



ADAPTATION FUND

CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Strengthening climate change resilience of urban residential neighborhoods in the Tangier-Tetouan-Al Hoceima region

Country: Morocco

Thematic Focal Area: Disaster risk reduction and early warning systems

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: UN-HABITAT

Executing Entities: Ministry of National Territory and Urban Planning, Housing and City Policy

Amount of Financing Requested: 9;981;160,00 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes ☐ No ☒

Amount of Requested financing for PFG: (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>

Stage of Submission:

- ☐ This concept has been submitted before
- ☒ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: Click or tap to enter a date.

Please note that concept note documents should not exceed 50 pages, including annexes.

Project/Programme Background and Context:

The problem

Morocco is located in southwest of the Mediterranean region, at the northwestern part of Africa. Morocco is bordered to the north by the Mediterranean Sea, to the west by the Atlantic Ocean, to the east by Algeria and to the south and south-east by Mauritania. The country has a long coastline that extends more than 3,500 kilometers.

Morocco is essentially characterized by a Mediterranean climate, with mild and relatively wet winters and hot to dry summers. The climate shows enormous variations from sub-humid in the north to Saharan in the South. This diversity is due to the combination of several factors, namely its latitudinal location, the influence of the Atlantic Ocean and the Mediterranean Sea, and the influence of elevation through Atlas and Rif mountains. Spatial and temporal rainfall variability is considerably important. Mean annual rainfall ranges from less than 100 mm (Saharan bioclimatic stage) to 1200 mm (humid bioclimatic stage). The rainy season lasts from October to March in most of the country, and December, January and February receive the maximum rainfall. The summer months have low rainfall and are stormy in general.

The total land area of Morocco is about 710,850 sq Km, including 58,000 sq Km of forests (8%), 92,000 sq Km of agricultural lands (13%) and 460,000 sq Km of pastures, rangelands and deserts.

Climate change is a major and pervasive concern that causes a significant threat to the economic and social development of several countries. Morocco is a country with low GHG emissions but very vulnerable to and already suffering from the negative effects of climate change. According to climate projections, the country could experience more impacts of climate change in the coming years. Morocco is in MENA/Arab region, which is one of known climate change hotspot and one of the most vulnerable regions of the world to its negative impacts¹. In addition, the increasing frequency of natural disasters and extreme weather events coupled with the social, and economic challenges related to increasing poverty, urban expansion, and population growth continue to increase the vulnerability of the region.

Morocco faces several types of climatic hazards, such as drought, floods, forest fires and landslides², in addition to extremes climatic and hydrometeorological events, such as heat waves, cold waves, sandstorms, etc. These hazards and extreme events lead to severe impacts and considerable economic, social and environmental damages and losses. The assessment of current and projected impacts and vulnerabilities to climate change, that have been carried out on various key sectors (water resources, agriculture, fisheries, forestry and biodiversity, coastline, habitat, and health), clearly shows the Kingdom's vulnerability to climate change. Furthermore, Morocco as Mediterranean country, is highly impacted by sea level rise that leads to marine submersion and cause severe floods in Mediterranean coastal areas of Morocco. These climate hazards occur in a very populated and dense area resulting in heavy and costly damages and losses. In addition to the resulting floods, sea level rise causes the intrusion of seawater into the aquifers and groundwater, which results in water salinization, degradation of the water quality and

UN-Habitat Regional Office for Arab States (2015), Climate Change Strategy for the Arab Region 2022 - 2025

² UN-Habitat Regional Office for Arab States (2015), Climate Change Strategy for the Arab Region 2022 - 2025

therefore loss of fresh water. Morocco suffers from water scarcity³, but the impacts of sea level rise deplete freshwater to critical levels.

The Tangier-Tetouan-A Hoceima (TTA) region is among the most vulnerable to climate risks in the country, given its geographical position and its sensitive natural resources and socioeconomical conditions⁴. As mentioned in the figures below, according to RCP scenarios, the region is characterized by a significant trend, the temperature could increase by 2050 while precipitation will decrease significantly by 2050. Moreover, the region experienced several climate related hazards, such as floods, landslides, sea level rise, sea surges, shoreline erosion, as well as forest fires (MATNUHPV, 2021). These climatic hazards have become recurrent and destructible in the TTH region. They induced considerable damages and losses over the past twenty years. Therefore, climate change related vulnerabilities and risks are a source of concern for the authorities, who have to deal with strong demographic pressure and the increasingly important impacts of climate change on various sectors, including the housing sector. The figures 3, 4, 5 give an idea on the geographic distribution of the current and projected risks related to those hazards.

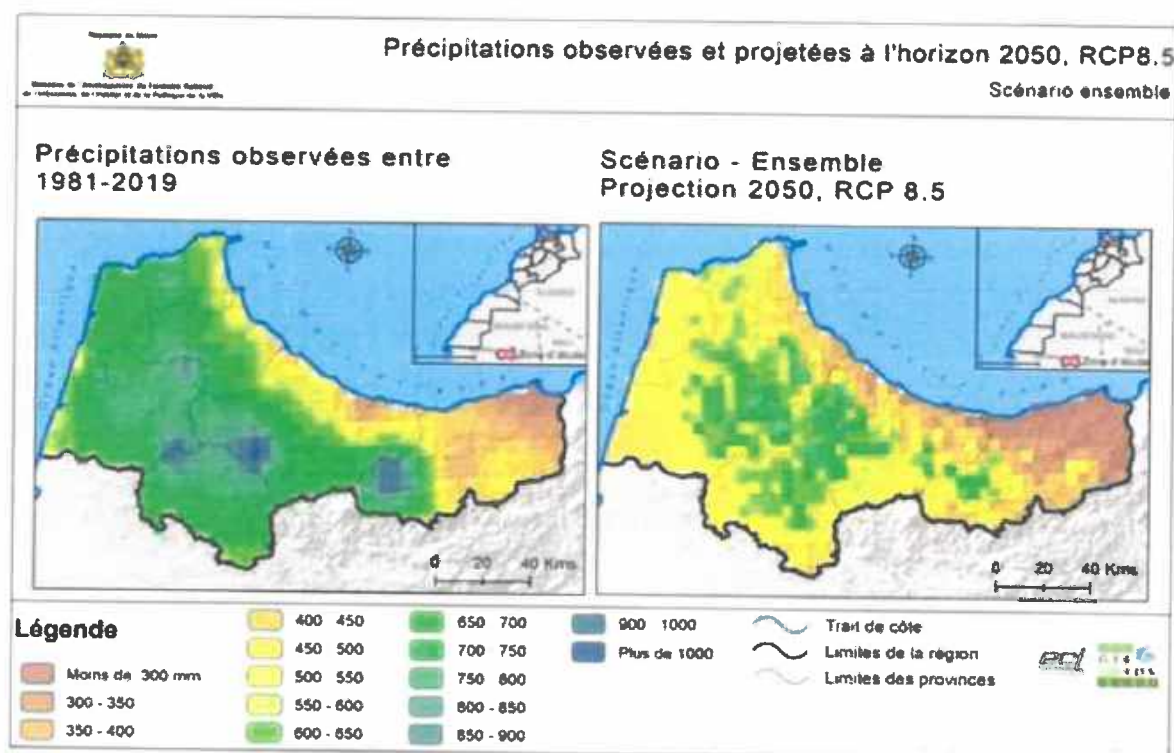


Fig 1. Observed and projected precipitation TTA in 2050

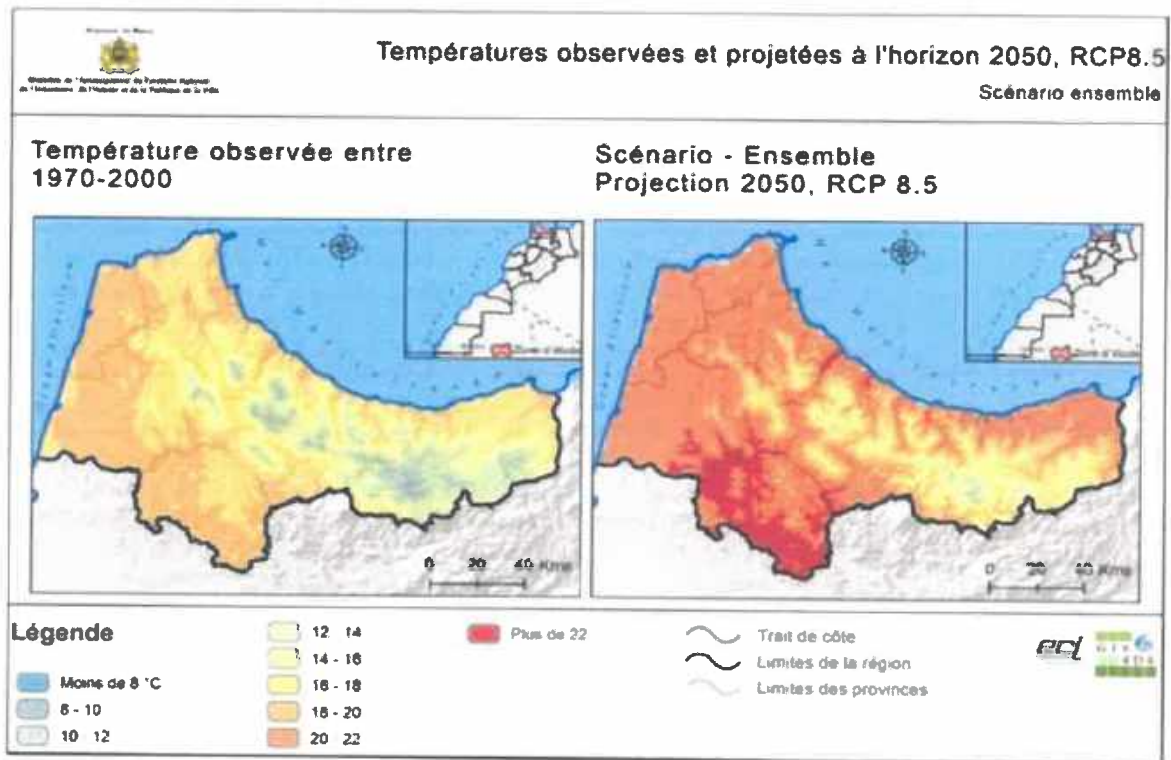


Fig 2. Observed and projected temperatures TTA to 2050 (RCP8.5)

However, the building sector and urban residential area are one of the sectors highly exposed to climate change and is expected to face multiple impacts related to the gradual variability of climatic conditions (increased precipitation, increased temperatures, etc.). This sector is also confronted to extreme weather events and climate hazards that have become increasingly frequent and intense in recent years. These extremes and climatic hazards, such as droughts, floods and heat waves have a significant impact and generate considerable damage to the construction sector in different regions of the country including the Tangier-Tetouan-Al Hoceima region.

As an example, the TTA region has experienced periods of flooding and sea surges that are likely to continue in the future, according to the projections that have been made and illustrated in the figures below:



Fig 3. Map of the flood hazard in the Tanger-Tetouan-Al Hoceima region for a return period of 50 years

The synthetic map below at the communal scale created through the statistical breakdown of the areas that could be submerged by 2100, according to RCP 8.5, shows relatively higher submersion levels on the Atlantic side than the Mediterranean side.

