ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category	:	Small-Sized Project/Programme
Country/ies	:	Indonesia
Title of Project/Programme	:	**Community Adaptation for Forest-Food Based Management in Saddang Watershed Ecosystem**
Type of Implementing Entity	:	National Implementing Entity
Implementing Entity	:	Kemitraan (Partnership)
Executing Entity/ies	:	**Konsorsium Adaptasi Perubahan Iklim dan Lingkungan (KAPABEL)**
Amount of Financing Requested	:	748.445 (in U.S Dollars Equivalent)

Project / Programme Background and Context:

1. General Context

Based on the Strategic Plan of the Ministry of Environment and Forestry in 2015 - 2019, ***Saddang* watershed is** "**Priority Watershed in Indonesia**". *Saddang* watershed itself flows through four districts in **South Sulawesi Province** and a small portion of its area is located in West Sulawesi province, with an area of **661.932 hectares (ha)**[1] that make *Saddang* watershed as **the second largest watershed in South Sulawesi**. Currently, the area of watershed is utilized by almost **1 million peoples who depend on the available resources of the watershed ecosystem**. (*See **Annex 1.** Saddang Watershed Map*).

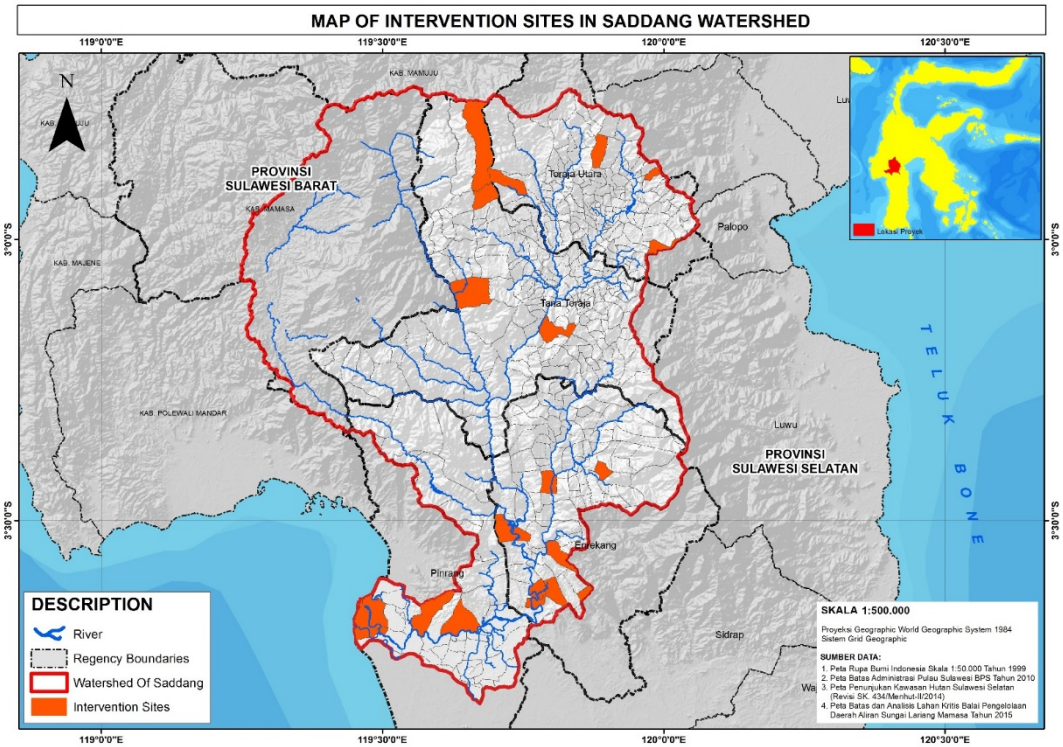


Figure 1. Saddang watershed project intervention sites map

1 Data from BPDAS Lariang Mamasa

Especially in South Sulawesi, the watershed is located in the administrative area of **Tana Toraja and North Toraja districts** (upstream), **Enrekang district** (middle upstream), and **Pinrang district** (downstream). Areas of *Saddang* watershed in four districts were 504.313 ha, in which 39.57% in Tana Toraja, 18.07% in North Toraja, 22.07% in Enrekang and 20.29% in Pinrang. According to the forest area, *Saddang* watershed area consists of protected forest area is 199.875,91 ha (39.63%), limited production forest area is 32.030,38 ha (6.35%), and other utilization area is 272.407,62 ha (54.02%).[2] For the development of social forestry schemes, around 33.935,76 ha is indicated and prioritized for social forestry development in watershed area based on PIAPS map issued by the Ministry of Environment and Forestry. Below are several permits and utilization plan in *Saddang* watershed in South Sulawesi province:

2. Enviromental Context and Climate Change Impact

Risk level of area as result of climate change are linked to **catastrophic levels** in *Saddang* watershed area showed that **93% of villages** located in the watershed area is **vulnerable to climate change**. There are 16 villages in highly vulnerable condition that distributed in Tana Toraja and North Toraja, 126 villages located in quite vulnerable condition and 306 villages in rather vulnerable condition distributed throughout the watershed area (based on the analysis results of exposure and sensitivity index and adaptability index).[3]

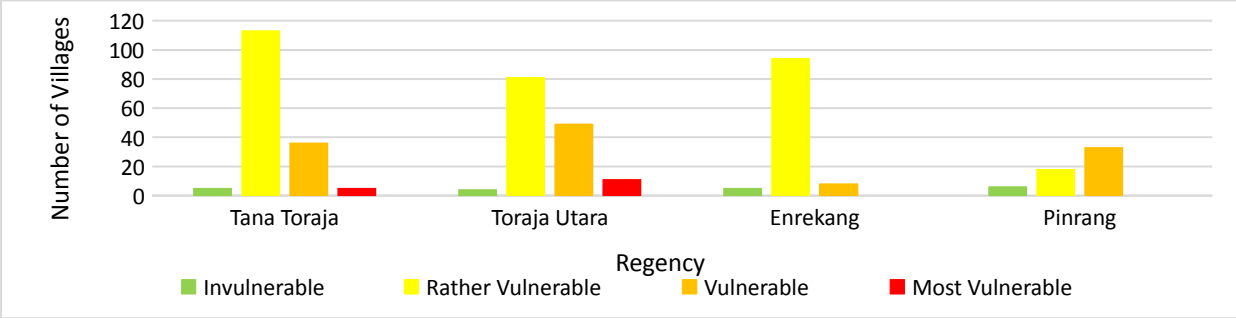
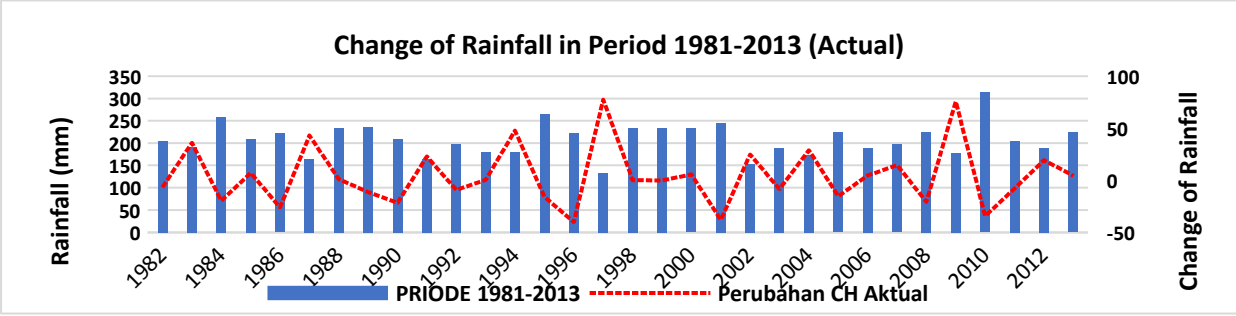


Figure 2. Graph of Climate Change Vulnerability

The increase of average volume of rainfall in *Saddang* watershed is 4.2% over the last 30 years in period of 1981 – 2013. The changes of rainfall are in line with the increase of river surface and discharge of *Saddang* watershed by 8.56%.[4] The change of temperature is decrease in average in a period of 1981 - 2013 by -4^{0}C[5] ***(see figure 3 and 4)***.



2 Consolidation Hall of Forest Area Regional VII, 2014

3 Data of Region Vulnerability obtained from Data Information System of Vulnerability Index as Developed by KLHK 2015

4 Analysis result of Soil and Water Assesment To (SWAT) model of Saddang watershed, 2017

5 Analysis result of Global Weather as baseline/observation data (http://globalweather.tamu.edu/), uses 27 Global Weather station in surrounsing area that affecting Saddang watershed area, 2017

Figure 3. Graph of Rainfall Change

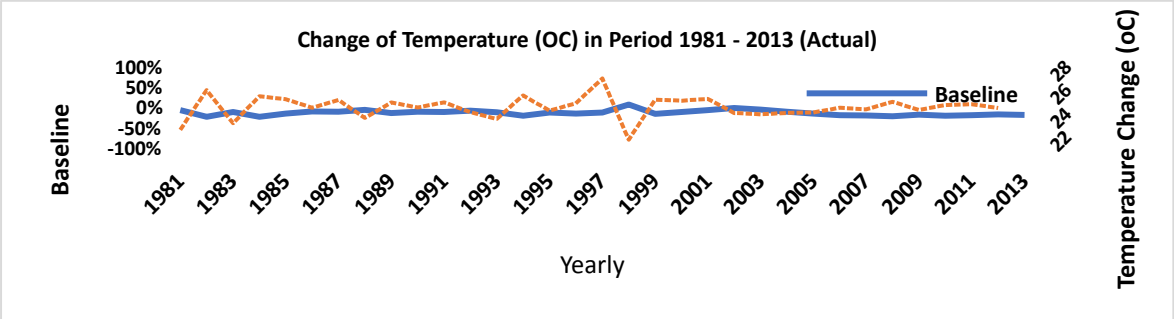


Figure 4. Graph of Temperature Change

Changes in land cover in 1995 - 2014 recorded that the reduction of forested area in *Saddang* watershed reached 31.32% or 31.066,15 ha, from 99.165,11 ha to 68.098,96 ha. The changes in forest area into agricultural area reached 59,27%, or about 18.416 ha, the rest is converted into settlements, fields, and shrubs.[6]

The mountains and hilly topography in upstream area in North Toraja, Tana Toraja and Enrekang, as well as the rate of land cover change from upstream to downstream, and supported by climate condition led to a number of natural disaster in each district often occur, as can be seen in the following table.[7]

Table 1. Intensity of disaster by type

Type of disaster	Disaster Site (District)	Intensity of Disaster
Landslide	North Toraja	49 times
	Tana Toraja	72 times
	Enrekang	83 times
	Pinrang	35 times
Flood	North Toraja	14 times
	Tana Toraja	10 times
	Enrekang	44 times
	Pinrang	35 times

6 Consolidation Hall of Forest Area, Data of Land Cover in 1998-2014

7 Central Bureau of Statistics, 2016, Table Disaster in Watershed area in 2009 – 2014

The increase of river discharge during the rainy season is 8.56% in 2004 – 2013 indicates an increase of potential disaster due to runoff and the decrease of river discharge in the dry season as large 12.74%. While in 2004 -2013 indicates potential drought that occurred in the watershed area.

Landslides causing advanced impact in the watershed upstream area by increasing sedimentation in the watershed. An increase of 21.13% total sedimentation in average from 2004 to 2013 is 29.493.442 tons per year resulted in the silting of watershed. Critical land in *Saddang* watershed area is 632.640 ha (95%), and very critical area is 46.404 ha located in the upstream area of Tana Toraja and North Toraja, and 23.456 ha located in the downstream area of Pinrang.[8] The decline of land quality impacted on various sectors, particularly in agriculture, fisheries, marine, plantation and forestry.

Landslides and floods cause damages to the community arable land. Flooded farmland and rice paddies make the community suffered heavy losses due to crop failure. The survey results of Socio-ecology Disaster Risk identification in the *Saddang* watershed recorded a decline in the communities' food productivity by 66% of the rice yield. Harvest time which is usually conducted 3 times a year, due to frequent landslides and floods, the harvest become only once in a year. The productivity of agricultural and plantation were also decreased due to the decline in the carrying capacity of land and the high critical land in the *Saddang* watershed areas.[9]

Scenarios of climate change projections in 2018 - 2050 shows that there are increases in average of rainfall by 217.19 mm per year, up 8% over the 33 years later from an average of actual rainfall in 1981 - 2013. The analysis also showed an increase in average of temperature by 5.4%.[10] This data indicates that in 33 years later, losses due to climate change in the watershed area will be even greater, especially in the agricultural sector, especially remind that the *Saddang* watershed is the priority watersheds in Indonesia. This threatens the communities' food productivity, so the choice of adaptation actions of food security through forest product-based food diversification is a strategic adaptation measures to climate change impacts that will occur.

