

## Utilization of Mangrove Forest on Curiak Island

---

**M.Khairul Rizal**

mkhrlr1@gmail.com

Social Studies Education Departement, FKIP Lambung Mangkurat University

**Ersis Warmansyah Abbas**

ersiswa@ulm.ac.id

Social Studies Education Departement, FKIP Lambung Mangkurat University

**Muhammad Rezky Noor Handy**

rezky.handy@ulm.ac.id

Social Studies Education Departement, FKIP Lambung Mangkurat University

**Syarifuddin**

syarifuddin@ulm.ac.id

Social Studies Education Departement, FKIP Lambung Mangkurat University

**Sigit Triyono**

sigit.triyono@ulm.ac.id

Social Studies Education Departement, FKIP Lambung Mangkurat University

**Raihanah Sari**

raihanah.sari@ulm.ac.id

Social Studies Education Departement, FKIP Lambung Mangkurat University

---

### Article History

---

Received: 03/04/24 Review: 23/04/24 Revision: 25/04/24 Available Online: 01/05/24

---

### Abstract

*Mangroves are typical coastal ecosystems and swampy areas that are influenced by tides. The forest around Curiak Island plays an important role. One of the benefits of mangrove forests is as a habitat for flora and fauna in them. The mangrove forest of Curiak Island is home to wildlife such as the presence of Proboscis monkeys that live in mangrove forests. The purpose of this study is (1) To describe what are the benefits of mangrove forests on Curiak Island, by knowing the benefits provided by mangrove trees, the community is expected to maintain the preservation of mangrove forests on Curiak Island by not damaging them. (2) To determine the integration of the use of mangrove forests on Curiak Island as a source of social studies learning This study uses qualitative descriptive methods, the application of this research method aims to facilitate researchers in assessing various community activities that want to be studied. The data collection technique carried out is observation to the exact research location on Curiak Island and conducting interviews with the surrounding community, SBI Foundation, Anjir Muara Sub-district to teachers and lecturers related to integrating the title and results of research with social studies learning materials so that this research can be a source of social studies learning. Conclusions on the research on the use of mangrove forests on Curiak Island, the benefits that can be utilized by the community and flora and fauna ecosystems whose areas are managed by the SBI Foundation, the community and Anjir Muara Village officials, the use of mangrove forests found are: 1.) As a proboscis monkey habitat. 2) Increase economic resources. 3.) River water wave barrier. 4.) As a folk remedy. 5.) Mangroves as building materials. 6.) Improve air quality. this is in accordance with the use of mangrove forests on Curiak Island as a social studies learning resource related to grade 7 social studies learning materials*

**Keywords:** Mangrove, Ecosystem, Barito River, and SBI Foundation

### Abstrak

Mangrove merupakan ekosistem khas pesisir pantai dan daerah rawa yang dipengaruhi oleh pasang surut. Hutan di sekitar Pulau Curiak memegang peranan penting. Salah satu manfaat hutan mangrove adalah sebagai habitat flora dan fauna yang ada di dalamnya. Hutan mangrove Pulau Curiak merupakan rumah bagi satwa liar seperti keberadaan Bekantan yang hidup di hutan mangrove. Tujuan adanya penelitian ini yaitu (1) Untuk mendeskripsikan apa manfaat hutan mangrove di Pulau Curiak, dengan mengetahui manfaat yang diberikan oleh pohon mangrove masyarakat diharapkan dapat menjaga kelestarian hutan mangrove di Pulau Curiak dengan tidak merusaknya. (2) Untuk mengetahui Integrasi

pemanfaatan hutan mangrove di Pulau Curiak sebagai sumber belajar IPS Penelitian ini menggunakan metode deskriptif kualitatif, pengaplikasian metode penelitian ini bertujuan untuk mempermudah peneliti dalam mengkaji berbagai aktivitas masyarakat yang ingin dikaji. Teknik pengumpulan data yang dilakukan yaitu observasi ke lokasi penelitian tepatnya di Pulau Curiak dan melakukan wawancara dengan masyarakat sekitar, Yayasan SBI, Camat Anjir muara hingga guru dan dosen terkait dengan pengintegrasian judul dan hasil penelitian dengan materi pembelajaran IPS sehingga penelitian ini mampu menjadi sumber belajar IPS. Simpulan pada penelitian Pemanfaatan hutan mangrove di Pulau Curiak, manfaat yang dapat di manfaatkan oleh masyarakat dan Ekosistem flora dan fauna yang wilayahnya di Kelola oleh Yayasan SBI, Masyarakat dan Aparat Desa Anjir muara, pemanfaatan hutan mangrove yang di temukan yaitu: 1.) Sebagai habitat bekantan. 2)Meningkat sumber perekonomian. 3.) Penghalang gelombang air sungai. 4.) Sebagai obat tradisional. 5.) mangrove sebagai bahan bangunan. 6.) meningkatkan kualitas udara. hal ini berkesesuaian dengan Pemanfaatan Hutan Mangrove di Pulau Curiak sebagai sumber belajar IPS yang berkaitan dengan materi pembelajaran IPS kelas 7