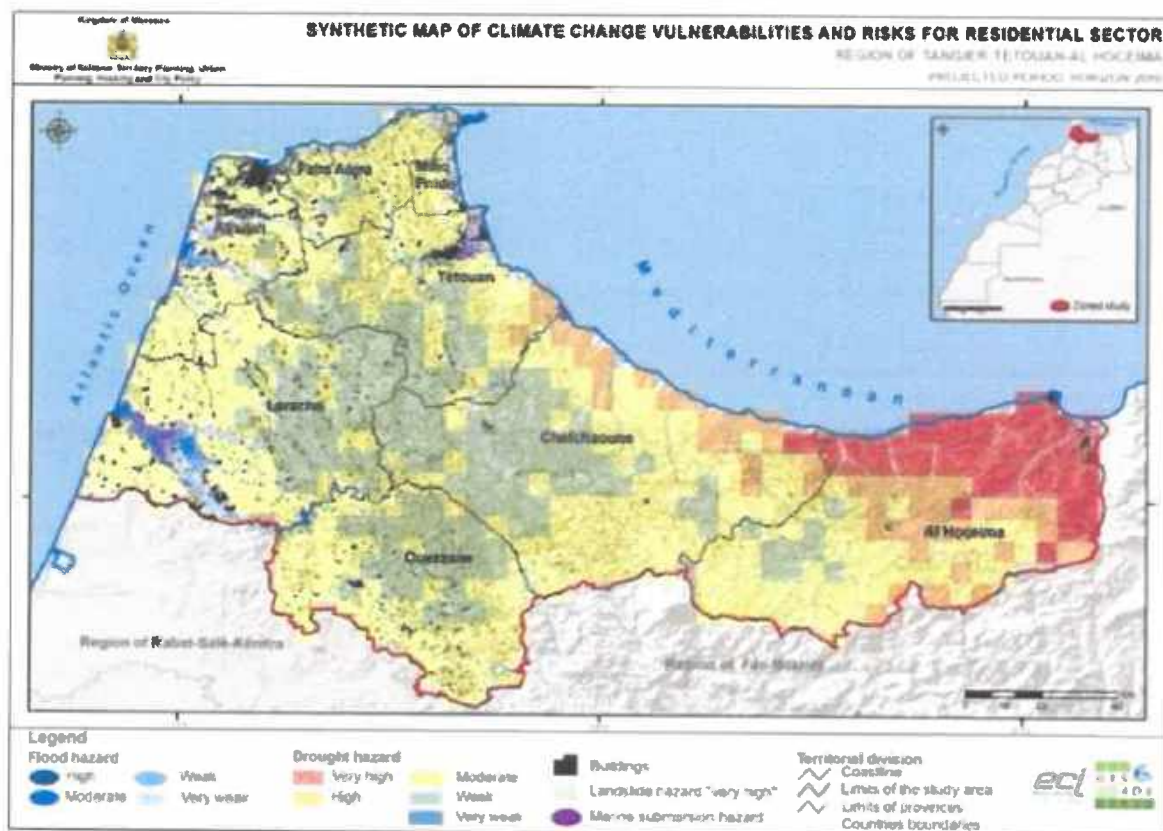


Fig 5. Synthetic map of climate change vulnerabilities and risks for residential sector

Without sufficient adaptation measures and investments to improve the resilience of buildings, their vulnerability will only increase. Climate change vulnerability in the housing sector relates to the building and construction sector not only in its physical environment but also directly affects residents. Threats related to climate change directly affect populations through the destruction of homes and even human losses caused by extreme weather events.

Furthermore, reducing the vulnerability of the housing sector to climate change requires the implementation of climate adaptation measures.

Social context

The Morocco's population has reached 33,848,242 people on September 1, 2014 against 5 million inhabitants at the beginning of the 20th century. It took almost 60 years to double the population (5million to 11.6 million in 1960) and 54 years to see the population triple (11.6million to 33,8 million in 2014). Furthermore, the number of households has reached 7,313,806 according to the 2014 RGPH (Recensement général de la population et de l'habitat - General population and housing census). The annual growth rate of the Morocco's population has shown a decreasing trend, despite the increase in numbers since 1960, from 2.6% between 1960 and 1971 to 1.25% between 2004 and 2014.

However, housing production is increasing annually at a rate of 1.1% between 2010 and 2020 and should reach 0.9% between 2020 and 2030. In 2017, Morocco's population reached 34,852,121 with an urbanization rate of 62%. HCP projections foresee that 73% of Morocco will be urbanized by 2050. The extension of urban zones could be spread over

areas threatened by hazards. It is therefore important to strengthen the resilience of this area and its residents in order to reduce the damage and losses caused by climatic hazards.

The Tangier-Tetouan-Al Hoceima (TTA) region is located in the northwest of Morocco and is bounded to the north by the Strait of Gibraltar and the Mediterranean, to the west by the Atlantic Ocean, to the southwest by the Rabat-Salé-Kenitra region, to the southeast by the Fez-Meknes region and to the east by the Oriental region. It covers 17,262 sq km and represents 2.43% of the national territory. According to the results of the General Population and Housing Census (GPHC) conducted in 2014, the population of the TTA region is about 3,556,729 people, representing 10.5% of the national population in 2014. It is one of the most populated regions of Morocco with a relatively high density of 222.2 people/sq km in 2014.

This region has experienced an accelerated urbanization trend resulting from the strong growth of its urban population, following the development of commercial, industrial and administrative activities, essentially in all major cities of the region.

According to the GPHC in 2014, the urban area in the region is home to 2,131,725 habitants in 2014, compared to 1,425,004 in rural areas. Thus, 93.9% of the regional population growth during the period 2004-2014 is due to the increase in the urban population. The annual urban population growth rate is 2.45% compared to only 0.21% in rural areas.

In addition to the natural growth in this part of the region's population, this increase is also due to the extension of the urban perimeters of municipality and districts, and by the creation of new urban centers in rural areas during the period 2004-2014.

Thus, the urbanization rate (% of urban population) in the region reached 59.9% in 2014 against 60.4% at the national level, with remarkable differences between provinces and prefectures. Indeed, the prefectures of Tanger-Assilah and M'diq-Fnideq are the most urbanized with urbanization rates of 94.3% each (GPHC, 2014).

Economic context

The building and public works sector contributes significantly to Morocco's economic growth by participating in 6.2% of total value added at current prices. It employed more than one million people in 2017, or 9.8% of the employed population. Indeed, housing production is evolving in parallel with the growth of Morocco's population, which is increasing annually at a rate of 1.1% between 2010 and 2020 and should reach 0.9% between 2020 and 2030.

Natural population growth, the creation of new urban centers, the development of industry and services in cities, and the rural migration in search of jobs in urban areas explain the increase in the urbanization rate, which is reflected in the increase in demand for housing and tertiary buildings. In 2016, the number of building permits reached 110,677 with a built-up area of 5,986,031 sq m.

However, the real estate sector has experienced a decline in production and construction starts in 2017 by a drop of 2.54% against 2008⁵. In parallel to this decline, cement sales have also decreased and have experienced an average growth of -0.70% between 2009 and 2017 varying between 14.52 Mtonnes in 2009 and 13.79 Mtonnes in 2017.

In addition, the housing sector contributes to the growth of the banking sector which

recorded at the end of May 2019 an outstanding housing credit of 211.9 billion DH (approx. 21.2 billion USD). This is due to the fact that the housing sector has an attractive financial framework and incentive for investors and the middle-income population thanks to the creation of the following guarantee funds:

- FOGARIM Guarantee Fund which guarantees credits accorded by banking establishments for the financing of housing acquisition for the benefit of low or non-regular income populations.
- FOGALOGUE Guarantee Fund which guarantees bank loans for financing the acquisition of housing or land and/or its construction, in favor of the middle class and Moroccans Residing Abroad (MRA).
- FOGALEF guarantee fund which guarantees loans accorded by banking institutions for the financing of the accession to property of the members of the Mohammed VI Foundation for the Promotion of Social Works of Education-Training.

Environmental context

The regional weather contrasts, the variability of precipitation and the irregularity of the climatic features that mark the country, generate potential impacts on population health and certain socio-economic sectors recognized as priorities for the Kingdom of Morocco, notably agriculture, water and forest resources, fishing, etc. Accordingly, the studies of current and projected impacts and vulnerabilities to climate change that have been carried out on the various key sectors (water resources, agriculture, fisheries, forestry and biodiversity, coastline, habitat and health) shows clearly the Kingdom's vulnerability to climate change.

Water resources are experiencing a decline of about 25%, due to the climate change impacts. For fisheries, a global comparative study of vulnerability of national economies conducted by Allison et al (2009) ranks Morocco as the 11th most vulnerable country to climate change. Climate change also has harmful impacts on forests, ecosystem architecture, and the distribution of species, which could lead to a decline in livelihoods and increased exposure to extreme events. In addition, the habitat sector, which, according to the projections of the MATNHUPV (2020) by 2050, would be more subject to various climatic hazards, such as floods, drought, etc.

Thus, the Kingdom's exposure to the adverse effects of climate change combined with increased vulnerability conditions result in heavy and costly damages and losses that are likely to impact the sustainable development process. Therefore, in the absence of adaptation to climate change, the risks generated by the vulnerability profile will hinder the achievement of the Sustainable Development Goals (SDGs).

In addition, the extremes and climatic hazards, such as droughts, floods and heat waves have a significant impact and generate considerable damage to the construction sector in different regions of the country including the Tangier-Tetouan-Al Hoceima region.

However, floods, as a climatic hazard that affects more the building sector causes considerable damage. Buildings are not always designed to maintain their performance (mechanical, thermal, etc.) in case of flooding. They are vulnerable to prolonged contact (from a few hours to several days), to flood frequencies and to the statics effects (water height at the level of the buildings) and dynamics effects (water flow speed, shocks of floating objects). The furniture and internal equipment of these buildings are also vulnerable to flooding. Impacts similar to those of floods can be generated by the rise in sea level. Direct damage is generally significant for individual buildings, as well as on a

territorial scale.

This project aims to strengthen the resilience of the housing sector to climate change, with a focus on the floods, the marine submersion, and the landslides in high populated coastal urban area, in Tangier-Tetouan-Al Hoceima region in Morocco.

Project target area

The project will be carried out in Tangier-Tetouan-Al Hoceima Region, in specific district that are vulnerable and at highly exposed to climate hazards. The districts were identified according to technical study and participatory approach involving all stakeholders. The council of the region and presidents of the three districts expressed their interest and their engagements (letters are presented in the annex).

➤ Province of Tetouan

The province of Tetouan is located in the extreme north of the Kingdom and covers an area of 2 541 km². It is bordered to the north by the prefecture of M'diq-Fnideq and the province of Fahs Anjra, to the east by the Mediterranean Sea, to the south by the provinces of Chefchaouen and Larache, and to the west by the prefecture of Tanger-Assilah. Characterized by a predominantly mountainous landscape with a rugged and tormented topography, the province of Tetouan is subject to a Mediterranean type of climate and generally experiences a wet and rainy season with an average interannual rainfall exceeds 700 mm and in general, temperatures vary on average between 5.3° in cold periods and 32.9° in hot periods.

According to the latest administrative division, the province of Tetouan is composed of 2 municipalities (Tetouan and Oued Laou) and two rural circles grouping 8 caïdats and 20 rural communes.

In 2014, the population of the province of Tetouan amounted to 550 374 inhabitants representing 15.5% of the population of the Region Tanger-Tetouan-Al Hoceima and 1.6% of the national population. Thus, the province of Tetouan stands out as the 2nd most populated province/prefecture in the region, after the prefecture of Tanger-Assilah (RGPH 2014). Based on the 2019 population projections, the province of Tetouan is home to a population of 573,784 inhabitants, representing 15.2% of the regional population. The urban population amounts to 416,988 inhabitants, reflecting an urbanization rate of 72.7%, against 61.8% in the region (HCP).

In this province, this project concerns particularly the commune of Tetouan which the results of the multi-criteria analysis (Anne 2) that has carried out shows that this commune is highly exposed to risks related to climate change, including flooding, drought, marine submersion and the heat and cold waves. In addition, it is characterized by a large number of households and a very high density of buildings.

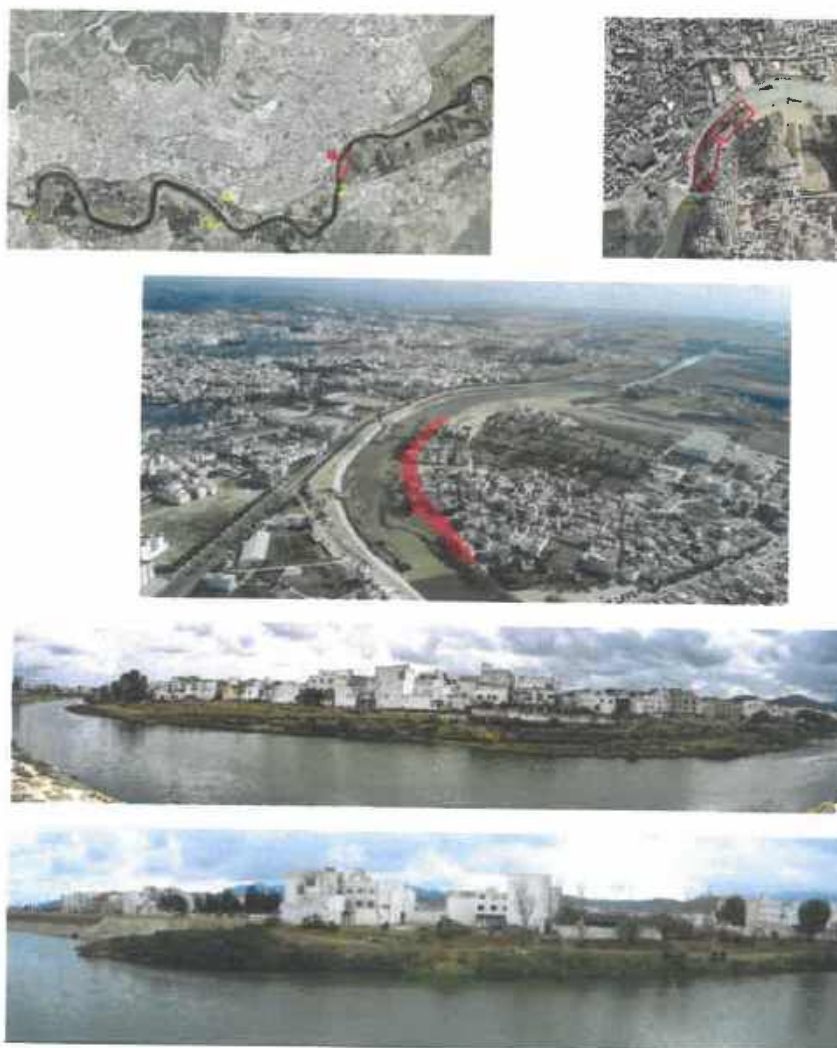


Fig 6. Area at risk of flood in the commune of Tetouan (Coelma neighborhood)

➤ Province of Chefchaouen

Located in northwest Morocco, on the massif of the country of Jebala, the province of Chefchaouen covers an area of 3 443 km². It is bordered to the northwest by the province of Tetouan, to the northeast by the Mediterranean Sea over a length of 120 km, to the east by the province of Al Hoceima, to the southeast by the province of Taounate, to the southwest by the province of Ouezzane and to the west by the province of Larache. Due to its geographical position, the Province of Chefchaouen is characterized by its mountains formed of siliceous and limestone layers very uneven with peaks sometimes exceeding 2000m (Jbel Lakrâa 2,159 m and Jbel Tissouka 2,122 m in Bab Taza as well as Jbel Tizirene 2,106 in Bab Berred). Located at 600m above sea level, the province of Chefchaouen is characterized by a Mediterranean climate characterized by rainy and cool winters with an average annual rainfall of 880 mm and an average annual temperature of 16.6 °C.

