

## WATER RESOURCES CONSERVATION TO DRIVE ACHIEVEMENT OF SDGs IN SULI COUNTRY, MALUKU PROVINCE

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### Abstract

Suli Village, Salahutu Sub District, Central Maluku Districts is one of the coastal villages located in the east and directly opposite Baguala Bay, Ambon Island. As a Coastal Village, Suli has various potentials for biological natural resources. This existing potential must be managed by taking into account the conservation aspects, namely, protection, preservation, and utilization, to remain sustainable. The problems that arise in Suli Village include the lack of sensitivity among the community to be able to manage the environment properly. If left unchecked, natural resources which are the potential for development will be damaged and cause other problems in society. This is a challenge in the management of natural resources and existing ecosystems because they must maintain a balance between meeting human needs and the sustainability of their use to support life in development. To realize sustainable development, one of the efforts that can be done is to implement conservation activities as mandated in Constitution Number 5 of 1990. One way to do this is to carry out community service activities. This activity aims to conserve natural resources and the biodiversity contain while at the same time encouraging the achievement of sustainable development goals starting from the smallest community groups. The activities carried out are socializing the importance of living natural resources and their conservation efforts, environmental problems due to waste, and encouraging environmental conservation activities by becoming a customer of a waste bank. Finally, this service activity also indirectly contributes to the achievement of several goals and targets in the SDGs. Among the goals achieved were the environmental pillars, especially Goal 13 (handling climate change) and Goal 15 (terrestrial ecosystems).

**Keywords:** Climate Change, Natural Resources Conservation, Sustainable Development Goals.

### INTRODUCTION

Conservation is an effort made by humans to preserve or protect nature. Conservation or in English Conservation means preservation or protection (Christanto, 2016). Conservation of living natural resources and their ecosystems is the management of living natural resources whose utilization is carried out wisely to ensure the continuity of their supply while maintaining and increasing the quality of biological diversity and its value (Law No. 5 of 1990 concerning Conservation of Living Natural Resources and their Ecosystems). Article 5 of Law No. 5 of

1990 states that conservation can be carried out through the following activities: 1) Protection of life support systems; 2) Preservation of the diversity of plant and animal species and their ecosystems; and 3) Sustainable utilization of living natural resources and their ecosystems. In Indonesia, many conservation practices are carried out in conservation areas. However, conservation is a broad concept, so conservation practices are not enough to be carried out only in conservation areas, but can also be carried out outside conservation areas. Because every place has potential natural resources (biodiversity), which are very important to support human life.

Maluku as one of the archipelagic provinces in Indonesia has various potential natural resources. This is supported by its geographical location which is also in the Wallacea region. The potential of existing natural resources varies, ranging from the diversity of ecosystems and diversity of species. This potential if utilized properly and wisely can be a strength in regional development. Development must start from the bottom level. Development that starts from the grassroots is the idea that development must start from the village as a support for development at the regional and national levels (Endah, 2020). This is in line with the mandate of Law No. 6 of 2014 concerning Villages, which emphasizes that the state seeks to encourage to empower village development by utilizing existing potential. The potential resources in the village are not only natural resources but also cultural and community potential in the village.

Negeri Suli, Salahutu District, Central Maluku Regency is one of the coastal villages located in the east and directly facing Baguala Bay, Ambon Island. As a coastal village, Suli has various potential biological natural resources, namely natural and artificial ecosystem biodiversity, including 1) saltwater ecosystems consisting of neritic zones, coral reefs, and seagrass beds. 2) Limnik ecosystem (freshwater) consists of river and lake ecosystems. 3) semi-terrestrial ecosystems, namely mangrove ecosystems, and 4) terrestrial ecosystems consisting of coastal forest, karst, and savanna ecosystems. 5) artificial ecosystem consisting of yards and mixed gardens. This existing potential must be managed with due regard to conservation aspects, namely, protection, preservation, and utilization so that it remains sustainable.

The problems that arise in Negeri Suli include: there is no sensitivity among the community to be able to manage the environment properly. For example, the behavior of throwing garbage out of place, hunting for birds by children, taking hamlet produce without replanting, which will have an impact on the preservation and sustainability of natural resources, and clearing land for settlement/garden without regard to ecological aspects, not caring for existing water sources that result in reduced water discharge during the dry season, and other indifference that results in damage to the potential of existing natural resources. If left unchecked, natural resources which are the potential for development will be damaged and cause other problems in society. This is a challenge in the management of natural resources and existing ecosystems because they have to maintain a balance between fulfilling human needs and sustaining their use to support life in development. In addition, it also pays attention to social and economic welfare and the preservation of natural resources for posterity.