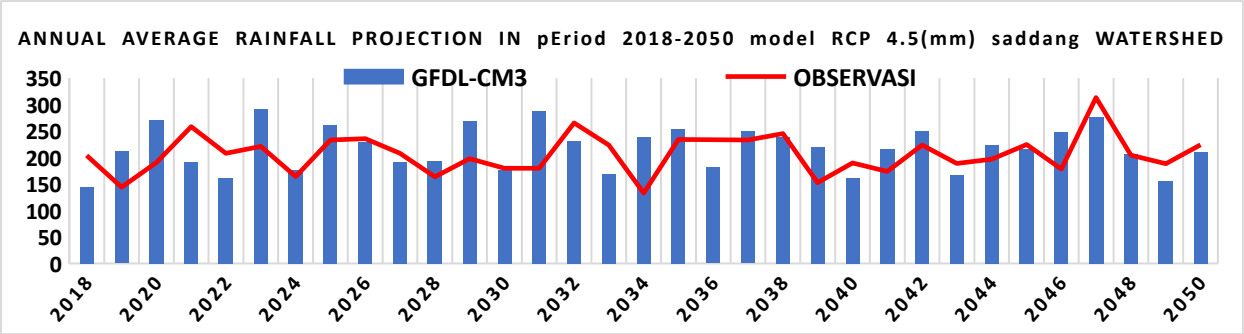


Figure 5. Projection of average rainfall in the Saddang watershed

8 BPDAS Jeneberang Saddang, 2014

9 Central Bureay of Statistics, 2016 and BPDAS Jeneberang Saddang, *Result of Socio-Ecology Survey of Saddang Watershed*, 2014

10 Projection of Average Yearly Rainfall (mm) in 2018 – 2050 based on Scenario RCF 4.5 Model GFDL-CM3

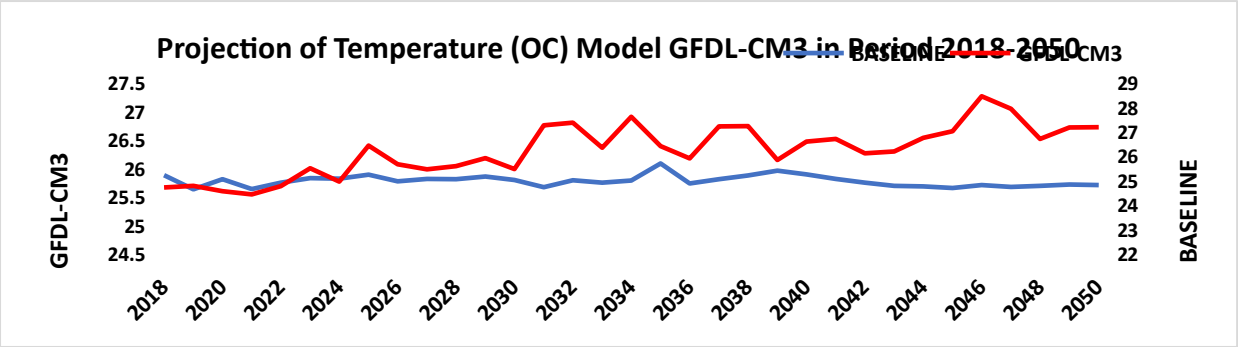


Figure 6. Projection of average temperature in a period of 2018-2050

3. Socio-Economic Context

Community in *Saddang* watershed ecosystem in South Sulawesi who depend on it directly and utilize the watershed for livelihood reached 835.710 peoples, consisting of 417.060 men and 418.048 women and distributed as much 228.574 peoples in Tana Toraja district, 215.418 peoples in North Toraja district, 174.994 peoples in Enrekang district, and 216.724 peoples in Pinrang district. Total head of households who are in the watershed area are 644.026 families, consisting of 518.000 households are farmers and belonging to poor families is 165.496 households.[11]

Main livelihood of communities in the *Saddang* watershed is farmers. Agricultural area in the *Saddang* watershed reached 113.167 ha or 15.66% of the total of Saddang watershed area. For field area as food production reached 19.547 ha in the watershed area, consisting of 9.027 hectares in the downstream area and 7.086 ha in the upstream area.[12]

The impact of climate change has implications to the decline of revenue for people who utilize the land for the fulfillment of their life. **Average income of people who are vulnerable to disasters in the watershed area is IDR 11.075.549 per household per year**. Based from the data, there was a decline in food production, especially for rice in the watershed area. The decline in rice production in 2013 amounted to 29.047 tons, or approximately 9.6% decline in rice production, compared to the previous year that amounted to 304.913 tons in 2012.[13] This condition is due to the frequent disasters in their region. Cultivation of agricultural land are not maximum so the earned income is below Regional Minimum Wage of South Sulawesi province.

In Toraja, there is local wisdom that affecting the socio-economic context, that is **"*Kuang & Alang*" or briefly, we know as "*integrated farming*"** which is now starting to erode. The local wisdom sees that farming does not produce rice as primary goal in planting. Rather, their farming pattern is an integrated farming system (rice, fish, gardens, and livestock) based on locals' knowledge. Toraja peoples also generally stressed the principle of solidarity/mutual assistance in farming.

11 Central Bureau of Statistics, 2016

12 BPDAS Saddang, Identification Result of Characteristic Report of Saddang watershed, 2015

13 Central Bureau of Statistics, 2016 (Tana Toraja, North Toraja, Enrekang, Pinrang)

In addition, the development of forest-food in the culture of forest communities is the responsibility of women to ensure adequate nutrition for their family.[14] Some examples, forest food harvesting and its processing is conducted by women, such as sugar processing into brown sugar, making chips from breadfruit and packaging the forest honey for consumption and for sale to the market. **There are a lot of "channel" of benefits for women and their households**, so that the program is also a form of women's empowerment.

4. Project Context

In line with the main purpose of the National Action Plan of Climate Change Adaptation (RAN - API) Indonesia 2014, through a series of interventions of this project, "community of watershed ecosystem"[15] will be able to increase resilience to climate change impacts, both in food security through the development of forests food and diversification, as well ecosystem resilience through improved quality of forest cover in the priority watershed, and resilience through integrated coastal management.

This is a serious effort to do in facing the climate change vulnerability which has a big and continuous impact. Vulnerability to climate change which leads to the community in the watershed area is vulnerable to the impact. Increased rainfall, temperature and land cover change resulting landslides and flood intensities in the watershed area is getting higher. Upstream landslides causing further effects such as high sedimentation in downstream areas and reduce the function of the watershed as Water Catchment Area.

This is getting worse due to the uncontrolled activities of forest conversion in the upstream area which leads to higher disaster potential. The community in the watershed area is mostly as farmers with relatively poor economic conditions are suffered due to climate change. In addition, local governments will be more difficult to resolve the issue, if the human resource capacity has not qualified. Effects on the natural resources damage will be more severe, and will trigger a slowdown in the economic and regional development.

"*Community Adaptation for Forest-Food Based Management in Saddang Watershed Ecosystem*" program is an effort that will encourage community adaptation actions in the watershed area and can be replicated easily. Forest-food development and food diversification will be able to be a farmers' livelihood adaptation pattern to utilize the forest area that is packed in Social Forestry schemes to ensure sustainable forest management areas. In addition, improved governance and the carrying capacity of the coastal in the downstream area through mangrove rehabilitation, food diversification and strengthening of local group, women and vulnerable in support climate change adaptation are important components in the intervention project. Furthermore, to ensure the sustainability of adaptation actions in the watershed area, to strengthen cross-sector policies related to climate change adaptation action, policy direction will be designed to be monitored jointly by the parties continually.

If the adaptation program is not implemented, then the people who are in the watershed area as a vulnerable people with pre-prosperous economy category will obtain a greater impact than the impact is happening now. Scenarios of climate change over 33 year later from 2018 to 2050 showed an increase in rainfall and temperature, so climate change adaptation is important to be implemented. With the increase in rainfall, without being followed by improvement of forest area in the upstream area reaches as Water Catchment Area, then the intensity of disasters will increase. The impact of disasters in the agricultural sector is greater, so that the availability of food to meet the needs of family or regional scale food availability is decrease. Further, the decrease in agricultural productivity will reduce community revenue that has been in poor condition. If the coastal areas management in the watershed downstream is not implemented, the coastal communities will have more impact of the higher of sea levels and disasters due to unsustainable watershed governance. Economic pressures will also increase the crime rate, the slowdown of economic and regional development as well as changes in the landscape and its carrying capacity.

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14 CIFOR, 2013- Ickowitz, A., Powell, B. dan Sunderland, T. Forthcoming. Forests and Child Nutrition in Africa; Powell, B. 2012 Biodiversity and human nutrition in a landscape mosaic of farms and forests in the East Usambara Mountains, Tanzania. PhD thesis, School of Dietetics and Human Nutrition. Montreal, Kanada: McGill University

15 All parties the government, private, university, NGOs, and community related to the watershed

Project / Programme Objectives:

The main objective of this program is to increase resilience on the community food security of *Saddang* watershed ecosystem as effort in climate change adaption that focused on:

1) Strengthening the Social Forestry in encouraging forest-food in *Saddang* watershed upstream that impacted to the improving the environment and community revenue.
2) Improving management and costal carrying capacity in supporting climate change adaptation in the *Saddang* watershed downstream.
3) Strengthening cross-sector policy in ensuring the sustainability of climate change adaptation.

Project / Programme Components and Financing:

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Strengthened the Social Forestry in encouraging food forest security in Saddang upstream-watershed	1.1.1. Increased capacity of escort and local communities in the scheme of Social Forestry 1.1.2. Increased stakeholders involved in order to support of the Social Forestry scheme 1.1.3. Legal access for Community Forest, Forest Village Scheme, or Partnership Scheme	1.1. Increased extents of Social Forestry scheme of 5,000 ha in the upper watersheds of Saddang	431.609
	1.2.1. Increased capacity of stakeholders in sustainable forest management 1.2.2. Internalized climate change adaptation action plan in institutional Social Forestry	1.2. Strengthened of stakeholders and institutional of Social Forestry scheme in support of adaptation to climate change	
	1.3.1. Increased skills of Forest Farmers Group, Women and Vulnerable Groups in Managing Sustainable Forest 1.3.2. Availability of infrastructure, processing technology of forests-food 1.3.3. Increased forest land cover and productivity of forests-food 1.3.4. Connected forest-food products to market	1.3. Increased community income of the forest food (Agroforestry and Agrosilvopastoral) in the upstream watershed of Saddang	

2. Improved governance and the carrying capacity of the coast in support of adaptation to climate change in downstream of Saddang watershed	2.1.1. Concern Group on Climate Change (KPPI) are created as a mover in the village and sub-district level. 2.1.2. Increased capacity and skills KPPI as well as the stakeholders in the improvement of governance and the carrying capacity of the downstream coastal watershed 2.1.3. Facilities and infrastructure are available to support the rehabilitation of land and coastal areas in the downstream of Saddang watershed 2.1.4. Land and coast rehabilitation in downstream- of Saddang watershed	2.1. Land and coast rehabilitation in of Saddang watershed	159.132
	2.2.1. KKPI skills enhancement, women and vulnerable groups in the development and diversification of household enterprises 2.2.2. Infrastructure technologies are available in encouraging household enterprises and diversification 2.2.3. Connect marketing for household enterprises and food diversification	2.2. Increased community income through household enterprises efforts and food diversification in downstream of Saddang watershed	
3. Strengthened system and institutional capacity to reduce risks associated with climate-induced socio-economic and environmental losses	3.1.1 Team on Climate Change Adaptation Working Group (Working Group-API) has been formed 3.1.2 Internalized the Action Plan on Climate Change Adaptation in Local Government policies, as well as their planning documents local level adaptation action plans. 3.1.3 Climate Change Adaptation monitoring systems that support the strengthening of policies implemented stakeholders 3.1.4 Disseminate of all programs to strengthen and encourage policies and alignments	3.1. Strengthened cross-sectoral policy in ensuring the sustainability of adaptation to climate change	88.058
4. Project/Programme Execution cost			69.644
5. Total Project/Programme Cost			748.445
6. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			-
Amount of Financing Requested			**748.445**

Projected Calendar:

Milestones	Expected Dates
Start of Project/Programme Implementation	June 2017
Mid-term Review (if planned)	January 2018
Project/Programme Closing	September 2018
Terminal Evaluation	October 2018

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project Component

Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

Component 1. *Strengthened the Social Forestry in encouraging food forest security in Saddang upstream-watershed*

Social Forestry Scheme would be the leading program as a pattern of climate change adaptation in watershed upstream based on food security. In addition, Social Forestry Scheme is not only providing legal access, but also provides space for intervention in a participatory sustainable forest management. Through sustainable forest management program, it would support the sustainable improvement of forest cover, increase revenues through optimal management of forest foods, and to ensure institutional sustainability of Community of *Saddang* Watershed Ecosystem. One of the achievements of the government, in terms of adaptation, more specifically to the rehabilitation of the watersheds upstream can be measured by the presence of Social Forestry, as seen in RAN-API 2014 that the encouraging target of Social Forestry and Village Forest for rehabilitation efforts of National watershed upstream reached 500.000 ha for all forests area bordering with priority watersheds. Hence, efforts should be made Social Forestry expansion in the upstream to ensure sustainable forest management and the welfare of communities in surround the forest in *Saddang* watersheds upstream. Forest as a water catchment area has an important role in anticipation of increased rainfall due to the impact of climate change. Community-based forest management will contribute to an increase in land cover, because it will help reduce land conversion activities of the community. The efforts of community-based rehabilitation also support the achievement of it. The cultivation and development of forest-food crops by connecting to market network would be a means to ensure the sustainability of Social Forestry schemes.

