



PRIMATE CONSERVATION
EDUCATION PROGRAM
ON THE MENTAWAI ISLAND, INDONESIA

FINAL REPORT

PRIMATE CONSERVATION EDUCATION
2024 PROGRAM

COMMUNITY DEVELOPMENT PROGRAM



The Mentawai Islands have abundant natural resources, including agriculture, fisheries, forestry, and cultural wealth and local wisdom (Fitri, 2022: 146). The main livelihoods of the community are hunting, gathering forest products and farming, with the main crops being sago (enau), bananas, taro, coconuts and several market-oriented crops, such as cocoa, areca nuts, cloves, manau and patchouli. In addition to farming, the community also has other livelihoods, such as animal husbandry and fishing (Erwin, 2015: 4).

The staple foods of the Mentawai people are sago, taro and bananas, while protein sources such as pork, chicken, fish and shellfish are available in more than sufficient quantities. Every family has crops: sago palm gardens for sago; coconut gardens; banana gardens; taro gardens and durian gardens, as well as other crops. In addition, they also have livestock, such as pigs and chickens, and some families have started raising cattle.

The people living in remote villages are not considered poor in terms of local food availability. They live on fertile land with abundant natural resources. The term 'poor' is attached to the Mentawai people because the definition of food is rice, which they do not produce, while local foods such as sago, taro and bananas are available in quantities that exceed their needs. The policy that needs to be developed is the creation of economic opportunities for poor households (Erwin, 2015: 4-10).

The principle of poverty alleviation based on local wisdom needs to be strengthened by empowering poor communities. According to Verhagen (1996), the principle of self-reliance is to respect and prioritise the capabilities of the community over assistance from other parties. The principle of 'start with what they have' is a guideline for developing community empowerment.

The principle of life that has often become the basis of philosophy in the lives of poor rural communities is that: 'what is earned today is to be enjoyed today; tomorrow is tomorrow's concern.' And that has become their way of enjoying life, without thinking about vulnerability.

Poverty alleviation strategies in a region require a deep understanding of the mindset of the local community and the resources available in that region. Many things can be utilised from the small things around us, which are sometimes overlooked. In fact, many of the habits of a community are actually great opportunities to boost the economy of a region (Alawiyah & Farhan, 2021: 144-147).

Economic Empowerment

Agricultural Product

The distance between the fields and the residences of the Guluguluk hamlet community varies, with some fields located close to the houses and others located further away. The community's fields can be accessed on foot or by motorbike. The crops grown include bananas, cloves, areca nuts, nutmeg, coconuts, jengkol, durian, cempedak, samung, pineapple and patchouli. Bananas are usually grown in gardens close to the houses, while coconuts are grown in gardens that are a little further away. The difference in planting location is usually related to pests affecting the bananas.

Bananas and coconuts can be harvested every day or depending on the community's needs. When they need money, they process coconuts into copra and harvest bananas to sell to collectors. Coconuts are harvested by climbing the trees, which have been

made into ladders. Climbing the trees is done by men, while women are tasked with collecting the coconuts. When climbing coconut trees, they carry a machete tucked at their waist, which is used to harvest the coconuts. Cutting the coconuts and removing the contents to make copra can be done by both men and women. The Guluguluk community usually sells wet copra and copra that has been dried. The price of 1 kg of wet copra is Rp 4,000, while dried copra is Rp 7,000 per kg. In addition to being sold, coconuts are also used for cooking and making cooking oil. The oil is made when they are idle.

Bananas are harvested by cutting down the trees. To ensure that the bananas are large, the banana hearts are removed when the fruit begins to form. Both men and women can cut down banana trees. Bananas are usually sold unripe. If the bananas are too old and ripe when harvested, they will not sell well. Bananas that do not sell well will be consumed or used as feed for livestock such as pigs and chickens.

At that time, bananas were relatively cheap, especially after Ramadan when they did not sell well, so they were left to rot on the trees and even used as animal feed. The price of young bananas weighing 10 kg or more is Rp 1,500 per kg, while those weighing less than 10 kg are sold for Rp 500 per kg. Banana-based products are not very diverse; people mainly make banana fritters, banana chips, and banana crackers flavoured with seasoning.