According to the latest administrative division of 2009, the province of Chefchaouen consists of a commune (Chefchaouen) and 5 circles grouping 12 caïdats and 27 rural

communes. In 2014, the population of the province of Chefchaouen stood at 457,432 inhabitants or about 12.8% of the total population of the region Tanger- Tetouan-Al Hoceima and 1.3% of the national population. Compared to 2004, this population has thus recorded an average annual increase of 0.79% with a provincial urbanization rate of 12.5% (RGPH, 2014).

The commune of Chefchaouen is facing the effects of climate change and called to develop adaptation measures to be more resilient. Indeed, according to the results of the multi-criteria analysis (Annex 2) conducted at the level of the TTA region, this commune is highly exposed to risks related to climate change, including drought, landslides and heat and cold waves. It is also characterized by a large number of households with a very high multidimensional poverty rate and a moderate building density.

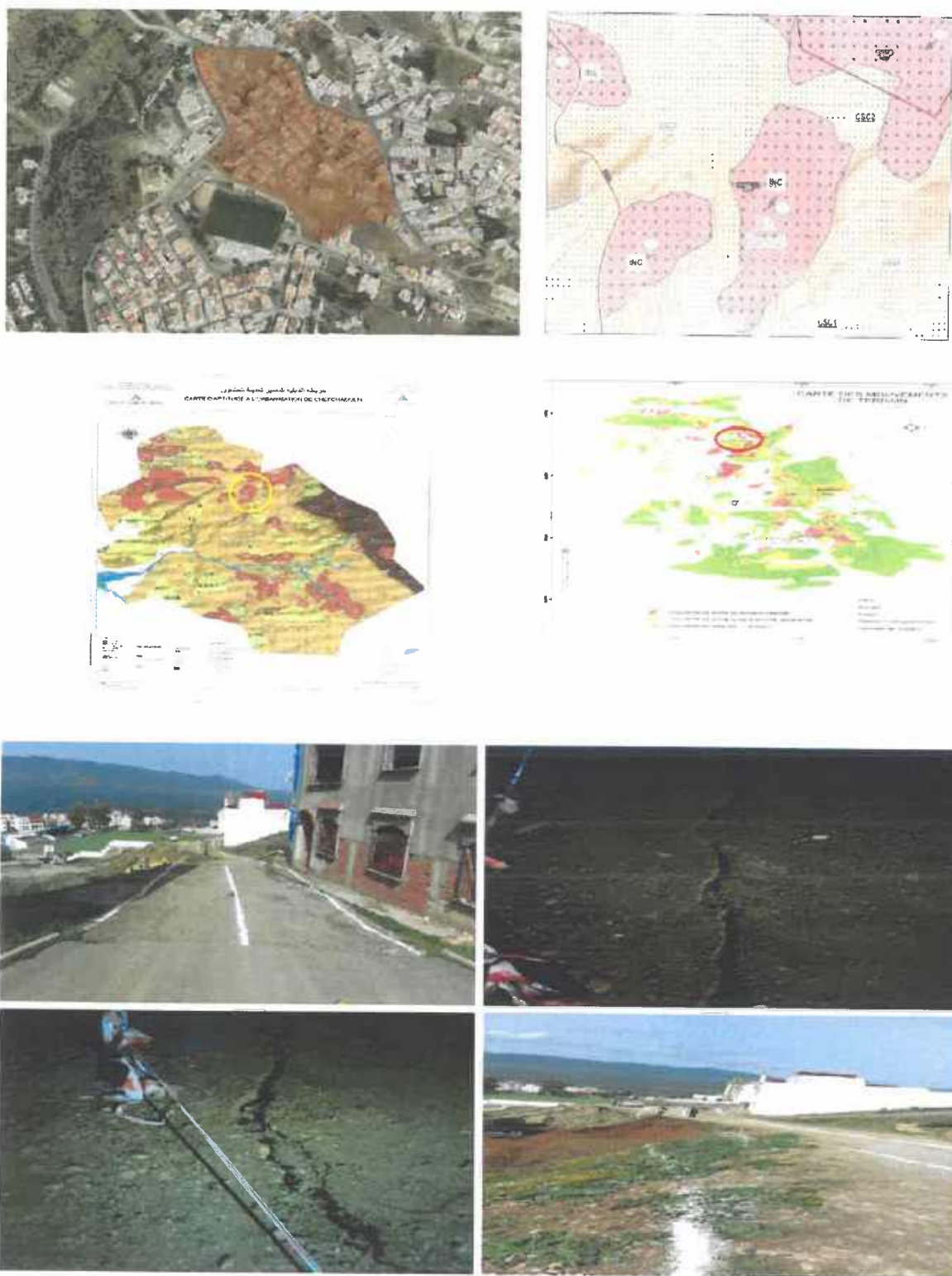


Fig 7. Area at risk of landslides in the commune of Chefchaouen (Ain Haouzi neighborhood)

➤ **Province of Al Hoceima**

The province of Al Hoceima is located in the extreme north of Morocco and covers an area of 3550Km². It is bordered to the west by the province of Chefchaouen, to the north by the Mediterranean Sea, to the east by the province of Driouch and to the south by the provinces of Taza and Taounate. By its location in the center of the Rif Mountain range, the province of Al Hoceima is characterized by a Mediterranean climate, the amount of rainfall varies between 300mm and 1000mm, as for the temperature, it varies between 10 ° C and 30 °C.

According to the latest administrative division, the province of Al Hoceima consists of 5 communes (Al Hoceima, Bni Bouayach, Imzouren, Targuist and Ajdir) and 4 circles comprising 17 caïdats and 31 rural communes. The population of the province of Al Hoceima was established in 2014 at 399654 inhabitants or about 11.2% of the total population of the region Tanger-Tetouan-Al Hoceima and 1.2% of the national population (RGPH, 2014). This population grew at an average annual rate of 0.1% during the intercensal period 2004-2014 and the provincial urbanization rate was 34.4%.

Climate change affects this province and particularly the commune of Al Hoceima. Indeed, the multi-criteria analysis (Annex 2) in the TTA region shows that this commune is highly exposed to risks related to climate change, including drought, landslides and heat and cold waves. In addition, it is characterized by a very large number of households and a very high building density.



Fig 8. Area at risk of landslides in the commune of Al Hoceima (Tassendayt neighborhood)



Fig 9. Area at risk of landslides in the commune of Al Hoceima (Achaouen neighborhood)



Fig 10. Area at risk of landslides in the commune of Al Hoceima (Sidi Mansour neighborhood)

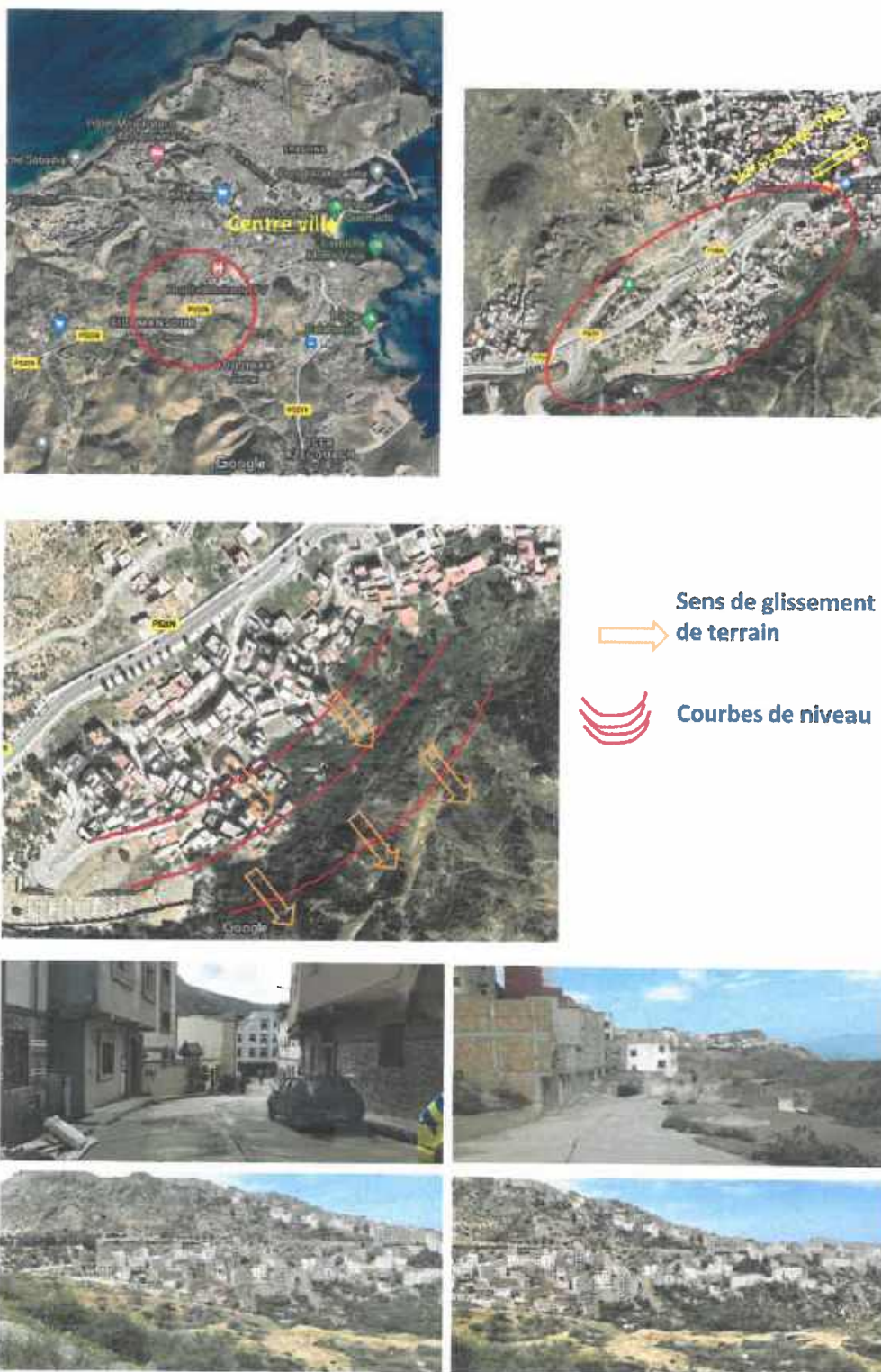


Fig 11. Area at risk of landslides in the commune of Al Hoceima (Derrière Al Qods neighborhood)