Component 2. *Improved governance and the carrying capacity of the coast in support of adaptation to climate change in downstream of Saddang watershed*

Improving management and the coastal carrying capacity in watershed downstream as a form of climate change adaptation by increasing the capacity of local groups and the development of creative efforts and food diversification, as well as the rehabilitation of mangrove forests is a concrete step in climate change adaptation and increasing the resilience of coastal areas. Communities with pre-prosperous category as vulnerable communities in the watershed downstream area obtain alternative livelihoods through the development of creative efforts and development of food diversification. In addition, as an effort of environmental improvement, coastal management in the watershed downstream needs serious attention which can be seen from the use of garbage and rivers as a conservation area into paddy fields and agriculture areas. As part of obtaining a high impact of increased sedimentation of 8.071.688,89 tons per year, the river downstream areas is the vulnerable area to flooding as result of increased rainfall and climate change. Sedimentation caused silting of the river reduce the watershed function as water catchment area and cause droughts in the dry season which adversely affects their natural resources, especially in the agriculture and fisheries sectors. This is exacerbated by the absence of mangrove forests along the shoreline so that this region is also vulnerable to coastal erosion. Referring to the climate change scenario in 2018 - 2050 which indicates an average increase of rainfall by 8% over 33 years later, also resulted in an increase in sea levels, plus a drastic climate change will influence the wind speed so that rehabilitation of mangrove forests should be done.

Component 3. *Strengthened system and institutional capacity to reduce risks associated with climate-induced socio-economic and environmental losses*

Strengthening at region level and cross-sector policies are to provide legal certainty in the sustainability of adaptation action in the watershed area. Stakeholders who have an important role in

the sustainability of climate change adaptation actions in the watershed area is local government. Certainty of sustainability is translated in the form of regional policy in line with the national policy. Regional/local policies in the preparation of climate change adaptation action based on the Regulation of the Minister of Environment and Forestry No.P.33/Menlhk/Setjen/Kum.1/3/2016 concerns the preparation of guidelines for climate change adaptation actions are synchronized with the RAN - API by the National Development Planning Agency (BAPPENAS).

Integrating adaptation plan into regional policy would be done by encouraging the adaptation plan for a regional regulation concerning the adaptation plan in an effort to ensure the sustainability of adaptation programs. Strengthening the monitoring system is done so that adaptation plans will be implemented to the fullest, and can be a trigger for the parties to ensure alignment and sustainability of the program.

B. Economic, Social, and Environmental Benefits

Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund.

1. Economic and Social Benefits

This project will have a direct impact on climate change adaptation in terms of food security, due to the food diversification towards sustainable forest food, by increasing productivity of communities' forest food in the forest area of social forestry schemes. Total beneficiaries in these project reached **38.188 peoples**, distributed in across **12 subdistricts** with **20 selected villages** which are included in the ecosystem area of *Saddang* watershed (***see Annex. 7***).

Those villages are selected for project interventions based on the intensity of disasters that occurred in that location, and the village with somewhat to highly susceptible class to climate change. For the selection of locations in the *Saddang* watershed upstream, also consider the forest area located in the village, because the activity of project intervention in upstream area is to encourage the Social Forestry scheme which will have implications for the increase in average incomes.

2. Environmental Benefits

The activities of project will have a direct impact on the quality of natural resources and environment carrying capacity. Management in watershed upstream area would support an increase in forest cover in the project intervention area. This is because the project interventions will contribute to lowering the conversion level of forest land to plantation as a result of food development through agro-forestry models and food diversification. Besides the prospect of forest food is taken through increased productivity. Intervention of upstream to downstream in the *Saddang* watershed will also support the objective of climate change adaptation in disaster risk reduction. Management of watersheds upstream will minimize the flooding in *Saddang* watershed downstream areas. While, in the management of the watershed downstream area, rehabilitation of mangroves on the coast will be a solution to reduce the risk of abrasion. Rehabilitation of land and food diversification with other eco friendly technologies will be a milestone for natural resources management from upstream to downstream of *Saddang* watershed.

3. Gender and Vulnerable Groups Benefits

Project interventions would have an impact on gender mainstreaming, where the involvement of women for various activities on the achievement of outputs are concerned, with a minimum 30% participation of women. The activities of women' integration in the post-harvest management to marketing of forest-food products in the watershed upstream, such as processing of sugar, honey, breadfruit, and *gogo* rice into economically valuable products that would help boost the economy. As well as optimizing their performance in managing coastal resources and food diversification to be creative effort in the watershed downstream, such as seaweed processing, mangrove products to be economically valuable products. Marginalized communities and low income would be boosted their

capacity to be an actor in the project activities, so the impact to them would be felt directly and more real.

C. Cost-Effectiveness

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

In order to encourage and to improve the climate change adaptation in upstream-downstream of the Saddang watershed, this project sets 6 outcomes, such as increasing the Social Forestry scheme area about 5.000 ha, strengthening the main stakeholders, increasing the communities income in upstream area of the watershed ecosystem, achieving the coastal rehabilitation about 300 ha, increasing communities income in the downstream area, strengthening the cross-sector policies.

Based on early study conducted by TLKM Foundation in 2017, the correlation between the cost of project intervention and the needs in achieving the outcomes show on table below:

No	Outcome	ICER
1	Increase of the Social Forestry scheme area	41,01
2	Strengthening the main stakeholders related to Social Forestry Scheme	10.782
3	Increase of the communities income in upstream area of the watershed ecosystem	23.552
4	Achieving the rehabilitation target in coastal area	324,86
5	Increase of the communities income in downstream area	4.616
6	Strengthening the cross-sector policies	21.871

Table … showed that the entire project needs intervention fund to achieve the outcomes. In outcome 1, increasing the Social Forestry Scheme area, which did not have management scheme at first, have to spend as much $41,70 per ha. In the outcome 2, strengthening institution of social forestry scheme for adaptation to climate change needs highly intensive actions, due to stakeholders complexity which require a lot of facilitation schemes.

Later in Table …, the outcome 3 is the largest value of intervention in this project. The communities income which is in low state potentially affects the community to convert protected forest area to agricultural area and could cause disasters, so that the community needs assistance in order to change the people's paradigm in developing forest-food. Intervention on outcome 4 shows that this outcome requires cost about $324,86 to conduct rehabilition in coastal area, it is higher than outcome 1 because in that area has already been impacted by climate change. High cost in outcome 5 is decided by considering that the community in the downstream area needs to change their paradigm from only receive the benefits and impacts, due to protection of downstream area, to become the participant in Integrated Watershed Management System. Furthermore, strengthening the cross-sector policies (outcome 6) needs high intervention because it would strengthen the previous outcomes (outcome 1-5) so that achieving the objectives could be accomplished, which implicated to the sustainability and certainty alignments from the stakeholders.

In order to support the data above, Economic Rate of Return (ERR) Analysis is required to identify how much the influence of project toward the increase of community income. At its core, an ERR is a comparison of the costs and benefits of a public investment. The benefits include the increased income of a country's population or value added by its firms due specifically to the proposed project.

The result of ERR analysis shows that the project's cost which reached $748.445 cause implication to the ERR value of 58,75%. This value indicates that this project is highly feasible to be done in order to increase the community income, strengthening policies and related stakeholders, adaptation to climate change, and improvement of upstream-downstream of the Saddang watershed ecosystem.

D. Alignment with National and Sub-National Sustainable Development Strategies

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

1. National Development Strategies

National development is based on the problems of nation economy seen from the level of poverty, social inequality, the gap between regions, environmental damage as a result of the exploitation of natural resources is excessive, and reliance in food. So, in this project is based on the national governments' development objectives "*Nawacita*" as listed on points (7) to realize economic independence by moving the domestic economy strategic sectors. Among the intervention is to realize food sovereignty. In addition, it also supported by Act No. 18 of 2012 on food, Article 130 (paragraph 1) that the public can participate in the realization of food sovereignty, food independence and food security. The objectives are integrated on the Strategic Plan of Food Security Agency 2015 – 2019 to enhancing diversification and community food security.

The components of program would also support *Rencana Aksi Nasional Adaptasi Perubahan Iklim* (RAN-API) on food diversification in the field of economic resilience, as well as the Strategic Plan of Environment and Forestry in 2015-2019 in sub-agenda "The Handling of Climate Change and Availability of information on Climate and Disaster" targeting strategies to increase community involvement in recovery priority watershed area of 12.7 million ha through the development of Social Forestry, and also increasing public access to the forest management area of 12.7 million ha in the form of Community Forest (Hutan Kemasyarakatan/HKm), Village Forest (Hutan Desa/HD), Community Plantation Forest (Hutan Tanaman Rakyat/HTR) and Private Forest (Hutan Rakyat). As listed on RAN-API 2014 that one of the action plan, namely the rehabilitation and conservation of the watershed upstream to improve water absorption to reduce the drought and flooding can be done through development interventions of Community Forest and Village Forest, with a target indicator national achievement by 500.000 ha.

2. Sub-National and Regional Development Strategies

This project supports and would accelerate the Strategic Plan of Regional Environmental Agency of South Sulawesi province in 2013 - 2018 on the increase in carrying capacity of the environment and climate change adaptation and mitigation with a target of increasing vegetated land cover, and rehabilitation of coastal area and small island. In regional level, intervention projects in line with the Medium-Term Development Plan of Tana Toraja 2016 - 2021 on points increase in production of agricultural, plantation, livestock, fisheries and food security, with efforts to improve the handling of critical land conservation. Components of the program also supports the operational steps of Tana Toraja Local Government in improving food security, such as the Food Consumption Diversification Acceleration through socialization and promotion in order to change the food culture that has not varied, nutritious, balanced and secure. Component Program 1 related to the expansion of Social Forestry, refer and support the Regional Regulation No. 12 of 2011 on Spatial Planning of Tana Toraja in 2011-2030, which was one of the points about spatial planning policies on improving forest production with the development strategy is the management of Community Plantation Forest, and develop agro-forestry as a buffer zone.

In other region such as in North Toraja district, the intervention of project supports the Short-Term Development Plan of North Toraja in 2010 - 2030 on the management, utilization and conservation of natural resources with attention to environmental aspects. While, in Enrekang, the idea of project to accelerate the Strategic Plan for Regional Food Security Agency for the realization of food security at the household and regional level based on local independence and sustainable, as well as the Strategic Plan of Forestry Department Enrekang on the development of Social Forestry in Enrekang. For the downstream area of *Saddang* watershed, project interventions in Pinrang district is expected to accelerate the Medium-Term Development Plan of Pinrang in 2014 - 2019 with a priority of local

development include efforts to stabilize governance and bureaucratic reform, and science and technology developments for innovation potential management and region natural resource.

E. Compliance with National Technical Standard

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.

This project will propose a scheme of Social Forestry in the form of Village Forest, Community Forest, People Plant Forest, and Partnership Forest on *Saddang* watershed upstream area of 5.000 ha. The intervention area is included in the function of protected forest areas. Technical proposal for the scheme of social forestry refers to the regulation P.83 of 2016 on Social Forestry based on decision of community through forest farmers group or *Kelompok Tani Hutan* (KTH) and other village institutions. In the process, the participation of counselor in each district will be involved in the program.

On intervention of coastal areas or *Saddang* watershed downstream, would be conducted a coastal zone management by refers to the technical standards of management under Act No. 1 of 2014 on Coastal Areas Management with the main purpose of coastal rehabilitation. Based on Indonesian Presidential Regulation No. 121 of 2012 on Rehabilitation of Coastal and Small Islands, in which rehabilitation of coastal areas includes planning documents in rehabilitation effort.

To ensure the sustainability of action for climate change adaptation at the regional level then the local institutional would be facilitated to draft the Action Plan for Regional Climate Change Adaptation. Technical implementation of drafting refers to the regulation of Minister of Environment and Forestry No.33 of 2016 on Drafting Guideline of Action Plan for Climate Change Adaptation by involving various sectors in its implementation. In addition, expert team who were recruited on the terms of their respective capacities, the institute support of Center for Research and Development of Natural Heritage, Biodiversity and Climate Change, Hasanuddin University will also directly oversee implementation of all project activities in accordance with relevant national standards and apply in Indonesia.

F. Learning and Knowledge Management

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

In this project, important elements of every component of program are oriented to the knowledge management, communication strategies, and appropriate learning systematic. This is important because adaptation effort will not be achieved if the knowledge capacity of the parties have not qualified and not in a single frequency. The achievement would be slow without appropriate communication strategy. The pattern of knowledge dissemination and appropriate learning systematic would accelerate and support the sustainability of project. Some specific and linear activities that would support this case as follows:

1. Encourage POKJA-API in each district. It is intended to be a coordination and knowledge management, updating a growing issue in the village to the sub-district level, and synthesize data and information from lessons learned. From this, POKJA-API team would make a joint plan, conducting joint monitoring, and updating information regularly.
2. Promote the monitoring and early warning system of Climate Change Adaptation which can be used by the parties to ensure the sustainability of the support and programs. Through this system the parties can measure the extent to which the changes occur in the context of climate change adaptation in the region of project intervention.
3. Increased capacity of the parties to document and disseminate project activities and snapped the changes that occur. Encourage the participation of the parties in the process of project dissemination, would also encourage the involvement and enthusiasm of the parties is increasing.
4. Increasing the capacity of counterparts/field facilitator, program officer, and instructor in developing communication strategies, encourages the achievement of targets and significant changes of project can occur.

5. Provide campaign media of climate change adaptation in the social media and websites, campaigns in the form of a documentary film or video, info-graphics, and visual aids (print and online), book series, leaflet, posters and banners.
6. Uses experts from campus and research institutions that focus on climate change adaptation that entered in POKJA-API and expert team in project implementation structure.
7. To reach out to indigenous peoples and/or vulnerable people, project management will consider the diversity of language to prevent *missed* in the delivery of learning.