**Kata Kunci:** Mangrove, Ekosistem, Sungai barito, and Yayasan SBI

## **PRELIMINARY**

Indonesia is the largest maritime country in the world with a coastline of 81,000 km. Coastal areas have diverse vegetation, including mangroves or mangrove forests. This mangrove can expand densely on beaches that have mud, estuaries, large river estuaries, lagoons and protected bays. According to the Minister of Marine Affairs and Fisheries, mangrove forests in Indonesia in 2021 cover an area of 4.25 million ha or 3.98% of the total forests in Indonesia and 75% are unspoiled mangrove forests, this is not too disturbing (Karminarsih, 2007). The estimated mangrove area does not include those on small unmapped islands. Mangrove ecosystems play a very complex role that is closely related to the surrounding ecosystem, especially in offshore waters (Abbas 2020). In order to keep balancing coastal areas and maintain the use of mangroves so that they must be maintained, the area rich in mangroves is South Kalimantan because each region has many river flows.

Mangroves are typical coastal ecosystems and swampy areas that are affected by tides. Vegetation from mangrove forests comes from shrubs, such as small perepat, to large trees with a height of 40 meters, such as mangroves, mangroves, and tanjang. Each type of mangrove is related to habitat factors such as soil, tidal inundation, erosion, salinity, increasing coastal land, physiology, river conditions and human movement (Jumriani et al. 2021; Mutiani and Faisal 2019). According to Soendjono, mangroves, one of the types of plants that become food for South Kalimantan's mascot animals, namely Proboscis monkeys, are related to the willingness of feed for proboscis monkeys so that the existing mangroves must be of rumbia type. In South Kalimantan, especially on the island of Curiak in Barito Kuala district, proboscis monkey conservation is carried out with insitu conservation methods which are conservation efforts in their natural habitat and there are still proboscis monkey populations, for example in National

Parks, protected forests, Nature Reserves, Wildlife Reserves and *Sanctuari*. Through the care of Rumbai mangrove plants we can participate in maintaining proboscis monkey food.

Mangrove forests have many benefits both for the environment and the communities living around where they grow. In this study, this happened on Curiak Island. Mangroves around Curiak Island play an important role. One of the benefits of mangrove forests is as a habitat for the flora and fauna they contain. The mangrove forest of Curiak Island is home to wildlife such as the presence of pencil monkeys that live in mangrove forests. South Kalimantan itself has several natural wetland monkey habitats such as Bakut and Curiak Island. According to the Indonesian Proboscis Foundation (SBI), Bakut Island had 46 out of 60 in the previous data collection in 2018. Currently, there are two groups of proboscis monkeys on Curiak Island (Sri Mulyaningsih & Syahputra, 2021). The number of pencil monkeys on Curiak Island is estimated to be approximately 18-22. A simple proboscis monkey research station and wetland ecosystem was established near the island, a wetland research, education and restoration center jointly managed by SBI Foundation and ULM (Lambung Mangkurat University) and used for research purposes. a place for researchers at home and abroad.

In 2018 the activities carried out by the Indonesian Proboscis Friends (SBI) moved to Curiak Island which was previously located on Bakut Island. Bakut Island is an island located under the Barito Bridge has access that is easier to reach by the wider community. Bakut Island is made as an open natural tourist spot for people who want to travel there. This can certainly limit space for movement and can hamper the activities of the Indonesian Proboscis Friends foundation (Jayusman, 2022). Mangrove forests have many benefits that can be felt by humans and the surrounding environment. By continuing to preserve mangrove forests, humans will continue to be able to feel the benefits. Not only humans can feel the benefits of mangrove forests but the flora and fauna around mangrove forests can also feel the benefits (Maulana et al. 2023; Mutiani and Faisal 2019).

Flora and fauna are material in social studies learning in class VII semester 1 about people, places, and environments in chapter 1 of junior high school. In social studies learning at the junior high school level, the textbook explains the material on the distribution of flora and fauna in Indonesia. This junior high school textbook has not raised much discussion of local flora and fauna found in the area for learning. The flora and fauna discussed are still mostly flora and fauna in general found in other regions. This certainly makes students less aware of the flora and fauna in their own area.

