | 99138L60          | Flufer                  |
| 4  | \$ your cost   | ас<br>ас<br>ас | <ul> <li>Өндөр настан</li> <li>⊀агжлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | CX& 7 20000<br>0119-2-42            | 9826905y          | pegshice.               |
| 5  | S. Oyporto any | у эр<br>эм     | <ul> <li>Өндөр настан</li> <li>Хагжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | Mon-Nea<br>2-47-7007.               | 88035746          | Nypt Way                |
| 6. | Ocef cer Sien. | а эр<br>ме р   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэркшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | E 1911 X OCH 44 29<br>- 126 A       | 96890096          | Manufield               |

#### Үерээс хамгаалах чадавхийг бэхжүүлэх төсөл

Attendance/ Ирцийн бүртгэл

| N₽ | Name<br>Həp             | Хүйс<br>Sex                 | Өөрт хамааралтай ангилалаа<br>чагтална үү<br>please check follow   | Address/Xaar                    | Утас<br>Telephone | Гарын үсэг<br>Signature |        |
|----|-------------------------|-----------------------------|--|---------------------------------|-------------------|-------------------------|--------|
| 1  | 3 augous<br>Tu o 2T Mag | □ Эр<br>В∕Эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 24,-23.                         | 941413123         | TTOLTMAR                | -      |
| 2  | Dongst.<br>Hopmarger    | улар<br>Эм                  | <ul> <li>Өндөр настан</li> <li>Хогжлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 372 23-69.<br>24 рхороо.        | 99794523          | Other 3                 |        |
| 5  | Санженсав<br>Доревсерэн | ом <sup>2</sup> эр<br>□ эм∡ | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 393.0000<br>"31-6<br>24-p 20100 | 8885320           | Dogues                  |        |
| 4  | Buzansopre<br>Tuggt     | □ эр<br>%^ эм               | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | gagrea                          | 86247770          | THE                     | Haward |
| 5  | Jam the may             | с эр<br>С эм                | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 24 proped<br>2 mining 26-3      | 911 1 7395        | X                       |        |
|    |                         | 171                         | C Outrop uppertur  |                                 |                   |                         |        |

Meeting topic/Уулзалтын нэр: .....Зорилтот бүлгийн уулзалт..... Venuel Xaana: <u>Internation gap</u> <u>25-ft regree</u> Date/ Ornoo: <u>2017</u> 12 22

2-2) Pan-9 ВМ - 0 0 - 2-2 0 - 2-71 = 3 X6 - 1 Аttendance/ Ирцийн бүртгэл W - 3

| N2 | Name<br>Hap  | Хүйс<br>Sex   | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow   | Address/Xanr              | Утас<br>Telephone | Гарын үсэг<br>Signature |
|----|--------------|---------------|--|---------------------------|-------------------|-------------------------|
| 1. | I. Yobsonal  | зр<br>Эм      | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархцазалтэй</li> <li>Сүргүүлийн насны</li> <li>хүүхэдтэй эцэг эх</li> </ul> | 0qort 24-63204            | 89171543          | Hobowash                |
| 2. | c. bybig     | ог∕эр<br>□ эм | <ul> <li>Өндөр настан</li> <li>Хегилийн бархшээлтэй</li> <li>Сургуулийн насны<br/>/ хүүхэдтэй эцэг эх</li> </ul>     | Laupean 18.257            | 88854338          | Chot by                 |
| 3. | 5. Cylznaa   | □ эр<br>№‴эм  | <ul> <li>Өңдөр нәстан</li> <li>Хөсклийн баркшээлтэй</li> <li>Сүргүүлийн насны</li> <li>хүүхэдтэй эцэг эх</li> </ul>  | sairprak<br>3-9700T       | 8853,2604         | S. Colynord             |
| 4. | C. Omrowyson | ар<br>ам      | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>       | Сдонитеня 21-<br>-47 ТССТ | 99919548          | Omousign                |
| 5  | Myrequesa    | ⊡ эр<br>Б√эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>       | X-14-32                   | 99658501          | 44pett                  |
| 6  | Maerisnm     | ае<br>ам      | <ul> <li>Өндөр настан</li> <li>Хөгмлийн бэркшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>       | 0-8-20                    | 96 <i>76499g</i>  | Strongs                 |

| Ne | Name<br>Hap | Sex<br>Хүйс   | Өөрт эмааралтай ангилалаа<br>чагтална уу<br>please check follow  | Address/Xanr   | Telephone<br>Утас | Signature<br>Гарын үсэг |
|----|-------------|---------------|--|----------------|-------------------|-------------------------|
| 2  | US doappre  | qe J          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | DGONT St. 97th | \$\$605787        | But                     |
| 8  | D. Agbera   | ае ор<br>ме 🗸 | <ul> <li>Өндөр настан</li> <li>Хөсжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 05011724-103   | 99941012          | Ayber                   |
| g. | Д. Цанра    | □ эр<br>⊠́эм  | <ul> <li>Өндөр настан</li> <li>Хөсклийн баркшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 0gunm 21-195   | 99775744          | Dur                     |

| N₽ | Name<br>Hap   | Хүйс<br>Sex    | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow  | Address/Xaar                    | Утас<br>Telephone | Гарын үсэг<br>Signature |
|----|---------------|----------------|---|---------------------------------|-------------------|-------------------------|
| 1  | Осорторы      | □ Эр<br>Ю Эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн баркшээлтэй</li> <li>Сүргуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | CF5 8, - 19 - 14.<br>549        | 9906564 <i>6</i>  | Januar                  |
|    | Daw and yo    | од јэр<br>о эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэркшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | 26D-12 x0/00<br>Xaurai 3-48     | 91277477          | , .                     |
|    | Hoyedar       | ае<br>Д эм     | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны</li> <li>хүүхэдтэй эцэг эх</li> </ul> | 26D-12 x0100<br>Vacanaico 20767 | 96970066          |                         |
| 1  | Orayilcum     | □ эр<br>□ эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэркшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | 952 12-px0pa<br>22- 82 1        | 95124062          |                         |
|    | Cypon grave   | ае<br>Ф. эм    | <ul> <li>Өндөр настан</li> <li>Хегжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | 202 14000000.<br>17-688.        | 943157.79         |                         |
| 2  | In a main lay | □ эр<br>□ эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | 6- 219                          | 86 Q L 87 88      |                         |

| N2 | Name<br>Hap              | Sex<br>Хүйс   | Өөрт эмааралтай ангилалаа<br>чагтална үү<br>please check follow   | Address/Xaar                     | Telephone<br>Yrac | Signature<br>Гарын үсэг |            |
|----|--------------------------|---------------|---|----------------------------------|-------------------|-------------------------|------------|
| 7. | Bastonep                 | а эр<br>⊽уэм  | <ul> <li>Өндөр настан</li> <li>Хөгмлийн бэркшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | CDD-10P<br>Ropico<br>X-10-418    | 99319914          | Jactor                  |            |
| 8. | Unigreed<br>Cynade Jusep | а эр<br>Ду эм | <ul> <li>Өндөр настан</li> <li>Хагжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | x. 22-790B                       | 91 <b>1</b> 56115 | Ciquera Sozop           |            |
| 9) | Unisarcan<br>Instruction | 0 эр<br>≥ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хуухэдтэй эцэг эх</li> </ul>      | X 15 781                         | 19382858          | Juy.                    |            |
| 10 | Liauring                 | а эр<br>С эм  | <ul> <li>Өндөр настан</li> <li>Хөсжлийн бэрэшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | x-15-601                         | 95521436.         | John                    |            |
| 11 | Manuel<br>Hepenyson      | □ эр<br>⊉- эм | <ul> <li>Өндөр настан</li> <li>Хегжлийн бэрхшээлтэй</li> <li>Сургуулийн насны</li> <li>хүүхэдтэй эцэг эх</li> </ul> | C.D. 12-P<br>xopeo X-3-145       | 89895139          | Hepenunn                |            |
| 12 | Jandam<br>Jarop ngms     | а эр<br>У эм  | <ul> <li>Өндөр настан</li> <li>Хесилийн бэркшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | C. E. 12 - propeo<br>2 - 3-143 5 | 86862728          | have of gover           |            |
| B  | Aques une                | бу эр<br>⊡ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      | 25.12-p 20 p<br>X. 3-127         | 9919 734 /        | Alter - of              | 17         |
|    |                          | □ эр<br>□ эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>      |                                  |                   | 3                       | p D<br>our |

Meeting topic/Уулзалтын нэр: .....Зорилтот бүлгийн уулзалт.... Venue/Хаана: <u>Шар рад</u> <u>53</u><u>D</u>-<u>шее</u> <u>9</u><u>-</u>р <u>кор</u><u>о</u><u>о</u> Date/ Огноо: <u>2017</u>. <u>12</u>. <u>21</u>

Attendance/ Ирцийн бүртгэл

| N2 | Name<br>Hap         | Хүйс<br>Sex   | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow  | Address/Xaer                      | Утас<br>Telephone | Гарын үсэг<br>Signature |
|----|---------------------|---------------|---|-----------------------------------|-------------------|-------------------------|
| 1  | Атриав<br>Бограйкон | □ Эр<br>©⁄ Эм | <ul> <li>Өндөр настан</li> <li>хөгжлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>күүхэдтэй эцэг эх</li> </ul>  | 1830-4 9-рхерлос<br>716-6-30 1001 | 886397-83         | Im                      |
| 2  | M. Geny             | 1∕⁄эр<br>□ эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сүргүулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>  | 532×9-2 20100                     | 9962328           | Болд                    |
| 3. | Bamcarea<br>bam     | р<br>⊡ эм     | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сүргуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>  | 232-920720<br>28-348              | 89201977          | betw                    |
| 4. | 1. Brityye          | П эр<br>22 эм | <ul> <li>Эндөр мастан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>  | Barlon Fail ypear                 | 99249666          | 1. Brow Jugo            |
| 5  | 3 Lug leisag        | 🛩 эр<br>🗆 эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>  | 824.9-120100<br>9/K.8.8.          | 80295788          | Junty                   |
|    |                     | qe 🗆<br>эм    | <ul> <li>Өндөр настан</li> <li>Хөсколийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> |                                   |                   |                         |

| Nº | Name<br>Hap             | Sex<br>Хүйс           | Өөр" ~амааралтай ангилалаа<br>чагтална уу<br>please check follow  | Address/Xanr         | Telephone<br>Утас | Signature<br>Гарын үсэг |
|----|-------------------------|-----------------------|---|----------------------|-------------------|-------------------------|
| 5  | Сихор.<br>Ширгишаа      | а эр<br>С эм          | <ul> <li>Эндер настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>  | шар канд<br>64-919°  | 96202654          | Muquerae                |
| 6. | Валунра в<br>Дугиралаад | а эр<br>Даби          | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>зууухэдтэй эцэг эх</li> </ul> | шыргыд -<br>62 - 868 | 88162070          | Sophury                 |
| 7. | 0 เองาห และส            | пар<br>целар<br>целар | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэркшээлтэй</li> <li>Сүргуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul>  | 65 - 928             | 89.24.9902        | Coyurmi,                |
|    |                         | а эр                  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бархшаалтай</li> </ul>  |                      |                   |                         |

Meeting topic/Уулзалтын нэр: .....Зорилтот булгийн уулзалт. CSD-weer 13 Venue/ Хаана: 9217-12.20 Date/ Огноо: Attendance/ Ирцийн бүртгэл Өөрт хамааралтай ангилалаа чагтална үү please check follow Address/Xaar Гарын үсэг Signature Хүйс Утас Name Nº Telephone Нэр Sex (6-13 proyou 9533/600 aui 2-203 Өндөр настам Хөснлийн бэрхшээлтэй Эр 1 Diallya № Эм Сургуулийн насны күүхэдтэй эцэг эх Өндөр настан (513 ×0100 8873578 Happeur Hapaya Хагистийн бэржшээлтэй □ эр √эм 2 Сургуулийн насны 23-35 mac хүүхэдтэй эцэг эх Өндөр настан Хөгжлийн бэрхшээлтэй 3 эр Сургуулийн насны СБЗ 13-р-харов Хангай 12 5-25 ₩ 9M 81127975 хүүхэдтэй эцэг эх monzada Өндөр настан 4 Хөгжлийн бэрхшээлтэй 🗌 эр KB g-our 18-ma 88972862 Сургуулийн насны 1/30 Mapyer -3M хүүхэдтэй эцэг эх Ct. 8. 13. p Өндөр настан 8286.2224 Хөгжлийн бэрхшээлтэй ussi-5 эр par 12: 671 Сургуулийн насны П эм хүүхэдтэй эцэг эх 227. CEA - 13p 20,000 эp Өндөр настан Ú Jangleg. Хөгжлийн бэрхшэ 6 95852971 ₩ эм Germoupol HT-H 6-159 Сүргүүлийн насны хүүхэдтэй эцэг эх

Үерээс хамгаалах чадавхийг бэхжүүлэх төсөл

Meeting topic/Уулзалтын нэр: ......Зорилтот бүлгийн уулзалт... Venuel Xaana: Chil- unil 16-p Xofod Date/ Огноо: 2017 . 12 . 21

H-2 ch-2 X501-1

Attendance/ Ирцийн бүртгэл

| Nº | Name<br>Hap     | Хүйс<br>Sex  | Өөрт хамааралтай ангилалаа<br>чагтална уу<br>please check follow   | Address/Xawr   | Утас<br>Telephone | Гарын үсэг<br>Signature |
|----|-----------------|--------------|--|----------------|-------------------|-------------------------|
| 1. | M. In H. mailay | ©∕Эр<br>□ Эм | <ul> <li>Өндөр настан</li> <li>Хөгмлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | Doirith 11-200 | \$560650          | Perto                   |
| g. | F. Organ Opanix | П эр<br>Г эм | <ul> <li>Өндөр настан</li> <li>Хөсжлийн баришээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | B-29-638700T   | 89376868          | To Ogin Grand           |
| 3  | U. Smalle       | □ эр<br>≌′эм | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 5-18- 4-36     | 88926015          | U. Januace.             |
| 4  | 9. mxbesp       | ©∕эр<br>⊡эм  | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхцээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 6-20- 506      | 91152319          | FR FJX ME               |
| 5  | Норница         | а эр<br>эм   | <ul> <li>Өндөр настан</li> <li>Хөгжлийн бэрхшээлтэй</li> <li>Сургуулийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 5-17-408       | 88948678          | . Hepauser -            |
| 6  | Lycenies        | qe q         | <ul> <li>Өндөр настан</li> <li>Хасжлийн бэрхшээлтэй</li> <li>Сүргүүлийн насны<br/>хүүхэдтэй эцэг эх</li> </ul> | 5-27-669       | 94418408          | Equitant                |