G. Consultative Process

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 of the Adaptation Fund.

Specifically, vulnerable groups and gender issues, the beginning step of project will seriously identify the person or vulnerable family group who shall involved by consider the distance, project impact, and the analysis results of expert teams or specialists who assigned to address it. The consultation process would involve the Regional Development Planning Agency, Department of Social Welfare and Labor, village governments, Local Group and Community Leaders. The participatory approach and two-way communication pattern will explore and identify vulnerable groups and their issue specifically. These results would be integrated into the program and have monitoring and evaluation indicators, and separate portion.

In the context of environmental studies, science technology, especially for climate and disaster studies or other environmental study would involve the Center for Research and Development of Natural Heritage, Biodiversity and Climate Change, Hasanuddin University. To strengthen product marketing of coastal resources creative efforts in the form of processed seaweed products, by involving seaweed experts as consultant for the improvement of product quality to strengthen the marketing network.

In addition, the consultation process that performed internally by POKJA-API team, a consulting room would be opened as widely as possible through consultation meetings at the level of village/sub-district and district. POKJA-API team as well as the representatives of community, vulnerable groups and women in ensuring the accommodation of ideas in the *grass root* level.

H. Justification for Funding Requested

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

The project intervence forests and coastal regions, to the policy reforms as main components that will be intervened in an effort to promote the climate change adaptation in *Saddang* watershed ecosystem. In terms of bio-physical, topography and investment area are large and distributed, then support of AF in the form of grants would greatly help to achieve the objectives of project as planned. The fund will be allocated to all major activities of project to realize the action plan of climate change adaptation on the *Saddang* watershed ecosystem.

Component 1. Expansion and strengthening the Social Forestry in encouraging forest-food in *Saddang* watershed upstream

Baseline *(without AF)* *:* Without AF, the encouraging of Social Forestry schemes in target areas will be difficult to be realized by looking at the achievements of the government and the district today. And internalization of social forestry models in encouraging food forest will not happen. Obstacles in the encouraging of Social Forestry schemes is the magnitude of communication gap, lack of information on bio-physical, budget, parties capacity as well as socio-economic and political conditions in the target area.

Additionally *(with AF)* : With AF's support the acceleration of Social Forestry will be more visible its opportunities, with an added value it can internalize food forests in sustainable forest management which will have implications for better forest management in the *Saddang* watershed upstream. Funds will be allocated to each of a series of activities to achieve the great goal of social forestry scheme of 5.000 ha. Assessment, biophysical and socio-economic and culture survey, and the mapping were done to enrich the information in climate change adaptation planning. While

institutional capacity building activities is conducted to ensure the plan will be implemented in line with expectations and continue to run in the corridors.

Component 2. Improving management and coastal carrying capacity in supporting climate change adaptation in the *Saddang* watershed downstream

Baseline *(without AF)* : Without AF's support, the management of *Saddang* watershed downstream that not yet optimal would threaten continuous disasters due to the absence of design in adapting in watershed downstream. Meanwhile, women and vulnerable groups in the downstream area will remain marginalized.

Additionally *(with AF)* : With AF's support, the management of coastal areas in watershed upstream will be oriented to the improvement and enhancement of environmental support, and empowerment of communities in downstream area in which affected by climate change, in turn would increase the potential risks which would occur due to climate change in *Saddang* watershed downstream. Activities of establishment and strengthening of *Kelompok Peduli Perubahan Iklim* will be a driving force in efforts to manage and improved coastal carrying capacity to support the improvement of climate change adaptation in *Saddang* watershed downstream.

Component 3. Strengthening cross-sector policy in ensuring the sustainability of climate change adaptation

Baseline *(without AF)* : Without project realization of AF's support, realization of implementation of adaptation plans at the local level will not be running by looking the capacity of the parties, partisanship and local finances. And the absence of integration of the National Action Plan for Climate Change Adaptation to the local level in explicit to the technical problems. Absence of encouragement from outside causes such problems become sidelined.

Additionally *(with AF)* : With AF's support, then the sustainability of adaptation plan for *Saddang* watershed ecosystem area will be ensured. Strengthening the capacity and involvement of expert team to the establishment of POKJA-API team in ensuring the realization of climate change adaptation actions will also encourage the sustainability of adaptation measures in each region of *Saddang* watershed ecosystem. And also strengthening of social media: making a film, video, book series, and other campaign media as efforts to ensure the dissemination of program alignments, and expand the scope of the adaptation program benefits.

I. Sustainability

Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme.

At the policy level, the integration of adaptation into each drafting the regional development and encourage the Regional Action Plan on climate change adaptation into the coverage area of project intervention that is expected to be an effort for more broadly climate change adaptation. With a strong element of increasing the capacity of the parties, the building of adaptation monitoring system, the management which has an impact on the economic and environmental sustainability as well as the lessons learned in the project, would ensure the sustainable result. A strong emphasis on monitoring and evaluation activities would also ensure the sustainable impact and results.

Furthermore, the involvement of local communities in important decisions to increase their commitment in making solutions, and to ensure responsibility after completion of the project. The goal is, at the end of the project, the community/selected group would be able to continue to adapt to climate change independently, supported by open government and participative. Following the main elements in the sustainability of the project would be achieved:

1. Financial Sustainability

Sustainability of financial is the financial sustainability of local government in encouraging the programs for climate change adaptation even though the project has ended, as well as the

sustainability of financial beneficiaries of food forests and creative efforts from this project. Funding in favor of climate change adaptation program would be encouraged through Working Groups (POKJA) and District or Provincial Regulations, so that the related regional work units (SKPD) has a legal protection in implementing strategic programs and action program of climate change adaptation. Sustainability of finance at the level of beneficiaries would be done through the use of technology in product processing, the increase in financial and business management capacity and connect the processed products to the right market, while maintaining gender mainstreaming. Besides, efforts from the food forest that will be driven would benefit from local wisdom of Toraja tribe "*Kuang & Alang*" or briefly, we know as "*integrated farming"* which has been described previously in the context of the social economy.

2. Institutional Sustainability

Sustainability of institutional is conducted by forming *Kelompok Peduli Perubahan Iklim*, and social forestry group, where the cadres involved is vulnerable communities or other target community who have been provided for strengthening capacity in institutional governance. Community involvement persuasively, as managing in the institutional sub-system is adaptive efforts in ensuring their managed institutions that would support the achievement of long-term climate change adaptation. In addition, the presence of POKJA-API team with support of several other development policies could make POKJA-API team works continue to occur even though the project has been completed.

3. System Sustainability

The availability of monitoring system on climate change adaptation programs are driven through a partnership funding would continue and be used by POKJA-API team as well as society at large. It is also related to the management of knowledge in order to strengthen the sustainability of the project.

J. Environmental and Social Impact and Risk

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

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	√	
Access and Equity	√	
Marginalized and Vulnerable Groups		√
Human Rights	√	
Gender Equity and Women's Empowerment	√	
Core Labour Rights	√	
Indigenous Peoples	√	
Involuntary Resettlement	√	
Protection of Natural Habitats	√	
Conservation of Biological Diversity	√	
Climate Change	√	
Pollution Prevention and Resource Efficiency	√	
Public Health	√	
Physical and Cultural Heritage	√	
Lands and Soil Conservation	√	

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for Project Implementation

Describe the arrangements for project / programme implementation.

Konsorsium Adaptasi Perubahan Iklim dan Lingkungan (KAPABEL) consist of 5 (five) organizations, including: (1) *Tim Layanan Kehutanan Masyarakat* (TLKM) Foundation, as Lead Consortium, and Consortium members: (2) Natural Heritage, Biodiversity And Climate Change, (3) AKU Foundations, (4) Kanopi Hijau – Enrekang, (5) Bumi Lestari - Pinrang. *Tim Layanan Kehutanan Masyarakat* (TLKM) Foundation is an institution engaged in the field of sustainable natural resources sustainable management, which has established since 2010, has notary as institute in 2011, and as Foundation in 2017. Since 2010, TLKM Foundation has operated many programs on the issue of social forestry and sustainable natural resources management (Bantaeng, Maros, Sinjai, Gowa, Enrekang, Toraja and Barru), issues of conflict of forest areas, especially in the National Park of Bantimurung-Bulusarung Maros, as well as studies, especially related to the disaster around forests (Enrekang, Toraja, North Toraja, Pinrang, and Mamasa). With a motto "*Communiversity For Sustainable Forest.*" Nowadays, TLKM Foundations has successfully become the initiator, and has very large role in *Konsorsium Pengelolaan Sumberdaya Alam Berbasis Masyarakat Mamuju* (PSDABM-M) on the program of *Millennium Challenge Account Indonesia* (MCAI-I) Window II in West Sulawesi with province with a total managed budget ±$750.000. Some TLKM Foundation's partners at national and international level to date such as: Recoft, MCAI, Shamdana Institute, *Forum Komunikasi Kehutanan Masyarakat* (FKKM), Sulawesi Community Foundation (SCF), *Perkumpulan Inisiatif*, and World Wildlife Fund (WWF).

Consortium pattern which will be arranged through **PMU (Project Management Unit) structure**, the structure will be established in accordance with the program's needs. Furthermore, each member of a consortium will be filled according to their capacity and the necessary criteria. In addition, the strategic policies to be taken at the level of Steering Committee where all organization has one member of the steering committee who was not involved in the structure of project implementation. This is to avoid any conflict of interest, especially on the people involved at the level of project implementation, see **Annex 9,** *for Consortium Structure of Organization.*

Other relevant institution both at the level of provinces and districts are: Department of Agriculture, Regional Planning Research and Development Agency (Bappelitbangda), Forest Management Unit (*KPH*), Departement of Environment, Department of Social, Department of Fisheries and Marine, University, Regional Disaster Overcoming Board, Department of Health, Department of Cooperatives and Industry, and the Department of Education and Culture. All institution will be incorporated into the POKJA-API team at the district level, in addition there is some capacity building related to adaptation to climate change, both in terms of technical, preparation of action plans, as well as monitoring and surveillance system. Besides, social media support to blow up issue of climate change adaptation would encourage alignments and enthusiasm of the concerned parties.

By Kemitraan (Partnership) as National Implementing Entity, if possible the partnership will also enter into POKJA-API team to ensure the direction of policy, programs and action plans on the project be more appropriate with the target of National Implementing Entity level. The pattern of coordination, reporting, monitoring and evaluation will be conducted regularly by the National Implementing Entity. To ease the communication and mutually reinforcing, the implementation team for email and mailing lines and chat group (*Whatsapp*) will be created specifically for this case.

B. Financial Risk and Project Risk Management

Describe the measures for financial and project / programme risk management.

There are three main program that will provides economic, social and environmental benefits. The activities will affect direct form of agroforestry, agrosilvopastural, coastal and land rehabilitation, forest-food diversification which it support by strengthening cross-sector policies to ensure the sustainability of adaptation to Climate Change. This program will avoid mitigate negative impact show on table below:

Categories	Potential Risk	Level	Mitigation Strategy
Financial	Changes in currency exchange rates, leading to changes in the proposed budget items and the impact on the budget proposed activities and workplan	Signifcant	Adjustments to changes in exchange rates and the reduction of funding
	Delays in disbursement will hinder the process of implementation and its impact on the achievement of outputs	Signifcant	Their funding and financing countermeasures
Institutional	Disagreements some stakeholders of the main programs implemented and the desired outcomes based on objective	Signifcant	Needed for regular meetings with the involvement of relevant stakeholders in order to establish communication related to the program and the progress of activity
	No institution as a forum for social forestry in order to acceleration social forestry (i.e. social forestry working group/POKJA)	Signifcant	Social forestry working group be established
Social	The involvement of communities in several activity programs do not refer to gender equality	Signifcant	Needed to ensure the involvement of women in every meeting and implementing activities on the ground
	Obtained legal access of communities to manage forests through social forestry scheme will impact on the exploitation of forest products	Signifcant	Needed for community assistance obtaining legal access through the approach and methods of PRA (*Participatory Rural Appraisal*) manage forests sustainably through social forestry scheme
Environmental	Waste from food processing technology of forest products	Signifcant	The availability of waste control media using environmentally friendly technology
	Polybag plastic waste generated in rehabilitation activities both upstream and downstream of the watershed ecosystem	Signifcant	Collected and relocated polybag plastic waste to a landfill

c. Environmental and Social Risk Management

Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.

Project/programme preparation identifies environmental or social risks, the proposal should include an environmental and social management plan that identifies those measures necessary to avoid, minimize, or mitigate the potential environmental and social risks. The table below describes risks and impacts management :

D.