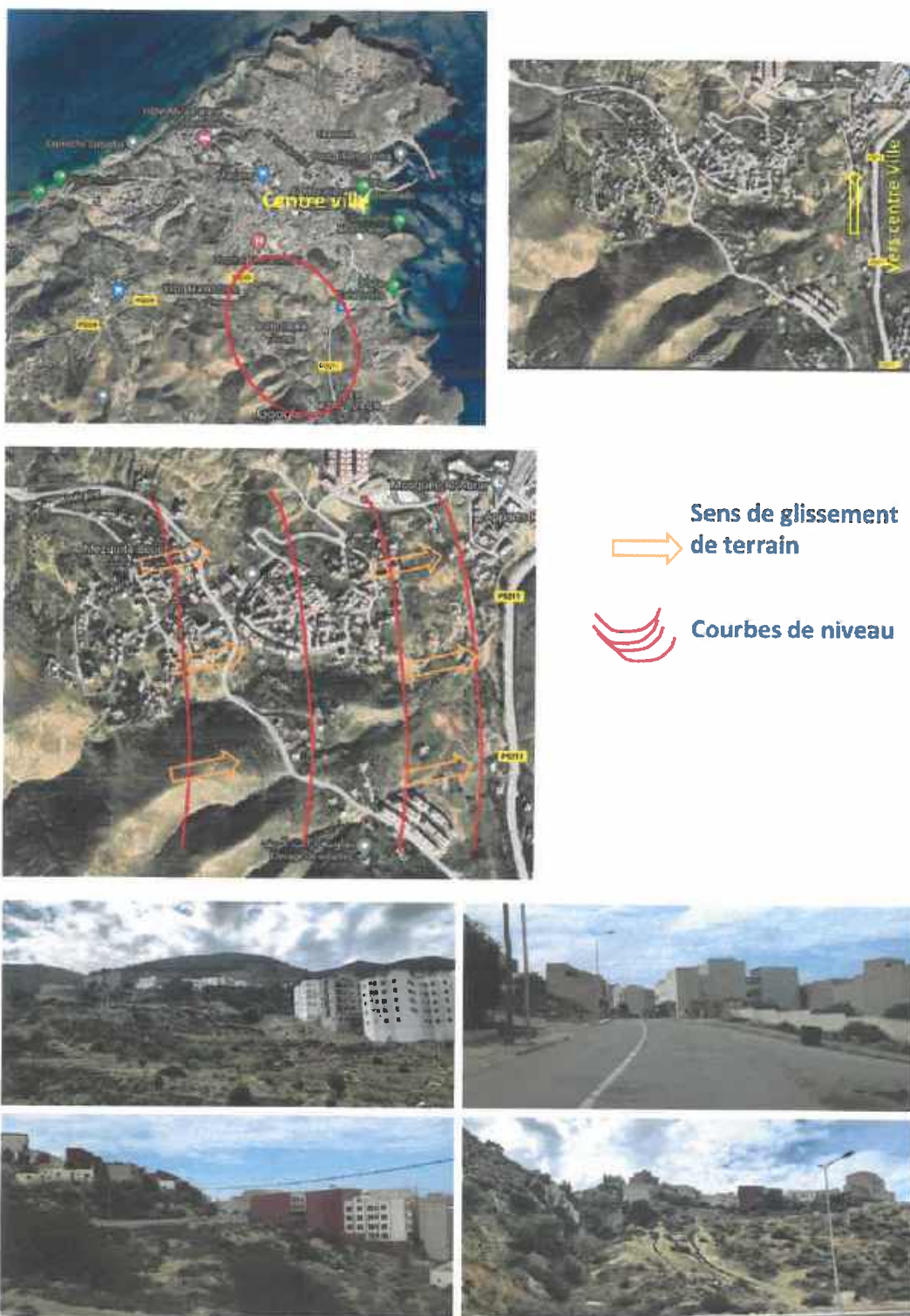


Fig 12. Area at risk of landslides in the commune of Al Hoceima (Boujibar neighborhood)

Project/Programme Objectives:

Given the above context, the proposed Adaptation Fund (AF) project aims to strengthen the resilience of the housing sector to climate change throughout the Tangier-Tetouan-Al Hoceima region. Indeed, it is a highly vulnerable region and exposed to the risks related to climate change. These risks are generated by the concomitant conditions of high vulnerabilities and intense hazards with a high probability of occurrence. A preliminary study carried out by the Ministry⁶ in this region revealed that several climatic and hydrometeorological hazards threaten the region, in particular river floods, marine submersion, cold and heat waves, drought, landslide. A two-level priority action plan should therefore be implemented. The first will be conducted at the level of municipalities threatened by the adverse effects of climate change in order to implement appropriate and innovative measures in order to strengthen the resilience of the housing sector and its inhabitants. The second level will consider the regional level. In this sense, it is a question of capitalizing on the experience carried out at the level of priority municipalities and of formulating an awareness-raising and implementation program.

This objective will be achieved by:

1. Strengthening urban resilience to climate change in vulnerable residential neighborhoods in the Tangier-Tetouan-Al Hoceima region
2. Awareness, communication and capacity building
3. Monitoring, evaluation and capitalization of experience in adaptation

⁶ Ministère de l'Energie, des mines et de l'Environnement (2020), Elaboration d'un Plan Climat Territorial (PCT) pour la région de Tanger-Tétouan-Al Hoceima

Project/Programme Components and Financing:

The proposed project will strengthen urban climate resilience by working with various levels of government and stakeholders and ensuring strong participation, in particular, of the most marginalized and vulnerable groups, in all its phases – from conception to operations, and evaluation. The main activities will take place in the communes of Tetouan, Chechaouen and Al Hoceima which are highly vulnerable to climate change. These communes were selected in coordination with the national and local authorities with participation of local communities, according to the following criteria: exposure to climatic hazards, total number of households, multidimensional poverty rate and building density (see annex 2).

The project components and financing are related to the table below:

Table 1: Project components and financing

Project/Programme Components	Expected Outcomes	Expected Outputs	Amount (US\$)
1. Strengthening urban resilience to climate change in vulnerable residential neighborhoods	1.1 Strengthened urban resilience in vulnerable residential neighborhoods	<p>1.1.1 Urban analysis, identification and prioritization of residential neighborhoods are realized, basing on vulnerability diagnosis and risk assessment related to CC at communal level.</p> <p>1.1.2 Buildings resilience is reinforced in response to flood, landslides, in vulnerable neighborhoods in the three communes.</p> <p>1.1.3 Integrated Nature based Solutions (NbS) to reduce run-off and adapt to increasing riverine floods and altered rain patterns are developed and implemented in the three communes, in collaboration with local stakeholders.</p> <p>1.1.4 Integrated Nature based Solutions (NbS) to reinforce soil stability and reduce landslide are developed and implemented in the three communes, in collaboration with local stakeholders.</p>	6,210,000,00
2. Awareness, communication, and capacity building	2.1 Stakeholders are fully informed and have strengthened capacity to cope with climate change risks	<p>2.1.1 Climate change resilient residential neighborhood reference framework is developed.</p> <p>2.1.2 Climate change awareness materials for different targets are developed.</p> <p>2.1.3 A technical and financial guide for implementing NbS at neighborhood level is developed.</p> <p>2.1.4 Workshops are organized for community groups and government officials on NbS implementation at neighborhood level.</p> <p>2.1.5 Training sessions are organized for community groups and government officials on NbS implementation at neighborhood level.</p> <p>2.1.6 Field visits are organized for community groups and government officials on housing sector adaptation actions.</p> <p>2.1.7 A strategic communication plan is developed.</p>	1,200,000,00
3. Monitoring, evaluation, and capitalization of	3.1 Enhanced knowledge management and sharing of information for increased climate	<p>3.1.1 Climate change knowledge management database is created for the housing sector.</p> <p>3.1.2 Project activities and results are captured and disseminated through</p>	950,000,00

experience in adaptation	resilience in Morocco's neighborhoods	appropriate information for the beneficiaries, partners and stakeholders and the public in general. 3.1.3 An Adaptation monitoring and evaluation system is developed.	
4. Total component			8 360 000,00
5. Project Execution cost			844,830,00
6. Total Project Cost			9 133 300,00
7. Project Cycle Management Fee charged by the Implementing Entity (if applicable)			776 330,00
Amount of Financing Requested			9 981;160 00

Projected Calendar:

Table 2: Main milestones for the project

Milestones	Expected Dates
Start of Project/Programme Implementation	March 2025
Mid-term Review (if planned)	June 2026
Project/Programme Closing	September 2027
Terminal Evaluation	December 2027

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project/programme components

The three municipalities selected for this project are highly exposed to risks related to climate change. They are subject to several climatic hazards, such as floods, landslides, marine submersions, and forest fires. In particular, the building sector is one of the sectors highly exposed to climate change and is expected to face multiple impacts related to the gradual variability of climatic conditions (increased precipitation, rising temperatures, etc.). This sector is also confronted with extreme weather events and climate hazards that have become increasingly frequent and intense in recent years. These extremes and climatic hazards, such as droughts, floods, heat waves, landslides, etc., have a significant impact and cause considerable damage to the construction sector. These municipalities also have socio-economic characteristics with low adaptive capacity, such as the number of households, the poverty rate and the population density.

Based on this observation, it becomes necessary to act at the level of these localities in order to protect them against the harmful effects of climatic hazards. To achieve the objective of the project, "Strengthening the resilience of the housing sector to climate change in the Tangier-Tetouan-Al Hoceima region", the project is based on a comprehensive and participatory approach combining capacity building of local actors, the use of nature-based solutions and communication and awareness of local communities.

The actions proposed under this project have been designed to target the poorest and most vulnerable neighborhoods in one of the most vulnerable regions of Morocco to climate change. To achieve this, an interdependent set of soft and hard measures has been proposed to ensure sustainable resilience building at the household and community level. The soft measures focus on increasing community capacity and the capacity of officials and institutional systems at the sub-national level. All capacity building activities are designed to support, enhance and sustain the "hard" investments that will be made by the project. Such an approach is also consistent with Morocco's nationally determined contribution to "promote and enhance community adaptive capacity, including through community-based adaptation actions (...) and to "strengthen technical and institutional capacities (...) and integration of climate change into sectoral and sub-sectoral development plans."

The heavy investments made by the project will concern all the infrastructure and ecosystems for protection and small-scale basic services. These investments have been fully identified and costed and have been subject to a full environmental and social safeguard compliance analysis. They are presented briefly below and in full in Appendix 3.

The specific needs of women, people with disabilities, and youth will be taken into account at all stages of the project.

Extensive consultations were conducted during the formulation of the project proposal, with stakeholders and representative of the community (presidents of the three communes). More information and details are showed in Part II, Section H and in Annex 1, while implementation will use, to the extent possible, the grassroots process, where community groups are trained and supported at all stages of the project and through which communities participate in project implementation and monitoring. At the community level,

women will have a decisive interest in the implementation of the project. They will contribute equally to their work at the community level and will be encouraged to participate in physical labor.

The project supports concrete adaptation and resilience actions throughout its three components by:

Component 1. Strengthening urban resilience to climate change in vulnerable neighborhoods in the Tangier-Tetouan-Al Hoceima region

In line with AF outcome 1, this component will focus on developing concrete actions to increase the resilience of the most vulnerable neighborhoods in the three communes selected for this project, through:

- 1.1.1 Urban analysis, identification and prioritization of residential neighborhoods are realized, basing on vulnerability diagnosis and risk assessment related to CC at communal level.
- 1.1.2 Buildings resilience is reinforced in response to flood, landslides, in vulnerable neighborhoods in the three communes.
- 1.1.3 Integrated Nature based Solutions (NbS) to reduce run-off and adapt to increasing riverine floods and altered rain patterns are developed and implemented in the three communes, in collaboration with local stakeholders.
- 1.1.4 Integrated Nature based Solutions (NbS) to reinforce soil stability and reduce landslide are developed and implemented in the three communes, in collaboration with local stakeholders.

The assessment of vulnerability and risks related to climate change will be essential for this component and will allow to know the degree of vulnerability of the neighborhoods in the three selected communes. The prioritization of neighborhoods will be based on the results of this assessment.

In other words, this component will allow local authorities, communities and households to identify the most vulnerable neighborhoods and infrastructures exposed to risks related to climate change, as well as to prioritize adaptation actions to protect these areas.

Based on the assessment of vulnerability diagnosis and risks assessment related to climate change, the project will implement concrete actions to strengthen the resilience of the most vulnerable buildings to climate change.

Strengthening urban resilience to climate change in vulnerable residential neighborhoods will be achieved through the integration of nature-based solutions (NBS). These are actions based on ecosystems to combat climate change. Indeed, nature-based solutions (NBS) are ecosystem management approaches that aim to solve environmental problems, build resilience to climate change, and promote sustainable development by drawing on the characteristics and processes of nature. These solutions capitalize on the ecosystem services provided by nature to achieve specific objectives. For this purpose, they will help to reduce run-off and adapt to increased river flooding and changing rainfall patterns. The development and implementation of these actions in the three communes will be carried out in close collaboration with local stakeholders.

In addition, a climate change resilient neighborhood framework will be developed that can be used for the implementation of adaptation plans in other localities.

Component 2. Awareness, communication, and capacity building

In line with AF outcomes 2 and 3, this component aims to raise awareness among local communities, as well as local and national authorities on the risks related to climate change in the housing sector and the necessary adaptation measures. It also concerns communication and capacity building of the actors concerned by the project, through:

- 2.1.1 Climate change resilient residential neighborhood reference framework is developed.
- 2.1.2 Climate change awareness materials for different targets are developed.
- 2.1.3 A technical and financial guide for implementing NbS at neighborhood level is developed.
- 2.1.4 Workshops are organized for community groups and government officials on NbS implementation at neighborhood level.
- 2.1.5 Training sessions are organized for community groups and government officials on NbS implementation at neighborhood level.
- 2.1.6 Field visits are organized for community groups and government officials on housing sector adaptation actions.
- 2.1.7 A strategic communication plan is developed.