## **METHOD**

The research method used to examine the "Utilization of Mangrove forests on Curiak Island" is a descriptive method that uses a qualitative approach. Descriptive research methods are defined as research that aims to make descriptions of situations and events (Suryabrata, 2006). The reason researchers use the descriptive method is because it is suitable for conducting social studies learning resources research by describing the benefits of mangrove forests on Curiak Island. About "Utilization of mangrove forests on Curiak Island as a Social Studies Learning Resource" in more complete, detailed, and meaningful so that research objectives can be achieved.

The purpose of the research is that the data that has been obtained in the field in the form of facts added with in-depth analysis so that researchers can understand the problems that occur in the field. so that the author can be more careful in writing the thesis to be more thorough about the things studied and researched. in research, of course, researchers will meet many people with their respective characteristics and stories, it is hoped that this method helps researchers to easily conclude research results.

**Table 1. Informer Table**

<b>No</b>	<b>Name</b>	<b>Information</b>
1	Rezky Amelia, M. Pd	Chairman of Yayasan Sahabat Bekantan Indonesia
2	Prof. Deasy Arisanty	Lecturer of Geography Education
3	Mutiani, M. Pd	Lecturer Social Studies Education
4	Ratna Windarti S. Pd	Teacher of SMP 1 Anjir srapat muara
5	Jaya Hidayatullah, S. sos	Anjir Muara sub-district
6	Julak Sulaeman	Chairman of Pokdarwis
7	Paman Ivan	Curiak Island Guard
8	Amang Sani	Curiak Island Guard
9	Umainah	Farmer
10	Syahrani	Chicken Entrepreneur
11	Anang Saleh	Fisherman
12	Sabda	Coolie Building
13	Nini Amah	Community

## **RESULTS AND DISCUSSION**

Curiak Island is located in Marabahan Baru, Barito Kuala Regency, South Kalimantan, this island is located adjacent to Bakut Island and Barito Bridge. This region was formed from the Barito River delta around the 80s (Jayusman, 2022). According to Amelia, Curiak Island is the core area of the protected area because the ecosystem and habitat owned by this island are still naturally maintained. This island area is around under the Barito Bridge. This area still has a fairly good wetland ecosystem which is dominated by several mangroves, namely rambai tree species. This rambai tree is a staple food for bakantan on Curiak Island and Bakut Island. Bakut Island which is in the area under the bridge is now no proboscis monkey population because it is a place that has been visited by many humans. Curiak Island is used as a non-government conservation area. Curiak Island is in the delta of the Barito River which has been formed since at least the 1980s. Curiak Island is a wetland island in which there is a lot of plant and animal vegetation. Both endemic animals and animals that come to migrate annually to the island of Curiak.

Curiak Island is increasingly known since the entry of the Sahabat Bakantan Indonesia foundation community that entered the region. The foundation is a foundation engaged in research and research. Yayasan Sahabat Bekantan Indonesia (SBI) built a research site on Curiak Island. With the construction of the research site, it has attracted the attention of many researchers, both local and foreign researchers. Researchers who came to Curiak Island aimed to conduct research. In addition to the presence of researchers, the diversity of fauna found on Curiak Island is able to bring tourists, both local and foreign tourists.

Curiak Island has many interesting things that can be researched. Among the interesting things to study is the existence of mangrove forests and typical animals of Curiak Island. After Curiak Island is managed by the Indonesian Proboscis Friends Foundation (SBI) is now growing, both in terms of development and expansion of mangrove forest land as the main vegetation of this island.

### **A. Research Site Overview**

Geographically, Curiak Island is an island located in the Anjir Muara area, Marabahan Baru, Barito Kuala Regency, South Kalimantan. This island has a location adjacent to Bakut Island and Barito Bridge. This area was formed from the Barito River delta around the 80s. According to Amelia (34), previously the mangrove forest area of Curiak Island only had an area of approximately 2 hectares. In line with the increasing awareness of the importance of this area according to Amalia Rizki as chairman of the Indonesian Proboscis Friends

**M.Khairul Rizal, Ersis Warmansyah Abbas, Muhammad Rezky Noor Handy, Syarifuddin, Sigit Triyono and Raihanah Sari**

Foundation (SBI) who is also a ULM lecturer, currently the area of mangrove forests has reached 4 hectares. The increase in the area of the Barito River delta area is certainly due to the awareness of many parties to expand mangrove land. The expansion of mangrove land by continuing to plant mangrove trees provides many benefits.