Environmental and social principles	Impact and Risks	Mitigation Strategy
Compliance with the Law	-	-
Access and Equity	-	-
Marginalized and Vulnerable Groups	Low involvement of vulnerable groups in the program	Involvement of vulnerable groups
Human Rights	-	-
Gender Equity and Women's Empowerment	-	-
Core Labour Rights	-	-
Indigenous Peoples	-	-
Involuntary Resettlement	-	-
Protection of Natural Habitats	-	-
Conservation of Biological Diversity	-	-
Climate Change	-	-
Pollution Prevention and Resource Efficiency	-	-
Public Health	-	-
Physical and Cultural Heritage	-	-
Lands and Soil Conservation	-	-

Monitoring and Evaluation

Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

Monitoring and Evaluation of Adaptation to Climate Change (M & E) will refer to the framework that has been established by considering the component (1) Strategy and objectives; (2) Indicators of Accomplishment; (3) Implementation of Activities; (4) Use of Finance, which later these components will assist in:

1. Adherence (compliance). M & E in determining whether the act administrators, staff, and all those involved follow the standards and procedures have been established.
2. Examination (auditing). M & E in determining whether the resources and services that cater for a particular party (target) has reached them.
3. Report (accounting). M & E in generating information that helps "count" results in social change as a result of the implementation of wisdom after a certain time period.
4. Explanation (explanation). M & E in generating information that helps explain how and why the result of the wisdom of the planning and implementation is not suitable

Monitoring and evaluation will be conducted through the stages of planning, the stages of implementation and reporting stages (1) Progress Report; (2) from the Field (Field Visits). Reporting will be done in stages, in terms of reporting done from the bottom unit to the helm of the consortium, from the Consortium capable to Kemitraan (Partnership).

Activity report. Reporting will be done on every activity that has been done so that there is monitoring through the report, that will helps in proving the progress being made. Including assessing the financial use on activities that have been carried out.

Quarterly report. Reporting will be done on every 3 months. Quarterly Report will summarize the section related to activity and output levels that contribute to the expected results.

Annual Performance Assessment. A system of assessments by superiors to subordinates in view of performances. The elements assessed in is loyalty, performance, responsibility, obedience, honesty, cooperation, initiative, and leadership. Assessment will be done at each middle and end of the project.

Project Final Report. The evaluation was conducted at 2 before the end of the project. This evaluation is done through reporting that summarizes the results achieved (Goal, Outcome, and Output), problems, the results are not achieved. The results of this evaluation will be recommendations on each area so ensure the sustainability of the projects that have been implemented. The evaluation will be done in a comprehensive, transparent and accountable. (*see **Annex 3.** M&E Budget & Plan*).

E. Result Framework

Include a results framework for the project proposal, including milestones, targets and indicators .

*See **Annex 4.*** for detail project result framework (including milestones, targets, and indicators)

F. Alignment with Adaptation Fund Result Framework

Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund

Alignment with AF result framework attached on ***Annex 5.*** *Alignment with Adaptation Fund Result Framework*

G. Budget

Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

Amount of financing requested is $748.445, with project execution costs are $69.644 (9.31%) of the total budget. (*see **Annex 2**. for detailed budget).*

H. Disbursement Schedule

Include a disbursement schedule with time-bound milestones.

Disbursement schedule and time-bound quartery *attached on **Annex 6**. Disbursement Schedule*

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

A. Record of endorsement on behalf of the government[16] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Dr. Kalatiku Paembonan, M,Si Regent of Toraja Utara District	Date: March, 31, 2017
Dr. H. Muslimin Bando, M.Pd Regent of Enrekang District	Date: March, 31, 2017
Aslan Patonangi Regent of Pinrang District	Date: March, 31, 2017
Ir. H. Muhammad Tamzil, MP Head of Enviroment Management Department South Sulawesi Province	Date: March, 31, 2017
Ir. Andi Hasmi M.T Head of Enviroment Management Departement South Sulawesi Province	Date: March, 31, 2017
Daud Balalembang, S.STP Head of Enviroment Department Tana Toraja District	Date: March, 31, 2017
Dr. Ir. Nur Masripatin M.For. Sc Director General for Control of Climate Change	Date*: April, 6, 2017*

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

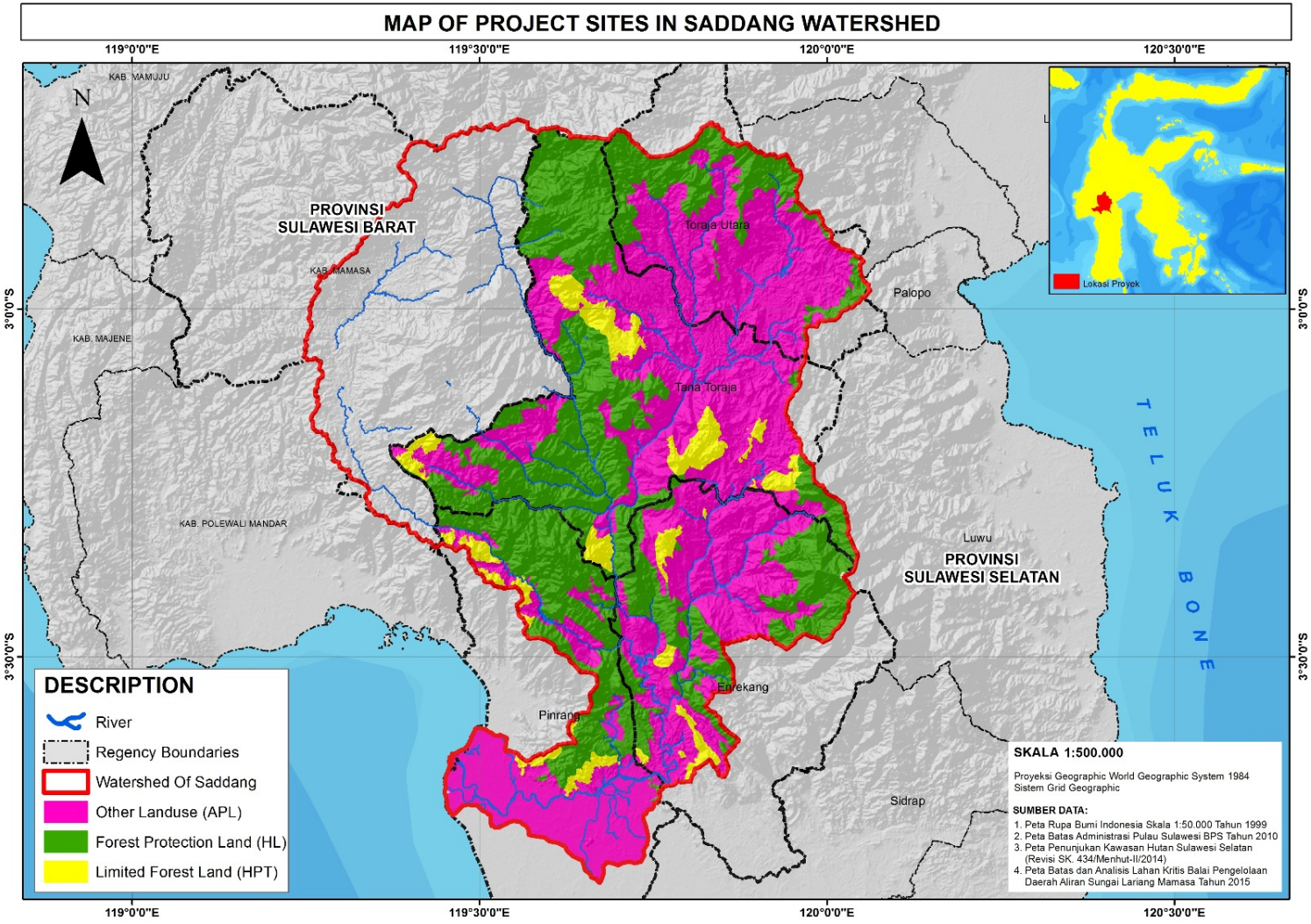
I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (President Decree No. 16 year 2015; P.13/Menlhk/Setjen/OTL.0/1/2016; P.33/Menlhk/Setjen/Kum.1/3/2016; Indonesia Intended Nationally Determined Contribution/INDC; COP 21 Paris Agreement signed by Government of Indonesia; Book and Map of Information System of Vulnerability Index Data (SIDIK); Permen-KP No. 2 year 2013; Climate Change Adaptation National Action Plan) 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.

16 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.

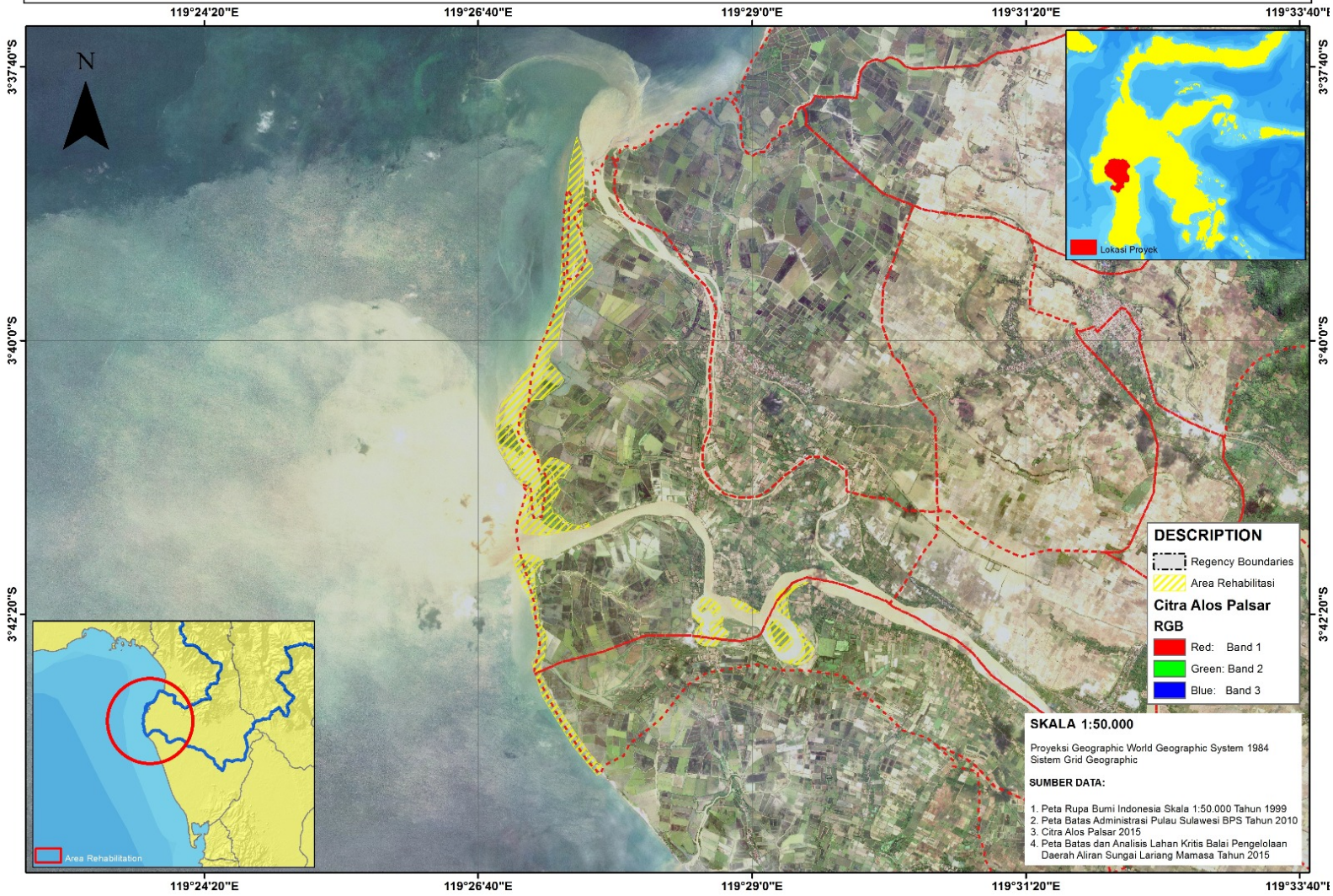
Monica Tanuhandaru
Executive Director of Partnership for Governance Reform in Indonesia (Kemitraan)
Implementing Entity Coordinator

Date: *April, 6, 2017*	Tel. and email: +62-21-7279 9566; Monica.Tanuhandaru@kemitraan.or.id
Project Contact Person:	Dewi Rizki
Tel. And Email:	+62-21-7279 9566; Dewi.Rizki@kemitraan.or.id