Capacity building of national, regional and local actors will be achieved through the organization of workshops, field visits and training by developing awareness materials for each of the target groups of actors.

The development of a technical and financial guide focused on the implementation of adaptation measures and the strengthening of the resilience of the housing sector, will allow the various actors to better target their investments and thus target priority actions for adaptation to climate change.

Communication is an essential element for disseminating information about the project and ensuring appropriation of the adaptation actions proposed for the resilience of communities to climate change and the strengthening of the capacities of actors. To this end, a strategic communication plan will be developed to facilitate the sensitization of local communities and local and national authorities on the risks related to climate change in the housing sector and the adaptation measures necessary for its resilience.

Component 3. Monitoring, evaluation, and capitalization of experience in adaptation

In line with the FA guidelines, this component will ensure that the project is fully transparent and all stakeholders are informed of the project's outputs and outcomes, as well as have access to replicable adaptation experiences, through:

- 3.1.1 Climate change knowledge management database is created for the housing sector.
- 3.1.2 Project activities and results are captured and disseminated through appropriate information for the beneficiaries, partners and stakeholders and the public in general.
- 3.1.3 An Adaptation monitoring and evaluation system is developed.

The monitoring and evaluation (M&E) system is an indispensable tool when it comes to implementing a climate change adaptation project. Indeed, the adoption of CC adaptation measures only makes sense with M&E activities that will make it possible to ensure that the activities defined in the framework of the project are carried out, to assess the results obtained and to act at the appropriate time to make the necessary improvements and amendments. Indeed, the implementation stage of this project requires the cooperation of

a multitude of participating actors at several levels, particularly for the provision of human, financial and material resources, the respect of deadlines, etc.

Monitoring will be done through indicators to measure the progress of the project. These indicators must be SMART (Specific, Measurable, Acceptable, Realistic and Timely) and therefore carefully chosen. They may be intended to assess the impacts on the vulnerability of the housing sector, as well as social or economic indicators to ensure a consistent monitoring system that will make it possible to assess the efficiency of the project as a whole, while ensuring a management mode that promotes continuous improvement and the achievement of the co-benefits of sustainable development (economic, social and environmental).

Those responsible for implementing the M&E system will also be designated, along with an identification of the procedure for obtaining data in order to ensure their reliability and quality, as well as the definition of the modalities for disseminating the data once processed to the relevant actors.

The development of this monitoring and evaluation system will be preceded by the creation of a knowledge management database on climate change for the Habitat sector. In addition, this component will focus on capitalizing on experiences in adapting the Habitat sector to climate change. The lessons that will be drawn from these different experiences will be of great use and will make it possible to formulate recommendations for the effective implementation of adaptation actions.

B. Economic, social and environmental benefits

The target communes of this project are highly exposed to climate change risks. In order to address this situation, this project aims to make the most vulnerable groups, including women and youth, more resilient and potentially avoid the negative environmental and socio-economic impacts of climate change. During the development of the project, a participatory approach will be adopted to identify specific needs and possible concerns related to the proposed interventions. Participatory assessment, planning and decision-making processes adopted during project preparation and implementation would help to avoid/mitigate potential negative impacts.

Table 3: Economic, Social and Environmental benefits

Type of benefits	Baseline	With/after project
Economic	<ul style="list-style-type: none"> • Regular floods and landslides result in livelihood and economic and household losses and loss of community infrastructure and livelihood options • Informal urban settlements are fast growing, high density, lack basic and resilient infrastructure and inhabitants have limited livelihood options 	<ul style="list-style-type: none"> • Reduction in economic and household losses because institutions, communities and physical and natural assets, ecosystems and livelihoods are more resilient • Reduction in household losses of urban poor communities because of resilience building activity. • New climate resilient infrastructure and services contributes to economic benefits.
Social	<ul style="list-style-type: none"> • Lacking knowledge about climate related risks (e.g. floods, landslides,) and resilient construction methods result in 	<ul style="list-style-type: none"> • Increased risk awareness, improved knowledge on climate change impacts and resilient infrastructure construction and

	<p>limited autonomous adaptation measures.</p> <ul style="list-style-type: none"> • Extreme events such as floods, and landslides can increasingly be considered as co-drivers of poverty and compound social problems such as, disease, sanitation, food security issues, community safety issues etc • Damage to infrastructure and property resulting of flooding have a disproportional impact on the most vulnerable communities. 	<p>maintenance enhances capabilities to undertake autonomous adaptation actions.</p> <ul style="list-style-type: none"> • A planning approach sensitive to marginalized and vulnerable groups, indigenous peoples and gender will ensure equal access to resilient infrastructure.
Environmental	<ul style="list-style-type: none"> • Urban development increasingly leads to environmental degradation, land losses, increased waste production and energy use • Rapid urban development increasingly leads to environmental degradation, land losses, increased flood and heat risks, increased waste production and energy use 	<ul style="list-style-type: none"> • Reduction in climate-induced environmental degradation and losses and improved planning and preparation for disasters. • Promotion of ecosystem-based adaptation in the urban environment, leading to environmental benefits.

In addition, a consultative process (see "Consultative Process" section) was already adopted during project preparation that included various stakeholders to identify the communes that are most exposed to the risks of climate change.

By implementing a combination of risk and vulnerability reduction measures for institutions, communities, and assets, particularly in vulnerable/poor urban areas, this project is expected to reduce climate-related economic, household, and livelihood losses, reduce the vulnerability of women, indigenous people, people with disabilities, and youth, and reduce environmental degradation.

As communities, and particularly vulnerable groups, will be involved throughout the project, they will have the opportunity to directly influence project activities and outcomes, thereby influencing their direct benefits from the project. The proposed actions will be adapted to the local impacts of floods and landslides, but also to the strengthening of adaptive capacities.

Training and awareness activities will introduce new knowledge that will aim to stimulate behavior change. For the local environment, this will mean a reduction in the degrading impact of human activity as well as the possibility to promote new construction, innovative and more resilient.

The project will mainly concern the three target municipalities. However, it will specifically target a number of the most vulnerable neighborhoods in these communes. Furthermore, the adaptation measures that will be proposed will benefit all inhabitants and thus, the specific needs of women and youth will be particularly considered.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme.

The project aims to strengthen the resilience of the housing sector to climate change in the region Tanger-Tetouan-Al Hoceima. This is achieved through capacity building of stakeholders and the implementation of concrete adaptation actions to make communes resilient to climate change. Climate hazards, particularly floods and landslides, cause economic losses and losses to households due to the destruction of infrastructure. This means that no action (business as usual) will result in progressively higher costs over time related to flood and landslide losses, as well as health-related costs, particularly in informal urban settlements.

Therefore, this project aims to identify the most exposed neighborhoods and propose concrete and effective measures to reduce the impacts of climate hazards. The interventions proposed in this project will help reduce these future costs.

Overall, the project aims to be cost-effective:

Avoiding future costs of climate change impacts and ensuring sustainability of interventions.

Efficient project operations

Community involvement/distribution

Selecting technical options based on nature-based solutions, cost, feasibility and resilience/sustainability criteria.

Cost-effective project operations

UN-Habitat works in a very efficient way to make the project operations cost-effective. Indeed, it conducts technical assistance, capacity building, and design primarily internally; in other words, UN-Habitat eliminates intermediaries (e.g., consulting firms) and works directly with local government partners (thereby building their capacity while reducing costs). In addition, its strategy strongly involves the community, thus significantly reducing costs. This is relevant to all components of the project.

Cost-effectiveness through community contributions

The project will be implemented in close collaboration with local communities and government institutions. This partnership model will result in significant cost savings as communities and local partners will provide significant in-kind and cash support. For example, communities will provide in-kind contributions by participating in infrastructure development. In addition, the community could benefit from capacity building and the recruitment of semi-skilled and skilled workers.

D. Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

This project is perfectly aligned with several commitments taken by Morocco for the fight against climate change in the habitat sector, namely:

1. Commitments taken by Morocco for the habitat sector in the framework of the NSSD

The habitat sector is one of the sectors targeted by the NSSD in the framework of its strategic axis 11 which encourages the integration of sustainability in urban development strategies in order to ensure social cohesion, urban planning and pollution control as well as the implementation of ecological construction practices for new buildings and at the level of renovation or rehabilitation of existing buildings. This involves constructing buildings that optimize non-renewable resources and improve their energy and environmental performance throughout their life cycle by favouring a more economical use of resources, particularly in terms of energy consumption, water and waste production.

2. Commitments taken for the habitat sector in the framework of the Sustainable Development Goals

Among the 17 Sustainable Development Goals, the SDG n°13 is dedicated to the fight climate change.

To strengthen the global response to the threat of climate change, at COP21, countries have adopted the Paris Agreement, which entered into force in November 2016. In this Agreement, all countries agreed to limit the temperature increase to no more than 2 Celsius by the end of the 21st century. The implementation of the Paris Agreement is critical to achieving the Sustainable Development Goals and provides a roadmap for climate action that will reduce emissions and build climate resilience. Morocco, like any other country adhering to this agreement, commits, in conjunction with the habitat sector, to:

Build resilience and adaptive capacity to climate-related hazards and natural disasters.

Incorporate climate change measures into national policies, strategies and planning, including urban planning.

Improve education, awareness, and individual and institutional capacity for climate change adaptation, mitigation and impact reduction, and early warning systems.

3. Commitments taken by Morocco for the habitat sector in the framework of the National Adaptation Plan (NAP)

The habitat sector in Morocco is called upon to face its vulnerability, to strengthen its resilience and its adaptive capacity to the impacts of climate change. One of the particularities of adaptation in the building sector lies in the fact that the measures taken to adapt are often valid for mitigating GHG emissions (e.g., building insulation that mitigates the impacts of heat waves or cold waves, while also reducing energy demand and GHG emissions).

In order to strengthen adaptation to climate change in the Habitat sector, the NAP includes a number of measures, divided into the following areas

A1: Strengthen the consideration of climate change in the Habitat sector

A2: Develop a better resilience of "urban areas at risk" to climate hazards

3. Commitments taken by Morocco for the habitat sector in the framework of NDC

Morocco's NDC was updated through a participatory approach. It worths mentioning that Morocco has committed, just before the COP 22, in Marrakech in 2016, to reduce its GHG emissions, by 2030, by 42%, whose unconditional target is 17%. The new updated NDC includes a GHG reduction target of 45.5% of which 18% is unconditional. The updated NDC contains 67 projects focused on seven sectors, including the land use and housing sector.

4. Commitments taken by Morocco for the habitat sector in the framework of SENDAI

The Sendai Framework for Action on disaster risk reduction includes several actions that

concern the habitat and building sector. Therefore, the fourth priority, related to strengthening disaster preparedness to respond efficiently and to " build back better " during the recovery, rehabilitation, and reconstruction phase, also addresses disaster risk reduction measures that the habitat sector engages in, namely:

Promote the integration of risk reduction measures into post-disaster recovery and rehabilitation programs, better link the activities of rescue, rehabilitation and development, take advantage of opportunities during the recovery phase to build capacity to reduce disaster risk in the short, medium and long term, namely including measures for land-use planning, improvement of structural standards and exchange of technical expertise, knowledge and data from post-disaster assessments and experience, and to integrate post-disaster reconstruction into the sustainable economic and social development of affected areas. This should also apply to temporary facilities that welcome people displaced by a disaster.

Provide guidance on post-disaster reconstruction preparedness, namely including land-use planning programs and improvement of structural standards, inspired by the recovery and rebuilding programs carried out in the decade following the adoption of the Hyogo Framework of Action, and sharing of experiences, knowledge and lessons learned.

5. Morocco's Commitments to the UN Habitat Agenda

Morocco was elected to the UN-Habitat Executive Council in 2019 and re-elected for a 2nd term in 2023. In 2021, UN-Habitat opened its national office in Morocco in partnership with MHATNUHPV and signed its country program for the period (2020-2023). Morocco is committed to the 2030 Agenda (voluntary national report presented in 2016 and 2020) and the New Urban Agenda (1st voluntary national report in 2022).

The Third United Nations Conference on Housing and Sustainable Urban Development (Habitat III) held in Quito, Ecuador, in October 2016 was marked by the presence of a Moroccan delegation led by the MATNUHPV, the Al Omrane Group and the Ministry of Interior in order to present the strategic framework as well as the means implemented to respond to the challenges of urbanization in Morocco as well as the future needs.

Indeed, Morocco has been involved in the UN-Habitat through an investment of a total value of 353 489 US\$ and which was extended over the period (2008-2013). This investment was for a project that focused on housing and slum upgrading, in line with the local government's Cities Without Slums program. The main donor of the project is the Al Omrane Group Morocco. Morocco has been involved in UN-Habitat through an investment of a total value of US\$ 353,489 and which was spread over the period (2008-2013).

