

## Third Year PPDM for Lake Limboto Coastal Communities Through Strengthening Marketing and Distribution Science and Technology Featured Product

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### ABSTRACT

Iluta village is located on the shore of Lake Limboto which is often faced with flood problems during the rainy season and also serious problems of silting the Limboto lake as a result of the massive growth of water hyacinth. There are two main problems that need to be addressed in this program, namely: 1) efforts to reduce silting of Lake Limboto in a sustainable manner through the removal and use of water hyacinth as handicraft materials for hand-woven crafts by the local community, 2) community economic empowerment through strengthening the management capacity of various woven handicraft businesses. superior water hyacinth typical of Iluta village. The methods used include: 1) prioritizing problems to be addressed and divided into three years of activity, 2) reconstruction and improvement based on problems in stages every year, 3) improvements are carried out based on the approach of the local character of the local community. The results achieved are: 1) Management: implementing management functions gradually and continuously, 2) Human resources: applying management and business practices, 3) Finance: Managing finance, its resources and use gradually, 4) Production: arranging needs handicraft products as basic ingredients of water hyacinth and product standardization, 5) Marketing: Market survey and partnership with modern markets and online market expansion.

**Keywords:** Empowerment, Science and Technology Application, Independent, Prosperous

### INTRODUCTION

Iluta Village is one of the villages in Batudaa District, Gorontalo Regency. This village is a village with middle to lower economic level communities, most of which depend on Lake Limboto, Gorontalo Regency for their livelihoods. Geographically, in the west, Iluta village is bordered by Gorontalo city, east is bordered by Barakati village, north is bordered by Limboto lake and north is bordered by mountainous areas.

Iluta village has an area of approximately 120 ha consisting of 5 hamlets, with a population of approximately 2,155 people. In this village, most of the people make ends meet by relying on lake resources, namely fisheries. The fishery that is mostly practiced by the residents is fish cultivation through cages/nets so that the people in this village are also known as the only source of lake fisheries in the Gorontalo region. But on the other hand the income earned from the profession as a fisherman is not enough to meet the living needs of family members. Besides that, in carrying out the fishing net business, the problem faced by the fishing community is the large number of water hyacinth plants in the Limboto lake area which is felt to be quite disturbing the development of fish cultivation carried out by the community. Therefore, other efforts are also needed to achieve prosperity.

As a coastal village, there are three main problems faced by the people of this village, namely how: 1) Overcoming environmental problems, namely the silting of Lake Limboto by water hyacinth in the Iluta village location which is growing very massively, 2) Empowering the economy of the community through the utilization of the potential of water hyacinth as a craft product with economic value. high, 3) Optimizing the Limboto lake area and its surrounding tourism support facilities to improve the welfare of the Iluta village community. In several countries, mechanical, chemical and biological eradication of water hyacinth has never provided

optimal results. Therefore, another method is needed in handling it. The method in question is the active participation of sustainable community groups in the appointment and use of water hyacinth as a variety of superior handicraft products typical of Iluta village. The range of water hyacinth products includes: 1) bags, 2) chairs, 3) room partitions, 4) decorative lights, 5) baskets, 6) sandals, 7) tissue holders, 8) flower fittings, 9) other products.

The focus of PPDM activities is carried out in 2019, 2020 and 2021, which will be described in detail in the next section. The analysis of superior potential and problems faced by community groups will be described in detail in the following table:

**Tabel 1.** Potensi Unggulan dan Masalah Yang Dihadapi

No	Excellent Potential	Problems encountered	Information
1	Community support for concrete efforts to preserve Limboto lake, especially in the village area of Iluta Kec. Batudaa Kab. gto	There are no coordinated and integrated concrete efforts by the government and universities in community empowerment through the application of science and technology	
2	Abundance of water hyacinth raw materials on the shores of Lake Limboto	There is no clear direction regarding the management of water hyacinth utilization	
3	The ability of community groups to present the uniqueness and characteristics of woven water hyacinth products in Iluta Village with a variety of products	The practice of management functions and Human Resources is not optimal for sustainable group business development and technical guidance is needed on financial, production, marketing and other important aspects	
4	The high demand for water hyacinth woven products with quality standardization to meet the needs of households in the Gorontalo area and its surroundings	There is no standardization of the quality of various water hyacinth woven products according to market/partner demand. Product quality standardization technical guidance is needed	
5	Willingness and seriousness of community groups in the use of water hyacinth to meet market needs	There is still a lack of knowledge and management skills, product standardization, financial governance and competitive marketing strategies	
6	Support from local government, related agencies/agencies and business strengthening/development programs with interest-free loans	Lack of effective group institutional aspects, structure and team cohesiveness so as to open up opportunities for continuous guidance and development of stakeholders	

Source: Results of Analysis/Field Identification in 2021.