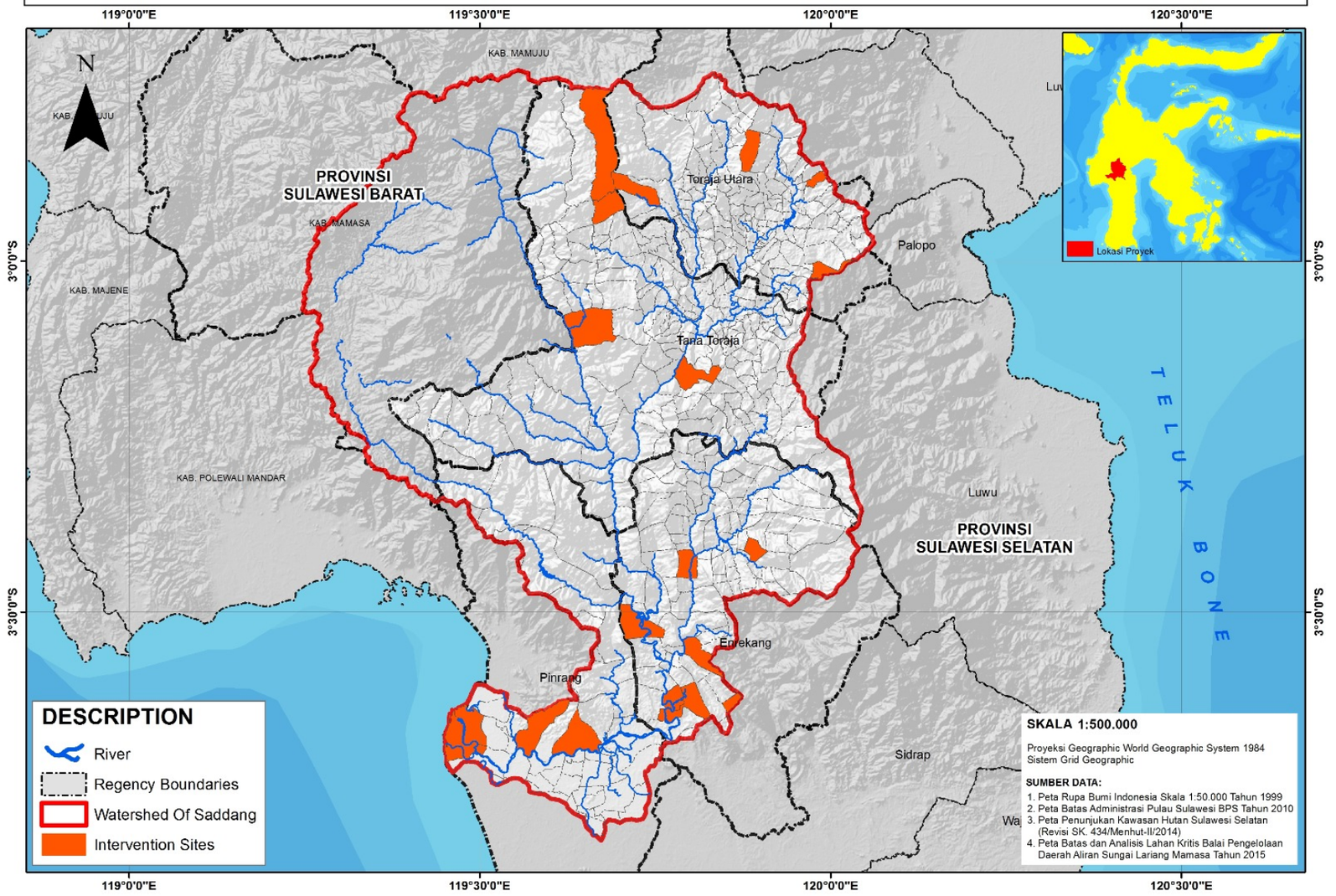
ANNEX 1: MAPS

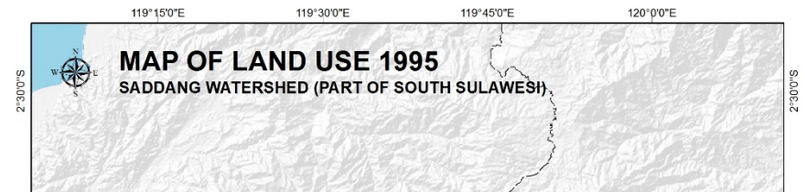

MAP OF PROJECT SITES IN SADDANG WATERSHED
119°0'0"E
119°30'0"E
120°0'0"E
120°30'0"E
3°0'0"S
3°30'0"S
N
KAB. MAMUJU
PROVINSI SULAWESI BARAT
KAB. MAMASA
KAB. MAJENE
KAB. POLEWALI MANDAR
Toraja Utara
Palopo
Tana Toraja
Luwu
PROVINSI SULAWESI SELATAN
TELUK BONE
Enrekang
Pinrang
Sidrap
Lokasi Proyek
DESCRIPTION
River
Regency Boundaries
Watershed Of Saddang
Other Landuse (APL)
Forest Protection Land (HL)
Limited Forest Land (HPT)
SKALA 1:500.000
Proyeksi Geographic World Geographic System 1984
Sistem Grid Geographic
SUMBER DATA:
1. Peta Rupa Bumi Indonesia Skala 1:50.000 Tahun 1999
2. Peta Batas Administrasi Pulau Sulawesi BPS Tahun 2010
3. Peta Penunjukan Kawasan Hutan Sulawesi Selatan (Revisi SK. 434/Menhut-II/2014)
4. Peta Batas dan Analisis Lahan Kritis Balai Pengelolaan Daerah Aliran Sungai Lariang Mamasa Tahun 2015

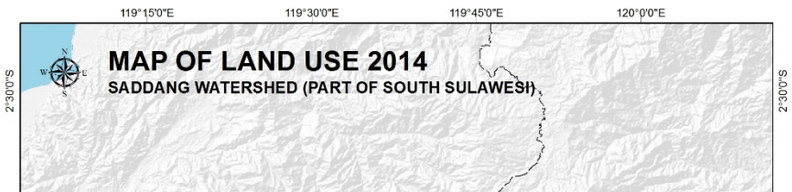
MAP OF REHABILITATION COASTAL AREA IN SADDANG WATERSHED



MAP OF INTERVENTION SITES IN SADDANG WATERSHED







	1.2.2.4.	Visits and regular meetings between groups	$2,000.00
	1.2.2.5.	The potential mapping of Social Forestry area including biophysical and socio-economic survey results	$11,538.46
Outcome	**1.3.**	**Increased community income of the forest food (Agroforestry and Agrosilvopastoral) in the upstream watershed of Saddang**	**$198,955.05**
Output	**1.3.1.**	**Increased skills of Forest Farmers Group, Women and Vulnerable Groups in Managing Sustainable Forest**	**$78,218.12**
Activity	1.3.1.1.	Forest management (agroforestry) technical training	$6,923.08
	1.3.1.2.	Cultivation technical training	$7,850.43
	1.3.1.3.	Nursery management technical training	$8,846.15
	1.3.1.4.	Training to improve the quality of forest food products	$7,769.23
	1.3.1.5.	Product packaging training	$7,615.38
	1.3.1.6.	Facilitating forest cultivation of food preparation module	$5,384.62
	1.3.1.7.	Facilitating the preparation of food seeds home management module forest	$5,384.62
	1.3.1.8.	Regular discussions between forest farmer groups, women and vulnerable groups	$4,615.38
	1.3.1.9.	The comparative study of management the superior forest food	$11,538.46
	1.3.1.10.	Entrepreneurship training	$7,230.77
	1.3.1.11.	Financial management training	$5,060.00
Output	1.3.2.	**Availability of infrastructure, processing technology of forests-food**	**$61,198.46**
Activity	1.3.2.1.	Facilitation permission of household scale product processing	$4,046.15
	1.3.2.2.	Provision the equipment of food forest processing	$4,075.38
	1.3.2.3.	Production house / home industry construction	$30,769.23
	1.3.2.4.	Forest food products warehouse construction	$15,384.62
	1.3.2.5.	Facilitating the preparation of the technical module operation and equipment maintenance	$6,923.08
Output	1.3.3.	**Increased forest land cover and productivity of forests-food**	**$46,923.08**
Activity	1.3.3.1.	Identify the forest land rehabilitation areas	$4,615.38
	1.3.3.2.	Forest land rehabilitation with (agroforestry)	$30,769.23
	1.3.3.3.	Nursery house construction	$11,538.46
Output	1.3.4.	**Connected forest-food products to market**	**$12,615.38**
Activity	1.3.4.1.	Facilitating of market assessment for forest food products	$3,846.15
	1.3.4.2.	Study of supply chain and value chain of forest food products	$2,307.69
	1.3.4.3.	Dissemination of the results of the study of supply chain and value chain	$692.31
	1.3.4.4.	Business meeting at the level of supply and demand	$3,846.15
	1.3.4.5.	Food forest products consultation to food products laboratory	$1,923.08

Component 2. Improved governance and the carrying capacity of the coast in support of adaptation to climate change in downstream of Saddang watershed			**$159,132.31**
Outcome	**2.1.**	**Land and coast rehabilitation in of Saddang watershed**	**$84,440.00**
Output	**2.1.1.**	**Concern Group on Climate Change (KPPI) are created as a mover in the village and sub-district level.**	**$22,647.69**
Activity	2.1.1.1.	Establishment plan socialization of KKPPI	$5,340.00
	2.1.1.2.	KKPPI cadre assessment / identification	$3,076.92
	2.1.1.3.	The meeting of group formation	$2,307.69
	2.1.1.4.	Facilitating the preparation of the rules (AD / ART) KKPPI	$1,538.46
	2.1.1.5.	Facilitating the preparation of the institutional system of KKPPI	$4,615.38
	2.1.1.6.	Facilitation of regular discussions KKPPI	$5,769.23
Output	**2.1.2.**	**Increased capacity and skills KPPI as well as the stakeholders in the improvement of governance and the carrying capacity of the downstream coastal watershed**	**$20,600.00**
Activity	2.1.2.1.	Adaptation to climate change training	$3,846.15
	2.1.2.2.	Leadership cadres training of youth who concerned about the climate change	$3,846.15
	2.1.2.3.	Facilitation training and mentoring	$3,846.15
	2.1.2.4.	Training workshops mangrove cultivation	$3,461.54
	2.1.2.5.	Regular consultation meetings	$5,600.00
Output	**2.1.3.**	**Facilities and infrastructure are available to support the rehabilitation of land and coastal areas in the downstream of Saddang watershed**	**$22,307.69**
Activity	2.1.3.1.	Provision of equipment rehabilitation of coastal land	$15,384.62
	2.1.3.2.	Facilitating the preparation of guidelines for the technical operation and equipment maintenance	$6,923.08
Output	**2.1.4.**	**Land and coast rehabilitation in downstream- of Saddang watershed**	**$18,884.62**
Activity	2.1.4.1.	Assessment of mangrove planting locations	$3,076.92
	2.1.4.2.	Meeting of planting area distribution of each group	$2,730.77
	2.1.4.3.	Provision of mangrove seedlings	$7,692.31
	2.1.4.4.	Mangroves planting	$5,384.62
Outcome	**2.2.**	**Increased community income through household enterprises efforts and food diversification in downstream of Saddang watershed**	**$74,692.31**
Output	**2.2.1.**	**KKPI skills enhancement, women and vulnerable groups in the development and diversification of household enterprises**	**$28,384.62**
Activity	2.2.1.1.	Enterpreneurship training	$7,538.46
	2.2.1.2.	Food diversification workshop	$6,153.85

	2.2.1.3.	Training of making creative enterprise from the coastal natural resources	$7,307.69
	2.2.1.4.	Food cultivation training	$7,384.62
Output	**2.2.2.**	**Infrastructure technologies are available in encouraging household enterprises and diversification**	**$25,000.00**
Activity	2.2.2.1.	Procurement of Coastal Natural Resources processing equipment	$10,384.62
	2.2.2.2.	Procurement of product diversification processing equipment (on farm and off farm)	$7,692.31
	2.2.2.3.	Facilitating the preparation of the technical module operation and equipment maintenance	$6,923.08
Output	**2.2.3.**	**Connect marketing for household enterprises and food diversification**	**$21,307.69**
Activity	2.2.3.1.	Facilitating market assessment of creative enterprise and the products diversification results	$3,846.15
	2.2.3.2.	Study of supply chain and value chain of products	$7,384.62
	2.2.3.3.	Dissemination of the supply and value chain study results	$692.31
	2.2.3.4.	Business meeting at the level of supply and demand	$7,461.54
	2.2.3.5.	Food forest products consultation to food products laboratory	$1,923.08
Component 3. Strengthened system and institutional capacity to reduce risks associated with climate-induced socio-economic and environmental losses			**$88,058.80**
Outcome	**3.1.**	**Strengthened cross-sectoral policy in ensuring the sustainability of adaptation to climate change**	**$88,058.80**
Output	**3.1.1.**	**Team on Climate Change Adaptation Working Group (Working Group-API) has been formed**	**$23,714.76**
Activity	3.1.1.1.	Multistakeholder meeting to establishment the POKJA-API team Saddang Watershed Ecosystem	$3,846.15
	3.1.1.2.	Workshop establishment of the POKJA-API team Saddang Watershed Ecosystem	$2,975.00
	3.1.1.3	Advocacy Issuance of Decree (SK) POKJA-API team Saddang Watershed Ecosystem	$983.00
	3.1.1.4.	Training Action Plan on Climate Change Adaptation	$992.31
	3.1.1.5.	Facilitation of Road-map action plan Adaptation to Climate Change on Saddang Watershed	$7,692.30
	3.1.1.6.	Dissemination Road-map Action Plan on Climate Change Adaptation	$2,159.00
	3.1.1.7.	Facilitation of regular discussions with POKJA-API team Saddang Watershed Ecosystem	$5,067.00
Output	**3.1.2.**	**Internalized the Action Plan on Climate Change Adaptation in Local Government policies, as well as their planning documents local level adaptation action plans**	**$26,853.30**
Activity	3.1.2.1.	Multistakeholder meeting in the preparation of climate change adaptation action plans Saddang Watershed Ecosystem	$4,094.00
	3.1.2.2.	Regular meeting facilitation team POKJA-API in the preparation of the Action Plan for Adaptation to Climate Change at the Local Level	$5,067.00
	3.1.2.3.	Facilitation Action Plan Proposal on Climate Change Adaptation into Village Regulations	$3,846.15
	3.1.2.4.	Facilitation Action Plan Proposal on Climate Change Adaptation in Local Regulation	$6,153.85
	3.1.2.5.	Integrating multi-stakeholder meeting in the Action Plan on Climate Change Adaptation in the Strategic Plan Regional Work Units (SKPD Strategic Plan)	$7,692.30

