

## **SOCIALIZATION OF THE IMPACT OF SWITCHING FACINING FOR FOREST ECOSYSTEMS IN IMABATAI VILLAGE, INAMOSOL SUB-DISTRICT, WEST SERAM DISTRICT**

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### **Abstract**

The people of Imabatai village live in the Nuduasiwa customary forest group and 45 heads of families work as farmers who practice the shifting farming system. The average area of shifting cultivation carried out is 0.3 ha / KK / year. This means that there is damage to the forest ecosystem of 13.5 ha / year. The purpose of this service activity is to increase farmers' understanding of the impact of shifting farming practices on the destruction of forest ecosystems. This counseling activity succeeded in increasing the understanding of Imabatai village farmers by 80% (36 heads of families were able to understand the impact of shifting farming practices).

**Keywords:** Deep Understanding, Damage, Forest Ecosystems, Famers, Socialization.

### **INTRODUCTION**

Shifting cultivation is a farming system that moves from one place to another in rotation. Sanchez (1993) defines shifting cultivation as a farming system in which temporarily cleared land is cultivated for several years and then allowed to rest for a longer time than it was planted. Farming fields is often described as the main cause of forest destruction or as an ecological way that can also reduce the fertility of forest soil (Hidayat, 2013). Shifting cultivation is the main cause of deforestation in Indonesia, which reaches one million hectares per year, this is supported by Jong (2001) that the area of land in Indonesia's shifting cultivation system is blamed for causing a loss of 50 percent of forest area. In addition, the productivity of shifting cultivation is also considered very low and wasteful of resources, when compared to the environmental risks that will occur (Yuminarti et al, 2018).

In general, the practice of shifting cultivation in Maluku is carried out by logging natural forests, burning, clearing, and planting crops mainly related to farmers' daily consumption. This is commonly practiced by people who live in and around the forest. Furthermore, in selecting land for farming activities, farmers or cultivators are usually based on certain criteria such as using certain plant and microorganism indicators, and these plant and microorganism indicators are generally found in natural forests. Therefore farmers or cultivators destroy the forest every year for cultivation because it fits the criteria for the selected land (Matinahoru, 2013).

Shifting cultivation is generally carried out by traditional communities in an area with a low population density. The more developed an area and the more the population, meaning the higher the density level this system cannot be applied (Yuminarti et al, 2018). The people of Imabatai Village live in the Nuduasiwa customary forest group and 45 heads of families work as farmers who practice shifting cultivation systems. The average area of swidden cultivation practiced was 0.3 ha/head of household/year. This means that there is damage to the forest ecosystem of 13.5 ha/year (Matinahoru, 2013).

The purpose of this service is to increase farmers' understanding of the impact of shifting cultivation practices on damage to forest ecosystems. This extension activity succeeded in increasing the understanding of farmers in Imabatai Village by 80% (36 heads of families could understand well the impact of shifting cultivation practices).

The benefit of this dedication is that it is hoped that cultivators can change their behavior not to practice shifting cultivation so that forest damage can be reduced. Because of that, it is also hoped that shifting cultivation activities can be replaced with agroforestry farming systems.

## **Problems**

Reality shows that shifting cultivation has a strong correlation with damage to forest ecosystems, especially on small islands, the impact is very significant. Some of the impacts that can be stated are: (1). There was a loss of species diversity, (2). There is an increase in micro temperature in the forest, (3). There was a change in plant species which tended to be dominated by reeds (*Imperata cylindrica*).

## **METHOD**

### **Place and time**

Outreach activities were carried out in Imabatai Village, Inamosol District, West Seram Regency in January 2023.

### **Materials and tools**

Materials needed to support socialization activities are in the form of socialization materials and necessary equipment such as laptops, cameras, infocus, and stationery.

### **Implementation Method**

#### **a. Coordination of Socialization Implementation**

The plan for implementing the socialization was preceded by a letter of notification from the Dean of the Faculty of Agriculture Unpatti to the Head of Imabatai Village regarding a request for socialization activities to be carried out regarding the impact of shifting cultivation to the people engaged in cultivation. Furthermore, it is coordinated with the Village Head regarding the implementation time, place of implementation, and the number of participants who must attend.

#### b. Implementation of Socialization

The number of socialization participants was 80% of the number of families in Imabatai Village, namely 36 people. After all participants were present, attendance was carried out and then the socialization material was delivered in PowerPoint form by the resource persons using infocus.

#### c. Discussion

After the material was presented, it was followed by a question and answer activity between participants and resource persons. In this socialization, resource persons answered questions from participants, but resource persons also provided opportunities for participants to answer questions from other participants.

#### d. Evaluation of Participant Understanding

The evaluation was carried out by asking written questions to assess the participant's ability to understand the socialization material.

## **RESULTS AND DISCUSSION**

### **Attendance of Participants**

Imabatai Village has a population of 46 families and 36 families attended the outreach activities.

### **Socialization Material Participant Responses**

During the socialization, it was seen that there was a positive response from the participants, this was illustrated by the questions asked by the participants.

### **Results of Observations on the Location of Cultivation**

Observations showed that the former farming areas had become shrubs or grasslands. Furthermore, there has been a change in the microclimate where the temperature has increased by an average of 1 – 3 oC with a decrease in relative humidity of 5 – 10%. The basic factors that encourage cultivators to only be able to choose to farm are because it is easy and cheap to practice. If you analyze the entire process from land preparation to planting and harvesting, it is indeed very easy to do. This is because farmers generally use the masohi system (mutual cooperation). All farming activities from the technical aspect of work are inherited from their parents (ancestors). In addition, not much money is spent on working in a field, however, some cultivators use the masohi system, so they have to prepare a small fee for the consumption of workers. The masohi system is generally only used for 2 main activities that require a lot of energy, such as logging forests and building fences to protect gardens from attacks by pests such as pigs and deer.

Observations showed that the majority of cultivators had elementary and junior high school education. However, there are also those with a high school education, especially those who find it difficult to get jobs in the city. The fact shows that although there are also cultivators with high school education, their farming systems and techniques are still the same because the high school curriculum is not taught about good farming techniques. Based on field

observations, it was shown that the technique of clearing the fields was only by burning, then not cultivating the soil for planting, and not mastering good seed selection techniques so that production could increase.

Limited business capital from cultivators is also a major obstacle to being able to practice other farming models that can ensure ecosystem sustainability. For example, the sedentary farming model in reality requires a lot of effort, money, and time. In addition, the agroforestry model of agriculture still requires costs, because the planting of crops must still be carried out continuously on business land until the tree canopy almost touches each other.

### **Participant Evaluation Results**

Based on the evaluation results of the participants in mastering the socialization material delivered by answering evaluation questions, there were 80% of the participants well understood the socialization material being carried out. While 20% did not understand well the material presented.

### **CONCLUSION**

1. This extension activity succeeded in increasing the understanding of the farmers of Imabatai Village by 80% (36 heads of families could understand well the effects of shifting cultivation practices).
2. Development of hamlet model agroforestry is the most appropriate solution to control or reduce the rate of increase of shifting cultivation. The Hamlet agroforestry model is superior to other agricultural models because it uses a combination of crops, plantations, and forestry in its development.

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