To realize sustainable development where the ecological aspects are maintained, as well as the social and economic conditions of the people are guaranteed, one effort that can be done is to implement conservation activities as mandated in Law No. 5 of 1990 concerning Conservation of Natural Resources and their Ecosystems. This conservation activity, when

translated, will answer several goals and indicators in the Sustainable Development Goals (SDGs) or Sustainable Development Goals (TPB). Humans need natural resources to live. The government's efforts to achieve SDGs are by issuing Presidential Decree No. 59 of 2017 concerning the Implementation of Sustainable Development Goals. This sustainable development aims to increase the economic welfare of the community on an ongoing basis, maintain the sustainability of social life in the community, and maintain the quality of the environment.

In the SDGs, there are 17 goals, 169 targets that must be achieved at the global, national, and regional levels. One of the efforts made to achieve these goals and targets is to localize the SDGs. SDGs localization is a process of considering the regional context in achieving them, starting from setting goals and targets, as well as determining how to implement and use indicators for monitoring and evaluating the implementation of achieving SDGs (Global Task Force of Local and Region Government, 2016). SDGs localization is very important, one of the reasons is that the achievement of SDGs is very dependent on our capacity to make it happen. The SDGs localization roadmap is carried out in 4 stages of activity, namely: awareness raising, advocacy, implementation, and monitoring. (Topic 3 SDG Mobile Learning Program SDGs 101, 2021). In this case, local governments need to increase awareness of the importance of SDGs and their relevance to local communities. This can be done by empowering the community to participate in achieving the SDGs in everyday life. The challenge that may be faced by the Maluku Provincial government and the Central Maluku Regency government at this time is that SDGs have not been localized at the regional level so the goals and targets that must be achieved have not been implemented properly.

For this reason, the role of academics is needed to realize the goals and targets in the SDGs. One of the ways is by conducting community service activities (PKM). This PKM activity aims to conserve natural resources and the biodiversity contained therein while at the same time encouraging the achievement of sustainable development goals starting from the smallest group of people. Humans need nature to support their lives. In addition, the development of population growth also encourages the need for space and other needs to increase, be it from the social, economic, or ecological aspects. If development is not carried out sustainably, it will have an impact on natural resources. For this reason, the implementation of PKM activities by looking at the goals and indicators in the SDGs can manage this problem. Because the SDGs carry 5 basic principles that balance economic, social, and environmental dimensions, namely 1) People (humans), 2) Planet (earth), 3) Prosperity (prosperity), 4) Peace (peace), and 5) Partnership (cooperation). These five basic principles cover 17 goals and 169 targets that cannot be separated, connected, and integrated to achieve a better human life (Panuluh, 2016).

## **IMPLEMENTATION METHOD**

This PKM activity was carried out in Negeri Suli, Salahutu District, Central Maluku Regency, with the following implementation method:

- a. Initial Approach
- b. Contact related parties
- c. Socialization or Counseling
- d. Formation of groups of children and youth to become customers of the Garbage Bank

### **A. Work procedures**

The work procedures for PKM activities to be carried out are as follows:

- a. The initial approach begins with preparation, namely the PKM Team goes down directly to the Congregation to discuss plans for PKM activities together with the Chair of the Congregational Assembly. After that, he gave a letter of introduction for PKM activities from the campus so that KMJ could discuss this with other service units
- b. Initial approach and contacting other partners who are involved in activities such as outreach about waste and creating a waste bank customer from Green Moluccas.
- c. Socialization or counseling will be carried out by delivering material to increase public understanding, in this case, the target group is teenagers, catechism children, and youth. The material to be presented is:
  - Potential natural resources and coastal and aquatic biodiversity and Sustainable Development Goals: by lecturer staff Interest in Conservation of Forest Resources, Department of Forestry, UNPATTI
  - The impact of waste on the environment and its handling for a sustainable environment: by Green Moluccas staff
- d. Formation of groups of children and youth to become customers of the Garbage Bank

## **RESULTS AND DISCUSSION**

The implementation of PKM activities refers to the solutions to the problems offered and the activities to be carried out. The implementation of PKM activities that have been carried out are as follows:

- Initial approach, in which the team held a meeting with the Chairman of the GPM Suli Congregational Council (a Christian community group) and service units (congregational assemblies, commissions, and church partner groups) and built an agreement to support the PKM program being implemented.
- Socialization and counseling for teenagers, the material presented is:
  - Coastal natural resource potential, waters, and Sustainable Development Goals: by lecturer staff. Interest in Conservation of Forest Resources, Department of Forestry, UNPATTI
  - The impact of waste on the environment and its handling for a sustainable environment: by Green Moluccas staff
- Formation of groups for Waste Bank customers per service sector/Sunday school branches coordinated by sector caregivers/Sunday school teachers.