Output	**3.1.3.**	**Climate Change Adaptation monitoring systems that support the strengthening of policies implemented stakeholders**	**$13,590.07**
Activity	3.1.3.1.	Preparation Training Adaptation to Climate Change Monitoring System	$1,037.61
	3.1.3.2.	Facilitating the consultation of the development indicators monitoring system	$1,014.00
	3.1.3.3.	Facilitating in making monitoring application for the climate change adaptation actions	$2,307.69
	3.1.3.4.	Socialization of adaptation to climate change monitoring system	$1,538.46
	3.1.3.5.	Training operationalization of the application to the parties	$7,692.31
Output	**3.1.4**	**Disseminate of all programs to strengthen and encourage policies and alignments**	**$10,310.60**
Activity	3.1.4.1.	Documentary film making related to climate change adaptation action	$4,615.38
	3.1.4.2.	Launching of the Documentary Film Adaptation to Climate Change	$1,538.46
	3.1.4.3.	Books and Journals preparation of Adaptation to Climate Change	$1,153.85
	3.1.4.4.	Launching Books and Journals Adaptation to Climate Change	$523.30
	3.1.4.5.	Leafleat manufacture, posters, banners	$230.76
	3.1.4.6.	Social Media and Website Development Adaptation to Climate Change Saddang watershed ecosystem	$769.23
	3.1.4.7.	Facilitating partnerships with providers in the publication of a climate change adaptation action	$325.00
	3.1.4.8.	The distribution of all publications to the public	$384.62
	3.1.4.9.	Facilitation promotional billboard rental of adaptation to climate change Saddang watershed ecosystem	$770.00
		Total Implementing Cost	**$678,800.53**
Project/Programme Execution Cost			**$69,644.62**
		Upstream Watershed Management Program Manager	$9,000.00
		Downstream Watershed Management Program Manager	$9,000.00
		Program Officer	$10,384.62
		Spatial Adaptation to Climate Change Specialist	$3,557.69
		Forest management and Environmental Specialist	$3,557.69
		Monev Specialist	$3,846.15
		Food and Disversification Specialist	$3,846.15
		Project Manager	$4,153.85
		Project Coordinator	$10,384.62
		Finance Manager	$2,492.31
		Assiten Finance Manager	$3,115.38
		Office boy	$830.77

		Office Rent	$923.08
		Stationary	$207.69
		Communication	$207.69
		Electricity, Water	$290.77
		Printer	$115.38
		GPS	$384.62
		Camera	$269.23
		Audit Program	$3,076.92
Total Project/Programme Cost			**$748,445.14**
Project/Programme Cycle Management Fee charged by the Implementing Entity			**$-**
		-	$-
Amount of Financing Requested			**$748,445.14**

ANNEX 3: MONITORING & EVALUATION PLAN

Project Results	Indicators	Frequency	Responsible	Monitoring Methods & Tools
Goals	1. Strengthening the Social Forestry in encouraging food forest at upstream of Saddang watershed that will have implications on environmental improvement and increase of incomes. 2. Improved governance and the carrying capacity of the coast to support of adaptation to climate change in downstream Saddang watershed. 3. Strengthening cross-sectoral policy in ensuring the sustainability of adaptation to climate change.	End of project	Expert MONEV	Final report Review
Outcome				
Outcome 1 5,000 ha of Social Forestry scheme was expanded in the upper-watersheds of Saddang	5,000 ha of Social Forestry scheme in the upper-watersheds of Saddang is created	Annual	Expert MONEV	Annual report Review
Outcome 2 Institutional strengthening of the parties and the Social Forestry schemes in support of adaptation to climate change	Increasing the capacity of the parties and social forestry institutions in support of adaptation to climate change	quarterly	Expert MONEV	quarterly report Review
Outcome 3 Rising incomes on food forest (agroforestry, Agrosilvopastoral) in the upstream-Saddang watershed	value-added community income from food forests in upper-watersheds	quarterly	Expert MONEV	quarterly report Review
Outcome 4 Land and coastal areas in a downstream-Saddang watershed is sustainably rehabilitated	land in the downstream-Saddang watershed is rehabilitated	quarterly	Expert MONEV	quarterly report Review
Outcome 5 Community income increases in the downstream-Saddang watershed through friendly environmental households enterprises and food diversification	friendly environmental households enterprises that directly impact on improving community income is created	quarterly	Expert MONEV	quarterly report Review

ANNEX 4: RESULT FRAMEWORK

Outcome/ Output	Indicator	Baseline	Target	Source Of Verification	Risk & Assumption
Componen I. Strengthened the Social Forestry in encouraging food forest security in upstream-watershed of Saddang					
Outcome 1.1 5.000 ha landcover area of social forestry are increased in upstream-watershed of Saddang.	5,000 ha of land to get legal access : HKM / HD / HTR / Partnership	5,000 hectares of forest, both of which have been proclaimed social forestry scheme but have not managed through management permit HKM / HD / HTR / Partnership	5,000 ha obtain permission management HKM / HD / HTR / Partnership until the end of the Project	Manage permissions HKM / HD / HTR / Partnership, and Reports	If no changes in the regulation of social forestry
Output 1.1.1 Increased capacity of escort and local communities in social forestry scheme	Increased 80 person of Local Community in order to support social foresrty scheme	0	80 people is increasing its capacity in the 1st year (2017)	Activity Report, Documentation	-
Output 1.1.2 Increased stakeholders involved in order to support social forestry scheme	a memorandum of understanding (MoU) related to acceleration of social forestry	0	MoU in Q1 Project (2017)	Copy MoU Acceleration of social forestry, Activity report	-
Output 1.1.3 Legal access for Community Forest, Forest Village Scheme, or Partnership Scheme	15 Legal access : Community Forest (HR) /Forest Village Scheme (HD)/Partnership scheme	0	15 Legal Access on Q3-Q4 Project (2017-2018)	Copy of permission HKM/HD/HTR/ Partnership	The length of time the issuance of permits, social forestry and advocacy working group licensing should be routine
Outcome 1.2 Strengthened institutional awareness in order to support adaptation of climate change	15 Local Institutional social forestry is created and increased capacity	Local institutions have no understanding of social forestry related to adaptation to climate change	15 local institutions to understand and realize the social forestry in climate change adaptation	Activity Report, Documentation Activity Report, Documentation	-

Output 1.2.1 Improved local community capacity to maintain suistanable forest management	Approxiamately 75 person of local community had increased capacity	0	75 people income has increased in Q3 (2017)	Activity Report, Documentation	-
Output 1.2.2 Internalized climate change adaptation action plan in institutional of Social Forestry	15 Document of Forest Management based on community (HD/HKM/HTR/Partnership) which contains development of adaptation strategies	0	15 Document of HD/ HKM/ HTR/ Partnership Scheme in Q5	Copy of Document HD/HKM/HTR/Partenrshi p Scheme	-
Outcome 1.3 Increased community income by forest-food (agrosilvopastoral) in upstream-watershed of Saddang	Agrosilvopastoral system is applied as a source of household income	Income communities by not applying agrosilvopastural pattern in regional areas has permission management HKM / HD / HTR / Partnership	Increased community income by applying agrosilvopastural pattern at the end of the project	Activity Report, Documentation	The difference between the direction of the development of agriculture, forestry, and livestock The difficulty of changing patterns of livestock maintenance management community
Output 1.3.1 Increased skills of forest farmers group, women and vulnerable groups in managing sustainable forest.	Approxiamately 525 persons of 15 gorups in social forestry are created and strengthened in support of livelihood strategis	0	525 person of 15 groups HKM/HD/HTR/Partenership, woman and vulnerable group has increased capacity in Q2-Q4	Activity Report, Documentation	The farmer group rejected the new approach in improving skills of project because of bet is different from pattern
Output 1.3.2 Availability of infrastructure, processing technology of forests-food	15 units of forest-food processing infrastructures operate	0	15 units of infrastructure are availabe in Q3	Document handover of goods, Documentation, Activity Report	Specifications machine is not in accordance with market demand
Output 1.3.3 Increased forest land cover and	Increased forest land cover about 5.000 ha	land cover conditions before the project	5,000 ha of forest land cover increased by planting activity	Activity Report, Documentation	There is no certainty plant maintenance

productivity of forests-food					
Output 1.3.4 Connected forest-food products to market	Sold forest-food products by 75% of total production	0	75% of processed products sold in Q4-Q5	Purchasing documents / Contracts	-
Componen II. Improved governance and carrying capacity as support to adaptation of climate change in downstream watershed of Saddang					
Outcome 2.1 Land and coast rehabilitation in watershed of Saddang	300 ha of land and coastal was rehabilitated	land and critical coastal / open area needed rehabilitated	300 ha of land and coastal was rehabilitated in the end of project	Activity Report, Documentation	The number of seedlings which were swept waves
Output 2.1.1 Concern Group on Climate Change (KPPI) are created as a initiator in village and sub-district level	5 Group on Climate Change (KPPI) are created as a initiator	0	5 KKPI created and operated in Q1-Q7	Activity Report, Documentation	-
Output 2.1.2 Improved KPPI skills and capacity	Increased community skills of 100 people improvement of governance and carrying capacity of coastal	0	100 people increased skills in Q1-Q2	Activity Report, Documentation	-
Output 2.1.3 Facilities and infrastructure are available to support the rehabilitation of land and coastal areas in downstream-watershed of Saddang	5 units of infrastructure and facilities that are used in rehabilitation	0	5 Unit facilities and infrastructure that are used in rehabilitation available in Q3	Document handover of goods, Documentation, Activity Report	-
Output 2.1.4 Land and coast rehabilitation in downstream-watershed of Saddang	Approxiamately 300 ha area and coast are rehabilatated	0	300 ha are rehabilitated in Q3-Q5	Activity Report, Documentation	Location of land is not located on a traffic lane fishing boat
Outcome 2.2 Increased community income through household enterprises efforts and food diversification in downstream watershed of Saddang	500 families increased their income from households enterprises and food diversification	No public income through households enterprises and food disversifikasi	Increased Income from households enterprises and food diversification activity	Activity Report, Documentation	The changing pattern of financial management
Output 2.2.1 KKPI skills enhancement, women	200 person of local community increased	0	200 person of local community increased	Activity Report, Documentation	-

and vulnerable groups in the development and diversification of household enterprises	capacity of developed household enterprise and food diversification		capacity of developed household enterprise in Q2-Q4		
Output 2.2.2 infrastructure technologies are available to encourage household enterprises and diversification	Used 10 units of household scale processing equipment	0	10 units of household scale processing tools utilized in Q4	Document handover of goods, Documentation, Activity Report	-
Output 2.2.3 Network Marketing for household enterprises and food diversification	Sold forest-food products by 75% of total production	0	75% of processed foods sold in Q4-Q5	Purchasing documents / Contracts	Specifications machine is not in accordance with market demand
Componen III. Strengthened system and institutional capacity to reduce risk associated with climate induced socioeconomic and environmental					
Outcome 3.1 Strengthened cross-sectoral policy to ensure sustainability adaptation of climate change	5 Product Policy and System will encourage adaptation to Climate Change	Policies that support adaptation to climate change before the project started	5 policies that support adaptation to climate change by the end of the project	Document handover of goods, Documentation, Activity Report	Their accelerated development and economic policy to the contrary
Output 3.1.1 Team on Climate Change Adaptation Working Group (Working Group-API) has been formed	One Team POKJA API Watershed of Saddang	0	POKJA API terbentuk dan berjalan di Q1	Copy of Decree on Appointment of Team POKJA API, Work Plan	-
Output 3.1.2 internalized the Action Plan on Climate Change Adaptation (RAN API) in Local Government policies, as well as their planning documents local level adaptation action plans.	4 documents internalized with regional planning RAN API	0	4 documents internalized with regional planning RAN API in Q3-Q6	Copy of policy documents	-
Output 3.1.3 Climate Change Adaptation monitoring systems that support the strengthening of policies implemented stakeholders	One system monitoring application that is used to support adaptation implementation of development policy	0	System monitoring applications supporting implementation of policies in Q4-Q6	Purchasing documents / Contracts	the data entry process was not optimal System and indicator measurement is not executed

Output 3.1.4 Disseminated of all programs to strengthen and encourage policies and alignments	38,000 people get information from dissemination process	0	38,000 people get information till the end of project	Activity Report, Documentation	-

ANNEX 5: ALIGNMENT WITH AF RESULT FRAMEWORK

Project Objective(s)[17]	ProjectObjective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Strengthened the Social Forestry in encouraging food forest security in Saddang upstream-watershed	5.000 ha landcover area of social forestry are increased in upstream-watershed of Saddang. 200 of households developing forest-food (agrosilvopastural) by social forestry scheme	Outcome 5. Icreased ecosystem resilience in response to climate change and variability-induced stress Outcome 6. Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	5.000 ha natural assets maintained or improved under climate change and variability-induced stress 15% of households having more secure (increased) access to livelihood assets 10% of targeted population with sustained climate-resilience livelihoods	
Improved governance and the carrying capacity of the coast in order to support adaptation to climate change in downstream watershed of Saddang	5 Groups on Climate Change (KPPI) are created as a initiator in order to Carrying Capacity of coastal improvements in adaptation to Climate Change 300 ha area of land cover are increased. 50 of families are managing households enterprises and food diversification of climate change adaptation	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level Outcome 5. Icreased ecosystem resilience in response to climate change and variability-induced stress Outcome 6. Diversified and strengthened livelihoods and sources of income for	10% targeted population aware of predicted adverse impacts of climate change, and of appropriate responses Modification in behavior by 10% of Population 300 ha natural assets maintained or improved under climate change and variability-induced stress 15% of households having more secure (increased) access to livelihood	