Nutmeg, cloves, durian, samung fruit, areca nut, jengkol, jackfruit and pineapple are seasonal fruits. Cloves are usually planted between banana and coconut trees. Cloves are harvested once or twice a year. Cloves are harvested by picking the flowers at the end of each branch. Clove harvesting is done when the flowers are large and slightly hard, before they bloom. Once the clove flowers have bloomed, their quality is not as good and their selling price is low. Clove harvesting usually requires a ladder; the taller the clove tree, the taller the ladder. Clove harvesting is usually done by men, while women pick the lower branches. The clove season in Guluguluk hamlet begins in July, with the price of dried cloves reaching Rp100,000 per kilogram when they first appear. However, when cloves become more abundant, the selling price drops from Rp100,000 per kilogram to Rp80,000 per kilogram.

Nutmeg fruit is not very abundant and is harvested only once a year. Meanwhile, samung fruit is only consumed by the local community and given as gifts to family members outside Mentawai. Samung fruit is even left to fall and rot on the tree. Samung fruit bears fruit only once a year. Samung fruit is harvested by climbing the tree and carrying an *oorek/ooapa* on the back to place the picked samung fruit. Usually, it is the men who harvest the samung fruit.

Durian fruit bears fruit once a year, and it takes around 4-5 months from flowering to harvest. The only way to harvest durian fruit is to wait for it to fall to the ground. Usually, during the durian season, people gather in their respective gardens to wait for the durian fruit, leaving the village quiet. In addition to being consumed, durian fruit is also sold to collectors. During the durian season, people usually line up on the side of the field to sell their durians.

Unlike areca nuts, which can be harvested once a month by rotating each tree, Areca nuts are harvested using poles and sickles. They can be harvested when the fruit is orange in colour or when the areca nuts have fallen to the ground and are then collected.

After harvesting, the areca nuts are split in two and dried until the skin is dry or the contents can be easily removed from the skin. The price of 1 kg of areca nuts is Rp 3,000.

Jengkol, cempedak and pineapple fruits bear fruit once a year. Jengkol fruit is not only consumed but also sold. During the jengkol season, a can of jengkol weighing around 18 kg is sold for between Rp 50,000 and Rp 60,000, while when jengkol fruit becomes scarce, it is sold for between Rp 100,000 and Rp 120,000. The jengkol is sold to village collectors. The jengkol is harvested by climbing the tree and using a sickle and pole to pick the fruit.

Meanwhile, cempedak and pineapple fruits are only consumed. The community has not been able to process cempedak and pineapple fruits into raw materials that can be sold at high prices. During the pineapple season, the fruit is not consumed by the community because there is so much of it. Pineapples are left to rot on the trees if they are not fed to pigs.

Meanwhile, patchouli plants are usually distilled into oil. Currently, patchouli plants are starting to decline because in the past, when patchouli oil was cheap, the community cut down all the plants. However, now that patchouli oil has become expensive, with a price of Rp 1,000,000 per kilogram, the community has started planting patchouli again.

Here are some local agricultural products that the team processed while in the field;

Banana

The team made various banana dishes, including: banana salai, banana chips, banana molen, banana godok, banana balls, crispy bananas, chocolate banana chips, grilled bananas, and fried bananas.

Pineapple

While in the field, the team only consumed pineapple without processing it because there were only two pieces available.

Jengkol

One of the jengkol dishes that the team made in the field was jengkol crisps and jengkol rendang mixed with lilit.

Taro

A typical taro dish from Mentawai is Subbet. The taro is boiled and then mashed, shaped into balls like onde-onde and sprinkled with grated coconut. The texture of subbet after being mashed is sticky and gluey. The Guluguluk people say that subbet is the onde-onde of the Mentawai people.