Agreement of 37 drainage affected households with underground drainage construction intervention

> Yерийн ус зайлуулах шугам тавих ажлыг дэмжиж буй айл өрхүүд Preliminary confirmation of agreement and cooperation of plot owners affected to underground drainage construction in khoroo 7

| N⁰ | Хаяг     | Нэр                                    |   | Санал   | Гарын үсэг                               |
|----|----------|--|---|---|--|
| 1. | 5X36-29  | Тангад<br>Ганболь<br>88695900          |   | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | саная<br>орудина<br>Сополенная           |
| 2. | 5X38-12  | П Vрэв Ворни<br>БААСАГБАЯР<br>93387979 | 0 | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | Bypratio pay                             |
| 3  | 6X.38-18 | BAZINA<br>TUBILIANE AV<br>9930         |   | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | Санал орудана<br>99668349.<br>Натангарда |
| 4  | 6× 87-7  | BANGAH XAC<br>OTTOH 64T<br>99962003    |   | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | OTTOBEAT                                 |
| 5  | EX 35-6. | CANTH BPH<br>MEHXWHADTAN<br>89797952   |   | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | XTOIDO                                   |
| 6  | 5X 37-14 | 46/11111111111<br>0770411<br>99046583  |   | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | HOGI                                     |
| 7  | 5X 33-1  | 57.35-P<br>T97AMH                      |   | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох                | xand                                     |

| 8   |           |                 |     | Манай хашааг дайруулж шугам тавихыг  | đ  |
|-----|-----------|-----------------|-----|--------------------------------------|--|
|     | M211 11   |                 |     | зөвшөөрч байна.                      | J. Almer   |
|     | 5×39-9    | ANTAH DIMAR     | 2 0 | Төсөлтэй хамтран ажиллаж шугам тавих | 2966610  |
|     |           | 20000100        | 1   | ажилд өөрийн биеэр оролцох           | 10700010   |
|     |           | 07666105        | _   | сонирхолтой                          |  |
| 9   |           | Banguates       |     | Манай хашааг дайруулж шугам тавихыг  | d  |
|     | 5×33-11   | 5/23/3/3647/    | 1_  | зөвшөөрч байна.                      | 1 al   |
|     |           | BAHRH           |     | Төсөлтэй хамтран ажиллаж шугам тавих | JA   |
|     |           | 00121110        |     | ажилд өөрийн биеэр оролцох           |  |
| 10  |           | 77203120        | -   | сонирхолтой                          |  |
| 10  |           | nulanum         |     | Манай хашааг дайруулж шугам тавихыг  |  |
|     | 5X.33-2   | 1196CAH 9411731 | 1_  | зөвшөөрч байна.                      | Uly DA   |
|     |           | 1118071113131   | T"  | Төсөлтэй хамтран ажиллаж шугам тавих | 11 - 1   |
|     |           | 1911-0199       |     | ажилд өөрийн биеэр оролцох           |  |
|     |           |                 | -   | сонирхолтой                          |  |
| 11  | 5.00 U    | Chungary        |     | Манай хашааг дайруулж шугам тавихыг  |  |
|     | 5× 22-1   | NALHOOXIV       |     | зөвшөөрч байна.                      |  |
| 11  | 01001     | NOAMON IL FARA  |     | Төсөлтэй хамтран ажиллаж шугам тавих | Monkauap   |
|     |           | JAINA BUSA      | -   | ажилд өөрийн биеэр оролцох           | 1  |
|     |           |                 |     | сонирхолтой                          |  |
| 12  |           | 1/202000000     |     | Манай хашааг дайруулж шугам тавихыг  |  |
|     | 10.00     | 100000000000000 | 1   | зөвшөөрч байна.                      | 10 0   |
|     | 6X35-6.   | COPA            |     | Төсөлтэй хамтран ажиллаж шугам тавих | 15(702   |
|     |           | 22125412        |     | ажилд өөрийн биеэр оролцох           | . 15.  |
|     |           | 00035723.       |     | сонирхолтой                          | la de la companya de |
| 13  | 0.,00     | allaread        |     | Манай хашааг дайруулж шугам тавихыг  | autur  |
|     | DXXX      | Discourse       | ,   | зөвшөөрч байна.                      | Taco   |
|     | - 16      | Children        |     | Төсөлтэй хамтран ажиллаж шугам тавих | ver www  |
|     | 10        | 99697958        |     | ажилд өөрийн биеэр оролцох           | aumi   |
|     |           |                 |     | сонирхолтой                          | 080  |
| 14  | Ar-2      | 1220 07.111     |     | Манай хашааг дайруулж шугам тавихыг  | anter  |
| 200 | 5/ /      | margup          |     | зөвшөөрч байна.                      | TOUL   |
|     | 29-12     | Horn            |     | Төсөлтэй хамтран ажиллаж шугам тавих | yez www  |
|     | 001-19    |                 |     | ажилд өөрийн биеэр оролцох           | Nam  |
|     |           |                 |     | сонирхолтой                          | 0  |
| 15  | GX-2n     | Mag elema       | d   | Манай хашааг дайруулж шугам тавихыг  |  |
|     | NIV-UP.   | Ar a dupion     |     | зөвшөөрч байна.                      | # ſ  |
|     | DMG-H     | Viannaggo       | 10  | Төсөлтэй хамтран ажиллаж шугам тавих | 1 anier  |
|     | 1-VV      | OMZIDADO        | 1   | ажилд өөрийн биеэр оролцох           | 1.10100  |
|     | & 11      | 95717008        |     | сонирхолтой                          |  |
| 16  | CHDyap.   | 2 Paguaganna    |     | Манай хашааг дайруулж шугам тавихыг  |  |
|     | In northo | - Myrangy a     |     | зөвшөөрч байна.                      | LIA D  |
|     | Tp sugar  | Moungago        |     | Төсөлтэй хамтран ажиллаж шугам тавих | Alman  |
| ł   | 32-48mg   | on appalical    |     | ажилд өөрийн биеэр оролцох           | our of   |
|     |           | 99094304        |     | сонирхолтой                          |  |
| 17  |           |                 |     | Манай хашааг дайруулж шугам тавихыг  |  |
|     |           |                 |     | зөвшөөрч байна.                      | The second second second second  |

|                | 7d-39-4/<br>32-41      | Hours yra                   | Төсөлтэй хамтран ажиллаж шугам тавих<br>99/3 Зхинд өөрийн биеэр оролцох<br>сонирхолтой 9900   | 4yaa<br>30238 |
|----------------|------------------------|-----------------------------|---|---------------|
| 18<br>18<br>18 | 3 3× 32-44<br>95679312 | Datamencypros:<br>Barmucch. | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох<br/>сонирхолтой</li> </ul>      | Z             |
| -              | Ba 32-43<br>88894935   | Зянбацогая.<br>Моноквайч.   | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох<br/>сонирхолтой</li> </ul>      | 263           |
| 20             | 2-76                   | Dagna a Dre<br>Merrhesper   | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох</li> <li>сонирхолтой</li> </ul> | \$165         |
| 21             | Dr. 76                 | belonger                    | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох<br/>сонирхолтой</li> </ul>      | 2<br>25 020   |
| 22             | 100 x4<br>2-5          | 6440rup<br>88554707         | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох<br/>сонирхолтой</li> </ul>      | Экир          |
| 23             | 2-9-                   | 94116053                    | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох<br/>сонирхолтой</li> </ul>      | 1             |
| 24             | Jopan<br>2-9           | Runur more<br>88811600      | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох<br/>сонирхолтой</li> </ul>      | umon          |
| 25             | Popul<br>2-ga          | Hapanyoypon<br>94/19738     | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> <li>Төсөлтэй хамтран ажиллаж шугам тавих<br/>ажилд өөрийн биеэр оролцох<br/>сонирхолтой</li> </ul>      | F             |
| 26             |                        |                             | <ul> <li>Манай хашааг дайруулж шугам тавихыг<br/>зөвшөөрч байна.</li> </ul>   | 17            |

|    |          |                |    | Төсөлтэй хамтран ажиллаж шугам тавих                     |          |
|----|----------|----------------|----|--|----------|
|    |          |                |    | ажилд өөрийн ойеэр оролцох<br>сонирхолтой                |          |
| 27 | 110. 10. | CEO. 1         |    | Манай хашааг дайруудж шугэм тэриуыг                      |          |
|    | Maulhe   | Joogneu        | NG | зөвшөөрч байна.  | _        |
|    | 3-8      |                |    | Төсөлтэй хамтран ажиллаж шугам тавих                     | M        |
|    |          |                |    | ажилд өөрийн биеэр оролцох                               | alle     |
|    |          |                |    | сонирхолтой  | 0        |
| 28 | Mpy Mal  | Faite 91       |    | Манай хашааг дайруулж шугам тавихыг                      |          |
|    | 2-9      | Janourp        | -  | зөвшөөрч байна.  | Th       |
|    | 0        | 2              |    | Төсөлтэй хамтран ажиллаж шугам тавих                     | VAR      |
|    |          | 99082670       |    | ажилд өөрийн биеэр оролцох                               | /        |
| 29 |          | . A            |    | Сонирхолтои  |          |
| 25 | 5×29_    | baseppar rever |    | манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна    |          |
|    | 101      | Marbecom       |    | Төсөлтэй хамтран ажиллаж шугам тавих                     | 1 MA     |
|    | 121      | alianne        |    | ажилд өөрийн биеэр оролцох                               |          |
|    |          | 1607 +1-16     |    | сонирхолтой  | 11       |
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| 31 |          | a Ph           |    | сонирхолтои  |          |
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|    |          | 88160071       | -  | сонирхолтой  | ~ .      |
| 32 | EV20     | TUMA           |    | Манай хашааг дайруулж шугам тавихыг                      |          |
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|    |          | T Y            |    | ажилд өөрийн ойеэр оролцох                               | J. P.    |
| 33 | EVAA     | Jala ac ul     |    | Манай хашааг дайруулж шугам тавихыг                      |          |
|    | D129-    | c and and gy   |    | зөвшөөрч байна.  |          |
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|    | 02       | Al parman      |    | ажилд өөрийн биеэр оролцох                               | alla     |
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|    |          | 08152527       |    | сонирхолтой  |          |
| 35 | 5×29-100 | Gangu          |    | Манай хашааг дайруулж шугам тавихыг                      | June     |
|    | -uj-100  | Jandusso       |    | зөвшөөрч байна.  | 0 199 60 |
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|    |                          |                            | Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой   |          |
|----|--------------------------|----------------------------|---|----------|
| 36 | Horoo cera<br>2-28       | 99367428.<br>Ouopao:       | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | Obar g.  |
| 37 | Horoo<br>2-44            | Алания 24 24<br>8824 96 62 | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | Acuro    |
| 38 | 5 × 29-<br>207           | During barrows             | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | Dironfo  |
| 39 | 6×-29<br>81 <sup>A</sup> | Roberoszani<br>88840520.   | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох<br>сонирхолтой | Loberone |
| 40 | 6X - 29<br>11 8          | & gon upp &<br>80.2701 S.  | Манай хашааг дайруулж шугам тавихыг<br>зөвшөөрч байна.<br>Төсөлтэй хамтран ажиллаж шугам тавих<br>ажилд өөрийн биеэр оролцох                | Janzo    |

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# Annex 2 UN-Habitat projects list – Interventions in Ulaanbaatar, Mongolia

| Project  | Objective   | Donor  | Implementing   | Cities/  |
|--|---|--|--|--|
| Managing Cities in Asia- Ulaanbaatar:<br>Urban Renewal and Affordable Hous-<br>ing<br>2016-2017  | This is ADB PPTA for a project development on improved housing conditions in Ulaanbaatar ger areas. The pro-<br>ject outcome will be the establishment of replicable, sustainable, and comprehensive solutions for affordable<br>housing and ger areas redevelopment. UN-Habitat is supporting the ADB in participatory concept and methodol-<br>ogy development of affordable housing and urban renewal  | Asian Develop-<br>ment Bank (ADB)            | Municipality of Ulaanbaatar City<br>(MUB)  | Ulaanbaatar<br>City                                    |
| Community Engagement and Small<br>and Medium Enterprises Development<br>under the ADB Ulaanbaatar Urban Ser-<br>vices and Ger Areas Development In-<br>vestment Program, Mongolia<br>2015-2018 | The objectives of the project are to enhance residents' quality of life, to ensure that communities are fully in-<br>volved in and benefit from the redevelopment process of the sub- center, and to generate employment in se-<br>lected Ger areas.  | Municipality of<br>Ulaanbaatar City<br>(MUB) | Municipality of Ulaanbaatar<br>city, Asian Development Bank  | Ulaanbaatar<br>City                                    |
| Community Engagement for Slum Up-<br>grading within the Health System<br>Strategy in Songinokhairkhan District,<br>Ulaanbaatar, Mongolia, 2015   | The main expected results of UN-Habitat's support to project is that the communities in the Ger settlements of<br>the Songinohairkhan district are actively and meaningfully engaged in the implementation of the Strategy of<br>Health System Strengthening.   | World Health Or-<br>ganization (WHO)         | Songinohairhan District Gover-<br>nor's Office, District Health<br>Center, WHO   | Songinokhair-<br>khan District,<br>Ulaanbaatar<br>City |
| Guidelines for Participatory Urban De-<br>velopment in Ulaanbaatar City<br>2013-2014   | This project aims to establish written guidelines on the process of community mobilization, organization, and strengthening which can be readily available reference materials for the staff and officials of MUB and districts responsible for Ger area projects implementation. This project will likewise train the key focal community leaders who will serve as trainers from the 9 districts of Ulaanbaatar to establish the foundation of strong community organizations which can develop and manage projects using the community-led and participatory approach. | Municipality of<br>Ulaanbaatar City          | Governor's Office of Ulaanbaa-<br>tar City   | Ulaanbaatar<br>City                                    |
| Community Engagement Support to<br>Public-Private Partnership in New Ger<br>Area Redevelopment in Ulaanbaatar<br>City<br>2013-2015   | This community engagement<br>component will facilitate the community engagement in the MCUD- funded project to ensure that the design and<br>plans of the infrastructure projects are according to needs of the residents, that issues especially pertaining to<br>making land available for the project are adequately discussed and resolved within the community.  | Mongol Diving<br>LLC                         | Ministry of Construction and<br>Urban Development (MCUD) –<br>Municipality of Ulaanbaatar<br>ATMOR LLC/ Mongolia Diving<br>Company; Community groups | Ulaanbaatar<br>City                                    |
| Ulaanbaatar Urban Services And Ger<br>Areas Development Investment Pro-<br>gramme (Ulaanbaatar Urban Renewal<br>Community Participation)<br>2012-2014  | This is ADB PPTA for a Multi Facility Funding Programme development on Ger area Development and Investment<br>Programme. UN-Habitat supported the PPTA in participatory planning of the required basic and social infrastruc-<br>tures in the selected areas.   | Asian Develop-<br>ment Bank (ADB)            | Municipality of Ulaanbaatar  | Ulaanbaatar<br>City                                    |
| Citywide Pro-poor "Ger Upgrading<br>Strategy and Investment Plan" (GUSIP)<br>2006-2010   | The overall objective of the project is to prepare a Citywide Pro-poor "Ger-area Upgrading Strategy and Invest-<br>ment Plan" (GUSIP) for Ulaanbaatar through a structured consultative process, involving public sector agencies,<br>Duureg (District) and Khoroo (Sub-District) Councils, Ger-area communities, private sector agencies, civil society<br>organizations and non-governmental organizations.   | Cities Alliance                              | Municipality of Ulaanbaatar  | Ulaanbaatar<br>City                                    |
| Community-Led Ger Area Upgrading in<br>Ulaanbaatar City<br>2009-2013   | The overall objective of the Project was to improve the quality of life of selected ger area communities through<br>community-led upgrading by empowering the communities through mobilization and organization. The Project<br>builds on the ongoing urban development and strategic planning efforts in Ulaanbaatar City.   | JICA   | Municipality of Ulaanbaatar  | Ulaanbaatar<br>City                                    |



**UN-Habitat People's Process Impacts Brochure** 

#### **Origin of the People's Process**

During the early 1980s, UN-Habitat worked with the Government of Sri Lanka to pioneer a community engagemeet philosophy that placed the communities at the hear of their own development – this philosophy would later become the correstone of UN-Habitat's community development programmes in util environments. During that time, the municipality of Colombo integrated the People's Process into its own development agenda and operationalized over 1500 community. Development Committees (IDOI to work with local government for implementation of a large-scale housing programme. This was the first example of the Regis's Process being adopted by government.