The existence of mangrove forests on Curiak Island provides various benefits. The benefits of the Curiak Island mangrove forest conservation area have a huge impact not only on the community, but also greatly affect the environment, ecosystem, flora and fauna around it. Before being managed by the Indonesian Proboscis Friends Foundation (SBI), Curiak Island was a place surrounded by large piles of wood. The logs were carried by wooden transport ships and placed on the island as a stopover before finally being brought back. In addition, the island is used as a resting place for ships and barges. The Curiak Island area is a "Green Belt" area. Green lane areas are areas devoted to the placement of plants and landscape elements are also included in green open spaces, because green open spaces can exist in city parks, public cemetery parks, beaches and rivers.

Through research stations managed by the SBI Foundation, learning about the mangrove forest conservation process can be carried out. In addition, researchers can also directly practice the learning obtained by being directly involved in the process of planting rambai mangrove trees in conservation areas, involving students directly to the field will make learning more interesting and effective but it also needs to be considered the safety factor because it will bring many students to Curiak Island.

Rambai Mangrove Tree Planting is one of the activities carried out by Yayasan Friends of Proboscis Indonesia. This activity is to restore mangrove forest areas. The main purpose of this mangrove planting activity is as a guardian of the flora and fauna ecosystem on Curiak Island. This activity also has great benefits for the surrounding community.

## **B. Utilization of Mangrove Forest on Curiak Island**

Mangrove forests are generally tropical coastal vegetation communities whose dominance is various types of trees that can develop in muddy coastal tidal areas. The difference between these forests and other forests is the presence of specific flora and fauna with various types (Bengen 1999); (Zieren, Max, and Liesbeth Giesen 2006). However, mangrove forests are prone to damage if the environment is not balanced. According to (Pramudji 2000), even the damage is not only due to natural processes but due to human movement.

Mangrove forest exploitation activities to meet excessive human needs and ignore rules in conservation. This has resulted in degraded mangrove forest ecosystems (Handy, 2022;

Handy et al. 2023). This directly eliminates its function which is a place for various kinds of fish to find their food as well as shrimp with high selling value. In addition, mangrove forests are sheltering locations for other living things around the coast.

In various other functions of mangrove forests ecologically: to protect coastal areas and small islands; minimize coastal abrasion and seawater intrusion; maintain marine animal species and vegetation, and can be used as a sedimentation buffer. The function of mangrove forests based on their economy is used as a supply of various raw materials for human needs in production, for example wood, foodstuffs, charcoal, cosmetic ingredients, dyes and skin peelers, sources of animal feed and bees (Yuliarsana & T. Danisworo, 2000), 2000). Therefore, in agreement with what Tandjung said, (2002) that the destruction and extinction of mangrove forests must be prevented and must be maintained properly according to ecological principles and socio-economic considerations of the surrounding community.

According to the chairman of Yayasan Sahabat Bekantan Indonesia (Ibu Amelia), mangrove forests on Curiak Island have many benefits. The great benefits of the existence of mangrove forests are not only felt by humans, but also affect the flora and fauna around them. In this study, researchers present the benefits of mangrove forests. The following is an explanation of the benefits of mangrove forests that researchers found from this study.

### **1. Mangrove Forest as Proboscis Monkey Habitat**

The mangrove forest on Curiak Island is home to endemic animals typical of South Kalimantan, namely Proboscis monkeys. Proboscis monkeys are primates of South Kalimantan that have long-nosed characteristics. In addition to its long nose, this animal also has golden brown hair that covers its entire body. This animal is one of the endangered animals and only lives in Kalimantan.

Proboscis monkeys that have the scientific name *Nasalis larvatus* which has a big nose are threatened by their habitat so they are threatened with extinction. One of the causes of the threat of proboscis monkey extinction is the reduction of habitat and human hunting (Sri Mulyaningsih & Syaputra, 2021). The existence of proboscis monkeys in large-nosed primates is a concern for many parties, both from within the country and abroad. In 1990 through a decree of the Governor this animal was made the mascot of South Kalimantan and in 2018 the Ministry of Environment issued a regulation stating that proboscis monkeys are one of the protected animals. This means that proboscis monkeys should not be hunted or owned privately.

Proboscis monkeys are a type of ape that lives in groups that spend their lives on trees. This animal eats leaves and fruits (Zainudin, 2016). One of the main foods of proboscis

monkeys is rambai mangrove leaves. If proboscis monkey food sources are no longer available in their natural habitat, of course proboscis monkeys will leave their natural habitat to find food. Proboscis monkeys will come to residential areas to find food or even swim across the river. Not a few proboscis monkeys died due to swimming fatigue and were exposed to water waves from ships in the estuary.