Based on findings in the field, the team recommends several things;

1. Providing training on how to manage natural resources more efficiently from community farms. This can improve the quality of local products such as agricultural products or handicrafts, thereby increasing their selling value. For example, from the abundant supply of bananas and jengkol, the community can make local products such as Mentawai-style banana chips and jengkol crackers.
2. Local products marketed as the result of sustainable conservation practices have the potential to increase demand from environmentally conscious consumers, which could boost the marketing and price of local products.

3. Establishing cooperation with the government, private sector and NGOs in relation to capital, training and product marketing

Potential for agricultural development

Several matters related to agricultural yields that can be developed,

Coconut

Many products can be made from coconuts, such as coconut oil for sale, as it is currently only consumed, coconut sweets, coconut flour, while the shells can be made into charcoal and the husks can be used for handicrafts.

Banana

Bananas are one of the abundant crops grown by the community. In addition to being eaten raw and sold raw, bananas can also be made into various processed products such as dried bananas, banana chips, banana flour, banana chips in various flavours, banana cake, banana nuggets, banana chocolate ice cream, and banana trees and hearts are processed into organic fertiliser.

Pineapple

In addition to being sold raw or eaten raw, pineapples can also be made into other products such as pineapple jam, pineapple candy, pineapple cake, pineapple syrup, tinned pineapple, and pineapple crisps.

Durian

Durian can be processed into durian jam, durian sweets, durian cake, tinned durian, durian pudding, and durian dodol.

Cloves

The community tends to sell cloves only in bulk, but perhaps in the future they could be sold in sachets for use in cooking. They can also be used as an ingredient in tea or as a medicinal ingredient.

Nutmeg

In addition to being used as a cooking ingredient, nutmeg can also be made into nutmeg syrup, pickled nutmeg, nutmeg jam and nutmeg sauce.

Samung

Samung is a fruit endemic to the Mentawai Islands. It has a sweet and melt-in-the-mouth flavour. Samung is a new taste for tourists, which presents a great opportunity for the local community to sell samung products outside Mentawai, either as fresh fruit or canned fruit.

Jengkol

Jengkol, besides being sold raw, can also be processed into products such as jengkol chips and jengkol rendang.

Jackfruit

Jackfruit can be processed into jackfruit chips, jackfruit cake, jackfruit jam and jackfruit ice cream.

Taro

Taro is one of the staple foods for the Mentawai people, which is processed into subbet. Subbet is a Mentawai speciality offered to tourists, who are invited to pick taro and make subbet as part of a tour package, and it is also made into chips.

Natural Ambience / Ecotourism

Recreating a natural ambience through primate watching tours in the forest and trips to plantations to pick bananas and process copra can also help preserve the forest and primates, as the community is busy working as tour guides and no longer has any desire to hunt.

Marine Product

The sea is the main source of livelihood for the Mentawai people. Many of them work as traditional fishermen who catch fish and other marine products, such as shellfish and octopus. In addition to fishing, some of the community also work as traditional boat builders. The sea is also an important means of connectivity for the Mentawai people who live on various islands in the Mentawai Islands. The sea allows them to travel, interact and exchange goods between islands, making it a vital component of social and economic mobility in this region. The distance between the village and the sea is about 3 km. People go to the sea on foot, by motorbike, and by canoe. The following are some of the marine products produced by the community;

Fish

In addition to being used as processed food, fish are also sold raw to villagers and sometimes to Sikakap if the fishermen's catch is abundant. The Mentawai people also have a custom of giving their catch to relatives and neighbours. According to them, they will catch more fish tomorrow, 'what is caught today is for today.' They usually catch fish in various ways, such as netting, fishing, catching fish with machetes, diving, etc. Fishing is a job done by men, while fishing and netting are usually done by women only at the seashore. It is not uncommon for women to go fishing with their families, but this is only if there are other activities, such as harvesting cloves in Gunggung. The fish caught are processed by the team into fish paste, salted fish, fish crackers, fish rendang, fish soup, and fish curry.