#### **Fundamental principles**

The People's Process briegs about a paradigm shift moving from a model of control by authonities to one of support to people - this is done through a participatory community development methodology built around 5 steps Step 1 Step 2 Step 3 Step 4 Step 4 Processory Misercare

#### Multiple spillover effects

The People's Process achieves sustainability by combining technology with local incoviedge. Moreover interventions are charger (approximately 30% more value for money), enhances the local encomp; unlocks potential for local entrepreneurial opportunities, and national constructions standards are familiarized to local artistans through training. The approach alor ensures human rights: human inclusively and sustainability through a low environmental footprint.

Timeline : UN-Habitat in response to major events & critical issues



UN-HADITAT KEGIONAL UTTICE TOF ASIA AND THE PACIFIC (KOAP) ACROS Fukuska Balding, 8th Flaer, 1-1-1 Flejit, Chuo ku, Fukuska 810-0001, Japan Tet (81-92) 724-7121 fax: (81-92) 724-7124 fax: (81-92) Fax:

## 35 YEARS OF PEOPLE AT THE HEART OF THEIR OWN DEVELOPMENT

The People's Process: From Grassroots to Governance



# GOALS III C IIII C III   C IIIII C IIII C IIII C IIIII C IIIII C IIII



# Annex 5

#### Demonstrating compliance with the Adaptation Funds' Social and Environmental Policy (ESP), including:

- □ Purpose
- □ Process to comply to the AF ESP
- □ Summary description of the project
- □ Screening and categorization
- □ Environmental and social impact assessment
- Environmental and social management plan, including:
  - Risks management arrangements
  - Risks monitoring and evaluation arrangements
  - Grievance mechanism
  - Overview of potential risks and mitigation measures and monitoring arrangements

#### Purpose

The purpose of this overview is to demonstrate compliance of the project with the Environmental and Social Safeguards of the Adaptation Fund. It provides a summary of the measures taken in the project design phase to ensure that the project promotes positive environmental and social benefits, avoids, reduces or mitigates adverse environmental and social risks and impacts considering the 15 Adaptation Fund principles. It further details the measures put in place to uphold the principles throughout the project implementation.

#### Process to comply to the AF ESP

In line with UN-Habitats Environmental and Social Management System and in line with the Adaptation Fund's ESP and Gender Policy (GP), UN-Habitat and partners completed a risks screening and impact assessments of all proposed interventions / activities and the project as a whole. For the concrete interventions (i.e. flood protection and drainage and flood resilient latrines), it has been specifically checked if ESIA's would be required by law. This has been done by analysing the relevant standards and requirements and by double-checking these requirements with the Ulaanbaatar municipality, which confirmed that ESIA's would not be required for the proposed interventions.

UN-Habitat's gender and human rights specialists have supported the project preparation to ensure compliance with the ESP and GP. Community surveys and public consultations have been used to collect disaggregated data focused on climate change related issues, needs and perceptions of vulnerable groups, activity prioritization and the identification and verification of potential risks and impacts and, where needed, identification of measures to avoid or mitigate potential risks. This has been done through desk research, surveys, focus group discussions and community planning and decision-making processes.

Further, based on the above process, a report was prepared and presented to UN-Habitat's Project Review Committee,<sup>35</sup> which approved the report.

#### Summary description of the project

<sup>&</sup>lt;sup>35</sup> According to UN-Habitat's guidelines this report is not approved for public disclosure but a copy is made available to the Adaptation Fund Board / and Adaptation Fund Board Secretariat.

The seven target Ger communities in Ulaanbaatar are characterized by a high exposure to multiple climate hazards ranging from wind and dust storms, air pollution, and particularly by floods - cited as the main climate issue that required addressing by the communities - during the rapid needs assessment. Climate sensitivity is underpinned by rapid urbanization and population growth, leading to people residing in high-risk areas, in unsanitary conditions engaging in unhygienic behaviour, which exacerbates public health risks. Underlying vulnerabilities are poverty, limited social ties, limited access to basic services, gender inequalities and environmental degradation. Moreover, the adaptive capacities at household, community and governance level are barriers for change as is the very limited knowledge and awareness of risks and their own vulnerability.

To achieve the overall project objective, "enhance the climate change resilience of the seven most vulnerable Ger khoroo settlements focusing on flooding in Ulaanbaatar City," the project combines horizontally and vertically interrelated resilience strengthening of national and municipal institutions, khoroo communities and their physical, natural and social assets.

<u>Component 1</u>: Producing hazard and risk information / evidence for reducing vulnerability at the city, district and khoroo community level– primarily for Ger areas at high-risk of frequent flooding (USD 401,790)

This component will focus on reducing vulnerability to climate-related hazards and threats both at the city/town and community level by: developing one Ulaanbaatar northern Ger-Area (including the three high risk target districts covering the seven most vulnerable khoroos) Territorial Land Use Plan, with zoning, legal framework recommendations and a specific focus on flood risk reduction - building on a simulation model for forecasting future impacts of climate change flooding in UB city & Ger-areas, to be developed through this project; and producing seven Land Use Plans with specific focus on flood risk reduction and building resilience of the most vulnerable areas and people. The information generated and included in the land use plans and simulation model will allow the municipality, district authorities and khoroo communities to understand climate change related impacts and risks and to identify appropriate, community specific resilience interventions based on this information.

<u>Component 2</u>: Participative planning and capacity development for flood resilience in Gerareas at the district / khoroo and community level (including activities to operate and maintain - and mitigate any potential risks related to - the interventions under component 3) (USD 458,346)

This component aims at fully involving communities in the planning and execution of the proposed interventions under component 3; to ensure the proper operation and maintenance (and implementation of potential risk mitigation measures) of these interventions through community involvement. Under component 3, Khoroos communities will be directly contracted to execute the concrete interventions. The Khoroos communities will develop plans to execute these interventions, including management and maintenance arrangements. In parallel with these plans, technical engineering and hydrology studies will be conducted to ensure the assets are properly designed.

To ensure inhabitants are aware of the main issues and risks (including environmental and social risks of interventions) in their communities and to be able to respond to these issues and risks, awareness raising campaigns will be set-up and trainings conducted.

<u>Component 3</u>: Enhancing resilience of community level flood protection assets (USD 2,644,684)

During the rapid Khoroo-level vulnerability assessment, prioritization and vulnerable groups consultations, communities identified and confirmed two main concrete resilience building interventions: improved drainage systems to reduce floods and improved sanitation systems that won't overflow during floods and lead to health issues. Thus, these interventions have been selected to respond to the most pressing Khoroo-specific climate change hazards.

As this would be the first time to implement the Peoples Process in some of the proposed Gerareas it is critical that the local authorities and communities are exposed to the rigorous and complex combination of implementation and monitoring approaches and guidelines that will be put in place; from technical compliance and quality to management accountability, transparency and safe-guarding the rights-based approach of the People's Process. An inter-national advisory technical team, familiar with the roll-out of the People's Process closely working with the national execution team to adapt the approach to suit the local context,– with all its' cultural, community, institutional and legal dynamics - will be critical to ensure the success of the implementation.

Component 4: Awareness raising, knowledge management and communications (USD 244,682)

This component will strengthen urban-level institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses, especially related to floods and ensure the project implementation is fully transparent, all stakeholders are informed of products and results and have access to these for replication. This is done by capturing lessons learned and best practices regarding flood-resilient urban community development and distribute these to other communities, civil society, and policy-makers in government appropriate mechanisms, and conducing trainings to city and district government officials on replication of climate-induced risk (flood) adaptation interventions and process for other vulnerable locations/hazards in Ger areas.

#### Screening and categorization

An initial screening and assessment process has been carried out to identify and evaluate environmental and social risks and impacts of proposed interventions and based on that, of the entire project. With this information, the entire project has been categorized, and risks mitigation measures proposed, where needed.

Normative, planning and capacity development activities (i.e. non-concrete) under components 1, 2 and 4 have been screened against the 15 AF principles and potential risks are not significant. Despite this, measures will be taken to ensure that no environmental or social impacts can occur.

Activities under components 3 are 'concrete' interventions. During project preparation some potential risks were identified but most are not significant. The reason is that project activities scope has been designed to minimize potential risks: they are numerous, small scale and very localized, and proposed and managed by communities where possible, who have a stake in avoiding environmental and social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely. Given this, cumulative impacts are also unlikely. However, two risk areas (nr 4 and 8) were identified as potentially more significant for the northern drainage intervention in Khoroo 7. These risks have been reduced through mitigation measures.

Because of the nature of some activities under components 3, the entire project is regarded as a medium risk (Category B) project. Therefore, an ESMP has been developed.

| Table | 13    | Overview of I | risk screening  | outcome   | s of normative | , planning | and | capacity | develop- |
|-------|-------|---------------|-----------------|-----------|----------------|------------|-----|----------|----------|
| ment  | (i.e. | non-concrete  | e) intervention | s in comp | onents 1, 2 a  | nd 4       |     |          | -        |

| Component | Output     | Potential risks triggered and to avoid / mitigate  |
|-----------|------------|--|
| 1         | Output 1.1 | It need to be ensured that vulnerable groups and<br>women have equal chances to participate in plan-<br>ning and decision-making processes and have<br>equal access to (i.e. benefits from) interventions. |
|   | One (1) Ulaanbaatar<br>northern Ger-Area* Terri-<br>torial Land Use Plan<br>Output 1.2.  | Therefore, although the risks are not significant<br>(because vulnerable groups did not express is-<br>sues related to participation, discrimination, etc.),<br>measures to avoid risks related to principles 2, 3<br>and 5 are proposed.   |
|---|--|---|
|   | Simulation model<br>Output 1.3<br>Seven (7) Detailed Ger-  | Besides that, principles 1, 4 and 6 always apply<br>Moreover, it will be ensured that during the devel-<br>opment of the land use plans compliance to all 15<br>principles is considered.   |
|   | khoroo level Land Use<br>Plans   |   |
| 2 | Output 2.1<br>Seven (7) Khoroo-level<br>floods resilience action<br>plans<br>Output 2.2<br>Khoroo community level<br>interventions operation &<br>maintenance* and aware-<br>ness<br>Output 2.3                  | It need to be ensured that vulnerable groups and<br>women have equal chances to participate in plan-<br>ning and decision-making processes and have<br>equal access to (i.e. benefits from) interventions.<br>Therefore, although the risks are not significant<br>(because vulnerable groups did not express is-<br>sues related to participation, discrimination, etc.),<br>measures to avoid risks related to principles 2, 3<br>and 5 are proposed.<br>Besides that, principles 1, 4 and 6 always apply.<br>Moreover, it will be ensured that when conducting<br>technical engineering studies all 15 principles is<br>considered |
|   | Technical studies – Engi-<br>neering and hydrological  |   |
| 4 | Output 4.1.<br>Lessons learned and best<br>practices regarding flood-<br>resilient urban community<br>development are gener-<br>ated, captured and dis-<br>tributed to other Districts<br>and khoroo communities | It need to be ensured that vulnerable groups and<br>women have equal chances to participate in<br>workshops and trainings and that they have equal<br>access to (i.e. benefits from) interventions. There-<br>fore, although the risks are not significant (be-<br>cause vulnerable groups did not express issues<br>related to participation, discrimination, etc.),<br>measures to avoid risks related to principles 2, 3<br>and 5 are proposed.  |
|   | Output 4.2<br>Workshops and trainings  | Besides that, principles 1, 4 and 6 always apply.<br>Moreover, it will be ensured that lessons captured   |
|   |  | consider specific issues and needs of vulnerable groups and women.  |

