



Adaptation Story



Indonesia

DIRECT ACCESS PROJECT:

Community Adaptation for Forest-Food Based Management in Saddang Watershed Ecosystem, South Sulawesi
National Implementing Entity: Kemitraan

PROJECT DETAILS

AF Funding Amount: US \$835,465



OBJECTIVES

- Strengthen social forestry in encouraging forest food
- Improve environment and increase income
- Improve coastal governance and coastal carrying capacity
- Strengthen cross-cutting policies in ensuring sustainability
- Capacity building and stakeholder support through knowledge dissemination and management

Haji Landing is a farmer in Bababinanga Village of Pinrang District, Indonesia. He once owned a 10 hectare fishpond. Since 2019, however, the fishpond area has shrunk to just one hectare. The flash floods and soil erosion that occurred in 2010 in the area ruined most of the fishponds at the mouth of the Saddang River, including Landing's.

Landing could not produce any crops of fish and shrimp seeds for years. In his 30 years of fishpond cultivation, this was the biggest loss he had ever experienced. *"All the fish will be lost to the currents and crop failure is a certainty,"* he said.

The Saddang Watershed flows into four districts in South Sulawesi Province (Tana Toraja Regency, North Toraja Regency, Enrekang Regency and Pinrang District), which makes it the second largest watershed in South Sulawesi. Almost 1 million people who are mostly farmers and fishermen depend on the available resources of the Saddang Watershed ecosystem. Data show, however, that 93% of villages in the Saddang Watershed are vulnerable to the effects of climate change, particularly in terms of food security due to reduced food production and plantations, as well as crop failure affected by floods and drought. These disasters have resulted in about a 66% decrease in food productivity of the commodities of rice crops, according to the result of a socio-ecology survey on the identification of Disaster Risk in the Saddang Watershed.



MPTS (Multi Purpose Tree Species) seedlings which include breadfruit, jengkol (a species of flowering tree in the pea family native tree in South East Asia), durian and porang in the plant nursery in Lembang Randan Batu, Tana Toraja. (Photo by Kemitraan)

Enhancing food security became one of the key objectives of Indonesia's 2014 Climate Change Adaptation National Action Plan (RAN – API) and the government has been working on building resilience by implementing adaptive technologies to farming systems ever since.

"We used to be anxious when we grew coffee in the forest area without a permit. Now we are no longer afraid to enter forest areas because we already have permission."

- Marthen Duma, a forest farmer of Sappan Kua-Kua Village

In 2022, the Community Adaptation for Forest-Food Based Management in Saddang Watershed Ecosystem project was launched with a grant by the Adaptation Fund to increase resilience to climate change impacts, both in food security and food diversification. The project is implemented by KEMITRAAN – the Partnership for Governance Reform in Indonesia, the Fund's accredited national implementing entity in the country, – and carried out by the Climate Change and Environment Adaptation Consortium (KAPABEL), a local executing entity, targeting 15 villages.

"The project is focused on the development of forest food and food diversification by utilizing a social forestry scheme to ensure sustainable forest management in the upper watershed," said Much Ichwan, Director of KAPABEL.

The project also aims to improve coastal governance and coastal carrying capacity (fish species size) in downstream areas of the Saddang watershed through mangrove forest rehabilitation, creative industry development, and strengthening opportunities for local women and vulnerable groups.

Upstream Area

The upstream approach is focused on food diversification by providing forest food options which also helps to increase income. The project supports Indonesia's Social Forestry scheme that is ensuring the availability of forest areas to local communities through the formation of an Association of Forest Farmers (AFF), as stipulated in the Social Forestry Permit.

PROJECT BY THE NUMBERS

27,674
BENEFICIARIES

IN 2,500
HOUSEHOLDS

5,000

HA - SOCIAL FORESTRY SCHEME COVERING AREA IN THE UPSTREAM OF SADDANG WATERSHED

70%

SUCCESS IN SEEDLING GROWTH

10-25%
INCREASE IN INCOME



Marthen Duma is one of the permit holders who are allowed to cultivate forest land. He grows various types of plants such as coffee, cocoa, vanilla and ginger. (Photo by Kemitraan)



Zeth Toranda (left), also known as Pong Cia, a member of the Forest Farmers Group in Bokin Village together with Irfan, a KAPABEL Field Officer, processed coffee from parchment to green bean by using a huller. (Photo by Kemitraan)

"We've been managing our coffee plantations since the 1970s, but we used to be anxious when we grew coffee in the forest area, because we knew that the forest area could not be managed without a permit," said Marthen Duma, a forest farmer of Sappan Kua-Kua Village, one of the project's beneficiaries. "Now we are no longer afraid to enter forest areas because we already have permission."

At the initial project stage, plant nurseries were constructed in 10 villages, where the AFF members cultivate seed commodities such as MPTS (Multi Purpose Tree Species) that can maintain sustainable water sources and alternative food sources when a prolonged drought occurs. From the construction of seed houses to plants cultivation, all the processes were done in a participatory manner, involving all community group members (male and female). Seedlings grown in the nursery are distributed evenly to group members to be planted in their respective managed lands, while some of the other seeds are planted at several rehabilitation sites previously determined and agreed upon by the group in regular meetings. The ability of local communities to manage forests sustainably, particularly in terms of supplying food needs, is increased through these activities, and now the plant nurseries are managed by the AFF members themselves.

"Coffee was not given much attention in our area because the price was very low and the flowers were always falling due to the constant rain. Now we are starting to pay attention to our coffee again, even though production has not increased, the price of coffee that we market is much higher than the previous price," said Martha Duma, an 80 year old female farmer.

The social forestry scheme was later expanded to wider local communities around the villages in Saddang Watershed, which resulted in issuing about 5,000 hectares of forest use permits under the Adaptation Fund (AF) project. This was followed by the formation of 18 Social Forestry Business Groups (SFBGs) to encourage forest food businesses to increase income.

An SFBG in Sapan Kua-Kua village decided to expand coffee as the village's primary export, and they created a brand name for the coffee product, Kopi Paniki. Coffee roasting machines and trainings in sales strategy that were provided under the AF's project helped to increase productivity and produce high quality coffee which resulted in a good financial opportunity to boost the members' incomes and eventually secure their food supply.

Another group in Ranga Village (Enrekang District) purchased candlenut crushing equipment to produce high quality candlenut. After a series of trainings and using the equipment, they managed to export 3 tons of candlenut to Hong Kong.

Downstream Area

The AF project in the Lower Saddang River began with a Pinrang Regency youth movement, an outreach effort to raise awareness of climate change.

Implemented in five villages in Pinrang Regency, namely Paria Village, Massiwae Village, Salipolo Village, Bababinanga Village, and Katompurang Village, the project has resulted in the formation of five groups of young people called the Youth for Climate Change Action (or, YCCA/KPPI in Indonesian). YCCA has successfully planted mangroves for rehabilitation activities in Salipolo Village, Bababinanga Village, and Paria Village along 1.4 km of coast with 25,000 mangrove seeds.

The program also supported capacity building of women's groups for those who manage home industry businesses by sourcing production materials from the Saddang River. A series of skill-building workshops were provided to develop potential business products, such as snake fruit crackers and seaweed chips.

"We appreciate this effort to increase the economic level of people around the Saddang Watershed through environmentally friendly techniques. Hopefully, everyone will recognize the importance of adapting to current climate change for our future," said Dr. Abdul Hayat, M.Sc, Regional Secretary for South Sulawesi Province.



YCCA members planting mangroves along the coast. (Photo by Kemitraan)