6. Morocco's commitments as a member of the Global Alliance for Building and Construction (GABC)

The MATNUHPV is a member of the GABC launched in December 2015 on the occasion of the COP21 and supported by the United Nations Environment Program (UNEP). Indeed, the GABC aims to promote the emergence of a low-carbon and climate change resilient building sector through the sharing of experiences and strengthening cooperation between the different actors of the construction sector at the global level.

7. Commitments taken by Morocco for the habitat sector within the framework of the National Plan to Combat Global Warming

The habitat sector is one of the sectors targeted by the National Plan to Combat Global Warming, both for the mitigation and adaptation components.

In terms of adaptation, the Ministry of National Land Use Planning, Urbanism, Habitat and

Urban Policy (MATNUHPV) adopts a bottom-up territorial approach based on the participation, awareness and training of actors. Several adaptation actions are carried out by considering sustainable development as a vector of social and spatial solidarity, in a concerted manner with several other Ministries, among these actions, we can mention:

- Accelerating the national program "cities without slums" to improve the habitat conditions of the populations concerned, to face the increasing frequency of floods,
- Implementing rehousing programs for populations whose homes are located in sites at major risk and threatened by flooding,
- Implementing a rehabilitation program for ksours, kasbahs and medinas threatened by the intensity of the rains,
- Draft law on the urban planning code integrating sustainability, protection of natural areas and flood risk prevention in the master plans of agglomerations and in the communal development plans,
- Development in new cities of rainwater harvesting systems, and on-site wastewater treatment and reuse systems.

E. Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

The project meets all relevant national technical standards, such as national standards for Environnement assessment, national building code and complies with Environmental and social policy.

Economic, social and environmental benefits

In order to address the situation in the target areas, this project aims to make the most vulnerable groups, including women and youth, more resilient and potentially avoid the negative environmental and socio-economic impacts of climate change. During the development of the project, a participatory approach will be adopted to identify specific needs and possible concerns related to the proposed interventions. Participatory assessment, planning and decision-making processes adopted during project preparation and implementation would help to avoid/mitigate potential negative impacts.

Compliance to national technical standards

The project will fully align with national technical standards, including standards for environmental and social impacts, building code, etc. Indeed, an assessment of environmental and social impact of the proposed interventions will be done during the project. Furthermore, during the concept note development phase, compliance procedures and information about authorizing offices will be elaborated upon.

F. Describe if there is duplication of project/programme with other funding sources, if any.

Not applicable

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

The capture and dissemination of knowledge learned in this project has been given great importance. Indeed, in addition to Component 3 which is also dedicated to knowledge management, the other components of the project contribute directly to knowledge management mechanisms and dissemination of lessons learned at local, national and international levels. Through these knowledge management mechanisms, practical experiences in the field will be capitalized and shared widely with the larger public and can be used in policy making.

The participatory approach adopted at the local level, through workshops, field visits and trainings, will not only increase the knowledge of local communities in planning and implementing resilience actions, but also allow them to take ownership of the project and maintain the infrastructure that will be put in place. Involving local communities in the implementation of the project would also contribute to the dissemination and sharing of information, as well as to the training of these communities.

The development of a strategic communication plan will be an effective tool for disseminating learning at the regional and national levels. Indeed, knowledge on assessment of vulnerability and risks related to climate change, as well as on adaptation, will be consolidated in manuals that will be accessible to project managers. These manuals will allow for a broad sharing of lessons learned in the development and implementation of the project throughout the country. A resilient neighborhood repository will also be developed and will remain available for replication at the regional and national levels.

At the international level, the UN-Habitat website will be a tool for disseminating the knowledge generated by this project.

The knowledge management strategy will be developed during the elaboration of the strategic communication plan, in which the objectives and corresponding targets will be made explicit, as well as the strategies to guarantee the sustainability of the process. At this level, the means and tools, including media, social networks, documentaries, etc., to capture and disseminate the knowledge acquired as a direct result of the project interventions will also be described.

In addition, in order to ensure sustainability of knowledge management, a climate change knowledge management database for the Habitat sector will be created during this project. This database will be developed in a collaborative manner to ensure continued ownership after project implementation.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

In order to select the priority areas to be considered in the AF project, a participatory workshop was organized. This workshop was attended by representatives of all institutions and actors involved in climate change adaptation. Furthermore, consultations will be held with National and local governments, UN agencies, NGO's, local communities, and vulnerable groups and other relevant stakeholders in order to identify vulnerabilities and risks related to climate change, needs and priorities, for the concept note stage. Furthermore, several meeting were organized with regional council and presidents of the

communes to discuss the projects contents and take into account different suggestions.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

The proposed project's components, outcomes, and outputs are fully aligned with national and local government/institutional priorities, with the needs identified at the commune and vulnerable group levels, and with the outcomes of the Adaptation Fund (see Part II, Section A), as outlined in the Adaptation Fund's results framework. This alignment has allowed for the design of a comprehensive approach in which the different components are mutually reinforcing and in which the outcomes and activities are intended to address the gaps identified in Morocco's current response to climate change. This project aims to maximize funding for component 1. Allocation of funds to Components 2 and 3 is necessary for complementarity/support of Component 1 and sustainability and quality assurance of the project. The table below justifies the requested funding, focusing on the total cost of adaptation by showing the impact of FA funding versus no funding (baseline) versus the expected project outcomes.

Table 4: Overview of impact of AF funding compared to no funding (baseline) related to expected project outcomes

Outcomes	Baseline (without AF)	Additional (with AF)	Comment and alternative adaptation scenario's
Outcome 1.1. Strengthened urban resilience in vulnerable neighborhoods	Target communities have limited understanding about the tool to analyze and identify climate change vulnerabilities and disaster risks at the local level	Target communities will have used tools to identify climate change vulnerabilities and disaster risks at the local level	Data and information on the vulnerability of target communities are essential for the implementation of effective and appropriate adaptation policies.
Outcome 2.1. Stakeholders are fully informed and sensitized about the project and have strengthened capacity	Target communities have limited understanding of local climate change vulnerabilities and disaster risks and have no strategies in place to address these	Target communities have been fully involved in identify climate change vulnerabilities and disaster risks and developing strategies to address these	For better support of adaptation policies and ownership of proposed measures and actions, stakeholders need to be fully involved, but also have good capacities.
Outcome 3.1. Project implementation is fully transparent. All stakeholders are informed of products and results of the project and have access to these for replication	Few knowledge management and advocacy system is in place to ensure the project is fully transparent and lessons are recorded	The knowledge management and advocacy system in place will ensure the project is fully transparent and lessons are recorded	Transparency in the implementation of an adaptation policy is a very important aspect for the ownership of the project. The sharing of lessons learned from the project remains very important for possible use in other similar projects.

J. Sustainability

Institutional sustainability

The project will pave the way for the national government and local authorities to support and expand the project to other neighborhoods and communes through the governance framework, processes and tools provided. Implementation units will be designated at the communal level to implement the project in order to ensure that the project results are well anchored in the local government institutional framework. The project will be implemented with the effective involvement of civil society. In addition, trainings will be organized to build the capacity of the governments involved and best practices and lessons learned from all component results will be shared at the national and sub-national levels.

Social sustainability

By fully involving informal settlement households in project activities, including assessments, plan/strategy development, and monitoring, the project aims to achieve sustainable household awareness and capacity. In addition, the increased resilience of homes and infrastructure at the community level will reduce community vulnerabilities, also in the long term. In addition, households will benefit from trainings and awareness for building and maintaining resilient homes (and other infrastructure) and improving their livelihoods in a sustainable and resilient manner. The project directly addresses the needs of the most vulnerable communities and will help to reduce imbalances in social dynamics with regard to vulnerability to climate impacts.

Economic sustainability

Investing in 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. The city-level and community level plans will include economic opportunities, as well as that resilience building opportunities, including economic benefits of resilience, which can be integrated in national plans and policies.

Environmental Sustainability

The implementation of measures to strengthen the resilience of communes will also consider the environment, such as protecting ecosystems or reducing waste production. This project can also be replicated in other municipalities to make them more resilient to climate change.

Financial sustainability

Some efforts have been made in terms of housing sector resilience at the national level and particularly in the TTA region, however investments in the sector remain insufficient. The project will provide institutional and capacity building support that will enable the region to replicate resilience actions at the community level. In addition, at the community/household level, resilient infrastructure will be maintained in partnership with local utilities and communities/households. This will ensure that after the project, using appropriate pro-poor tariffs, established systems will be maintained.

Technical sustainability

The project will be implemented in partnership with communities and public utilities. Capacity building of the communities and local government institutions through trainings for planning, construction and maintenance will ensure technical sustainability. Moreover, strategic partnership with local public utilities will ensure that the infrastructures established

are well maintained.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

The proposed project aims to be fully aligned with the Environmental and Social Policy (ESP) of the Adaptation Fund. To this end, studies have been carried out in order to evaluate environmental and social impacts of the project, and areas where steps will be taken and where further assessment is needed.

The activities of this project are analysis, planning, awareness and communication, and experience sharing. The project will ensure that beneficiary groups are equally represented and benefit equally from project activities. These activities have a low risk of negative environmental and social impacts and cannot be considered as Category A in the Adaptation Fund's impact classification. Indeed, this project proposes many activities, but on a small scale and very localized, and managed by communities to the extent possible, which have an interest in avoiding environmental and social impacts. This means that the potential for direct impacts is low and localized, that there may be few indirect impacts, and that transboundary impacts are very unlikely. Under these conditions, cumulative impacts are also unlikely.

This project has been designed to generate positive environmental, social, and economic impacts. The participatory approach adopted allows for the involvement of marginalized and vulnerable groups in the target communities and local authorities. The project activities were selected together by the communities and local authorities, ensuring that they are culturally appropriate and local.

Table 5: Overview of the environmental and social impacts and risks identified as being relevant to the project

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>	x	
<i>Access and Equity</i>		x
<i>Marginalized and Vulnerable Groups</i>		x
<i>Human Rights</i>		x
<i>Gender Equality and Women's Empowerment</i>		x
<i>Core Labour Rights</i>		x
<i>Indigenous Peoples</i>	x	

<i>Involuntary Resettlement</i>		x
<i>Protection of Natural Habitats</i>		x
<i>Conservation of Biological Diversity</i>		x
<i>Climate Change</i>	x	
<i>Pollution Prevention and Resource Efficiency</i>		x
<i>Public Health</i>		x
<i>Physical and Cultural Heritage</i>		x
<i>Lands and Soil Conservation</i>		x

PART III: IMPLEMENTATION ARRANGEMENTS

A. Project/programme alignment with the Results Framework of the Adaptation Fund

Table 6: Alignment of the project with results framework of adaptation fund

Project Objective	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
1. Strengthening urban resilience to climate change in vulnerable residential neighborhoods	Number of residential neighborhoods benefiting from climate resilience strengthening	Outcome 1: Reduced exposure to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	7,000,000,00
2. Awareness, communication, and capacity building	Number of residential neighborhoods involved in awareness-raising, communication, and capacity-building on climate change adaptation	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate induced socioeconomic and environmental losses Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	2.1 Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased 3.1 Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses 3.2 Percentage of targeted population applying appropriate adaptation responses	1,500,000,00
3. Monitoring, evaluation, and capitalization of experience in adaptation	Number of stakeholders involved in monitoring, evaluating and capitalizing of experience in adaptation	Outcome 7: Improved policies and regulations that promote and enforce resilience measures Outcome 8:	7. Climate change priorities are integrated into national development strategy 8. Innovative adaptation	1,000,000,00

		Support the development and diffusion of innovative adaptation practices, tools and technologies	practices are rolled out scaled up, encouraged and/or accelerated at regional, national and/or subnational level.	
Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
1.1 Strengthened urban resilience in vulnerable residential neighborhoods	Proportion of vulnerable residential neighborhoods with strengthened resilience	Output 1.1: Risk and vulnerability assessments conducted and updated	1.1. No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale) 1.2 No. of early warning systems (by scale) and no. of beneficiaries covered	5,000,000,00
2.1 Stakeholders are fully informed and have strengthened capacity to cope with climate change risks	Number of stakeholders informed and made aware of the project with their capacities strengthened Number of stakeholders integrating climate change awareness into institutional activities	Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender) 2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale) 3.1 No. of news outlets in the local press and media that have covered the topic 3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge 3.2.2 No. of tools and guidelines developed	2,000,000,00

		capture and disseminate knowledge and learning	(thematic, sectoral, institutional) and shared with relevant stakeholders	
3.1 Enhanced knowledge management and sharing of information for increased climate resilience in Morocco's neighborhoods	Number of stakeholders informed of project products and results Number of stakeholders reproducing project results	Output 7: Improved integration of climate-resilience strategies into country development plans Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	7.1. No. of policies introduced or adjusted to address climate change risks (by sector) 7.2. No. of targeted development strategies with incorporated climate change priorities enforced 8.1. No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated 8.2. No. of key findings on effective, efficient adaptation practices, products and technologies generated	2,500,000,00

¹ The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

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

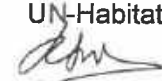
A. Record of endorsement on behalf of the government

<p>Mohammed BARAOUI Director of Climate and Biodiversity Department of Sustainable Development, Ministry of Energy Transition and Sustainable Development Avenue Araar, 420/1 Secteur 16, Hay Riad, Rabat. Morocco Tel: +212 6 62 63 44 73 Email: baraoui@environnement.gov.ma Alternate emails: baraoui.mohammed@gmail.com;</p>	<p>Date: (Month, day, year)</p> <p> Directeur du Climat et de la Diversité Biologique Mohammed BARAOUI</p>
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B. 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 Moroccan INDC, NAP, ... 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, Global Solutions Division
UN-Habitat



Signature

Date: September 27, 2024

Tel. and email: (+254) 20
7621234 raf.tuts@un.org

Project Contact Person: Soukaina Ait El Qadi

Tel. And Email: +212661967800 Soukaina.aitelqadi@un.org

⁶. 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.