Based on the superior potential and the problems faced, the problem solving through empowerment for the sustainability of the water hyacinth woven business can be detailed in the following table.

**Table 2.** Problem solving and empowerment for business sustainability

No	Problem solving	Program sustainability strategy
1	Environmental Conservation: Coordinate and integrate the cleaning and removal of water hyacinth on the shores of Limboto Lake, especially Iluta Village, in a gradual and sustainable manner	Together with the Gorontalo Regency Government, Iluta Village Government, universities, communities and the implementation team, integrate programs in the village RPJM and Gorontalo Regency RPJM to jointly implement them in a sustainable manner
2	Management: Optimizing the implementation of management functions in the management of the water hyacinth woven craft business	Conducting group assistance with the integrated team of the Koperindag Office of Gorontalo Regency
3	Human Resources: Identification of human resource needs in financial, production and marketing aspects	Ensuring personnel needs are met to support group business operations
4	Finance: Financial governance technical guidance	Familiarize business groups using business governance in accordance with established financial standards
5	Production: Fulfillment of production facilities and technical guidance and practice of strengthening and standardizing the production of woven designs characteristic of the Iluta environmental tourism village	Familiarize business groups in the use and fulfillment of production standards & development of woven designs with the characteristics of the Iluta environmental tourism village
6	Marketing: Technical guidance and marketing practice, drafting of fixed buying and selling contracts and online marketplace	Meet products according to market standards. Create sales/purchase contract documents. Cooperation partnership with showrom. Marketing through online media.
7	Distribution: Application of online delivery of science and technology in collaboration with transportation operators both within the city and outside the city	Cooperation contracts with online delivery companies for sustainable delivery of goods/products in the district/city area
8	Environmental Tourism Village:	Preparation of the need for additional supporting infrastructure that is pursued with partners in a gradual and sustainable manner

Source: Results of field identification and analysis in 2021.

In detail, the solutions to the problems encountered in this activity include:

1. Water hyacinth cleaning. Mobilization of the coastal communities of Lake Limboto, especially Iluta village, to make concrete efforts to remove water hyacinth, to be further processed and used as raw materials for handicrafts. This activity will be carried out in the first, second and third year of PPDM.

2. Implementation of technical guidance for the manufacture of various water hyacinth products and their management/management starting from human resources, raw materials, production, product and marketing issues. This activity is carried out for three years, by prioritizing problem solving based on annual targets.

3. Development of Soekarno's landing house, which is located in the village of Iluta, the coast of Limboto lake, as an environmental and historical tour where visitors can buy various water hyacinth handicraft products offered by community business groups.

## **IMPLEMENTATION METHOD**

In implementing the program, methods are needed that are able to achieve the targeted results. Therefore, the approaches taken are: 1) setting priorities for problems that will be addressed and divided over three years of activity, 2) carrying out reconstruction and improvement based on problems in stages every year, 3) making improvements based on the local character approach of the local community, 4) preparing methods and application of technology in accordance with the priority problems and targets set. In detail, the approach to the implementation of science and technology in the last three years based on priorities can be explained as follows:

### **1) Water Hyacinth Lift**

The approach used is the same as the approach in the first year of 2019 and the third year of 2020, namely the approach of prioritizing social society to jointly make concrete efforts to lift, clean and utilize water hyacinth into a variety of superior woven products through the application of technology.

### **2) Marketing**

Application of science and technology offered in marketing and sales targets set each year.

### **3) Distribution**

Distribution of products according to the number of orders in the district / city. Distribution of various products according to the sale/purchase contract at partner stores/outlets. Application of science and technology online delivery services for consumers outside the city and province as well as through online taxi drivers for consumers in the city.

## **RESULTS**

### **This third year the program is implemented through the following activities:**

1. Lifting of water hyacinth on the shores of Lake Limboto and Soekarno landing tours. Work procedures include: a) coordination, b) field identification, c) program socialization, d) application of water hyacinth science and technology.

### **2. Marketing**

The work procedures carried out include: a) PPDM team and group business management conducting market surveys, b) making maps of marketing areas, c) carrying out marketing in predetermined areas. d) introducing and marketing of new motifs of woven water hyacinth.

### **3. Distribution**

The work procedures carried out include: 1) preparing personnel who will be tasked with compiling a product distribution schedule, 2) using online/online science and technology facilities/applications, 3) distributing products using online delivery services to consumers.