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

		vulnerable people in targeted areas	assets 10% of targeted population with sustained climate-resilient livelihoods	
Strengthened system and institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	5 Product Policy and System will encourage adaptation to Climate Change	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses Outcome 7. Improved policies and regulations that promote and enforce resilience measures	53 institution are increased capacity to minimize exposure to climate variability risks 5 product adaptation policies to climate change are integrated in the National Strategy for Adaptation to Climate Change	
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
5,000 ha of Social Forestry was expanded in the upper-watersheds of Saddang	5,000 ha of land to get legal access management HKM / HD / HTR / Partnership	5.1. Increased forest reahabilitation area as response to climate change impact	5.1. 5,000 hectares of forest, which improved for adaptation to climate change	
Local institutional strengthening in Social Forestry schemes in support of adaptation to climate change	15 Local Institutional social forestry is created and increased capacity	6.Strengthened of local community and livelihood strategies	6.1.1 Fiveteen (15) local community are created and strengthened in support of livelihood strategis	
Increased community income from forest-food (Agroforestry, Agrosilvopastoral) in the upstream-watershed of Saddang	Agrosilvopastoral system is applied as a source of household income	6. Increas household income in targeted area	6.1.2 Agrhkosilvopastural as income source for households under climate change scenario	
Land and coast rehabilitation in downstream-watershed of	Approxiamately 300 ha area and coast are rehabilatated	3.1 involve targeted group participating in rehabilitation	3.1.1 Land and coastal Rehabilitation as one type of risk	

Saddang		5.Strengthened of natural asset in respons to climate change impact	reduction action at local level 5.1 300 ha of natural resources asset created, maintained, or improved	
Community income increases in downstream-watershed of Saddang through households enterprises and food diversification	50 of families increased their income from households enterprises and food diversification	6. Increase and strengthened community livelihood strategies to climte change impact	6.1.1 five (5) type of adaptation asset created in support of household – livelihood strategis	
Strengthened cross-sectoral policy in ensuring the sustainability of adaptation to climate change	38,000 policies that support adaptation to climate change	2.1 Strengthened Capacity of staff institusional to respon climate-realted events 7. Improved regulation of climate-resiliance strategies	2.1.1 25 staff trained to respon and mitigated impacts of climate realated events 2.2.2 38.000 people who live surround watersheed ecosystem affected by climete variability 7.1 four (4) regulation will introduced to address climate change risks	

ANNEX 6: DISBURSEMENT SCHEDULE

Component	Outputs	Activities	Timeframe/Months																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Strengthened the Social Forestry in encouraging food forest security in Saddang upstream-watershed	1.1.1. Increased capacity of escort and local communities in the scheme of Social Forestry	1.1.1.1. CBFM training for village assistantant																		
		1.1.1.2. Facilitation of the operationalization of village assistantant																		
		1.1.1.3. Social forestry socialization in each target village project																		
		1.1.1.4. The regular meetings in each village for strengthening the capacity of the group																		
	1.1.2. Increased stakeholders involved in order to support of the Social Forestry scheme	1.1.2.1. Multistakeholder meeting of Social Forestry accelerating action in each intervention area																		
		1.1.2.2. Workshop on Social Forestry acceleration and signing of MoU																		
		1.1.2.3. Routine FGD of outcomes monitoring from POKJA PPS team																		
	1.1.3. Legal access for Community Forest, Forest Village Scheme, or Partnership Scheme	1.1.3.1. Multistakeholder meeting proposing social forestry scheme																		
		1.1.3.2. Facilitating the preparation document of HPHD / IUPHKm / IUPHHK-HTR																		
		1.1.3.3. Facilitation petition to the Provincial Government and the Minister of environmental and forestry																		
		1.1.3.4. Advocacy of legal access to the parties																		
	1.2.1. Increased capacity of stakeholders in sustainable forest management	1.2.1.1. Facilitating in forming the Forest Farmers Group, Women and Vulnerable Groups																		
		1.2.1.2. Management and sustainable utilization of forest resources workshop																		

		1.2.1.3. Training of POKJA-PPS team to support the adaptation to climate change																				
		1.2.1.4. Formulating of roadmap action to climate change adaptation																				
	1.2.2. Internalized climate change adaptation action plan in institutional Social Forestry	1.2.2.1. Multistakeholder meeting internalizing climate change adaptation actions																				
		1.2.2.2. Workshop on climate change adaptation actions																				
		1.2.2.3. Training in preparation of HD / HKM / HTR / Forestry Partnership management plan																				
		1.2.2.4. Visits and regular meetings between groups																				
		1.2.2.5. The potential mapping of Social Forestry area including biophysical and socio-economic survey results																				
	1.3.1. Increased skills of Forest Farmers Group, Women and Vulnerable Groups in Managing Sustainable Forest	1.3.1.1. Forest management (agroforestry) technical training																				
		1.3.1.2. Cultivation technical training																				
		1.3.1.3. Nursery management technical training																				
		1.3.1.4. Training to improve the quality of forest food products																				
		1.3.1.5. Product packaging training																				
		1.3.1.6. Facilitating forest cultivation of food preparation module																				
		1.3.1.7. Facilitating the preparation of food seeds home management module forest																				
		1.3.1.8. Regular discussions between forest farmer groups, women and vulnerable groups																				
		1.3.1.9. The comparative study of management the superior forest food																				

		1.3.1.10. Entrepreneurship training																				
		1.3.1.11. Financial management training																				
	1.3.2. Availability of infrastructure, processing technology of forests-food	1.3.2.1. Facilitation permission of household scale product processing																				
		1.3.2.2. Provision the equipment of food forest processing																				
		1.3.2.3. Production house / home industry construction																				
		1.3.2.4. Forest food products warehouse construction																				
		1.3.2.5. Facilitating the preparation of the technical module operation and equipment maintenance																				
	1.3.3. Increased forest land cover and productivity of forests-food	1.3.3.1. Identify the forest land rehabilitation areas																				
		1.3.3.2. Forest land rehabilitation with (agroforestry)																				
		1.3.3.3. Nursery house construction																				
	1.3.4. Connected forest-food products to market	1.3.4.1. Facilitating of market assessment for forest food products																				
		1.3.4.2. Study of supply chain and value chain of forest food products																				
		1.3.4.3. Dissemination of the results of the study of supply chain and value chain																				
		1.3.4.4. Business meeting at the level of supply and demand																				
		1.3.4.5. Food forest products consultation to food products laboratory																				
2. Improved	2.1.1. Concern Group on	2.1.1.1. Establishment plan socialization of KKPPI																				

governance and the carrying capacity of the coast in support of adaptation to climate change in downstream of Saddang watershed	Climate Change (KPPI) are created as a mover in the village and sub-district level.	2.1.1.2. KKPPI cadre assessment / identification																					
		2.1.1.3. The meeting of group formation																					
		2.1.1.4. Facilitating the preparation of the rules (AD / ART) KKPPI																					
		2.1.1.5. Facilitating the preparation of the institutional system of KKPPI																					
		2.1.1.6. Facilitation of regular discussions KKPPI																					
	2.1.2. Increased capacity and skills KPPI as well as the stakeholders in the improvement of governance and the carrying capacity of the downstream coastal watershed	2.1.2.1 Adaptation to climate change training																					
		2.1.2.2. Leadership cadres training of youth who concerned about the climate change																					
		2.1.2.3. Facilitation training and mentoring																					
		2.1.2.4. Training workshops mangrove cultivation																					
		2.1.2.4. Regular consultation meetings																					
	2.1.3. Facilities and infrastructure are available to support the rehabilitation of land and coastal areas in the downstream of Saddang watershed	2.1.3.1. Provision of equipment rehabilitation of coastal land																					
		2.1.3.2. Facilitating the preparation of guidelines for the technical operation and equipment maintenance																					
	2.1.4. Land and coast rehabilitation in downstream-of Saddang watershed	2.1.4.1. Assessment of mangrove planting locations																					
		2.1.4.2. Meeting of planting area distribution of each group																					
		2.1.4.3. Provision of mangrove seedlings																					

		2.1.4.4. Mangroves planting																				
	2.2.1. KKPI skills enhancement, women and vulnerable groups in the development and diversification of household enterprises	2.2.1.1. Enterpreneurship training																				
		2.2.1.2. Food diversification workshop																				
		2.2.1.3. Training of making creative enterprise from the coastal natural resources																				
		2.2.1.4. Food cultivation training																				
	2.2.2. Infrastructure technologies are available in encouraging household enterprises and diversification	2.2.2.1. Procurement of Coastal Natural Resources processing equipment																				
		2.2.2.2. Procurement of product diversification processing equipment (on farm and off farm)																				
		2.2.2.3. Facilitating the preparation of the technical module operation and equipment maintenance																				
	2.2.3. Connect marketing for household enterprises and food diversification	2.2.3.1. Facilitating market assessment of creative enterprise and the products diversification results																				
		2.2.3.2. Study of supply chain and value chain of products																				
		2.2.3.3. Dissemination of the supply and value chain study results																				
		2.2.3.4. Business meeting at the level of supply and demand																				
		2.2.3.5. Food forest products consultation to food products laboratory																				
3. Strengthened system and institutional capacity to reduce risks associated with climate-	3.1.1. Team on Climate Change Adaptation Working Group (Working Group-API) has been formed	3.1.1.1. Multistakeholder meeting to establishment the POKJA-API team Saddang Watershed Ecosystem																				
		3.1.1.2. Workshop establishment of the POKJA-API team Saddang Watershed Ecosystem																				
		3.1.1.3. Advocacy Issuance of Decree (SK) POKJA-API team Saddang Watershed Ecosystem																				

induced socio-economic and environmental losses		3.1.1.4. Training Action Plan on Climate Change Adaptation																				
		3.1.1.5. Facilitation of Road-map action plan Adaptation to Climate Change on Saddang Watershed																				
		3.1.1.6. Dissemination Road-map Action Plan on Climate Change Adaptation																				
		3.1.1.7. Facilitation of regular discussions with POKJA-API team Saddang Watershed Ecosystem																				
	3.1.2. Internalized the Action Plan on Climate Change Adaptation in Local Government policies, as well as their planning documents local level adaptation action plans	3.1.2.1. Multistakeholder meeting in the preparation of climate change adaptation action plans Saddang Watershed Ecosystem																				
		3.1.2.2. Regular meeting facilitation team POKJA-API in the preparation of the Action Plan for Adaptation to Climate Change at the Local Level																				
		3.1.2.3. Facilitation Action Plan Proposal on Climate Change Adaptation into Village Regulations																				
		3.1.2.4. Facilitation Action Plan Proposal on Climate Change Adaptation in Local Regulation																				
		3.1.2.5. Integrating multi-stakeholder meeting in the Action Plan on Climate Change Adaptation in the Strategic Plan Regional Work Units (SKPD Strategic Plan)																				
	3.1.3. Climate Change Adaptation monitoring systems that support the strengthening of policies implemented stakeholders	3.1.3.1. Preparation Training Adaptation to Climate Change Monitoring System																				
		3.1.3.2. Facilitating the consultation of the development indicators monitoring system																				
		3.1.3.3. Facilitating in making monitoring application for the climate change adaptation actions																				
		3.1.3.4. Socialization of adaptation to climate change monitoring system																				
		3.1.3.5. Training operationalization of the application to the parties																				
	3.1.4. Disseminate of all	3.1.4.1. Documentary film making related to climate change adaptation action																				

	programs to strengthen and encourage policies and alignments	3.1.4.2. Launching of the Documentary Film Adaptation to Climate Change																				
		3.1.4.3. Books and Journals preparation of Adaptation to Climate Change																				
		3.1.4.4. Launching Books and Journals Adaptation to Climate Change																				
		3.1.4.5. Leafleat manufacture, posters, banners																				
		3.1.4.6. Social Media and Website Development Adaptation to Climate Change Saddang watershed ecosystem																				
		3.1.4.7. Facilitating partnerships with providers in the publication of a climate change adaptation action																				
		3.1.4.8. The distribution of all publications to the public																				
		3.1.4.9. Facilitation promotional billboard rental of adaptation to climate change Saddang watershed ecosystem																				

ANNEX 7: TABLE OF BENEFICIARIES

District	Subdistrict	Villages	Total Population		
			Men	Women	Total
North Toraja	Awan Rante Karua	Londong Biang	779	718	**1.497**
	Balusu	Lilikira Ao'Gading	550	564	**1.114**
	Rantebua	Bokin	1.051	1.031	**2.082**
	Sa'dan	Sa'dan Liku Lambe	874	870	**1.744**
Tana Toraja	Makale Selatan	Randan Batu	1.129	1.091	**2.220**
	Malimbong Balepe	Balepe	927	888	**1.815**
	Masanda	Paku	443	412	**855**
		Sese Salu	602	578	**1.180**
Enrekang	Anggeraja	Tanete	1.480	1.476	**2.956**
	Baraka	Bontongan	1.388	1.316	**2.704**
	Cendana	Cendana	777	799	**1.576**
		Pundilemo	770	803	**1.573**
	Enrekang	Ranga	535	500	**1.035**
		Tungka	794	806	**1.600**
	Maiwa	Palladang	447	428	**875**
Pinrang	Duampanua	Baba Binanga	735	791	**1.526**
		Buttu Sawe	1.315	1.416	**2.731**
		Katomporang	1.194	1.285	**2.479**
		Massewae	1.664	1.791	**3.455**
		Paria	1.527	1.644	**3.171**
TOTAL	**12**	**20**	**18.981**	**19.207**	**38.188**