## **2. Improving Community Economic Resources**

Mangrove forests located on Curiak Island provide benefits to the community around the island. In addition to the crop products, the benefits that are directly felt by the community are in the economic sector. The existence of Curiak Island has an attraction for many parties. As a place of research, a place of conservation and also as a tourist spot. The high attention to Curiak Island is directly proportional to the increasing number of visits to the island. This has a positive impact on the community around Curiak Island. Visitors who come to Curiak Island can increase economic growth.

Entrance fee to tourist destinations Park and Curiak Island. The cost to be able to enter the area is relatively very cheap. The fee for visitors to enter the park area is IDR 5,000.00 per person. Previously the cost to cross using a kelotok was IDR 5,000.00 per person, the current tariff adjusting to the increase in fuel prices has increased to IDR 10,000.00 per person, and the vehicle parking fee (motorcycle) IDR 2,000.00 for each motorbike parked. From the visits of researchers and tourists who come to Curiak Island will bring a source of income for the surrounding community. This area is managed independently by POKDARWIS or local tourism awareness groups.

Apart from other income entry fees that improve the livelihood of local residents as boat driver services. People who want to visit the mangrove forest area will certainly use a boat or commonly called "kelotok". This can increase interaction and income for the surrounding community. The following is the narration of Julak Sulaeman 63 (Interview December 29, 2022).

"In the past, most of them were here like in companies, but because many went out of business due to the monetary crisis in 1998, most of them became fishermen, behuma, opponents became porters. Amunnya julak ni started begawi in the company has behuma so until now it is still behuma, opponents since the management of Curiak Island wayahini thank God there is an additional income uncle because uncle is also the chairman of POKDARWIS here. So if there are activities on Curiak Island or there are visits by local residents who are also involved in these activities, and if every day there are people who want to go to the island, uncle can take them there."

(In the past, many people here worked in companies, but many went out of business (went bankrupt) due to the monetary crisis in 1998, so now many people here are fishermen, farmers, and porters. If this uncle used to work in the company too, but uncle also farmed after returning from work in the company, so until now uncle has become accustomed to being a farmer. Alhamdulillah, when Curiak Island is now developed, until now my uncle also gets additional income as well as his uncle as the chairman of POKDARWIS, which makes if there are activities of local residents, especially POKDARWIS, they are involved in these activities, and every day uncle can take tourists to cross to the island).

From the explanation of Sulaeman as the chairman of POKDARWIS or a tourism awareness group who said that previously people living around Curiak Island worked as employees in the company. Previously in the Anjir Serapat area there were many wood processing companies. This timber company that was quite successful in the 1980s absorbed a lot of labor, including workers from the area around Curiak Island. The company experienced a decline into the era of the 2000s. The decline in the company resulted in many employees who no longer have jobs. This makes the people around Curiak Island again make the surrounding area as their livelihood, such as being fishermen, farmers, and coolies of Exemplary buildings.

### **3. Benefits of Mangrove Forests for Fishermen**

Generally, people in coastal areas will use the characteristics of their area as a source of income. Many coastal communities choose to become fishermen as their livelihood. According to the community around the mangrove forest is able to maintain the availability of aquatic biota resources. Mangrove forests are also a place of natural habitat for fish, shrimp, crabs and various other marine life. This of course greatly provides benefits for fishermen and also the surrounding community as catches for sale and fulfillment of nutrients for personal consumption.

Participants The preservation of mangrove forests will be very influential for the breeding of aquatic biota, including fish, shrimp and keeping. Fish, shrimp and crabs can live and multiply well between the roots of mangrove plants. This will certainly have an impact on the catch of fishermen around the island, according to Anang Saleh (Interview, December 29, 2022)

"The result of nang rancak I caught neh saluang pang, the opponent once went down neh kolehan aja pang 4 kil -5kilo, amun maunjun shrimp kada until saitu kada son-in-law, amun sold it if saluang Rp. 20,000.00 / kg, the ammunition pina flood the result can be Rp. 15,000.00 / kg if you invite a kilo of telarang can be Rp. 120,000.00 / kg-Rp. 150,000.00 it is gin kada

immediately sold so that it earns a lot. Fishermen here we sell their catch to collectors how much they can definitely exchange, cloth is there every day when the collectors come at the port of be forced ships ay we sell kasana because we can sell the time when the ammunition is sold directly to the market loss becomes."

Based on an interview with Anang Saleh, one of the fishermen in Anjir Serapat Muara 1 who has had a job as a fisherman for about five years, said that in one fishing he could get four to five kilograms of fish. Fish obtained saluang fish which is a fish that lives a lot in Kalimantan waters. In addition to saluang fish, the catch that has a fairly high selling value is shrimp. Shrimp caught can be sold at prices reaching Rp 150,000.00 per kilo. He said the caught fish would be sold to collectors. Fishermen choose not to sell directly to the market because of ignorance in selling which can result in losses. If measured in the level of welfare, fishermen in Anjir Muara are included in Prosperous Family 1 because fishermen can meet their daily needs with sufficiency because according to (Hana, 2012) entitled measuring welfare that measuring the level of welfare is not only seen from salary income but seen from various aspects. Such as the sustainability of work that can be inherited to children, the level of meeting basic needs and can also be seen from their health.