Seafood

Seafood such as octopus, *koddiai*, *lilit*, *koppet*, blue crab, *umang-umang*, *lamunan*, mangrove crab, sea crab, *lippsop*, shrimp, are very easy to find in Mentawai. Usually, it is the women who search for seafood such as *koddiai*, *lilit*, *koppet*, *anggau* crab, *umang-umang*, *lamunan*, *lippsop* and shrimp. The men search for octopus and mangrove crab. Meanwhile, both women and men search for *anggau* together. Searching for *anggau* (land crabs) is an annual tradition. During the *anggau* season (*Maanggau*), people flock to search for them both on the beach and in the forests near the beach. When the *anggau* season arrives, people will spend time from 6 p.m. until it is finished, and some even stay until the early hours of the morning. The community who goes to hunt for *anggau* will share their catch with neighbours or relatives who did not participate in the hunt. Usually, the *anggau* season lasts from July to September, but there is one place, Mapinang, where there are always *anggau*, although not as many as during the season. In the past, the *anggau* season was also an opportunity for young people to find a partner.

Potential for marine products development

Based on experience, several marine potentials that can be developed include;

Fish

In addition to being sold raw, fish can be processed into various products such as fish paste, salted fish, fish crackers, fish nuggets, fish balls, fish siomay, fish sausages, and fish pempek.

Seafood

Seafood such as octopus, koddiai, lilit, koppet, blue crab, umang-umang, lamunan, mangrove crab, sea crab, lippsop, shrimp, can also be used as a typical Mentawai culinary dish offered in packaged form, one of which is dried octopus.

Angling / Fishing Tourism

Fishing tourism and during certain seasons, tours for catching anggau, octopus, koddia, koppet, and lilit.

Grilled Seafood / Anyang

The Mentawai people are familiar with the term Anyang, which refers to grilling fish catches on the beach while enjoying the beauty of the coastline, this can also be a Mentawai marine culinary tourism.

Craft Products

Mats

Some of the Guluguluk community can make crafts such as; Oorek/oopa, lalaplap, mats from pandan leaves, long, and poison arrows. Making mats from pandan leaves is usually made by women and used for personal use. Lalaplap is made by men where lalaplap is made of bent bamboo. Lalaplap is used to clamp firewood. Meanwhile, oorek/oopa and long are not only for personal use but also for sale. The price of one oorek/oopa is Rp 120,000,- while long depends on the size. The largest long is sold for Rp 100,000,-.

Accessory

One of the Bulasat community's handicrafts is the luwat (a typical Mentawai head accessory). Made from beads, the luwat is a typical Mentawai craft and is often given as a souvenir to tourists visiting the village.

Women's Empowerment

Mentawai women usually help their husbands farm and fish to meet their daily needs. In farm work, the tasks performed by men and women are almost the same. The only difference is in clearing new land and cleaning the fields, which is usually done by men. In addition to cooking for their families and working in taro and banana gardens, women also help with work in the fields (Erwin, 2015: 4-10). When fishing, women only fish on the shore, use nets, and search for koddiai, lilit, koppet, etc. Their catch is only for family consumption. Household income comes only from farming, such as banana, copra, clove, and areca nut fields, etc. Through processing agricultural products, women can create value-added products, which can increase household income.

While conducting activities in the village of Guluguluk, the team taught the women various ways to process bananas, such as making banana sale, banana molen, banana balls, crispy bananas, boiled bananas, and chocolate banana chips. The aim was to sell the processed products at a higher price rather than just selling them raw. This can boost the community's economy, especially helping families' finances. Additionally, the team also taught methods for managing jengkol crackers and making fish fritters.

In Tapak hamlet, the team taught the women how to process bananas into products such as banana chips, crispy bananas, banana cake, etc. This was done so that the community could sell them at a higher price rather than just selling them raw. This is expected to improve the community's economy, especially the family economy.

In Betumonga, the team participated in various community activities, such as learning how to weave mats from mendon/mensiang leaves obtained from the fields. This included preparing the raw materials, drying them, and weaving them into mats. Additionally, the team also taught the community how to process bananas in more varied ways so that they would not just sell them in their raw form but also in processed forms. This was done with the aim of helping the community, especially families, improve their economic situation.