Rabat, 12 JUL. 2023

003008

To : The Adaptation Fund Board
c/o : Adaptation Fund Board Secretariat
Email : secretariat@adaptation-fund.org
Fax : 202 522 3240/5

Subject: Endorsement for "Strengthening climate change resilience of urban residential Neighborhoods, case of the Tangier-Tetouan-Al Hoceima region" project.

We would like to refer to the project "Strengthening climate change resilience of urban residential neighborhoods. Case of the Tangier-Tetouan-Al Hoceima region" in Morocco, which is included in the funding proposal submitted by UN-Habitat.

In my capacity as the Adaptation Fund Focal Point for Morocco, we acknowledge having reviewed the proposal and would like to communicate our no-objection to the proposed project as included in the funding proposal.

By communicating our no-objection, we would like to clarify that:

- (a) The government of Morocco has no objection to the project as included in the funding proposal;
- (b) The project as included in the funding proposal is in conformity with Morocco's National Strategic Adaptation Plan;
- (c) The program as included in the funding proposal is in conformity with relevant national laws and regulations, in accordance with the AF's environmental and social safeguards.

We confirm that our national process for ascertaining no-objection to the project as included in the funding proposal has been duly completed. Additionally, we confirm that our no-objection applies to all activities to be implemented within the scope of the project.

We acknowledge that this letter will be made publicly available on the AF website. Please accept our kind regards.

M. Rachid FIRADI

Director of Partnership, Communication and Cooperation
Ministry of Energy Transition and Sustainable Development
Kingdom of Morocco

Directeur du Partenariat, de la
Communication et de la Coopération

Rachid FIRADI

Préfecture de la Province de Tétouan
Commune de Tétouan
Secrétariat particulière
S. P.



Président de la Commune de Tétouan

Au

Secrétariat du Conseil du Fonds d'Adaptation

Objet: Lettre d'expression d'intérêt et d'endossement pour le projet
« Renforcement de la résilience au changement climatique des zones urbaines et des
quartiers au Maroc- Cas du projet de la région de Tanger-Tétouan-Al Hoceïma ».

Je soussigné, le président de la commune de Tétouan confirme que ladite
commune adhère entièrement au projet de « Renforcement de la
résilience au changement climatique des zones urbaines et des
quartiers au Maroc- Cas du projet de la région de Tanger-Tétouan-Al
Hoceïma ». La commune croit que ce dernier contribuera significativement à
la réduction des dommages et pertes engendrés par les risques liés au
changement climatique et au renforcement de la résilience de la commune.

En conséquence, j'ai le plaisir d'exprimer notre grand intérêt et entière
adhésion au projet susmentionné. Si l'est approuvé, le projet sera mis en œuvre
par ONI-Habitat Maroc en étroite collaboration avec le Ministère de
l'Aménagement du Territoire National, de l'Urbanisme, de l'Habitat et de la
Politique de la Ville et la commune de Tétouan.

Le Président de la Commune de Tétouan

Signé: Mustapha El HACHIMI

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Annex

Annex 1.1: Consultation with stakeholders

MINUTES OF THE CONSULTATION WORKSHOP	
SUBJECT	DATE : 12/05/2022
Organization of a workshop on adapting the housing sector to climate change in the Tangier-Tetouan-Al Hoceima region	VENUE: Headquarters of the Chamber of Commerce, Industry and Services of the Tangier - Tetouan - Al Hoceima region
PARTICIPANTS <p>The workshop was attended by a number of executives and managers representing various structures, including:</p> <ul style="list-style-type: none"> - UN-HABITAT - Quality and Technical Affairs Department - Direction régionale de l'Habitat et de la Politique de la Ville- de la région Tanger-Tétouan-Al Hoceima - DGRN / MI - DRE/OREDD - DRHPV - DEGR Wilaya de Tanger - DRE / TTA - DPHPV of Chefchaouen - Tangier DRHPV - Regional Inspectorate of Urban Planning and Agriculture - Direction Régionale des Eaux et Forêts du Rif - Ministry of the Interior - DGRN / Ministry of the Interior - FSTT - AMEE - Regional Directorate of Equipment and Water - Regional Town Planning Inspectorate - Tétouan Urban Agency - DQAT / MATNVHPV - TTA Regional Council - Tetouan DRHPV - DRHPV of Larache - DPHPV of Al Hoceima - UN - Habitat - Vice-President of the Regional Council of Architects 	

- DRTE

A full list of workshop participants is attached.

CONTEXT & OBJECTIVES

The workshop was part of the efforts made by the Ministry of National Territory, Urban Planning, Housing and City Policy, in particular the Department of Housing and Urban Policy, to combat climate change. To this end, with technical and financial support from UN-Habitat, a concept note for a project to adapt the Habitat sector to climate change is currently being prepared. This concept note will be prepared using a participatory and highly concerted approach, and will be submitted to the Adaptation Fund.

In this context, the workshop aimed to :

- Present the results of the study on the adaptation plan for the housing sector in the Tangier-Tetouan-Al Hoceima region;
- Present the project to be submitted to the Adaptation Fund;
- Consult on the various components of the project.

BREAKDOWN

At the start of the workshop, Ms. Soraya KHALIL, Director of the Quality and Technical Affairs Department of the Ministry of National Territory, Urban Planning, Housing and City Policy, thanked the regional authorities and the Tangier-Tetouan-Al Hoceima Regional Housing and Urban Policy Department for their support in organizing this event. She then briefly outlined the objectives of the consultation workshop, before giving an overview of the main projects undertaken by Morocco in this field in general, and more specifically in the housing and construction sector.

The floor was then given to Soukaina AIT ELQADI, Programme Officer -UN-Habitat. She gave a brief account of the activities of this UN agency and the projects completed and/or underway in the MENA region and in Morocco. Particular attention was paid to those linked to strengthening urban resilience in the face of climate change. She then stressed the importance of the consultation workshop as a crucial step in the process of preparing the concept note to be submitted to the Adaptation Fund. A photo illustrating the general atmosphere of the workshop is shown below.



Figure 1: Photo illustrating the workshop process

Following these two presentations, the floor was given to Mr. Hicham EZZINE, consultant in the field of climate change and disaster risk. An initial presentation was given on the vulnerability and risk assessment study and the development of an adaptation plan for the housing sector in the Tangier-Tetouan-Al Hoceima region. Mr. EZZINE outlined the main phases of the study, followed by the methodology adopted to assess vulnerabilities and risks linked to climate change. Emphasis was then placed on the Tanger-Tétouane-Al Hoceima region's climate change adaptation plan. During this first presentation, Mr. EZZINE also gave a brief overview of the monitoring and evaluation system for adaptation to climate change. Following this initial presentation, the floor was opened for comments and suggestions from the various participants.

Mr. EZZINE's second presentation focused on the project proposal to be submitted to the Adaptation Fund. After outlining the context and objectives, Mr. EZZINE presented the project area, highlighting the criteria used to select the three municipalities (Tétouane, Al Hoceima and Chefchaouen), notably exposure to climatic hazards, total number of households, multidimensional poverty rate, building density, and the orientations of the regional directorate and the Adaptation Fund. He then gave an overview of the various components of the project, which are structured around three axes:

- Strengthening urban resilience to climate change in vulnerable neighborhoods in the Tangier-Tetouan-Al Hoceima region;
- Awareness-raising, communication and capacity-building
- Monitoring, evaluation and capitalizing on adaptation experience.

Following this second presentation, the floor was opened to discuss the various aspects of the project proposal to be submitted, and to answer any questions raised by participants..

DECISIONS TAKEN

As a result of the workshop proceedings and the discussion initiated by the participants, the following decisions were taken:

- ☐ The workshop participants endorse the proposal to be submitted to the Adaptation Fund and will provide all the necessary support for its successful completion;



- ☐ Workshop materials will be shared with participants, including the two PPT presentations;
- ☐ A consultation meeting will be held with representatives of the three above-mentioned municipalities to present the project proposal and gather suggestions;
- ☐ Other municipalities in the region may be considered for further expressions of interest to submit proposals to the Adaptation Fund or other funds.

LIST OF PARTICIPANTS


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de l'Urbanisme, de l'Habitat et de la Politique de la Ville**
- Habitat et Politique de la Ville -
Secrétariat Général
Direction de la Qualité et des Affaires Techniques

Objet : Atelier sur l'adaptation du secteur de l'Habitat face au changement climatique dans la région Tanger-Tétouan-Al Hoceima

Le jeudi 12 mai 2022, au siège de la Chambre de Commerce, d'Industrie et de Services de la région de Tanger - Tétouan - Al Hoceima

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Royaume du Maroc

Ministère de l'Aménagement du Territoire National,
de l'Urbanisme, de l'Habitat et de la Politique de la Ville

- Habitat et Politique de la Ville -
Secrétariat Général
Direction de la Qualité et des Affaires Techniques

Objet : Atelier sur l'adaptation du secteur de l'Habitat face au changement climatique dans la région Tanger-Tétouan-Al Hoceima

Le jeudi 12 mai 2022, au siège de la Chambre de Commerce, d'Industrie et de Services de la région de Tanger - Tétouan - Al Hoceima:

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Annex 1.1: Consultation with community


A consultation with community was carried out the 10 June 2022. The objective of this consultancy is to discuss with the representative of the community the project content, component, and actions. Some pictures and a list of presence are given hereafter.



Figure. Photo illustrating the course of the meeting

List of participants of the coordination and consultancy meeting (10 June 2022)

Royaume du Maroc



Ministère de l'Aménagement du Territoire National,
de l'Urbanisme, de l'Habitat et de la Politique de la Ville

- Habitat et Politique de la Ville -


Secrétariat Général
Direction de la Qualité et des Affaires Techniques

Objet : Réunion de coordination relative au projet « Renforcement de la résilience au changement climatique des quartiers urbains au Maroc.
Cas de la région Tanger -Tétouan - Al Hoceima » - le vendredi 10 juin 2022 à 10h à la Direction Régionale de l'Habitat et de la Politique de la Ville de Tanger - Tétouan - Al Hoceima.

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Annex 2: Multi-criteria analysis

1. Introduction

Climate change is a major and pervasive concern that poses a profound threat to the economic and social development of many regions. Like other African countries, Morocco, a low GHG emitter, is highly exposed to the adverse effects of climate change. Morocco is particularly vulnerable to three types of climate impact: rising temperatures, changes in precipitation patterns and increasing aridity. These impacts are compounded by an increase in severe drought, flooding, forest fires, heat waves and cold snaps, as well as storms and marine submersions, landslides, locust invasions and snowstorms.

At a local level, Morocco's regions and communes have varying degrees of exposure and are affected differently by the effects of climate change. Indeed, each region has its own intrinsic characteristics, including socio-economic sensitivities and adaptive capacities. In particular, the Tangier-Tetouan-Al Hoceima region is characterized by a housing sector that is highly exposed to climate change and is likely to face multiple impacts linked to the gradual variability of climatic conditions. In addition, some municipalities in this region present higher degrees of exposure and remain priorities in climate resilience. This document therefore describes the methodology, and criteria used to select the priority communes for the project to be submitted to the Adaptation Fund (AF).

2. Description of the study area

The Tanger-Tétouan-Al Hoceima (TTA) region is located in northwest Morocco, bordered to the north by the Strait of Gibraltar and the Mediterranean Sea, to the west by the Atlantic Ocean, to the southwest by the Rabat-Salé-Kénitra region, to the southeast by the Fès-Meknès region and to the east by the Oriental region. It covers an area of 17,262 km² and represents 2.43% of the national territory. According to the results of the General Population and Housing Census (RGPH) carried out in 2014, the population of the TTA region is around 3,556,729, or 10.5% of the national total in 2014. Indeed, it is one of Morocco's most densely populated regions, with a relatively high density of 222.2 hbts/Km² in 2014.