Table 14 Overview of risk screening outcomes of concrete interventions under component 3

| Concrete interventions / activities                       |   | Target  | Estimated nr of benefi-  |  | Principles triggered after                                    |   |   |
|---|---|---------|--|--|---|---|---|
| Priority in-<br>vestments                                 | Detailed activi-<br>ties                      | Khoroos | ciaries  | Location (see maps)  | Numbers and dimensions  | Description<br>(incl. relevant info for screening)  | (see impact assessment, miti-<br>gation measures and man-<br>agement arrangements in<br>sections below) |
| Flood protec-<br>tion and<br>drainage in-<br>frastructure | Construct a flood<br>retention wall /<br>dike | 9       | Direct: 3.000<br>(1.530 women)<br>Indirect: 22.449<br>(Rest Khoroo 9 + 17)<br>Focus on informal ar-<br>eas and poor and fe-<br>male headed house-<br>holds | See figure 15<br>B: From #1016, Sharhad<br>61to #844, Sharhad 61               | Pkg A<br>(Length): 490<br>m<br>Width: 3,3 m<br>Height: 2,3 m  | Design: see figure 16<br>Land status: public land<br>Land use: flood area. In winter its frozen<br>and cars sometimes pass<br>Materials: soil, rock and cement<br>The wall / dike will protect the inhabit-<br>ants south of it from floods. It catches<br>water from the mountain in the west as<br>well as from the stream and the main<br>river. | 2, 3, 12 and 13<br>1, 4, 5 and 6 always apply   |
|   | Drainage chan-<br>nels                        | 9       | Direct: 4.000<br>(2.040 women)<br>Indirect: 21.449<br>(Rest Khoroo 9 + 17)<br>Focus on informal ar-<br>eas and poor and fe-<br>male headed house-<br>holds | See figure 15<br>A: From #832, Sharhad 64<br>to #959, Sharhad 64 and<br>bridge | Pkg B<br>(Length): 1065<br>m<br>Width: 1,2 m<br>Height: 1,2 m | Design: see figure 16<br>Land status: public / informal in northern<br>part and mixed in southern part<br>Land use: residential<br>Materials: cement<br>The drainage channel will be placed on<br>the north side of the road. Halfway a foot<br>bridge will be constructed for inhabitants<br>to pass.  | 2, 3, 12 and 13<br>1, 4, 5 and 6 always apply   |
|   |   | 7       | Direct: 20128<br>(>10.265 women)<br>Indirect: 7.772<br>(Khoroo 5)<br>Focus on informal ar-<br>eas and poor and fe-<br>male headed house-<br>holds          | See Figure 14A and B   | See below<br>for sub-sec-<br>tions                            | Design: see figure 16<br>Total length: 3020 meters of which 1066<br>covered<br>Land status: mostly public land<br>Land use: residential<br>Materials: cement  | See below for sub-sections  |

|  |  | See Figure 14A<br>A1i: From #23, Bayank-<br>hoshuu 39 to #41, Bayank-<br>hoshuu 39<br>A1ii: From #14a, Bayank-<br>hoshuu 38 to #41, Bayank-<br>hoshuu 39 | Pkg A1a:<br>332m<br>Pkg A1b: 79m<br>Width: 1,2 m<br>Height: 1,2 m | The whole drainage channel is located<br>on the east side of Khoroo 7 to catch all<br>water coming from the east; thus, pro-<br>tecting all inhabitants west of it. The<br>channel will be placed along the road ex-<br>cept in the northern part (A1-3), where it<br>will go through plots and thus will be<br>covered.<br>Although the drainage intervention in | 2, 3, 8, 12 and 13<br>1, 4, 5 and 6 always apply |
|--|--|--|---|---|--|
|  |  | See Figure 14A<br>A2i: From #41, Bayank-<br>hoshuu 39<br>to #8, Bayankhoshuu 35.<br>A2ii: From #1, Bayank-<br>hoshuu 35 to #8, Bayank-<br>hoshuu 35      | Pkg A2a:<br>297m<br>Pkg A2b: 71m<br>Width: 1,2 m<br>Height: 1,2 m | Khoroo / was planned strategically for<br>the whole Khoroo it will be managed in<br>sub-sections (as shown on the left)   | 2, 3, 8, 12 and 13<br>1, 4, 5 and 6 always apply |
|  |  | See Figure 14A<br>A3: From #8, Bayankhoshuu<br>35 to #17, Bayankhoshuu 29  | Pkg A3: 437m<br>Width: 1,2 m<br>Height: 1,2 m                     |   | 2, 3, 8, 12 and 13<br>1, 4, 5 and 6 always apply |
|  |  | See figure 14B<br>A4: From #8, Bayank-<br>hoshuu 29 to #17,<br>Bayankhoshuu 29   | Pkg A4:<br>230m<br>Width: 1,2 m<br>Height: 1,2 m                  |   | 2, 3, 12 and 13<br>1, 4, 5 and 6 always apply    |
|  |  | See figure 14B<br>A5: From #17, Bayank-<br>hoshuu 29 to #45, Tser-<br>giin angi 1  | Pkg A5:<br>660m<br>Width: 1,2 m<br>Height: 1,2 m                  |   | 2, 3, 12 and 13<br>1, 4, 5 and 6 always apply    |
|  |  | See figure 14B<br>A6: From #8, Tsergiin<br>angi 2 to #45Tsergiin<br>angi 2   | Pkg A6:<br>668m<br>Width: 1,2 m<br>Height: 1,2 m                  |   | 2, 3, 12 and 13<br>1, 4, 5 and 6 always apply    |
|  |  | See figure 14B<br>A6: From #45, Tsergiin<br>angi 2 to #6, Namag 1  | Pkg A7:<br>336m<br>Width: 1,2 m<br>Height: 1,2 m                  |   | 2, 3, 12 and 13<br>1, 4, 5 and 6 always apply    |

|                               |   | <u>40</u><br><u>40</u><br><u>40</u> | Immediate: 5,800<br>(2,958 women),<br>22,100 people<br>(11,271 women) get<br>flood reduction bene-<br>fit                                    | <u>185.399</u><br><u>346.616</u><br><u>592.874</u>   | So1: From<br>#23,<br>Bayankhoshuu<br>39<br>to #26a,<br>Monlaa 6<br>So2: From #2,<br>Bayankhoshuu<br>35<br>to #30, Monlaa<br>1<br>So3: From #9,<br>Kbilin tooroo | Pkg So1: 460m         Design1: Width: 1.5m         Height: 1.0m         Design2: Width: 1.5m         Height: 1.5m         Pkg So2: 860m         Design1: Width: 1.5m         Height: 1.0m         Design2: Width: 1.5m         Height: 1.0m         Design1: Width: 1.5m         Height: 1.0m         Design2: Width: 1.5m         Height: 1.5m         Design2: Width: 1.5m         Height: 1.5m         Pkg So3: 1471m         Design1: Width: 1.5m | Total length: 460 meters         Land status: mostly public         land         Materials: cement         Total length: 860 meters         Land status: mostly public         land         Materials: cement         Total length: 860 meters         Land status: mostly public         land         Materials: cement         Total length: 1471 meters |
|-------------------------------|---|-------------------------------------|--|--|---|---|--|
|                               |   |                                     |  |  | 0119<br>to #48,<br>Bayanbulag 4   | Height: 4.0m  | Land status: public land<br>Land use: flood area. In winter<br>its frozen<br>Materials: soil, rock and ce-<br>ment   |
| Flood resili-<br>ent latrines | Construct suitable<br>latrines (for rocky<br>or muddy under-<br>ground) | 24                                  | Direct: 1101<br>(>561 women)<br>Indirect: 32.824<br>(Rest Khoroo 24 + 7)<br>Informal and poor, no<br>indigenous or mar-<br>ginalized people  | See figure 10 - in flood<br>prone / swampy area<br>Focus on households in<br>Salhitiin zadgai and Zeeliin<br>zadgai streets  | 320 units of la-<br>trines  | Design: see figure 17.<br>Land status: mixed<br>Land use: residential<br>Designs will ultimately be agreed upon<br>with residents. Design support comes<br>from the university and other partners.  | 2, 3, and 13<br>1, 4, 5 and 6 always apply   |
|                               |   | 25                                  | Direct: 1.098<br>(>560 women)<br>Indirect: 32.377<br>(Rest Khoroo 25 + 7)<br>Informal and poor, no<br>indigenous or mar-<br>ginalized people | See figure 10 - in flood<br>prone / swampy area<br>Households in Khairkhan 7 <sup>th</sup> ,<br>8 <sup>th</sup> and 9 <sup>th</sup> streets, and<br>Odont 24 <sup>th</sup> and 25 <sup>th</sup> streets              | 275 units of la-<br>trines  | Latrines will be placed within residential<br>plots. The selection of beneficiaries / lo-<br>cations within the khoroos will be done<br>by the khoroo members themselves be-<br>sides some basic criteria:<br>1. Income / poverty<br>2. Flood vulnerability   | 2, 3, and 13<br>1, 4, 5 and 6 always apply   |
|                               |   | 7                                   | Direct: 222<br>(>113 women)<br>Indirect: 27.699<br>(Rest Khoroo 7 + 5)<br>Informal and poor, no<br>indigenous or mar-<br>ginalized people    | See figure 10 - in flood<br>prone / swampy area<br>Households in Tsergiin angi<br>1-4 <sup>th</sup> streets, Monlaa 2 <sup>nd</sup><br>street. Bayankhoshuu 29 <sup>th</sup><br>street, Namag 1 <sup>st</sup> street | 50 units of la-<br>trines   | 3. Willinngness to cost share<br>The final selection of residents / loca-<br>tions could not be done in advance be-<br>cause it's an agreement process of the<br>khoroo which would raise too much ex-<br>pectation without having secured the<br>funding.  | 2, 3, and 13<br>1, 4, 5 and 6 always apply   |

| 9  | Direct: 290<br>(148 women)<br>Indirect: 25.175<br>(Rest Khoroo 9 + 17<br>Informal and poor, no<br>indigenous or mar-<br>ginalized people                                       | See figure 13 - in flood<br>prone / swampy area<br>Households in Sharhad 60-<br>62 <sup>nd</sup> and 64 <sup>th</sup> streets                                  | 75 units of la-<br>trines  | 2, 3, and 13<br>1, 4, 5 and 6 always apply |
|----|--|--|----------------------------|--|
| 12 | Direct: 1074<br>(>548 women)<br>Indirect: 20.050 +<br>center<br>(Rest Khoroo 12, +<br>10, 11 and center)<br>Informal and poor, no<br>indigenous or mar-<br>ginalized people    | See figure 12 - in flood<br>prone / swampy area<br>All households in Khangai 1-<br>23 <sup>rd</sup> streets  | 260 units of la-<br>trines | 2, 3, and 13<br>1, 4, 5 and 6 always apply |
| 13 | Direct: 1377<br>(>702 women)<br>Indirect: 28.890 +<br>center<br>(Rest Khoroo 13, +<br>10, 11, 12 and center<br>Informal and poor, no<br>indigenous or mar-<br>ginalized people | See figure 12 - in flood<br>prone / swampy area<br>Households in Rashaan 9,<br>10, 14,15, 16 <sup>th</sup> streets,<br>Nogoon talbai 1-5 <sup>th</sup> streets | 375 units of la-<br>trines | 2, 3, and 13<br>1, 4, 5 and 6 always apply |
| 16 | Direct: 955<br>(>487 women)<br>Indirect: 15.089 +<br>center<br>(Rest Khoroo 16 + 2<br>and center<br>Informal and poor, no<br>indigenous or mar-<br>ginalized people            | See figure 11 - in flood<br>prone / swampy area<br>Households in Belkh 11-14th<br>Streets  | 310 units of la-<br>trines | 2, 3, and 13<br>1, 4, 5 and 6 always apply |

Table 15 Summary of potential environmental and social risks screening and impacts and measures to avoid or mitigate these for priority investment 'Flood protection and drainage infrastructure'

| Prir  | nciples triggered after screening   | Description / potential risks impacts  |  |  |  |
|-------|---|--|--|--|--|
| (prin | ciples 1. 4. 5 and 6 always apply)  | (  |  |  |  |
| (prin | cipies 1, 4, 5 and 6 always apply)  |  |  |  |  |
| 1     | Not triggered   | Coordination required with authorizing offices   |  |  |  |
| 2     | (Unintentional) risk of not provid-<br>ing fair and equitable access to<br>employment opportunities for<br>different groups                                 | No specific concerns of unfair treatments have been raised during consultations, but this can still occur (unintentionally) during project implementation  |  |  |  |
| 3     | (Unintentional) risk of excluding<br>vulnerable and marginalized<br>groups from being involved<br>drainage intervention activities                          | No specific concerns of inequitable or discriminatory practices have<br>been raised during consultations, but this can still occur (uninten-<br>tionally) during project implementation.   |  |  |  |
| 4     | Risk that tenure arrangements<br>and poroperty rights are violated<br>in the three northern drainage<br>sections in Khoroo 7 <u>and Khoroo</u><br><u>40</u> | Although land is public (along the road) for most most of the pro-<br>posed drainage channels, the proposed drainage in the norther<br>three section of Khoroo 7 planned to go through 37 plots.<br><u>April 2020 – The revised location of the drainage channels will go</u><br><u>through four residential and one commercial plot</u>   |  |  |  |
| 5     | (Unintentional) risk of not provid-<br>ing fair and equitable access to<br>employment opportunities for<br>women  | No specific concerns of inequitable or discriminatory practices have<br>been raised during consultations, but this can still occur (uninten-<br>tionally) during project implementation.   |  |  |  |
| 6     | Non-compliance to ILO stand-<br>ards when contracting commu-<br>nity members  | At the local level there is limited knowledge of ILO standards and procedures and communities often work informally. Risk to workers from Covid-19 if social distancing and other public health guidelines are not adhered to  |  |  |  |
| 7     | Not triggered   | During consultations no indigenous groups were identified  |  |  |  |
| 8     | Risk of (unintentional) involun-<br>tary resettlement   | Although inhabitants (including directly affected) proposed and agreed with the planned drainage in Khoroo 7, which will go through 37 plots during the 2nd and 3rd round of consultations, the project needs to ensure inhabitants are not resettled involuntarily.<br><u>Revised drainage infrastructure location would pass through four residential and 1 commercial plots. Extensive consultations have taken place with these plot holders and no works would commence without written consent</u> |  |  |  |
| 9     | Not triggered   | The intervention is not within or adjacent to critical habitats and/or environmentally sensitive areas   |  |  |  |
| 10    | Not triggered   | The intervention has no impact on biodiversity (see also above)  |  |  |  |
| 11    | Not triggered   | The intervention will not result in significant greenhouse gas emis-<br>sions or maladaptation   |  |  |  |
| 12    | Risk of requiring significant con-<br>sumption of materials   | Need to ensure construction materials are purchased in sustainable way.  |  |  |  |
| 13    | Risk of not ensuring safety<br>measures during construction<br>and maintenance  | At the local level there is limited knowledge of ILO standards and procedures and communities often work informally without safety measures.   |  |  |  |

|    |               | Risk to workers and communities from Covid-19 transmission if so-<br>cial distancing and other public health guidelines are not adhered to |
|----|---------------|--|
| 14 | Not triggered | No heritage sites were identified in target areas  |
| 15 | Not triggered | The intervention will focus on the road or in already existing ditches   |

Table 16 Summary of potential environmental and social risks screening and impacts and measures to avoid or mitigate these for priority investment 'Flood resilient latrines.'