#### **4. Mangroves as a Barrier to River Water Waves and Waste**

Vegetation that grows in coastal areas of mangrove forests has benefits as a barrier to water waves. Coastal areas, sea waves, of course, greatly affect coastal areas. Mangrove forests have sturdy roots that have an important role as a barrier to the swift waves of the sea, wind or even tsunamis plus water waves caused by large ships that often pass through the Curiak Island area.

According to Ana (2015) in the Marine Fisheries Research and Human Resources Agency said that among the benefits of mangrove forests, climate change and weather can take place due to various factors including damage to natural systems. Mangrove forests are a source that can clearly maintain marine, coastal and terrestrial ecosystems. Not only that, the use of mangrove forests can also make it easier for humans to obtain a comfortable climate and weather to avoid natural disasters.

Mangrove forest conservation includes appropriate actions in preserving the environment. Therefore, awareness in maintaining mangrove forests is quite important to be done both by the community and supported by the government and other institutions, including in Indonesia which has very extensive mangrove forests.

According to a resident of Sabda (55) who works as a porter, his house is on the riverbank said the existence of the mangrove forest was not able to withstand the tides directly.

If the water is at high tide, people's houses on the banks of the river will still experience flooding. Especially during the current rainy season, residents' homes will more often experience flooding due to tides.

Likewise, strong winds that often occur in riverside areas will still occur although not as strong as areas where there are no mangrove forests. But different things will be felt if you are at the Proboscis research station. According to the Curiak Island guard, Uncle Ivan (53) although the rain with high intensity but around Curiak Island and the Proboscis Proboscis research station did not cause severe flooding that occurred as happened in early 2020 when there was the worst flood in South Kalimantan but on Curiak Island did not happen. It proves that mangrove forests are very important in protecting the surrounding environment from water waves that reach the land.

With the mangrove forest will be able to break the strong waves that reach the mainland. This certainly can maintain and minimize damage to settlements and farmers' land in coastal areas, The benefits of mangrove ecosystems related to physical functions are as disaster mitigation such as damping waves and storm winds for the area behind it, protecting, tidal waves, tsunamis, mud barriers and sediment traps obtained from surface water flows, prevent seawater intrusion towards land and can be used as a neutralizer of water pollution to certain limits (Lasibani and Eni, 2009).

This ship's waste will directly enter the mainland or residential areas. In addition, ship waste can damage other ecosystems to pollute rivers, estuaries, and seas. Ship waste also has a direct impact on people's income. People who make a living as fishermen are one of them because of the reduction in their catch. In addition, large amounts of oil spill waste can harm and damage mangrove forest ecosystems (Arief, 2003).

##### **5. Mangroves as Traditional Medicine Ingredients**

According to Bandaranayake (1998) in research (Mahmud 2014) mangrove vegetation is not only used as food and other needs for the community but also as plants with various medicinal properties that can be used as traditional medicine. Mangrove plants have long been used as medicines by the community. Before getting to know the medical world, regional people use plants in their environment for treatment. This can be understood considering that in the past public access to be able to seek medical treatment was quite difficult. So that this resulted in the community utilizing the plants around the mangrove tree is considered as an alternative for the surrounding community to make traditional medicines in the Anjir srapat muara 1 area.

Although it is now easier access to medical treatment, there can still be found people who use plants as an alternative to non-medical treatment. Currently, the trend of need and demand for herbal medicines is still quite in demand, this is in line with the awareness of the importance of natural ingredients and the motto of back to nature. People around Curiak Island still use mangroves as traditional medicine. According to uncle ivan Traditional medicine is believed to be merciful enough to reduce symptoms or complaints felt. The leaves or shoots of mangroves can be mashed / pounded and used as medicine for colds by applying to the body. While mangrove roots are used by the community as a medicine that is believed to be able to reduce complaints of toothache. It was also conveyed by Amalia that there was a doctor who came to Curiak Island to take mangrove tree sempel to examine mangrove leaves as traditional medicine.

#### **6. Mangroves as Firewood**

Direct use of mangrove forests is also carried out by the surrounding community. Mangroves are plants that are not protected so that they can be used by the community. The use that is widely used by the people of Anjir Srapat Muara 1 is in meeting their daily needs, namely as firewood for cooking needs in the kitchen. Before the widespread use of LPG and oil stoves, people used firewood to cook their daily needs. The choice of mangrove trees as firewood material is due to cheap raw materials that are easily available around people's residences.