This region has undergone a process of accelerated urbanization resulting from the strong growth of its urban population, following the development of commercial, industrial and administrative activities, essentially in the region's major conurbations.

The TTA region is one of the most vulnerable to climatic hazards in the country, given its geographical position and natural predispositions. As a result, the region is subject to a number of climatic hazards, such as flooding, landslides, marine submersion and forest fires. In particular, the building sector is one of those highly exposed to climate change, and is likely to face multiple impacts linked to the gradual variability of climatic conditions (increased rainfall, higher temperatures, etc.). This sector is also confronted with extreme weather events and climate hazards, which have become increasingly frequent and intense in recent years. These climatic extremes and hazards, such as droughts, floods, heat waves, landslides, etc., have a major impact and cause considerable damage to the building sector. The region has two prefectures (governorates), Tangier-Assilah and M'Diq-Fnideq, and six provinces/prefectures: Al

Hoceima, Chefchaouen, Fahs-Anjra, Larache, Ouazzane and Tétouan.

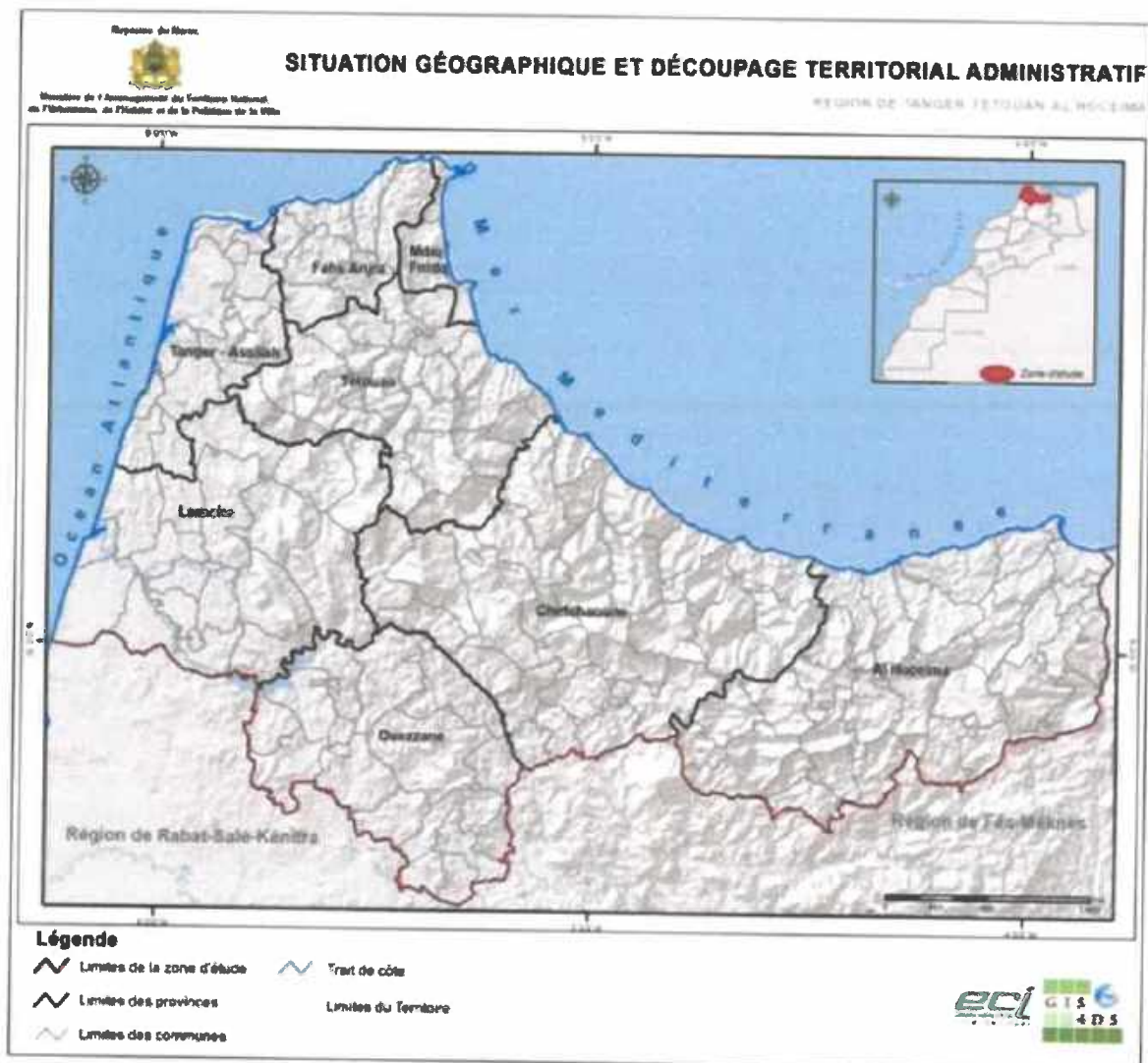


Figure 1 : Situation géographique et découpage administratif de la région de Tanger-Tétouan-Al Hoceima

3. Methodology

The choice of priority municipalities in the TTA region required the adoption of an approach based on a concerted, multi-criteria analysis, drawing on various factors governing vulnerability and the risks associated with climate change. This method is based on two distinct and complementary stages. The first consisted in organizing a participatory workshop to guide the choice of the various aspects relating to vulnerability and risks associated with climate change. The second involved a multi-criteria analysis based on the guidelines emerging from the first stage. Thus, the method recommended for assessing vulnerability and risks linked to climate change for the housing sector in the TTA region is the approach developed by the IPCC in its fifth report (AR5) and illustrated in the figure below.

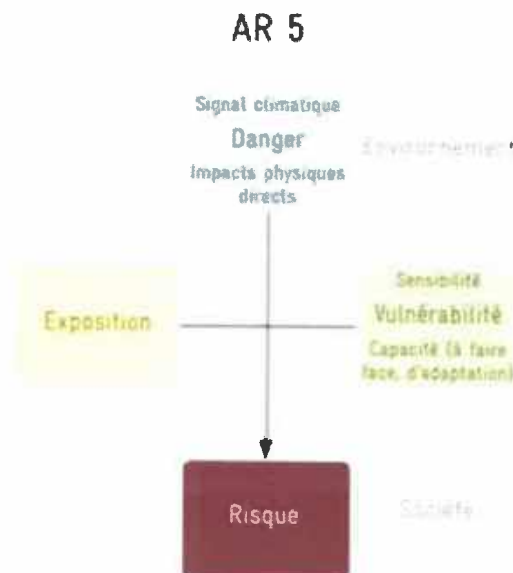


Figure 2 : Schéma global de la méthodologie d'évaluation de la vulnérabilité et des risques liés au CC (Source : GIZ (2017), Guide complémentaire sur la vulnérabilité : Le concept de risque)

3.1. Consultation and participatory selection of hazards and criteria

In order to select the priority communes to be considered in the FA project, a participatory workshop was organized. The workshop was attended by representatives of all the institutions involved in climate change adaptation.

3.1.1. Selection of climatic hazards

This participatory workshop provided an opportunity to decide on the major manifestations of climate change and their impacts on the housing sector in the TTA region. To this end, the main climatic hazards likely to affect the housing sector in the region were analyzed, in particular:

- Flooding
- Landslides
- Drought
- Marine submersions
- Heat waves and cold snaps

3.1.2. Selection of criteria

The work undertaken during the workshop also focused on the choice of the various criteria that will help to select the priority regions. To this end, through a participatory exercise, participants identified the main criteria relating to the different components of climate risk, in line with its conceptual framework, as defined and described in the IPCC's fifth report. The different components in question are climate hazard (danger), exposure, vulnerability (sensitivity and adaptive capacity) and risks linked to climate change.

Through this participatory exercise, several criteria were chosen by workshop participants. These criteria were then reviewed in order to select the most relevant ones. The selected criteria are listed below:

- ☒ Political support and involvement of decision-makers in climate change issues;
- ☒ Demographics: number of beneficiaries, population density, etc;
- ☒ Presence of fragile ecosystems;
- ☒ Socio-economic sensitivity or vulnerability: poverty, precariousness, etc. ;
- ☒ Economic criteria: Major investments, contribution to GDP, etc. ;
- ☒ Degree of exposure of the housing sector to climatic hazards;
- ☒ Presence of different climatic conditions: climates/bioclimes and ecosystems.

4. Results of multi-criteria analysis

In order to identify the exposure of the various municipalities to climatic hazards, the risk map was superimposed on the administrative division of the region. A summary was then drawn up and presented in the table below, showing the municipalities and their level of risk to climatic hazards..

Annex 5 to OPG Amended in October 2017

Tableau 1 : Evaluation préliminaire de l'exposition des communes côtières aux risques liés au changement climatique au niveau de la Région de Tanger – Tétouan – Al Hoceima

Provinces et Préfectures	Municipalités	Inondation	Sécheresse	Glissement de terrain	Submersion marine	Vagues de chaleur	Vagues de froid	Nombre total de ménage	Taux de pauvreté multi-dimensionnelle	Densité Bati
Tanger Assilah	Tanger	+	+++	++++		+++	+++	+++++	+	+++++
	Gueznaia	++	+++	+++	++++	+++	+++	++++	+	+++
	Aquass Brieh	++++	+++	++	+++	+++	+++	+	+	++
	Assilah	+	+++	+	+++	+++	+++	++	+	+++
	Saleh chamali		+++	++++		+++	+++	+++	+++	++
Fahs Anjra	Al bahraoyine		++	+++		+++	+++	+++	+	+++
	Ksar sghir		+++	++++	+	+++	+++	+++	++	++
	Ksar el majaz		+++	+++++		+++	+++	+++	++	++
	Taghramt		+++	++++		+++	+++	++	++	++
	Belyounec h		+++	+++++		+++	+++	++	++	+
M'diq Fnideq	Sabta		++	++		+++	+++			+++
	Fnideq		++	+	++	+++	+++	++++	+	++++
	M'diq	+++	+++	+	+++	+++	+++	++++	+	++++
	Martil	++	++	+	+++	+++	+++	++++	+	++++
Tétouan	Tétouan	+++	+++		+++	+++	+++	+++++	+	++++
	Azla		+++	+++	+	+++	+++	+++	++	++
	Zaouiat sidi kacem		+++	+++		+++	+++	++	+++++	++
	Oued laou		++++	+++	+	+++	+++	++	++	+++
Larache	Sahel	+	+++	++++		+++	+++	+++	++	+++
	Larache	++++	+++	++	+++	+++	+++	+++++	+	++++
	Laouamra	+	+++		+	+++	+++	+++	++	+++

Annex 5 to OPG Amended in October 2017

Provinces et Préfectures	Municipalités	Inondation	Sécheresse	Glissement de terrain	Submersion marine	Vagues de chaleur	Vagues de froid	Nombre total de ménage	Taux de pauvreté multidimensionnelle	Densité Bati
Chefchaouene	Tizgane	+	++++		+	+++	+++	+++	+++	++
	Steha		++++			+++	+++	+++	+++	++
	Bni bouzra	+	+++	+		+++	+++	+++	+++	++
	Amtar		++++	+		+++	+++	++	+++	++
	Bni smih	+	++++	+		+++	+++	+++	+++	++
	M'tioua		+++++	+++		+++	+++	++	++++	++
Al Hoceima	Bni gnil	+	+++++	++++		+++	+++	++	+++	++
	Bni boufrah	++	+++++	+++		+++	+++	++	++	++
	Senada		+++++	+++		+++	+++	++	+++	++
	Rouadi		+++++	+++		+++	+++	++	+++	++
	Izemmour en	++	+++++	++		+++	+++	+	+	++
	Al hoceima		+++++			+++	+++	++++	+	++++
	A'dir		+++++			+++	+++	+	+	+++
	Ait youssef ouali	++++	+++++			+++	+++	++	+	+++

The working session held with the region's various stakeholders provided an opportunity to discuss the major manifestations of climate change and their impact on the various socio-economic sectors, particularly the housing sector. The results of the multi-criteria analysis show that the communes of the TTA region are globally exposed to risks linked to climate change and will have to cope with climatic hazards and extreme events.

Following discussions with the region's local authorities and all stakeholders, three priority communes were selected, taking into account not only the exposure of their housing sector to climate hazards, but also their socio-economic characteristics, such as the number of households, poverty rate and population density. These are the municipalities of Tétouan, Chefchaouen and Al Hoceima.

5. Conclusion

This study led to the selection of priority communes for the project to be submitted to the Adaptation Fund (AF). To this end, a multi-criteria analysis was carried out using the vulnerability and risk analysis method developed by the IPCC in its fifth report. This exercise required the organization of a participatory workshop to involve local stakeholders in the choice of priority communes. This work resulted in the selection of three priority communes, namely Tétouan, Chefchaouen and Al Hoceima, which will be the focus of this project.

Annex 3 : Communes Interest and engagement letters