| Prin<br>du<br>(prin | ciples triggered after screening<br>ring project preparation phase<br>ciples 1, 4, 5 and 6 always apply)                               | Description / potential risks impacts  |
|---------------------|--|--|
| 1                   | Not triggered  | Coordination required with authorizing offices   |
| 2                   | (Unintentional) risk of not providing<br>fair and equitable access to latrines<br>and employment opportunities for<br>different groups | No specific concerns of unfair treatments have been raised during consulta-<br>tions, but this can still occur (unintentionally) during project implementation.                  |
| 3                   | (Unintentional) risk of excluding vul-<br>nerable and marginalized groups<br>from latrine interventions                                | No specific concerns of inequitable or discriminatory practices have been raised during consultations, but this can still occur (unintentionally) during project implementation. |
| 4                   | Not triggered  | Interventions are at household scale and will be constructing within 'house-<br>hold plots'  |
| 5                   | (Unintentional) risk of not providing<br>fair and equitable access to latrines<br>and employment opportunities for<br>women            | No specific concerns of inequitable or discriminatory practices have been raised during consultations, but this can still occur (unintentionally) during project implementation. |
| 6                   | Non-compliance to ILO standards<br>when contracting community mem-<br>bers   | At the local level there is limited knowledge of ILO standards and procedures<br>and communities often work informally   |
| 7                   | Not triggered  | During consultations no indigenous groups were identified  |
| 8                   | Not triggered  | Interventions are at household scale and will be constructing within 'house-<br>hold plots'  |
| 9                   | Not triggered  | The intervention is not within or adjacent to critical habitats and/or environ-<br>mentally sensitive areas  |
| 10                  | Not triggered  | The intervention has no impact on biodiversity (see also above)  |
| 11                  | Not triggered  | The intervention will not result in significant greenhouse gas emissions or maladaptation  |
| 12                  | Not triggered  | Not much material is needed for the small-scale latrines. However, efforts will be made to purchase and construct in a sustainable way.  |
| 13                  | Risk of not ensuring safety<br>measures during construction and<br>maintenance   | At the local level there is limited knowledge of ILO standards and procedures<br>and communities often work informally without safety measures                                   |
| 14                  | Not triggered  | No heritage sites were identified in target areas  |
| 15                  | Not triggered  | The intervention will focus on area where'old fashion' latrines are already constructed  |

# Environmental and social risks impact assessment

# Table 17 Environmental and social risks impact assessment of interventions under component 3

| Concrete interventions / activi-<br>ties                    |  | Tar-<br>get  | Estimated number of beneficiaries  | Impact assessment   |  |   |  |  |
|---|--|--------------|--|---|--|---|--|--|
| Priority in-<br>vestments                                   | Detailed activi-<br>ties                     | Kho-<br>roos |  | Impact description potential risk<br>(considering the 15 AF principles)   | Signif-<br>icance<br>im-<br>pact<br>potential<br>risk                                | Evidence /<br>reference   |  |  |
| Flood protec-<br>tion and drain-<br>age infrastruc-<br>ture | Construct a flood re-<br>tention wall / dike | 9            | Direct: 3.000<br>(1.530 women)<br>Indirect: 22.449<br>(Rest Khoroo 9 + 17)<br>Focus on informal ar-<br>eas and poor and fe-<br>male headed house-<br>holds | <ol> <li>Relevant standards and compliance processes have<br/>been identified</li> <li>Different groups did not express concern of unequal<br/>access – the intervention will benefit the 'whole' commu-<br/>nity.</li> <li>Poor and informal, women, elderly, disabled and<br/>youth have been consulted.</li> <li>Land: public and not used – confirmed through con-<br/>sultations</li> <li>Women did not express concern of unequal access</li> <li>Need to ensure all contractors comply to ILO stand-<br/>ards</li> <li>Use of soil, rock and cement – engineer consulted.</li> <li>Engineering study, required by law, will assess material<br/>use and impact on soil</li> <li>Need to ensure contractors comply to health stand-<br/>ards</li> </ol> | 1 - Iow<br>2 - Iow<br>3 - Iow<br>4 - Iow<br>5 - Iow<br>6 - Iow<br>12- Iow<br>13- Iow | 1 - Part II.E<br>2 - Annex 1<br>(round 3)<br>3 - Annex 1<br>4 - Part II.A;<br>Annex 1<br>5 - Annex ;<br>Gender an-<br>nex<br>6 - Part II.E<br>12- Part II.E<br>and H<br>13- Part II.E |  |  |
|   | Drainage channels                            | 9            | Direct: 4.000<br>(2.040 women)<br>Indirect: 21.449<br>(Rest Khoroo 9 + 17)   | <ol> <li>Relevant standards and compliance processes have<br/>been identified</li> <li>Different groups did not express concern of unequal<br/>access – the intervention will benefit the 'whole' area that<br/>has issues with flooding</li> <li>Elderly and 'non-mobile' groups expressed the need</li> </ol>   | 1 - low<br>2 - low<br>3 - low<br>4 - low<br>5 - low                                  | 1 - Part II.E<br>2 - Annex 1<br>(round 3)<br>3 - Annex 1<br>4 - Part II.A;  |  |  |

| Focus on informal ar-<br>eas and poor and fe-<br>male headed house-<br>holds  | <ul> <li>of a foot bridge to pass the drainage channel</li> <li>4 - Land: public, along the road– confirmed through consultations</li> <li>5 - Women did not express concern of unequal access</li> <li>6 - Need to ensure construction companies comply to ILO standards</li> <li>12- Use of soil, rock and cement – engineer consulted.<br/>Engineering study, required by law, will assess material use and impact on soil</li> <li>13- Need to ensure contractors comply to health standards</li> </ul>  | 6 - low<br>12- low<br>13- low   | Annex 1<br>5 - Annex ;<br>Gender an-<br>nex<br>6 - Part II.E<br>12- Part II.E<br>and H<br>13- Part II.E                        |
|---|--|---|--|
| 7 Direct: 20128<br>(>10.265 women)<br>Indirect: 7.772<br>(Khoroo 5)<br>Focus on informal ar-<br>eas and poor and fe-<br>male headed house-<br>holds   | See sub-sections below<br>The northern three sections go through some plots<br>The southern sections follow the road   |   |  |
| Sub-section:<br>Pkg A1a: 332m<br>Pkg A1b: 79m<br>Width: 1,2 m<br>Height: 1,2 m<br>Sub-section:<br>Pkg A2a: 297m<br>Pkg A2b: 71m<br>Width: 1,2 m<br>Height: 1,2 m<br>Sub-section:<br>Pkg A3: 437m<br>Width: 1,2 m<br>Height: 1,2 m | <ol> <li>Relevant standards and compliance processes have<br/>been identified</li> <li>Different groups did not express concern of unequal<br/>access – the intervention will benefit the 'whole' commu-<br/>nity to the west and south</li> <li>Poor and informal, women, elderly, disabled and<br/>youth have been consulted.</li> <li>Land: public / informal, residential use – confirmed<br/>through consultations. Although inhabitants (including di-<br/>rectly affected) proposed and agreed with the planned<br/>drainage in Khoroo 7, which will go through 37 plots dur-<br/>ing the 2nd and 3rd round of consultations, the project<br/>needs to ensure beneficiaries fully agree with all steps<br/>taken and that tenure arrangements and property rights<br/>are not violated</li> <li>Women did not express concern of unequal access<br/>6 - Need to ensure contractors comply to ILO standards</li> </ol> | 1 - low<br>2 - low<br>3 - low<br>4 - medium<br>5 - low<br>6 - low<br>8 - medium | <ol> <li>Part II.E</li> <li>Annex 1<br/>(round 3)</li> <li>Annex 1</li> <li>Part II.A;<br/>Annex 1</li> <li>Annex 1</li> </ol> |

|           |   | <ul> <li>8 - Although inhabitants (including directly affected) proposed and agreed with the planned drainage in Khoroo 7, which will go through 37 plots during the 2nd and 3rd round of consultations, the project needs to ensure inhabitants are not resettled involuntarily</li> <li>12- Use of cement – engineer consulted. Engineering study, required by law, will assess material use and impact on soil</li> <li>13- Need to ensure contractors comply to health standards</li> </ul> | 13 -low                          | Annex 1<br>12- Part II.E<br>and H<br>13- Part II.E                            |
|-----------|---|---|----------------------------------|---|
|           | Sub-section:<br>Pkg A4: 230m  | 1 - Relevant standards and compliance processes have been identified  | 1 - low<br>2 - low               | 1 - Part II.E<br>2 - Annex 1  |
|           | Width: 1,2 m  | 2 - Different groups did not express concern of unequal   | 2 1011                           | (round 3)   |
|           | Sub-section:  | nity to the west and south  | 5 - 10W                          | 3 - Annex 1   |
|           | Pkg A5: 660m<br>Width: 1,2 m  | 3 - Poor and informal, women, elderly, disabled and youth have been consulted. There was a concern that   | 4 - low                          |   |
|           | Height: 1,2 m   | children could fall into the drainage channel   | 5 - low                          | 4 - Part II.A;  |
|           | Sub-section:<br>Pkg A6: 668m<br>Width: 1,2 m<br>Height: 1,2 m<br>Sub-section: | <ul> <li>4 - Land: public / informal, residential use – confirmed through consultations. Drainage channel will follow the road</li> <li>5 - Women did not express concern of unequal access</li> <li>6 - Need to ensure contractors comply to ILO standards</li> <li>12- Use of cement – engineer consulted. Engineering</li> </ul>   | 6 - low<br>12- low<br>13 -low    | Annex 1<br>5 - Annex ;<br>Gender an-<br>nex<br>6 - Part II.E<br>12- Part II F |
|           | Width: 1,2 m  | study, required by law, will assess material use and im-  |                                  | and H   |
|           | Height: 1,2 m   | 13- Need to ensure contractors comply to health stand-<br>ards  |                                  | 13- Part II.E   |
| 40        | So1: From #23,<br>Bayankhoshuu 39<br>to #26a, Monlaa 6                        | A relevant standards and compliance processes have<br>been identified     Compliance processes have     been identified     output the process concern of unequal   | <u>1 - low</u><br><u>2 - low</u> | <u>1 - Part II.E</u><br><u>2 - Annex 1</u><br>(round 3)                       |
|           |   | access - the intervention will benefit the 'whole' commu-   | <u>3 - low</u>                   | <u> </u>  |
| <u>40</u> | So2: From #2,<br>Bayapkboshuu 25  | nity to the west and south<br>3 - Poor and informal, women, elderly, disabled and   | 4 - medium                       | <u>3 - Annex 1</u>  |
|           | to #30, Monlaa 1  | youth have been consulted.  |                                  | 4 - Part II.A;  |
|           | · · · · · · · · · · · · · · · · · · ·   | <u>4</u> - Land: public / informal, residential use – confirmed   |                                  | <u>Annex 1</u>  |
|           |   | rectly affected) proposed and agreed with the planned   |                                  |   |
|           |   | tern, and the property in the digit of a man and plaining a   |                                  |   |

|                          |   | <u>40</u> | <u>So3: From #9,</u><br>Khiliin tsereg 0119<br>to #48, Bayanbulag 4   | drainage in Khoroo 40, which will go through 4 residential<br>plots and 1 commercial plot, the project needs to ensure<br>beneficiaries fully agree with all steps taken and that ten-<br>ure arrangements and property rights are not violated<br>5 - Women did not express concern of unegual access<br>6 - Need to ensure contractors comply to ILO standards<br>8 - Although inhabitants (including directly affected) pro-<br>posed and agreed with the planned drainage in Khoroo 7,<br>which will go through 4 residential plots and 1 commercial<br>plot, the project needs to ensure inhabitants are not reset-<br>tled involuntarily and that any inconvenience from the<br>construction is kept to a minimum<br>12- Use of cement – engineer consulted. Engineering<br>study, required by law, will assess material use and im-<br>pact on soil<br>13- Need to ensure contractors comply to health stand-<br>ards | <u>5 - low</u><br><u>6 - low</u><br><u>8 - medium</u><br><u>12- low</u><br><u>13 -low</u> | 5 - Annex ;<br>Gender an-<br>nex<br>6 - Part II.E<br>8 - Part II.A;<br>Annex 1<br>12- Part II.E<br>and H<br>13- Part II.E |
|--------------------------|---|-----------|---|--|---|---|
| Flood resilient latrines | Construct suitable<br>latrines (for rocky or<br>muddy under-<br>ground) | 24        | Direct: 1101<br>(>561 women)<br>Indirect: 32.824<br>(Rest Khoroo 24 + 7)  | <ol> <li>Relevant standards and compliance processes have<br/>been identified</li> <li>It was suggested to have criteria for final selection, in-<br/>cluding poverty, female based bouseholds and willing-</li> </ol>   | 1 - low<br>2 - low  | 1 - Part II.E<br>2 - Annex 1<br>(round 3)   |
|                          | ground)   | 25        | (Nest | ness to contribute<br>3 - Poor and informal, women, elderly, disabled and<br>youth have been consulted. There was a request to con-<br>sider specific design needs for elderly and disabled  | 4 - low   | 3 - Annex 1<br>4 - Part II.A;   |
|                          |   | 7         | Direct: 222<br>(>113 women)<br>Indirect: 27.699<br>(Rest Khoroo 7 + 5)  | <ul> <li>4 - Land: public / informal, residential use – confirmed<br/>through consultations. Latrines will be installed within 'pri-<br/>vate' plots</li> <li>5 - Women did not express concern of unequal access</li> </ul>   | 5 - Iow<br>6 - Iow<br>13 -Iow   | Annex 1<br>5 - Annex ;<br>Gender an-  |
|                          |   | 9         | Direct: 290<br>(148 women)<br>Indirect: 25.175<br>(Rest Khoroo 9 + 17   | <ul> <li>6 - Need to ensure contractors and 'households workers' comply to ILO standards</li> <li>13- Need to ensure contractors and 'household workers comply to health standards</li> </ul>  | -   | nex<br>6 - Part II.E<br>13- Part II.E   |
|                          |   | 12        | Direct: 1074<br>(>548 women)  | Focus on informal areas and poor and female headed   |   |   |

|    | Indirect: 20.050 + cen- | households |  |
|----|-------------------------|------------|--|
|    | ter                     |            |  |
|    | (Rest Khoroo 12, + 10,  |            |  |
|    | 11 and center)          |            |  |
| 13 | Direct: 1377            |            |  |
|    | (>702 women)            |            |  |
|    | Indirect: 28.890 + cen- |            |  |
|    | ter                     |            |  |
|    | (Rest Khoroo 13, + 10,  |            |  |
|    | 11, 12 and center       |            |  |
| 16 | Direct: 955             |            |  |
|    | (>487 women)            |            |  |
|    | Indirect: 15.089 + cen- |            |  |
|    | ter                     |            |  |
|    | (Rest Khoroo 16 + 2     |            |  |
|    | and center              |            |  |

# Environmental and social management plan

1. Introduction

The ESMP lists all potential risks identified and the preventive / mitigation measures proposed to reduce potentially adverse environmental and social impacts to acceptable levels (see tables 18 and 19 at the end of the plan). The plan also shows how these potential risks and mitigation measures will be further monitored, including responsibilities.