The use of firewood is still chosen by some people as an alternative in cooking. Cooking using firewood is still widely used for many reasons. Some elderly people prefer to use firewood because they dare not use gas so that using firewood is considered safer. Meanwhile, for entrepreneurs such as chicken farmers, the choice of using firewood is chosen to minimize the capital spent on production costs. There are positive and negative sides arising from the use of firewood and LPG gas, people around Curak Island still use a lot of firewood because the price is cheaper and can be found in the surrounding environment but has a negative impact on the environment because it damages the ozone layer due to the smoke caused and some people have switched to using LPG gas cylinders because it is considered more practical and fast in working in the kitchen also not much smoke generated from cooking activities using LPG gas but has drawbacks that the price is still fairly expensive for the community and lack of education in its use which results in people still afraid of its use.

#### **7. Mangroves can Improve Air Quality**

Mangrove forests have the ability to filter the air naturally. According to Bismark et al (2008) in a research journal (Nanholy and Masniar 2016) mentioned mangroves like other

forest vegetation have a role as absorbers (rosot) of carbon dioxide (CO<sub>2</sub>) from the air. Mangrove forests are a major contributor of oxygen for all living things. This certainly has a positive impact on improving air quality from various types of air pollution.

Uncle Ivan as the guardian of Curiak Island said that the air felt in the Curiak Island area was different from that in residential areas. Uncle Ivan added that he felt the air was cooler and felt calm away from the density and air pollution of the city if it was around Curiak Island. In addition, Amelia as the chairman of the SBI Foundation also agreed that the air conditions around Curiak Island are very good so that every day off work, Amelia always unwinds to visit Curiak Island.

Mangrove forests are able to produce cleaner air. With clean air quality, it will certainly improve the quality of life of the community and become a contributor of oxygen for all living things. This certainly brings benefits to the health of the surrounding community and the wider community in general, for that reason at the G20 event the leaders of all countries who participated in the G20 event carried out mangrove tree planting activities on the coast of Bali with the aim of reducing global climate warming because it is able to absorb carbon and also produce a lot of carbon dioxide.

### **Integration of Mangrove Forest Utilization on Curiak Island as a Social Studies Learning Resource**

Social studies is the name of a subject at the elementary and junior high school levels and is also a department in higher education that is synonymous with the term "Social Studies" (Sapriya, 2009 in (Syaharuddin and Mutiani 2020)). According to Mutiani (2020) in Anggarini (2021) The definition of social science education, according to the National Council of Social Studies (NCSS), it can be understood that social studies is "an integrated study of social sciences and humanities to advance civic competence (social studies is a science that combines social sciences). and humanities to improve the competence of citizens).

Learning resources consist of things that can be used to facilitate each individual in learning and showing their competence. There are four types of environments that can be a source of social knowledge materials including the social environment, natural environment, religious environment and human environment as resource persons. Improve the quality of learning activities. Learning resources are plans consisting of learning media, teaching aids, game tools that provide information or various skills to children or people who have a role as companions for the third child to learn (Nurdin 2012). As stated by Ratna Windarti (52) as a social studies teacher at SMPN 1 Anjir Muara as follows.

"This material about mangrove forests is suitable to be integrated into teaching materials in grade 7 chapter 1 about flora and fauna because it can introduce what can be obtained from mangrove forests by knowing the benefits, it is hoped that students can make good use of them and can also maintain the existence of mangrove forests, especially those in Anjir Muara because in our area there are very many mangrove forests. In order to get maximum quality of learning processes and outcomes in social studies learning, students are required not only to rely on what is in class but must be able to explore the variety of learning resources needed (Jarolimek & Foster, 1989 and Schuncke, 1988) in the journal Taksu and Wesnawa: 2019.

In the process of social studies learning activities at SMPN 1 Anjir Muara, teachers do not only rely on textbooks (packages) as the only source and teaching material. In the class 7 Social Studies learning material Chapter 1 about flora and fauna, there is a sub-material about mangrove forests. In this material, teachers can more freely provide explanations and invite students to directly observe the flora around their area.