- Creation of a Garbage Bank customer by the Green Moluccas Team

a. Conservation of Natural Resources and Their Ecosystems

Socialization

Conservation or Conservation is Preservation or protection. Conservation can also be interpreted as the use, management, and preservation of biodiversity. The protection and preservation of natural resources in Indonesia is regulated by the Ministry of Environment and Forestry, namely the Director General of Conservation of Natural Resources and Ecosystems. Conservation of Natural Resources in Indonesia is regulated in Law No. 5 of 1990 concerning the Conservation of Natural Resources and Their Ecosystems. According to the law, the conservation of living natural resources is the management of living natural resources whose utilization is carried out wisely to ensure the continuity of their supply while maintaining and increasing the quality of biodiversity and its value.

Furthermore, in article 5 it is stated that the conservation of living natural resources and their ecosystems is carried out through the following activities:

- Protection of life support systems;
- Preservation of the diversity of plant and animal species and their ecosystems;
- Sustainable utilization of living natural resources and their ecosystems.

Conservation of natural resources and their ecosystems is not limited to conservation areas, both in situ and ex-situ conservation. Because conservation is the wise management of the biosphere for human needs, to produce sustainable benefits for present generations and establish the potential to meet the needs and aspirations of future generations. Conservation activities are very positive which include protection, preservation and sustainable use, rehabilitation, and quality improvement of the natural environment. so that conservation and sustainable development are interrelated. The success of sustainable development is largely determined by the success of natural resource conservation. In many countries, sustainable development faces many obstacles to implementation when efforts to conserve natural resources are not properly considered (Alikodra, 2012).

**Table 1. Goals achieved through PKM activities**

No	Goals / Objective	Target	Indicator	Activity
1.	Goal 12. Responsible Consumption and Production	12.2. By 2030, achieve sustainable management and efficient use of natural resources.	12.2.1. Material footprint.	Garbage Bank Customers
	Goal 13. Addressing Climate Change	13.3. Improving education, raising awareness, as well as human and institutional capacities related to mitigation, adaptation, impact reduction, and early	13.3.1. Number of countries that have integrated mitigation, adaptation, impact reduction, and early warning into the curricula of primary, secondary, and tertiary schools.	Integration of mitigation, adaptation, and impact reduction in the tertiary curriculum (specifically in one of the tridarma activities of higher education, namely community service)

		warning of climate change.		
			13.3.2. Number of countries that have communicated institutional capacity strengthening, individual systems to implement adaptation mitigation and technology transfer, and development activities.	Institutional capacity strengthening starts from the smallest institution in society, namely the congregation in the Sunday school group.
		13.b. Promote mechanisms to increase capacity for effective planning and management related to climate change in least-developed countries, and small island developing States, including a focus on women, youth, and local and marginalized communities.	13.b.1. Number of least developed countries and small island developing States receiving specific support and some support, including financial, technological, and capacity building, for capacity building mechanisms for effective planning and management of climate change, including a focus on women, youth, and communities local and marginal.	Forming Garbage Bank customers starting from the youngest generation group in society.
Goal Terrestrial Ecosystems	15.	15.1. By 2020, ensure the preservation, restoration, and sustainable use of terrestrial and inland aquatic ecosystems and their environmental services, in particular forest, wetland, mountain, and dryland ecosystems, in line with obligations under international agreements. More about this source text is needed to get additional translation information Send feedback to the Side panel	15.1.2. Proportion of important sites for terrestrial and inland water biodiversity within a protected area, based on the type of ecosystem.	Preservation of natural resources and biodiversity through planting includes water sources, coasts, yards, and hamlets.

## CONCLUSION

Conservation of natural resources to encourage the achievement of Sustainable Development Goals in the Suli Congregation is a plan for sustainable activities starting from the youngest generation in society. Conservation activities start by looking at the root of the problems that occur in the community and looking for the right solution through education and the establishment of a Waste Bank customer. Because conservation and development are interrelated. The success of sustainable development is largely determined by the success of natural resource conservation.

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