Synergy between the Government and Universities as well as the community is very much needed in empowerment efforts to improve welfare (Sulila: 2016). According to Mubarak (2010) community empowerment can be interpreted as an effort to restore or improve the ability of a community to be able to act in accordance with their dignity in carrying out their rights and responsibilities as members of the community. In empowering the Iluta village community, a priority scale of problems is carried out to produce solutions through the application of science and technology. In detail, the solutions to the problems faced in this activity include: 1) Cleaning water hyacinth. Mobilization of the coastal communities of Lake Limboto, especially Iluta village, to make concrete efforts to remove water hyacinth, to be further processed and used as raw materials for handicrafts. This activity will be carried out in the first, second and third year of PPDM. 2) Implementation of technical guidance for the manufacture of various water hyacinth products and their management/management starting with human resources, raw materials, production, product and marketing issues. This activity is carried out for three years, by prioritizing problem solving based on annual targets. 3) Development of Soekarno's landing house, which is located in the village of Iluta, coastal, Limboto lake, as an environmental and

historical tour where visitors can buy various water hyacinth handicraft products offered by community business groups.

Based on an agreement with partners, the work approach used by PPDM can be described through the following work procedures: a) Lifting of water hyacinth on the shores of Lake Limboto and Soekarno landing tours. Lifting of water hyacinth on the shores of Lake Limboto and Soekarno landing tours. Work procedures include: 1) coordination, 2) field identification, 2) program socialization, 3) application of science and technology for the removal/cleaning of water hyacinth. b) Financial. The work procedures carried out include: 1) preparation of venture capital funds, 2) preparation of loan capital funds from third parties 3) financing new designs/motifs as superior products. c) Production. The work procedures carried out include: 1) identifying market needs, 2) carrying out production planning and preparation, 3) designing weaving with superior new motifs produced in the Iluta environmental tourism village.

## DISCUSSION

Based on the results of the implementation of PPDM in Iluta Village for three years, 2019, 2020 and 2021, the perceived economic and social impacts can be explained as follows:

**Table 3.** Economic Impact and Social Impact

No	Programs	Economic Impact	Social Impact
1	SDM	Increasing the ability of group human resources in SME governance, product diversification, utilization of information technology, which has an impact on production capabilities	Increased capacity of human resources in business planning practices, financial governance practices, product labeling and the use of marketing information technology
2	Management	Increasing the group's ability to implement/practice the functions and management elements of SME governance, which has an impact on the efficiency of resource use	Increasing the ability of SME group members in management functions and elements, business plans, Operationalization of the division of work tasks, and re-improvement of management aspects
4	Facility	Increasing the facilities needed to carry out SME business activities according to needs, this will have an impact on the effectiveness of the use of facilities	There is improvement of facilities and fulfillment of production facilities, secretariat, use of facilities according to standard operational activities, maintenance and care of work facilities
5	Production	Increased production capacity, standardization of quality and quantity according to market needs and business contracts with marketing partners	Improvement of production aspects, Fulfillment of production standards according to market standards, Use of facilities to improve product quality/quantity.
6	Financial	Improved financial governance, financial access to third parties and the impact on effective and efficient use of finance	Improved financial governance capabilities of SMEs, preparation of financial operational work plans, Use of financial governance standards, Analysis of financial sources and uses, Development and re-improvement of financial governance
7	Marketing	Improved marketing governance, buying and selling contracts with	The existence of marketing program capabilities, Implementation of

No	Programs	Economic Impact	Social Impact
		partners, utilization of information technology which has an impact on the trend of increasing sales of various water hyacinth products	marketing programs, effective product marketing work, Use of online media for product marketing, Development and re-improvement of online product marketing programs

Sumber : Hasil Identifikasi Lapangan, Tahun 2021

Inhibiting factors and follow-up.

1. PPDM Iluta Village 2020 is a three-year activity. The COVID-19 pandemic is a situation faced by a group of two SME groups in following a series of stages of PPDM activities. Based on the results of the implementation of activities, there are several factors that inhibit the activities experienced, namely:
2. 1. The situation of the COVID-19 pandemic in Gorontalo Regency, especially in the village that is a neighbor of Iluta village as the location of PPDM, which causes social restrictions on community activities, including SME groups.
3. 2. This second year financial management is one of the focuses of PPDM in 2020, therefore the implementing team and two SME groups have submitted a work proposal to the Gorontalo Regency Industry and Trade Office, but with the COVID-19 pandemic the funds that should have been obtained have been diverted to efforts to overcome covid 19. Therefore, the realization of the application for work proposals from the Industry and Trade Office to two SMEs will later be realized in the third year or 2021.
4. 3. The production of handicrafts made from water hyacinth by two SME groups experienced problems in direct marketing due to social restrictions and changes in consumer behavior as a result of covid 19. Therefore, the implementing team, SME groups, local government and students have tried to design and implement online marketing.