Recommendations for the future

1. Provide skills training for women in processing agricultural products, such as making processed products from bananas and jengkol (e.g., chips, cakes, or jam).
2. Conduct training on business management, marketing, and finance to help women run their businesses more effectively.
3. Establish joint business groups where women can share resources, knowledge, and profits from agricultural products.

Product marketing

Marketing processed products made by the community can be sold to tourists and village cooperatives. In addition, Mentawai children who attend school outside Mentawai Island can also market these products to their friends through social media or direct promotion. The first step that these children can take is to make these processed products into souvenirs for their friends, family, teachers, and other parties, while also promoting authentic Mentawai processed products and selling them at affordable prices. In addition, internet access is also needed to create content for promoting these food products to outside parties.

Based on the activities carried out on the three islands, it can be concluded that Mentawai has extraordinary natural resources, both in terms of agriculture and marine products. The abundant agricultural products can actually improve the local community's economy, but many of them do not know how to process their agricultural products properly and make them more attractive so that they sell well in the market. In addition, the community also has the following limitations:

Limited Transportation Infrastructure

Due to limited transportation infrastructure in Mentawai on land, especially in rural areas. Existing roads are often damaged or unpaved, making them difficult for land vehicles to pass through. There are even some areas that have no road access at all, so they can only be accessed by sea.

Education is related to community knowledge.

Community knowledge is also one of the biggest obstacles to community empowerment, as many people do not know how to process their agricultural products properly. In fact, the community has an abundance of agricultural products. The community only sells raw materials without processing them into better products that are more acceptable to the market. Lack of knowledge also hinders the community's creativity, resulting in a lack of creativity.

Electricity

Electricity is a very important resource for the Mentawai community. Without electricity, community activities such as schooling and economic activities are hampered. Electricity plays an important role in supporting small businesses such as grocery stores, workshops, furniture shops, and food production businesses. Without electricity, the community cannot use refrigeration, which greatly affects the quality of goods. This hinders local economic development, making it very difficult for the community to increase their income.

Limited Communication Networks

Internet access and telephone signals in Mentawai, especially in remote areas and small islands, are still limited. This makes communication and access to information difficult and hinders the marketing of community products. One example is the village of Guluguluk.

SUMMARY

The Primate Conservation Education Program in the Mentawai Islands, conducted on the islands of North Pagai, South Pagai, and Sipora from June to October, has been completed. Several challenges were encountered in the field, such as water shortages, inadequate roads, no electricity, no internet connection, transportation difficulties, and the need to travel by sea. Despite these obstacles, the three islands are rich in natural resources and unparalleled natural beauty. The islands are home to a variety of agricultural products such as super bananas, samung, durian, coconut, areca nut, pineapple, and cloves. In addition to agriculture, Mentawai Island also has abundant marine products. Due to this wealth, Mentawai can be developed as nature-based ecotourism.

Various training sessions have been conducted in the field, such as making salai bananas, banana cakes, crispy bananas, etc. This is done with the aim of improving the community's economy, especially the family economy, in the future. With the empowerment training, it is hoped that the community will continue to develop by processing existing products.

Activity	Advantages	Commodities	Recommendation
Economic Empowerment	Agricultural Products	Coconut	Coconut oil is marketed because currently it is only consumed, while the shells are made into charcoal, coconut flour, and coconut candy
		Banana	Dried bananas, banana flour, banana chips, banana chips in various flavors, banana cake, and banana trees and hearts are processed into organic fertilizer.
		Pineapple	Pineapple jam, pineapple candy, and pineapple syrup.
		Durian	Durian jam or candy
		Cloves	Processed into Cloves Tea
		Nutmeg	Nutmeg sweets.
		Samung	Packaged appropriately for long-term storage.
		Jengkol	Jengkol chips
		Jackfruit	Jackfruit chips
		Taro	<i>Subbet</i> / traditional Mentawai food is offered to tourists, who are invited to harvest taro and make subet as part of a tour package and chips.
		Areca	Pinang Racik
		Patchouli	Patchouli Oil
	Marine Products	Fish	Making fish palai, dried fish, fish crackers, fish nuggets, and fish balls
		Seafood	Seafood such as octopus, koddiai, lilit, koppel, blue crab, umang-umang, lamunan, mangrove crab, sea crab, lippsop, shrimp, can also be used as a typical Mentawai culinary dish offered in packaged form, one of which is dried octopus.i
Cultural	<i>Maanggau</i>	Anggau / Land Crab	Anggau hunting tours, usually during the season from July to September
	Poisen Arrow	Omai	This is one of the tour packages, where tourists are invited and taught how to mix omai and prepare the ingredients to be used. This will be a special attraction for tourists because they can see firsthand the process of making poison.