- 2. Risks management arrangements
- (i) Responsibilities: direct management responsibility of the ESMP will be under the national project manager. The overall project manager will have oversight / final compliance responsibility. Changes or additional activities that arise during project implementation and add value/complement proposed sub-projects - and fall within allowable limits set by Adaptation fund - will need to be cleared by the project manager and approved by the project management committee and/or project advisory committee – depending on the scale and type of activity. Inputs from the technical advisory group, including Ulaanbaatar municipality, will also be requested for assessment of potential risks, where required.
- (i)
- (ii) Management and implementation of sub-projects and mitigation measures: All project activities have been screened against the 15 environmental and social risks areas during project preparation phase. Outcomes will be presented during the project inception to all stakeholders to confirm the management and monitoring arrangements and to agree on the detailed steps required to develop management plans for each sub-project, covering detailed engineering studies, but also risks mitigation measures to comply to national technical standards in line with part II.F.

(iii)

(iv) A gender specific approach has been developed to comply to the Adaptation Fund's principles-based Gender Policy (GP) and its accompanying Gender Action Plan (GAP) and ESP principle 5. This approach is summarized in Annex 6

Budget: there are no specific budget requirements for project compliance to the ESP and GP.

3. General environmental and social risks management reduction measures

In addition to the risk management measures identified below, the following elements will be put in place to ensure the compliance with the ESP:

- (i) All MoUs and Agreements of Cooperation with Executing Entities will include detailed reference to the ESMP and GP, the 15 ESP Principles and especially compliance to law (principle 1), human rights compliance (principle 4), gender approach (principle 5) and labour and safety standards (principle 6 and 13):
  - Principle 1: References to standards and laws to which the activity will need to comply will be included in all legal agreements with all sub-contractors, including steps and responsibilities for compliance.
  - Principle 4: Refetences to relevant Humans rights declarations will be included in all legal agreements with all sub-contractors.
  - Principe 6: Employment and working conditions following ILO standards will be included in legal agreements with all sub-contractors.
  - Principle 13: Ensure that ICSC international health and safety standards are clearly accessible and understood. e.g. by putting clearly visible signs detailing health and safety standards to be located at projects sites and by supplying protective equipment. <u>Always follow WHO and/or government of Mongolia guidelines regarding preventing the spread of Covid19 (whichever guidelines are more stringent)</u>

- (ii) The UN-Habitat Human rights officers will check project compliance to the AF ESP during the project (besides the project manager) (principle 4). The gender focal point within UN-Habitat will check project compliance to the AF GP during the project.
- (iii) Continues coordination with focal points within Ulaanbaatar municipality, responsible for compliance to national and local standards will take place.
- (iv) Capacity building and awareness raising: the management teams, executing entity partners and target communities, will receive training / capacity development to understand and manage the 15 Principles, the ESMP and in particular their responsibilities. This will be done during inception.
  - 4. Risks monitoring arrangements:
- (vi) This monitoring program commensurate with actions identified below and will report on the monitoring results to the Fund in the mid-term, annual, and terminal performance reports. Monitoring will be done to ensure that actions are taken in a timely manner and to determine if actions are appropriately mitigating the risk / impact or if they need to be modified in order to achieve the intended outcome.
- (vii)Annual reporting will include information about the status of implementation of this ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary.
- (viii) Direct monitoring responsibilities will be under the national project manager. The overall project manager will have oversight / final compliance responsibility. When changes or additional activities are required, monitoring indicators will be changed or added as well.

- (ix) Gender specific indicators and targets have been developed as shown in the results framework and summarized in Annex 6
- (x) There are no specific budget requirements for risks monitoring other than show in part III.D and the budget.
  - 5. Grievance mechanism
- (i) UN-Habitat will implement a grievance mechanism in the target areas, which will allow an accessible, transparent, fair and effective means of communicating if there are any concerns regarding project design and implementation. Employees, and people benefitting / affected by the project will be made aware of the grievance mechanism for any criticism or complaint of an activity.
- (ii) This mechanism considers the special needs of different groups as well as gender considerations and potential environmental and social risks. A combination of mailboxes (at community level), confidential persons in the community and telephoning options offer an immediate way for employees and people affected by the project to safely express their concerns. The options will allow local languages and offer the opportunity for and people affected by the project to complain or provide suggestions on how to improve project design and implementation, which will be reviewed and taken up by the project implementation team.
- (iii) Project staff will be trained in procedures for receiving messages and on the reporting of any grievances. Community chiefs will also be briefed how to obtain feedback from community members on a regular basis. In addition, monitoring activities allow project participants to voice their opinions or complaints as they may see fit.
- (iv) The address and e-mail address of the Adaptation Fund will also be made public (i.e. project website, Facebook and mailbox) for anyone to raise concerns regarding the project:

Adaptation Fund Board secretariat Mail stop: MSN P-4-400 1818 H Street NW Washington DC

| TABLE 5: SIGN                          | OFF FOR SUBMI      | SSION FOR APPROVAL                           |           |
|--|--------------------|--|-----------|
| Name                                   | Date               | Description                                  | Signature |
| Assessor of intervention               |                    |  |           |
| Enkhtsetseg Shagdarsuren               | 11 January<br>2018 | UN-Habitat Country Programme<br>manager      | MINIMAS   |
| Khoroo Governors                       |                    |  | d 2 7     |
| Songinokhairkhan District<br>Khoroo 7: | 11 January<br>2018 | Oregn rever or                               | Quat      |
| Bayanzurkh District<br>Khoroo 9:       | 11 January<br>2018 | D. Gankhuyag.                                | Hayder    |
| UN-Habitat Project Manager             |                    |  | 1         |
| Nadine Waheed                          |                    | UN-Habitat ROAP Human<br>Settlements Officer | A. Hadens |

| Table 18 | <ol> <li>Potential risks and</li> </ol> | I preventive measure | es and monitoring | g arrangements fo | or non-concrete | activities under | components 1, | , 2 |
|----------|---|----------------------|-------------------|-------------------|-----------------|------------------|---------------|-----|
| and 4    |   | -                    |                   | -                 |                 |                  | -             |     |

| Component | Output   | Potential risk areas  | Preventive measure   | Monitoring arrangements   |   |  |
|-----------|--|---|--|---|---|--|
|           |  |   |  | Indicator and methods   | Frequency and re-<br>sponsibility                       |  |
| 1         | Output 1.1<br>One (1) Ulaanbaatar northern Ger-<br>Area* Territorial Land Use Plan<br>Output 1.2.<br>Simulation model<br>Output 1.3<br>Seven (7) Detailed Ger-khoroo<br>level Land Use Plans | <ul> <li>2, 3 and 5: Risk that different groups are not equally involved in planning processes</li> <li>Non-consideration of / compliance to the AF ESP when developing land use plans</li> <li>4 and 6: Risk that human right and ILO standards are not considered in contracts</li> </ul> | Communities will be organized and<br>quotas will be used to ensure differ-<br>ent groups are included / repre-<br>sented. For government workshops<br>and trainings, gender quotas will ap-<br>ply.<br>Include standard clauses requiring<br>the compliance with the safeguard<br>areas in AoC and contracts + | Meeting attendance<br>sheets with quota<br>numbers and photo-<br>graphs<br>Check (list) to assess<br>compliance to safe-<br>guard areas | Before and after<br>plans<br>Local project man-<br>ager |  |
| 2         | Output 2.1<br>Seven (7) Khoroo-level floods re-<br>silience action plans   | 2, 3 and 5: Risk that different groups are not equally involved in planning processes   | screening the plans for compliance<br>with the 15 safeguard areas  |   |   |  |

|   | Output 2.2<br>Khoroo community level interven-<br>tions operation & maintenance*<br>and awareness                      | Non-consideration of / compliance to the AF ESP when con-<br>ducting technical studies<br>4 and 6: Risk that human right and ILO standards are not con-<br>sidered in contracts |  |
|---|--|---|--|
|   | Output 2.3   |   |  |
|   | Technical studies – Engineering<br>and hydrological  |   |  |
| 4 | Output 4.1.<br>Lessons learned and best prac-<br>tices regarding flood-resilient ur-                                   | 2, 3 and 5: Risk that different groups are not equally involved in planning processes   |  |
|   | ban community development are<br>generated, captured and distrib-<br>uted to other Districts and khoroo<br>communities | 4 and 6: Risk that human right and ILO standards are not con-<br>sidered in contracts   |  |
|   | Output 4.2   |   |  |
|   | Workshops and trainings  |   |  |

# Table 19. Potential risk areas, focus areas, measures to avoid or mitigate risks and management / monitoring arrangements

| Risk areas<br>(in line with<br>the ESP<br>Principles) | Target Kho-<br>roo and<br>area | Measure to avoid or mitigate potential risks   |                | Monitoring indicator  | Frequency and re-<br>sponsibility moni-<br>toring  |
|---|--------------------------------|--|----------------|---|--|
| 1 – not sig-<br>nificant (low)                        | All                            | Principle was considered because it always applies but project complies - see part II.E  |                |   |  |
| 2 - not sig-<br>nificant (low)                        | All                            | Measure to ensure equal access during project execution: Community Development Councils will be formed with membership of all households benefitting from / impacted by construction. It will be ensured all groups will be able to participate in planning and decision-making through participation quota.                               | 1.             | Meeting attendance sheets with quota numbers and photographs.   | Every meeting<br>Local Project- man-<br>ager       |
| 3 – not sig-<br>nificant (low)                        | All                            | Measure to respond to specific needs expressed during consultations:<br>In Khoroo 9 a footbridge will be constructed.<br>In Khoroo 7 and 9 the drainage channels dimensions are designed to pose no risk of children falling into them<br>In all Khoroo's specific latrine design needs for elderly and disabled will be used where needed | 1.<br>2.<br>3. | Construction of food bridge<br>Check drainage channel dimen-<br>sions before construction<br>Consultation notes | Before construction<br>Local Project- man-<br>ager |

| 4 – medium<br>significant          | 7 sections<br>A1-3 | No need for other Khoroos and sections. Principle was considered because it always applies but risk in other areas was very low.  | 1.<br>2. | Signed sheet<br>Check contracts on HR markers | Before the plan is<br>developed; every<br>contract   |
|------------------------------------|--------------------|---|----------|---|--|
|                                    |                    | Measure to ensure tenure arrangements and poroperty rights are not violated:<br>Community Development Councils will be formed with membership of all households benefitting from / im-<br>pacted by construction. The design of drainage sections will be managed in neighborhood sections which can<br>be managed by these CDCs.   |          |   | Local Project- man-<br>ager  |
|                                    |                    | All 37 plot owners through which the drainage channel is planned should agree again with the intervention and consequently sign an agreement. Besides that, an alternative drainage plan has already been considered and can be further developed if inhabitants ultimately don't agree with the existing plan.   |          |   |  |
|                                    |                    | A clause will be included in all contracts stating that the contractor will comply to human rights markers (and all other safeguard areas)  |          |   |  |
|                                    |                    | During construction, should temporary (1-2 months) accommodation be required as/if raised and agreed by all stakeholders, the project budget can accommodate some small, compensation for this purpose .I   |          |   |  |
|                                    |                    | The UN-Habitat Human rights officers and PAC will check compliance.   |          |   |  |
| 5 - not sig-<br>nificant (low)     | All                | Principle was considered because it always applies – a separate 'gender annex' has been developed including the gender approach and data baseline.  | 1.       | See Gender Annex                              | •  |
| 6 - I not sig-<br>nificant (low)   | All                | Principle was considered because it always applies.<br>Measure to ensure compliance to ILO standards during construction: employment and working conditions fol-<br>lowing ILO standards will be included in legal agreements with all subcontractors; The community contracts to<br>be signed with Community Development Councils will state that under aged children will not be employed and<br>all workers will be paid equal wage.<br>Ensure that ICSC international health and safety standards are clearly accessible and understood. e.g. by put-<br>ting clearly visible signs detailing health and safety standards to be located at projects sites and by supplying<br>protective equipment. | 1.       | Check contract and signs                      | before start of work<br>and during work<br>(every 2 months)<br>Local Project- man-<br>ager |
| 8 - medium<br>significant          | 7 sections<br>A1-3 | See principle 4 above – to ensure involuntary temporary or permanent and full or partial physical displacement is avoided   | 1.       | See principle 4 above                         | See principle 4<br>above   |
| 12 - I not<br>significant<br>(low) | 7 and 9            | Measure to ensure soil and rocks are not acquired in areas that in can have negative effects such as from the river: include clause in contracts and check source of material before purchase.  | 1.       | Materials on bills/BOQ's                      | Before purchase<br>Local Project- man-<br>ager   |
| 13 - not sig-<br>nificant (low)    | All                | See principle 6 above   | 1.       | See principle 6 above                         | See principle 6<br>above   |

# Annex 6 Gender Approach – in compliance with Adaptation Fund Gender Policy & Action Plan

This gender annex has been developed to (a) Ensure compliance to the international treaties around gender and climate change and consequently, adherence to the Adaptation Fund Gender Policy (GP) as well as (b) to provide a situational analysis of the local context around gender issues and in light of this, demonstrate what measures have been taken to ensure that women and men will have equal opportunity to build resilience, address their differentiated vulnerabilities and increase their capability to adapt to climate change impacts through project implementation.

## 1. Determinants for gender-responsive stakeholder consultation

Women's focus group discussion were conducted during initial consultations, especially to identify specific needs regarding proposed interventions and possible and perceived risks and, where needed, mitigation measures. Besides that, the following stakeholders have been consulted to understand specific gender issues and needs:

| Type of stakeholder             | Specific stakeholder   |
|---------------------------------|--|
| National/City govern-<br>ment   | Municipality of Ulaanbaatar – Property Department, Department<br>of Economic Development, Ger-Area Development Agency, Of-<br>fice for Road and Transport, Transportation Agency |
| Local Authorities & Communities | Three (3) district authorities of SonginoKhairkhan, Sukhbaatar and Bayanzurkh districts and seven (7) Khoroo Authorities for Khoroos 7,0, 12, 13, 16,24 and 25                   |
| UN agencies                     | UNDP, UNICEF   |
| IFI's/INGO's/LNGO's             | ADB, JICA  |

## 2. Initial Gender Assessment

The main objective of the proposed project is to enhance the climate change resilience of the seven most vulnerable Ger khoroo settlements focusing on flooding<sup>17</sup> in Ulaanbaatar City by:

1. Improving the knowledge on flood hazard and risk exposure and vulnerability for these areas

2. Improving the resilience and adaptive capacity of the Ger settlements through a Com-munity-Based, gender-responsive approach (i.e. building social cohesion per Khoroo)

3. Increasing resilience Ger area physical infrastructure and services, supported by en-hanced capacities of responsible district level and khoroo authorities.