#### **Supporting Factors and follow-up.**

The factors that support the implementation of PPDM Iluta Village in 2020 are as follows:

1. 1. Commitment of the implementing team, village government, two SME groups to implement PPDM based on the Covid 19 procedure, which is focused on: a) the appointment of water hyacinth raw materials, b) financial management of the two SME groups, c) standardization of various water hyacinth handicraft products according to market demand.
2. 2. Support from the Department of Industry and Trade of Gorontalo Regency for the realization of support for the allocation of additional working capital funds for two groups of SMEs which will be realized in the third year (2021).
3. 3. Full support from the village government in the implementation of the three PPDM programs for SMEs that refers to the covid 19 procedure. The village government support is intended so that the SME group can continue to carry out lake environmental conservation activities and carry out water hyacinth craft production activities to improve the economy and keep referring to on the covid 19 procedure.
4. 4. Full support from Ristekdikti which has provided the opportunity and full support for the implementation of PPDM in Iluta village. This support has had an impact on efforts to continue to survive and revive UKM Karya Mandiri and UKM Sumber Harapan in improving people's welfare.
5. 5. Support from the Implementing Team to strive for marketing a variety of water hyacinth products online either through Facebook, WhatsApp, Instagram, email, line and other social media.

### **Solution and Follow-up.**

Based on the identification of the obstacles experienced, the solutions and follow-up actions that can be implemented in real terms are as follows:

1. Follow all covid 19 procedures in carrying out each series of activities, especially until the realization reaches 100%. The minimum procedures to be carried out are: a) the use of masks in program activities by two SME groups, b) the use of hand sanitizer before and after activities, c) keeping the distance between group members, d) ensuring that work equipment and products produced are kept clean for ensure that activities run smoothly.
2. In the event that the proposed work proposal for support assistance from the local government is delayed, the implementing team together with two groups of SMEs and the village government will coordinate with the Department of Industry and Trade of Gorontalo Regency to ensure its realization in the third year (2021).
3. To overcome marketing problems as a result of the COVID-19 pandemic, the implementing team and two SME groups attempted to design and implement online marketing through social media: Facebook, Instagram, WhatsApp, Line, Youtube Videos and other social media.

### **CONCLUSIONS AND SUGGESTIONS**

In the situation of the COVID-19 pandemic that continues to hit until now requires UKM Karya Mandiri and UKM Sumber Harapan to continue to survive and rise through various priority activities in the Iluta Village PPDM Program 2020. The results of the implementation of the Regional Superior Product Development Program activities in Iluta village this second year some conclusions can be made as follows:

- 1) 1) Utilization of water hyacinth as a handicraft product can help reduce the silting of Lake Limboto, especially in rural coastal areas. The activity of lifting raw materials, processing and utilizing them as handicraft products has referred to the standard covid 19 procedure.
- 2) 2) Starting from the development of financial governance management capabilities for Karya Mandiri SMEs and Sumber Harapan SMEs, setting priorities for budget use, preparing business feasibility studies, petty cash, daily journals, simple balance sheets and other simple financial standards. All technical guidance and assistance activities for the SME financial governance management program are carried out based on the Covid 19 standard procedures.
- 3) 3) Increased ability of two groups of SMEs in the application of product standardization according to market needs. The production of water hyacinth handicrafts by two SMEs during the covid 19 pandemic can continue to survive with the support of various parties and still refer to the standard Covid 19 procedures.

In an effort to sustain the program, the next year's stages will focus on:

- 1) Products. Realizing innovation and development of superior water hyacinth handicraft products with the characteristics of the Iluta environmental tourism village which as far as possible follows the needs and market demands in Gorontalo Province. The implementation of the program will be carried out following the COVID-19 procedures set by the government and the task force.
- 2) Marketing. Continue to strive to achieve marketing sustainability through partners. Direct marketing by MSMEs. Online marketing. Marketing through exhibitions. Marketing through village innovation handicraft festival. The implementation of the program will be carried out following the COVID-19 procedures set by the government and the task force.
- 3) Distribution. Mapping of consumers based on sales targets for ordinary and superior water hyacinth products. Market mapping based on water hyacinth product needs in each region. The implementation of the program will be

carried out following the COVID-19 procedures set by the government and the task force.

Based on the conclusions of the activities for the second year of 2020, the following suggestions can be made:

- 1) The continuation of the implementation of the PPDM in Iluta Village should follow the provisions of the covid 19 procedure and the task force, both by UKM Karya Mandiri and UKM Sumber Harapan, the implementing team and students.
- 2) The need to encourage the sustainability of the concept of using online marketing by using market places and other social media as an answer to dealing with changes in consumer behavior during the covid 19 pandemic. By using this method, product marketing can continue to run even its reach is wider and easily accessible to potential consumers.
- 3) The need for cooperation for the distribution of handicraft products by using online delivery or the use of couriers to deliver goods to consumers. With this strategy, consumers will feel comfortable shopping from home and receive purchases of goods also from home without having to worry about contracting the COVID-19 virus.

#### THANK-YOU NOTE

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