Activity	Advantages	Commodities	Recommendation
Crafting	Handcraft	Oorek/oopa	Inviting tourists to search for materials for making various types of crafts and participate in making them. This can be an opportunity to boost the economy and promote Mentawai's unique accessories, such as Luwat, necklaces, and bracelets made from beads. Products made by the community can be sold to tourists and village cooperatives. In addition, Mentawai children who attend school outside Mentawai Island can also market these products to their friends through social media or direct promotion.
		Lalaplapp	
		Mats	
		Long	
		Poison Arrow	
		Luwat	
Women's Empowerment		Banana	1. Providing skills training for women in processing agricultural products, such as making processed products from bananas and jengkol (e.g., chips, cakes, or jam). 2. Conducting training on business management, marketing, and finance to help women run their businesses more effectively. 3. Establishing joint business groups where women can share resources, knowledge, and profits from agricultural products.
		Jengkol	
		Luwat	
		Pandan Mats	



Social Aspect: Juvenile Delinquency

Juvenile delinquency is the tendency of adolescents to engage in rule-breaking behavior that can cause harm and damage to themselves and others, committed by adolescents aged 13–17 years. One factor that influences juvenile delinquency is self-control. Adolescents who fail to develop sufficient self-control in terms of behavior have failed to learn which behaviors are acceptable and which are unacceptable to society (Afiyah, et al., 2014).

Juvenile delinquency does not only include criminal offenses and drug abuse. Other forms of juvenile delinquency include status offenses, violations of norms, and violations of the law. Status offenses include running away from home, skipping school, underage drinking, street racing, and so on. These status offenses are usually difficult to record quantitatively because they are not included in legal offenses. Meanwhile, deviant behavior against norms includes premarital sex among adolescents, abortion by adolescent women, and so on (Aroma & Dewi, 2012).

In rural areas, juvenile delinquency is not uncommon, just as it is in urban areas. Juvenile delinquency is usually related to parenting styles. Parenting styles refer to the attitudes or methods that parents use in relating to or interacting with their children. The interaction between parents and children consists of how parents care for, protect, educate, guide, train, help, and discipline their children so that they grow up well in accordance with the values and norms that exist in society (Utami & Santoso, 2019: 155). Therefore, parents play an important role in shaping the character and behavior of their children.

As is the case in North Pagai and South Pagai, there are issues of juvenile delinquency such as premarital pregnancy, sexual abuse, drinking palm wine, gambling, stealing, smoking, and gang fighting. This juvenile delinquent behavior is caused by low self-control among teenagers. Self-control can be defined as an activity of controlling behavior. It is the ability to organize, guide, regulate, and direct behavior that can lead individuals to positive consequences (Afiyah, et al., 2014). In addition to weak self-control, juvenile delinquency is also caused by family factors such as a lack of affection from the family, a dysfunctional family, and economic factors. In addition to family factors, juvenile delinquency is also caused by environmental factors such as poor religious education, a lack of education/educational backwardness in society, and poor supervision of adolescents.

We can see this in North and South Pagai, where there is a lack of supervision of teenagers. In addition, there is a lack of education due to difficult and remote access. Parents are busy working and therefore pay little attention to their children, and parents use cigarettes as motivation for their children to go to school.

In addressing juvenile delinquency, it is necessary to involve all parties, such as teachers, parents, and the community. This can be done by providing training to parents and the community regarding the impact of juvenile delinquency. One example is that promiscuity can ruin the future of teenagers. Strict control can prevent deviant behavior.