4. Strengthened institutional capacity to reduce risks and capture and replicate lessons and good practices

During community consultations via the People's Process, women were observed to be very active in the communities and the number of women attendees in the initial consultations were on par with men. Aside from the numbers, the women participants were observed to provide substantive inputs in analyzing the problems and issues and in coming up with recommended solutions. Equal involvement of women and men in the project activities will be ensured through the community planning and consultations throughout the period of the project.

#### Analysis of legal status of women in the country/region - Local Gender and Development Policies, Programs and Institutions

The Gender inequality index (GII) of Mongolia<sup>36</sup> is at the average among the group of high human development countries with a value of 0.325, which ranks the country 63rd among 155 countries; and is a bit better than the average among the countries in the Asia and Pacific region. The GII has been declining since 2011, suggesting that women and men generally enjoy equitable access to health care and education which is a noteworthy achievement for the region.

Gender equality has been one of the primary priorities of the Government of Mongolia, and the policies which promote this objective and the protection of women and children are the (a) Gender Equality Law (2011), (b) Law on Combating Domestic Violence, (c) Labor Code, (d) Family Law, (e) Law on Social Welfare, and (f) Law on Social Insurance. In line with these policies the following programs are being implemented by the government: (g) National Program on Ensuring Gender Equality (2017-2021), (h) National Program on Combating Domestic Violence, (h) National Program on protection from trafficking in children and women with the purpose of sexual exploitation, (j) and Mid-term Strategy and Action Plan for Implementation of the Law of Mongolia on Promotion of Gender Equality (2013 –2016). **The National Committee on Gender Equality** is the government body led by Prime Minister responsible in the implementation of gender equality, and is composed of 13 Ministries of Mongolia as its sub-council; and 9 districts, 21 provinces, and the city of Ulaanbaatar, as its subcommittees. One gender focal person is assigned at the MUB, and the social welfare workers at every khoroo are assigned as the gender focal persons.

#### Country Level Gender Issues - Analysis of cultural/religious status of women in the country/region & underlying causes of current status

According to National Statistics Office (NSO) of Mongolia, the proportion of women-headed households has decreased from 15% in 2008 to 9% in 2016. However, data from Participatory Living Standards Assessment of the NSO have identified that a disproportionate number of women-headed households are living in poverty and that the proportion is growing. Women are limited to engage in livelihood or employment opportunities because of the tasks at home. Some women, who are employed or engaged in small enterprises, need to work longer hours than men do, just to manage tasks at home and at work. The Time Use Survey (NSO Mongolia, 2009) has noted that single parent households, which are usually women-headed, continue to become more vulnerable. In some cases, women are left alone to manage the household due to death of a husband or divorce. The proportion of poor women-headed households in urban ger areas living without adequate access to water supply and sanitation and other basic infrastructure and services is high (ADB and World Bank, 2005).

A Socio-Economic survey conducted in June 2017 as part of UN-Habitat Support activities to ADB PPTA analyzed households' access to adequate housing and basic services in 2 ger areas in the proximity of the proposed project target areas. Among the surveyed total population, 46.7% and 51.4% were female respectively in Sukhbaatar District 14<sup>th</sup> Khoroo (SBD14) and Songinokhairkhan District 8<sup>th</sup> Khoroo (SHD8). Percentage of the women head households was 20.7% in SBD14 and 17.17% in SHD8. Percentage of poor households to the total households was 33.1% in SBD14 and 26.3% in SHD8, out of which households headed by females were 40.7% in SHD8 and 47.1% in SBD14 with an average household size of 3.69.

| Population number and pove | rty status, gender | disaggregated |
|----------------------------|--------------------|---------------|
|----------------------------|--------------------|---------------|

| SBD14 | SHD8 |
|-------|------|
|-------|------|

<sup>&</sup>lt;sup>36</sup> Human Development Report Mongolia 2016

|          | Male | Female | Total | Female<br>% | Male | Female | Total | Female<br>% |
|----------|------|--------|-------|-------------|------|--------|-------|-------------|
| Non-poor | 153  | 143    | 296   | 65.3        | 138  | 143    | 281   | 73.3        |
| Poor     | 96   | 76     | 172   | 34.7        | 46   | 52     | 98    | 26.7        |
| Total    | 249  | 219    | 468   | 100.0       | 184  | 195    | 379   | 100.0       |

Data baseline – overview of disaggregated data (beneficiaries) in target communities per city, community and or intervention

Female-headed households make up roughly 25% of homes in Mongolia, and are particularly vulnerable to flooding, suffering from land grabbing and reduced levels of disaster assistance. In the proposed project target areas, there appears to be a balanced representation of both men and women, in fact the combined total number of women for the 7 khoroos exceeds that of men. There do appear to be a significant number of women headed households which is one of the prioritized vulnerable target groups for the concrete project interventions under Component 3 - construction of flood control facilities and Improved sanitation facilities.

| Khoroo<br>name | Population | Man   | Woman | Disabled | Female headed<br>households |
|----------------|------------|-------|-------|----------|-----------------------------|
| 7              | 20128      | 9869  | 10259 | 254      | 48                          |
| 9              | 13701      | 6707  | 6994  | 724      | 1317                        |
| 12             | 7162       | 3577  | 3585  | 213      | 787                         |
| 13             | 9136       | 4519  | 4617  | 239      | 56                          |
| 16             | 11945      | 5817  | 6128  | 288      | 140                         |
| 24             | 13689      | 6544  | 7145  | 213      | 120                         |
| 25             | 13678      | 6950  | 6728  | 290      | 98                          |
| Total          | 89439      | 43983 | 45456 | 2221     | 2566                        |

Table 4b: Sex disaggregated population data in target Khoroos

Additionally the Human Development Report of Mongolia 2016 indicates that "young women face more difficulties in entering or re-entering the labour market. The unemployment rate is higher among young women than among young men, and it has been rising among young women. The occupational segregation of women is widespread, resulting in a concentration of women in a narrow range of occupations such as education (80.6 percent), health and welfare (79.4 percent), and the social sciences, business and law (64.3 percent).

In engineering, manufacturing and construction, only 30.0 percent of graduates are women, indicating that there is a clear underrepresentation of women in science and technology–related fields. Young women earn 1.4 times less than young men; and they dominate in unpaid work: in 2011, 17 percent of 25- to 29-year-old women reported they took care of the home, versus only 1 percent of the men in this age-group. The gender gap in the labour market among youth is evident, and this indicates a need for gender-sensitive labour market policies.

The project as part of its concept and design will actively encourage the involvement of women in implementation, advisory and decision making roles contributing to alleviating the dearth of women in the fields of science, technology and construction.

- 3. Project planning and design
- a. Program goals/objectives and target groups

The overall project goal is to "enhance the climate change resilience of the seven most vulnerable Ger khoroo settlements focusing on flooding in Ulaanbaatar City,"

Within the project, women are recognised as "agent of change" in building community resilience and the project adopts the following approaches for achieving gender balance, equality, equity, mainstreaming, responsiveness and sensitivity.

#### The specific gender objectives for the project are:

- to improve gender equality within the targeted seven Ger khoroo settlements

- to promote gender empowerment and womens leadership within the project implementation and within decision making bodies.

Women, being mainly responsible for water-related tasks and other responsibilities related to household sanitation, health and hygiene should be consulted on appropriate design features. The participation of women in community activities at the khoroo level is observed to be high, as noted in their number of women attendees in the initial consultations. Aside from the numbers, the women participants were observed to provide substantive inputs in analyzing the problems and issues and in coming up with recommended solutions. Equal involvement of women and men in the project activities will be ensured through the community planning and consultations throughout the period of the project.

#### Entry points to integrate gender considerations (how to empower women)

The project design and approach are 'gender-responsive' because, during the project preparation phase, gender equality and women's empowerment have been considered during initial data collection focused on issues, needs and perceptions, activity prioritization and the identification and verification of specific 'gender' related risks and impacts. This has been done through desk research, surveys, women focus group discussions and community decision-making processes. A UN-Habitat headquarter gender specialist has also been involved in the project preparation/review process to ensure compliance with the Gender Policy as well as the UN-Habitat gender mainstreaming guidelines.

## Suitable interventions to meet specific needs and built on women skills and knowledge:

Women are well represented at all level of government and in communities. There-fore, there is no reason to think women will have unequal opportunities to participate in the project and do not benefit equally from interventions.

b. Design of intervention activities:

The project aims to provide the people an access to better sanitation and flood resilient environment which will improve their quality of life and family health. The benefits will be achieved through the construction of flood control facilities and Improved sanitation.

8 Focus group discussions (FGD) with community representatives from target areas were conducted as part of project development to identify the perceived impacts of improved services on sanitation and flood control infrastructure also the needs of different vulnerable groups. Please refer to below table for the composition of the participants in the FGDs.

| Sub-District<br>name | Participants | Man | Woman | Disabled | Retired | Parents with<br>kinderdarten and<br>school age chil-<br>dren |  |
|----------------------|--------------|-----|-------|----------|---------|--|--|
| Khoroo 7             | 6            | 3   | 3     | 2        | 1       | 2  |  |
| Khoroo 9             | 8            | 3   | 5     | 0        | 4       | 1  |  |
| Khoroo 12            | 13           | 2   | 11    | 1        | 5       | 3  |  |

| Khoroo 13 | 7  | 1  | 6  | 2 | 1  | 2  |
|-----------|----|----|----|---|----|----|
| Khoroo 16 | 6  | 2  | 4  | 1 | 2  | 2  |
| Khoroo 24 | 5  | 1  | 4  | 1 | 2  | 4  |
| Khoroo 25 | 9  | 2  | 7  | 1 | 2  | 3  |
| Total     | 54 | 14 | 40 | 8 | 17 | 17 |

As per the results of FGDs, the anticipated impacts of project interventions are following:

**Improved sanitation.** It includes the following: (a) better hygiene practices, (e) more convenience especially for women, children and persons with disabilities. Other potential benefits include decrease in incidences of waterborne and other diseases related to water pollution and poor sanitation; and economic or business opportunities due to reliable sanitation services. The risk of women and children to water-borne infectious diseases, and consequently the medical costs on these diseases, will be reduced due to improved sanitation facilities at household level. Proper household practices on sanitation, hygiene, and health will be communicated to the target area communities through a community awareness program involving information, education and communication campaign (IEC).

**Flood control facilities**. The provision of flood facilities will increase the environmental safety and security and lessen the risk of water-borne diseases brought by flash flood and overfill of pit latrines. It will also enable the local government and communities to improve the road network and access to their plots for better and safe mobility in the area especially for women, children and the elderly and differently abled.

#### Promoting an enabling environment for gender equality

A specific gender focal point has been identified, the National Project Manager of the Implementing Entity team who will address gender issues during the project implementation As this role lies with the IE's national manager, this demonstrates the importance given to addressing gender issues by the IE in the project design, with the accountability for achieving effective sustainable, equitable gender-specific project outcomes and impact for the project remaining with senior staff.

Community surveys and public consultations have been used to collect disaggregated data focused on climate change related issues, needs and perceptions of vulnerable groups, activity prioritization and the identification and verification of potential risks and impacts.

Specific Focus Group Discussions (FGD's) have been held with women and other vulnerable groups, to discuss the prioritization and selection processes of interventions proposed under the project. Vulnerable groups will continue to be consulted via FGD's beyond the community consultation processes of the People's Process, and greviance mechanism to be established under the project will further provide a platform of feedback and consultation where necessary. Trainings only inviting women may also be organized if necessary.

During the implementation of community mobilization planning and implementation, IE and EE staff will ensure sensitization around gender issues will be conducted for both women and men around gender specific participation and roles within the project

c. Executing entities:

A gender focal point will be established for each executing entity and partner as a condition of project participation.

All staff hired under the project by executing entities will, in their Terms of References, contain promotion of gender principles such as gender equality, sensitivity, parity etc.

Women will form 50% of the CDC's composition of members and will be recipient to the training and capacity building designed for the trainings on project implementation delivered by the Peoples Process.

d. Gender Project outputs/targets

The main gender focused project outputs and targets are outlined below.

The project will aim to ensure 50% representation during community implementation of meetings, consultations, community votes, participatory planning, and monitoring initiatives under the People's Process.

Similarly, the project will aim to ensure 50% representation of women in higher level decision making bodies and platforms as part of the project.

#### Gender responsive indicators

A comprehensive list of indicators is included in the Gender Action Plan table below. The main gender focused indicators are summarized below. 50% of the CDC's established to implement the project will be female 50% of trainees at all trainings/workshops and learning events will be female 35% of representatives in higher level authorities participating in the project will be female

Gender disaggregated information will be collected for the above gender targets. Gender FGD's will be conducted every quarter and an analysis included in project reports to establish qualitative baseline of gender perceptions and monitor changes in behaviours and attitudes as the project progresses.

e. Budget

A specific gender focal point has been identified, the National Project Manager of the Implementing Entity team who will address gender issues during the project implementation As this role lies with the IE's national manager, s/he will be responsible for overall project compliance with gender policy.

For the project components, gender has been mainstreamed into the project design and activities and appropriate budgets will be used to achieve the desired targets for gender equality.

#### 4. Implementation

Policy Arrangements: The Project Advisory Committee Secretariat will aim to ensure gender equality in the composition of members and aim for a minimum of 35-40% members as women.

Management Arrangements: The principle Gender Focal Point for the project will be the National Project Manager of the Implementing Entity, UN-Habitat. The counterpart gender focal point within Government will be the designated gender focal point of the Municipality of ulaanbaatar. Furthermore a gender focal point will be established for each executing entity and partner as a condition of project participation.

ToRs and contracts will include detailed reference to the ESMP, the 15 ESP Principles and especially compliance to law (principle 1), human rights (principle 4), gender approach (principle 5) and labour and safety standards (principle 6 and 13).

The UN-Habitat Human rights officers will check project compliance to the AF ESP during the project (besides the project manager) (principle 4). The gender focal point within UN-Habitat will check project compliance to the AF GP during the project.

Capacity Building Strategy: The CDC's to be established as part of the People's Process will aim for gender equality in the composition of training participants and will also ensure gender parity and gender considerations in the planning and implementation of Components 2 & 3. Women will be encouraged to be involved in the execution of operations & maintenance plans and mechanisms for concrete interventions.

Targeting equal representation of women who are currently under-represented higher level government and decision making structures, for trainings and knowledge sharing under Components 1 & 4 will instill new skills and capacities that further empower them and prepare them for new roles and responsibilities.

# 5. Performance Monitoring and Evaluation

The Gender Action Plan that follows will be incorporated in the overall monitoring and evaluation of the project, and indicators will be included in the project monitoring and evaluating systems and tools.. The monitoring of the GAP will be done using a participatory approach with the key stakeholders at the kheseg, khoroo, district, and municipal levels.