Prof. Deasy Arisanty (42) said that the use of mangrove forests is very good to be included in learning and used as a learning resource, especially at the junior high school level in social studies subjects. This is because social studies subjects are not only to the community but also to the surrounding environment, because of the science of Geography in Social Studies Education. By utilizing the environment as community welfare with the increasing economy but also the community is given education to preserve it. Thus, it is very important to use mangrove forests on Curiak Island as a source of social studies learning, by utilizing local wisdom in nature this makes students more interested in learning. In addition, students can also be brought directly down to the field to see directly can also participate in preserving it by participating in planting mangrove trees but there needs to be consideration to do so such as accessibility access to get to their place whether it is possible and safe to bring student participants, because the participants who will be brought are also at the junior high school level because they must prioritize the safety of their students.

## **CONCLUSION**

Based on the results of research analysis, the conclusion is that in the research on the Benefits of Mangroves on Curiak Island there are many benefits. The benefits of mangroves on Curiak Island include. 1) Mangrove forests as a natural habitat for proboscis monkeys. 2) Mangrove forests can increase the economic resources of the surrounding community. 3) Mangrove forests provide benefits to increase the source of income for fishermen. 4) Mangrove

forests function as barriers to ocean waves and waste. 5) Mangrove plants as traditional medicinal materials. 6) Mangrove plants as an alternative to firewood. 7) Mangroves as building materials. 8) Mangrove forests can improve air quality to be fresher and cleaner. In the research there are also benefits of mangrove forests as a source of social studies learning, the benefits taken from mangrove forests can be integrated in social studies learning in class VII semester 1 about flora and fauna with the integration of the use of mangrove forests on Curiak Island, it is recommended that students can find out what can be used and are expected to be able to preserve the objections of mangrove forests on Curiak Island in particular.

## **BIBLIOGRAPHY**

- Abbas, Ersis Warmansyah. 2020. "Menulis Artikel Konferensi Internasional. Program Studi Pendidikan IPS."
- Bengen, D. G. 1999. *Ekosistem Dan Sumberdaya Alam Pesisir, Dalam Bahan Kuliah SPL*. Bogor: Program Pasca Sarjana IPB.
- Handy, Muhammad Rezky Noor. 2022. "Menulis dan Mempublikasikan Artikel Akademis." 188.
- Jumriani, Jumriani, Mutiani Mutiani, Muhammad Adhitya Hidayat Putra, Syaharuddin Syaharuddin, and Ersis Warmansyah Abbas. 2021. "The Urgency of Local Wisdom Content in Social Studies Learning: Literature Review." *The Innovation of Social Studies Journal* 2(2):103. doi: 10.20527/iis.v2i2.3076.
- Mahmud, M. 2014. "Pemanfaatan Vegetasi Mangrove Sebagai Obat-Obatan Tradisional Pada Lima Suku Di Papua." *Jurnal Ilmiah Ilmu-Ilmu Hayati UAJY* 19(1),.
- Maulana, Ahmad, Syaharuddin Syaharuddin, Rusmaniah Rusmaniah, Raihanah Sari, and Muhammad Rezky Noor Handy. 2023. "Factors Affecting the Income of Street Vendors Around the Barito Bridge." *Journal of Social Development* 1(2):47. doi: 10.20527/j-sod.v1i2.10058.
- Mutiani, Mutiani, and M. Faisal. 2019. "Urgency of The 21st Century Skills and Social Capital in Social Studies." *The Innovation of Social Studies Journal* 1(1):1. doi: 10.20527/iis.v1i1.1256.
- Nanholy, L. H., and M. Masniar. 2016. "Manfaat Ekosistem Mangrove Dalam Meningkatkan Kualitas Lingkungan Masyarakat Pesisir." *Abdimas: Papua Journal Of Community Service* 2(1):19–26.
- Nurdin, Makmur. 2012. "Hubungan Pemberian Motivasi Orang Tua Dan Hasil Belajar Siswa Di SD Inpres 6/86 Biru Kabupaten Bone." Vol. II Nomor 3.
- Pramudji. 2000. "Dampak Perilaku Manusia Pada Ekosistem Hutan Mangrove Di Indonesia' Dalam Osean." Vol. XXV, No.2,:13-20.
- Syaharuddin, and Mutiani. 2020. *STRATEGI PEMBELAJARAN IPS: Konsep Dan Aplikasi*. Banjarmasin: Program Studi Pendidikan IPS Fakultas Keguruan dan Ilmu Pendidikan Universitas Lambung Mangkurat.
- Yuliarsana, N., and T.Danisworo. 2000. *Rehabilitasi Pantai Berhutan Mangrove. In Dalam Prosiding Seminar Nasional Pengelolaan Ekosistem Pantai Dan Pulau-Pulau Kecil Dalam Konteks Negara Kepulauan*. Yogyakarta Fakultas Geografi Universitas Gadjah Mada.
- Zieren, Max, and Liesbeth Giesen. 2006. *Mangrove Guidebook For Southeast Asia*. FAO and Wetlands International.