## 6. Knowledge Management, Information Sharing and Reporting

All knowledge components of the project will also ensure gender parity and gender considerations in the planning and implementation, The Operational Manual developed for the project will contain Gender approach linked to AF GP. The project will maintain a gender and age disaggregated database of direct beneficiaries and stakeholders involved within the project. Training on the use of the simulation model will be targeted at both male and female civil servants. The lessons learned workshops and trainings organised for city- and district government officials will also try to ensure 50 percent women participation if possible.

A specific knowledge component to track the gender and youth responsiveness and impact of the project a rapid survey on Knowledge Attitudes and Practices (KAP) will be organized by the national implementation team through targeted Focus Group Discussions with women and youth during the project

# 7. Gender Action Plan (GAP)

The project has developed a gender action plan (GAP) to ensure equal participation of the women and other vulnerable groups in the project implementation and integrate the gender-specific needs of the local communities in the sub-project design and implementation. The GAP describes the proposed measures to be included in the project design and implementation in promoting gender equality and mainstreaming gender in the outputs of the project. The GAP outlines the main strategies to address the key gender concerns on a) access to facilities to be provided by the project, and b) equal participation of women in the project community activities. The key gender mainstreaming strategies to be implemented include:

- community consultations on detailed design preparation and implementation with gender-specific design features for proposed project interventions
- implement gender sensitive IEC programs on improved sanitation, health and hygiene,
- ensure the presence of number of female staff members in project implementation unit, Project Advisory Committee and community organizations.

Addressing these gender concerns would entail close consultation and collaboration with women, from sub-projects design stage throughout implementation, operations, and monitoring and evaluation. The general strategy proposed under the project is to ensure that the design features of the proposed interventions will be gender-responsive, appropriate, and affordable to its target users. The project will also foster active involvement of women in the project, which will aim to maximize the opportunity for women to become empowered decision-makers in shaping the development of their community. Specific activities, targets or indicators, responsible bodies, implementation arrangements are shown in the following table.

# Table -. Gender Action Plan

| Project Components  | Outputs  | Ac | tion  | In | dicator  | Re    | esponsible Party   |
|---|--|----|---|----|--|-------|--|
| Component 1. Na-<br>tional/City Level<br>Producing hazard<br>and risk infor-<br>mation / evidence<br>for increasing resili-<br>ence and develop-<br>ing land use plans<br>to increase this re-<br>silience at UB City<br>level. | Output 1.1<br>One (1) Ulaanbaatar northern<br>Ger-Area* Territorial Land Use<br>Plan, with zoning, legal frame-<br>work recommendations and a<br>specific focus on flood risk reduc-<br>tion - building on <b>1.2</b><br>Output 1.2.<br>Simulation model for forecasting<br>future impacts of climate change<br>flooding in UB city & Ger-areas<br>established<br>Output 1.3<br>Seven (7) Detailed Ger-khoroo<br>level Land Use Plans with specific<br>focus on flood risk reduction and<br>building resilience of the most<br>vulnerable areas and people | •  | Conduct series of consultative<br>meetings at the community<br>level and workshops with stake-<br>holders for the preparation of<br>the plan and presentation on<br>the findings at least 50% of<br>women participants  | •  | Number of consulta-<br>tions and workshops,<br>sex disaggregated<br>Number of people con-<br>sulted including vulner-<br>able groups, sex dis-<br>aggregated<br>Documentation of<br>meetings<br>A Database for meet-<br>ings established | •     | Executing Agency<br>Climate Change<br>Assessment Spe-<br>cialist<br>Gender specialist<br>Community Mobi-<br>lizers<br>External Partner in<br>charge of land use<br>plans preparation |
| Component 2<br>Khoroo/Community<br>level<br>Participative plan-<br>ning and capacity<br>development for<br>flood resilience in<br>Ger-areas at the  | Output 2.1<br>Seven (7) Khoroo-level floods re-<br>silience action plans to imple-<br>ment the interventions under<br>component 3;<br>Output 2.2   | •  | Community mobilization, or-<br>ganization and capacity building<br>of primary groups, community<br>development councils in order<br>to make them the key stake-<br>holders in the climate resilient<br>local area development with at<br>least 50% women engagement | •  | Number of Primary<br>Groups and CDCs estab-<br>lished<br>Number of members,<br>sex disaggregated<br>Number of consulta-<br>tion/workshops and<br>trainings, sex disaggre-<br>gated   | • • • | Executing Agency<br>Climate Change<br>Assessment Spe-<br>cialist<br>Gender specialist<br>Community Mobi-<br>lizers<br>Urban planner  |

| Project Components   | Outputs   | Action  | Indicator   | Responsible Party  |
|--|---|---|---|--|
| district / khoroo<br>and community<br>level (including ac-<br>tivities to operate<br>and maintain - and<br>mitigate any poten-<br>tial risks related to -<br>the interventions<br>under component<br>3). | Khoroo community level inter-<br>ventions operation & mainte-<br>nance* and awareness campaigns<br>and trainings to support the sus-<br>tainable implementation of inter-<br>ventions under component 3.<br>Output 2.3<br>Technical studies – Engineering<br>and hydrological - required to im-<br>plement the interventions under<br>component 3.  | <ul> <li>Conduct Community Action<br/>Planning workshops for Khoroo-<br/>level floods resilience</li> <li>Conduct series of trainings in-<br/>troducing the People's Process<br/>and Community Based Disaster<br/>Risk Reduction approach, fo-<br/>cused on building social cohe-<br/>sion and consensus on commu-<br/>nity level implementation of in-<br/>terventions under component 3<br/>at least 50% of women partici-<br/>pants</li> </ul>                         | <ul> <li>Number and percent-<br/>age of people partici-<br/>pated including vulner-<br/>able groups, sex dis-<br/>aggregated</li> </ul>   | <ul> <li>External Partner<br/>in charge of<br/>plans prepara-<br/>tion</li> </ul>  |
| Component 3. En-<br>hance resilience of<br>community level<br>flood protection as-<br>sets   | Output 3.1.<br>Physical assets developed or<br>strengthened in response to cli-<br>mate change related flood im-<br>pacts as prioritized (by Khoroos<br><b>drainage and sanitation)</b> – imple-<br>mented through community con-<br>tracting<br>Output 3.2<br>Management & operations; de-<br>sign & supervision of assets /<br>physical infrastructure – procured<br>as consulting services | <ul> <li>Series of community consultations for identification and integration of specific needs of communities including women, children, elderly and disabled, into the detailed designs of proposed drainage and sanitation, at least 50% women participation</li> <li>AOC to be signed with and implemented by Community Development Councils for drainage construction and sanitation improvement</li> <li>Community monitoring of the AOC implementations</li> </ul> | <ul> <li>Number of consultations</li> <li>Number of participants, sex disaggregated</li> <li>Number of special needs of communities integrated to the design of the proposed interventions</li> <li>Number of AOC signed and implemented</li> <li>Number of community members involved under the AOC implementation, sex disaggregated</li> </ul> | <ul> <li>Executing Agency</li> <li>Gender specialist</li> <li>Community Mobilizers</li> <li>Urban planner</li> <li>Field Engineer</li> <li>Community Development Councils</li> </ul> |

| Project Components   | Outputs  | Action   | Indicator   | Responsible Party  |
|--|--|--|---|--|
| Component 4  | Output 4.1   | Develop and implement a gen-   | <ul> <li>Average income gained<br/>by community mem-<br/>bers, sex disaggregated</li> <li>Number of community<br/>monitoring reports</li> <li>Number and type of de-</li> </ul>                           | Executing Agency   |
| Awareness raising,<br>knowledge man-<br>agement and com-<br>munication | Lessons learned and best practices<br>regarding flood-resilient urban com-<br>munity development are generated,<br>captured and distributed to other<br>Districts and khoroo communities,<br>civil society, and policy-makers in<br>government appropriate mecha-<br>nisms.<br>Output 4.2<br>Workshops and trainings will be orga-<br>nized targeting city- and district gov-<br>ernment officials with a focus on rep-<br>lication of processes, land use plans<br>and interventions and to discuss how<br>lessons can be integrated into exist-<br>ing strategies and plans. | <ul> <li>Develop and implement a gender sensitive IEC program for Districts and khoroo communities, civil society, and policymakers in government on (i) lessons learned and best practices regarding flood-resilient urban community development (ii) basic hygiene practices, (ii) water conservation, (iii) ecofriendly technologies, etc with at least 50% of women participation</li> <li>Conduct workshops and trainings targeting city and district government officials with a focus on replication of processes, land use plans and interventions and to discuss how lessons can be integrated into existing strategies and plans with at least 50% of women participation</li> </ul> | <ul> <li>Number and type of developed IEC materials</li> <li>Number and type of capacity building trainings/workshops</li> <li>Number and percentage of people participated, sex disaggregated</li> </ul> | <ul> <li>Executing Agency</li> <li>Gender specialist</li> <li>Community Mobilizers</li> <li>Urban planner</li> <li>Knowledge Management Specialist</li> <li>MUB and respective district departments</li> </ul> |

# Annex 7 – Justification Note

Flood Resilience in the Ger Areas of Ulaanbaatar (FRUGA) Justification of the proposed changes to Component 3 of the original project document.

This justification note describes why changes are being proposed under Output 3.1 of the FRUGA project.

The changes proposed have been recommended by BD Engineering LLC, the engineering sub-contractor of World Vision Mongolia, the project's Executing Entity. These changes have been reviewed by UN-Habitat and discussed with the Project Working Group. These changes have also been consulted with the beneficiaries in the target areas and they have been approved by the Khoroo Governor.

## **Explanation of the Changes**

The drainage infrastructure, to be constructed under Output 3.1 of the project has been realigned from a broadly north-south alignment to a broadly east-west alignment in Khoroo 40 (formerly Khoroo 7 – see further explanation below). The change in design is shown in Figure 1.

The reasons for this re-alignment are two-fold. Firstly, the Asian Development Bank is to construct sanitation infrastructure very close to the formerly proposed north-south drainage alignment, under its Ger Area Development Investment Programme, which got underway in 2019 (and was thus not highlighted in the original proposal, because in 2017 the works were not foreseen, despite extensive discussion and coordination with the ADB at the time of project formulation). Second, BD Engineering, the executing entity's sub-contractor, having done its detailed design, feels that the re-aligned infrastructure will be more effective in supporting the community to adapt because, *inter alia*, under the revised design there will be more discharge points into the existing canal, giving the system greater redundancy.

Drainage channel SO1 is 460 metres long and provides direct benefits to 420 households, which will directly benefit approximately 1680 people. Drainage channel SO2 is proposed to be 860 metres long and will directly benefit 561 households, with a total of 2,244 people. Drainage channel SO3 will be 1,471 metres long and will directly benefit 419 households with a total of 1,676 people. However, the revised alignment is expected to provide drainage benefits to the same flood/catchment area as the previous alignment, so the total number of beneficiaries (direct+indirect) will be the same at 27,900 total (14,229 women).

While the total length of drainage in the re-alignment (2791 metres, as opposed to 3110 metres) is slightly shorter than in the original proposal, as of April 2020, material price increases relative to 2017 (when the project was formulated) and currency fluctuations mean that there is no overall change in the estimated budget.

Further design details and images have been provided in Part II, Section A of the revised proposal document.

40th khoroo, Songinokhairkhan district



 Legend

 ••••••••
 Planned
 •••••••
 Revised

 Figure A7.1 - Previous and Newly Proposed Drainage Infrastructure
## **Construction Details**

Under the original proposal, the construction details were to be as follows, with the numbering (A1-A3) corresponding with the red lines, labelled A1-A7, in Figure 1:

| Pkg A1a | <u>332m</u> | <u>\$177,620</u> | A1i: From #23, Bayankhoshuu 39 to #41, Bayankhoshuu 39 |  |
|---------|-------------|------------------|--|--|
| Pkg A1b | <u>79m</u>  | <u>\$24,030</u>  | A1ii: From #14a, Bayankhoshuu 38 to #41, Bayankhoshuu  |  |
|         |             |                  | <u>39</u>  |  |
| Pkg A2a | <u>297m</u> | <u>\$158,895</u> | A2i: From #41, Bayankhoshuu 39 to #8, Bayankhoshuu 35. |  |
| Pkg A2b | <u>71m</u>  | <u>\$19170</u>   | A2ii: From #1, Bayankhoshuu 35 to #8, Bayankhoshuu 35  |  |
| Pkg A3  | <u>437m</u> | <u>\$233795</u>  | A3: From #8, Bayankhoshuu 35 tto #17, Bayankhoshuu 29  |  |
| Pkg A4  | <u>230m</u> | <u>\$62,100</u>  | A4: From #8, Bayankhoshuu 29 to #17, Bayankhoshuu 29   |  |
| Pkg A5  | <u>660m</u> | <u>\$178,200</u> | A5: From #17, Bayankhoshuu 29 to #45, Tsergiin angi 1  |  |
| Pkg A6  | <u>668m</u> | <u>\$180,360</u> | A6: From #8, Tsergiin angi 2 to #45Tsergiin angi 2     |  |
| Pkg A7  | <u>336m</u> | \$90,720         | A6: From #45, Tsergiin angi to #6, Namag 1             |  |

Under the realignment, the construction details are proposed as follows:

| <u>SO1</u> | <u>460m</u>   | <u>\$185,399</u> | From #23, Bayankhoshuu 39 to #26a, Monlaa 6        |
|------------|---------------|------------------|--|
| <u>SO2</u> | <u>860m</u>   | <u>\$346,616</u> | From #2, Bayankhoshuu 35 to #30, Monlaa 1          |
| <u>SO3</u> | <u>1,471m</u> | <u>\$592,875</u> | From #9, Khiliin tsereg 0119 to #48, Bayanbu-lag 4 |

## **Environmental and Social Safeguards**

<u>A revised environmental and social risk and impact assessment has been provided in the revised proposal in Annex 5.</u>

## Note on Boundary Changes in

It should be noted that since the proposal was submitted the Khoroo boundaries in Ulaanbaatar have been re-drawn. Khoroo 7, where the drainage infrastructure shown in Figure 1 is to be built, has been split into two Khoroos; Khoroo 7 and Khoroo 40. This boundary change has primarily been driven by population growth in the area. Both the old and new infrastructure sites are in Khoroo 40. Because this is only an administrative/boundary change, the climate change, flood impacts and adaptation requirements in Khoroo 40 are the same as originally described in Khoroo 7.

The geographic area to be surveyed under Components 1 and 2 of the project is the same (originally 7 Khoroo level plans were foreseen). 8 will now be prepared without any change in budget.

The Khoroo Boundaries are shown below, with the old boundaries (accurate at the time of the proposal) on the left and the new boundaries as of January 2020 on the right:



