

THE DIVERSIFICATION OF COASTAL WOMEN'S LIVELIHOODS AS A WAY OUT OF POVERTY: The Experience of Indigenous Community of Negeri Booi, Central Maluku

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Abstract

Livelihood strategies of coastal community have been focusing on the fishery sector as a source of livelihood. Despite of the fact that they live in coastal areas, their main livelihoods come from the plantation sector or other sector. This study aims to understand the diversification of women's livelihoods through a traditional mechanism and to identify their most dominant livelihood. This study was done in a qualitative manner using a phenomenological approach carried out in *Negeri* (village) Booi, Saparua Island, Central Maluku in May 2021 - January 2022. The data was collected through in-depth interviews, observation and focus group discussions (FGDs). A total of 20 informants participated in this study involved women of *Negeri* Booi indigeneous community and nutmeg *dusung* (garden) owners. The data was analyzed following the stages proposed by Creswell: organizing and preparing the data to be analyzed, coding the data, connecting the themes, and interpreting the data. The results show that the indigenous community of *Negeri* Booi has a variety of livelihood assets based on the availability of natural resources (land and sea). The ownership of livelihood assets is used as a livelihood diversification strategy – which is based on the *dusung* – through the application of traditional mechanism of nutmeg seed picking specifically intended for women. Further, it is found that their most dominant livelihood is a combination of natural asset and social asset, proven able to provide opportunities for the creation of new livelihoods based on common conventions.

Keywords: Diversification of livelihoods, women, tradition and coastal indigenous community

Introduction

Issues of the poor's livelihoods, especially in the rural areas, have become an interesting topic discussed in recent years (Dehghani et al., 2018; Scoones, 2009; Pomeroy et al., 2017; F. Wang et al., 2015). The livelihoods of community living in coastal areas and their contributions in supporting the household economy have also been the experts' concern (Lawless et al., 2019; Roy & Basu, 2020; Sarmin et al., 2017). In terms of the livelihoods of coastal community, the main focus is mainly on the strategies to meet the household needs from the fishery sector (Aswani et al., 2019; Dehghani et al., 2018; DFID., 2001). However, in fact, the coastal community does not always make a living from the fishery sector and work as fishermen.

In contrast, they mostly work in the plantation sector or other sector. Previous researches have focused on the role of men in meeting the coastal household needs. Meanwhile, in reality, the women of coastal community have the potential to be an alternative of new income sources for the households (Fröcklin et al., 2018; Stacey et al., 2019). This view implies that the livelihood strategy can be defined as the activity chosen by an individual or community to achieve their livelihood goals through the availability of resources and vulnerability conditions faced (Dehghani et al., 2018).

However, different findings have been revealed in studies by Hussin & Khoso (2017), Jurjonas & Seekamp (2018), and (Uduji et al.,

2020) that although the coastal community had abundant natural resources and lived side by side with these potentials, they had not been optimal in managing and utilizing the resources in the fishery sector. Thus, they had always struggled with poverty amidst the abundance of these natural resources (Aldasoro & Ortiz, 2021 and Malomo, 2017). This phenomenon is reflected in the indigenous community of *Negeri* (village) Booi, located on Saparua Island, Central Maluku. Geographically, *Negeri* Booi is located on the coast, but their community's livelihoods depend on the nutmeg plant (*myristica fragrans*). Meanwhile, the fishery sector is only used as an alternative source of income or to complement to their household consumption needs. The main activity they do to meet their household needs is done in the *dusung* (garden), yet, not everyone owns a *dusung*. The *dusung* is managed by a big family (*mata rumah* / clan) and passed on to sons paternally. Besides, the majority of the plants planted include nutmeg and several kinds of crops.

In the indigenous community of *Negeri* Booi, there is a traditional mechanism for nutmeg seed picking intended specifically for women and community members who do not own a *dusung*. The community members who do not own a nutmeg *dusung* are given the access to pick the fallen nutmeg seeds without having to ask for permission first. Further, in relation to meet the needs coming from the sea, there are also several fishing activities carried out based on the knowledge passed for generations, such as *balobe* (springing fishes at night) and *bameti* (picking up shellfishes). At this level, these traditions depend on the availability of natural resources and are very diverse. Although these traditions can also be considered as examples of livelihoods, there is still another livelihood favored and prioritized by the community. This behavior indicates the existence of diverse efforts towards the livelihood as a livelihood strategy in maintaining the sustainability of household livelihoods.

Certainly, the livelihood strategy implemented by the coastal indigenous community is different from the one implemented by communities in other areas. A study by Kadfak (2020) on the livelihood strategies of fisherman community in Mangaluru, India

found that they had implemented livelihood strategies by intensifying fishery-based activities and shifting to the service sector. A different study by Aswani, et al (2019) explained that the coastal community was the most vulnerable group to the impacts of climate change. This condition indirectly affected their livelihoods, so that social livelihood and food security approaches were their livelihood strategies.

Furthermore, more studies showed that the portfolio of women's and men's livelihoods was very diverse, but at the same time, the strategies limited the women's freedom in making choices on the one the livelihood wanted to do (Lawless et al., 2019). These efforts indicated that there are continuous activities done by the coastal communities to maintain the sustainability of their livelihoods, both from within and outside the fishery sector as a livelihood strategy. It is further supported by the results found by Alobo (2019), Megbowon (2018), and Wang, et al (2021).

These previous studies show that the livelihood strategies implemented by the coastal or rural communities are such a response to the vulnerabilities they face. Generally, these studies also show diversification patterns of livelihoods derived from marine products as a consequence of the settlement location (Kadfak, 2020), impacts of climate change (Aswani et al., 2019), limitations of women in determining their livelihood choices (Lawless et al., 2019), , and livelihood diversification (Alobo Loison, 2019; Megbowon, 2018; Wang et al., 2021). Meanwhile, other studies proved that although not many, there were still some members of the coastal community implementing the livelihood diversification from the plantation sector. To the authors' knowledge, there is no specific study focusing on the diversification of livelihoods and the coastal women's contribution in Maluku. For this reason, this present study aims to understand the diversification of livelihoods of coastal community intended specifically for women through traditional mechanisms and to identify the most dominant livelihood activity as a way out of poverty. This study is expected to contribute to the economic development of coastal and rural communities and to the literature under the topic of sustainable livelihoods.

Methodology

The term 'livelihood' refers to a family's activities to meet the household daily needs in order to maintain the household survival (Cai, Figure 1.

2012). For this reason, this study is developed based on a concept of livelihoods proposed by Chambers & Conway (1992) which can be seen in the following

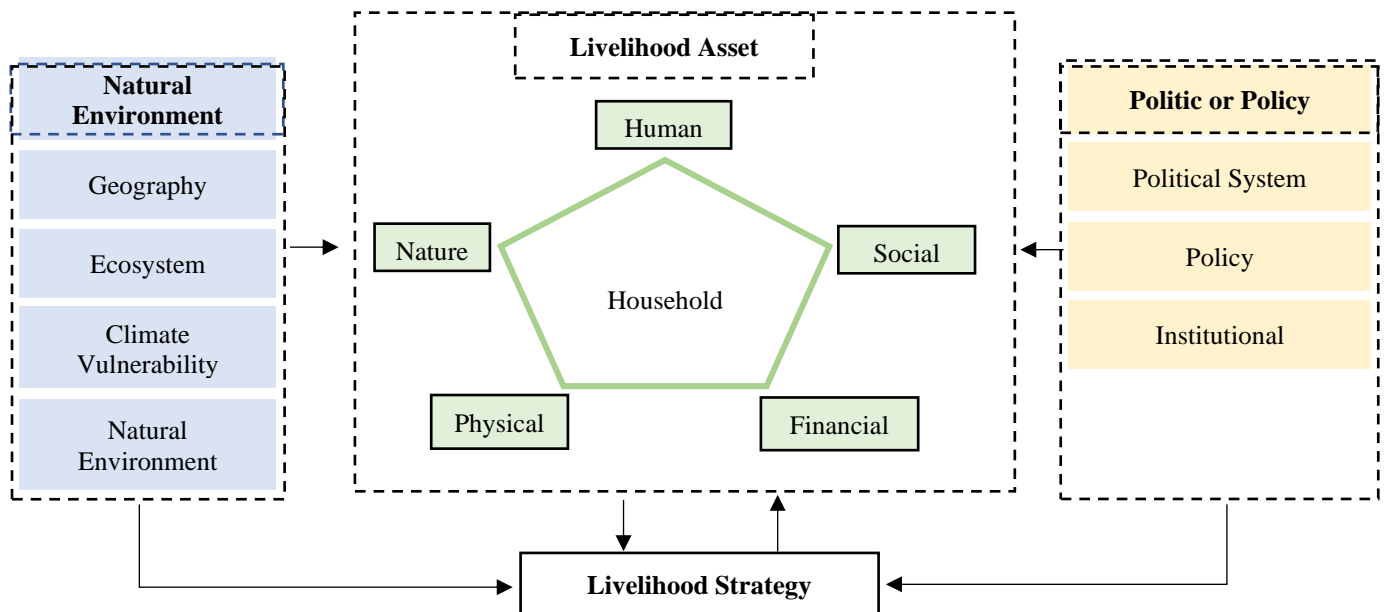


Figure 1. Framework of Livelihood Assets Chambers & Conway (1992)

This study adopts a qualitative study in order to obtain a detailed understanding of individuals and communities that take place in a natural setting (Creswell, 2016). In addition, a phenomenological approach is also used to understand experiences of the indigenous community of *Negeri Booi* who live in the southern coastal area of Saparua Island in overcoming the vulnerability of livelihoods in

the form of poverty, especially through the livelihood diversification strategy carried out by the women of *Negeri Booi*. This study was done in June 2021 – January 2022 in *Negeri Booi*, Saparua Island, Central Maluku Regency, Maluku Province. The map of the research location is presented in the following Figure 2.

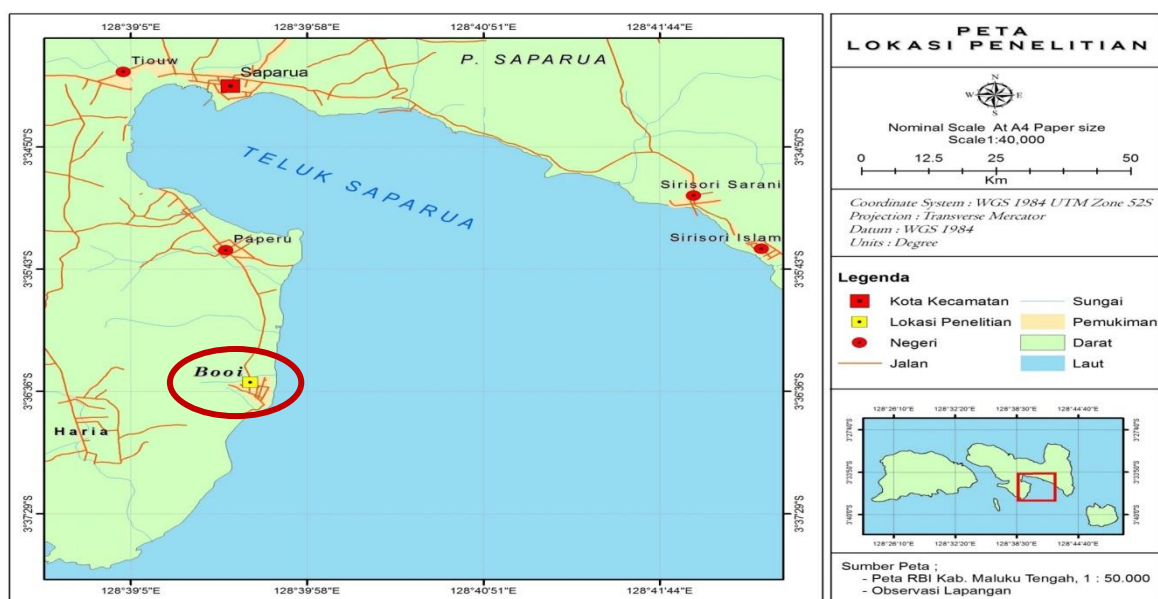


Figure 2. Map of Research Location, 2021.

Negeri Booi was chosen for several reasons: *First*, *Negeri Booi* is located in the coastal area, but its community's main livelihood is on the plantation sector such as nutmegs – their main source of household income. *Second*, *Negeri Booi* is the largest nutmeg-producing center on Saparua Island. *Third*, although *Negeri Booi* is the largest nutmeg-producing center, not all members of *Negeri Booi* community own nutmeg plants, especially women.

Next, the data was collected through in-depth interviews, observations and focus group discussions (FGDs) involving a total of 20 informants, consisting the women of *Negeri Booi* community and nutmeg *dusung* owners. Meanwhile, the government of *Negeri Booi* (*Raja* and *Sanini Negeri*) was the informants with special characteristics and a source of triangulation to validate the data to make it credible and valid.

After the data was collected through interviews and observations, the data was analyzed following the stages proposed by Creswell (2016), including: *First*, the researchers should arrange and prepare the data to be analyzed. In this stage, all data was arranged by date of collection, source, type and description. *Second*, the researchers should code the data. In this stage, the data is grouped and similar data is given the same code. *Third*, the researchers should connect the themes. After the data is grouped based on the research themes, the researchers should draw the relationship between one and another. *Fourth*, the data is interpreted to make it easy to understand.

Results and Discussion

The efforts to sustain the household livelihoods were always carried out everyday by the coastal community, including the indigenous community of *Negeri Booi*. They were done by taking advantages of the natural resources around their settlements. This study finds that although the indigenous community of *Negeri Booi* lived in a coastal area, their livelihoods depended on the *dusung* with nutmeg plants as their main source of income. Besides, they also took advantages of the existence of traditions, customs or local wisdoms to guarantee the fulfillment of household needs.

An empirical finding reveals that the indigenous community of *Negeri Booi* could access all natural resources although they were not owned by their big family (*mata rumah* / clan) as long as these natural resources were still in the *petuanan* (customary territory) of *Negeri Booi*. The researchers attempted to provide an overview of the ownership of various livelihood assets as the indigenous community of *Negeri Booi*'s livelihood based on the views of Chambers & Conway (1992), and Ellis (2000) explaining that the community in rural areas had a variety of assets that could be utilized by individuals, households, or communities as a means of meeting their daily needs.

Livelihood Asset Strategies of Indigenous Community of Negeri Booi

The livelihood assets utilized by the indigenous community of *Negeri Booi* living in the coastal area included not only natural assets but also assets of local wisdom or tradition used as social capital, including the ownership of local institutions – for example *Kewang* traditional institution. In connection with this view, Ellis (2000) argued that the livelihood assets were usually categorized into natural asset, physical asset, economical asset, and social capital mediated by the existence of institutions and organizational structures. The following are the empirical findings of this study, presenting five livelihood assets of the indigenous community of *Negeri Booi* which include social capital, human capital, natural capital, financial capital, and physical capital Chambers & Conway (1992).

Social capital asset. Studies of social capital were first introduced in the early 20th century in an article entitled “The Rural School Community Center” by Lyda Judson Hanifan in 1916. In this article, the social capital was explained in an unusual sense (related to money or property), but in a figurative meaning which included assets or real capital in the community's life. A similar view was also expressed by Syahra (2003) who explained that the concept of social capital was the thought of community members that it was impossible for them to individually be able to overcome various problems they were facing, so that togetherness and a good cooperation were highly required.

In the development paradigm, this social capital played an important role which could not be ignored. It was bottom-up (rather than top-down), and it tried to integrated social, economic, and environmental dimensions into the development itself (Rusy, 2019). Further, Field (2010) stated that the main idea of social capital was about the social bonds or coesion helped to encourage a climate of cooperation in order to obtain benefits. This cooperative relationship was governed by a reciprocal and mutually beneficial pattern of interrelation, based on the prevailing values and norms and was built on a foundation of trust (Maryam, 2012).

Meanwhile, in the context of the indigenous community of *Negeri Booi*, the social capital was supported by the existence of fellow members of *Negeri Booi* community (*ana adat negeri Samahu Amalatu*) in meeting their household needs. The social capital as the “*ana adat negeri Samahu Amalatu*” created a network of trust based on the norms and values embodied in the local wisdom, in the form of the tradition of nutmeg seed picking (*bapilih biji pala*) in the *dusung* within the *petuanan* of *Negeri Booi*. The *dusung* owners deliberately allowed other community members to meet their daily needs from their *dusung*. This activity was manifested through an expression saying that “the fallen nutmeg on the ground belongs to everyone, while the ones on the tree was the owner’s as *tuang dusung*”. Although the nutmeg had a high economic value, these nutmeg farmers in *Negeri Booi* chose to share with others. This sharing behavior only applied among fellow *ana negeri Samahu Amalatu* and did not involve people from outside the community (*orang dagang*).

This phenomenon indicated that there was a sense of mutual trust, norms, values, and networks in carrying out the activities to meet the daily needs among the *ana negeri(s)* which were the main element of social capital. For this reason, it could be concluded that the tradition of nutmeg picking in the indigenous community of *Negeri Booi* as a social capital. Furthermore, Maryam (2012) revealed that the trust was a relationship between two or more parties containing beneficial expectations through social interactions. Meanwhile, the norms were seen as a set of rules expected to be obeyed by the community members. In addition, the values were related to what was

considered right and important. Besides, the network referred to the bond among people or communities. This view clearly shows that the social capital could be used to develop the household economy based on the local community’s culture as well as an important indicator of livelihood sustainability (Kuang et al., 2020; Paul et al., 2020; Yang et al., 2018).

Human asset. It was one of the most important household assets in making decisions to determine what livelihood strategies that could be used to make their livelihoods sustainable. This asset explained how much labor, quality of knowledge, skills, and ability to work required were. Therefore, this human capital asset could be defined as competencies, knowledge, and personal attributes combined through skills in generating economic values (Scoones, 1998; Singgalen et al., 2019; Sullivan & Sheffrin, 2003). Poor knowledge and skills could cause the human asset to be in a low bargaining position, so that the ability of households to get a paid job was also low. This condition would simultaneously influence the efforts of rural community, including the coastal community, in maintaining their own livelihoods.

In the context of the indigenous community of *Negeri Booi*, the human asset could be illustrated through the division of labor between men and women, involvement of workers from the nuclear family and involvement of neighbors. The empirical findings of this study show that there was an involvement of children as an alternative source of household income. The division of labor between men and women in the indigenous community of *Negeri Booi* focused more on the work whose in nature would require a lot of energy and the work that was “managerial” (controlling) or did not require a lot of energy. In general, the works requiring a great energy would be done by men, such as *balobe* (fishing at night), and *paruru* (harvesting leftover nutmeg). Meanwhile, the women would do *bameti* (collecting small clams/*bia*, and shrimps at a low tide/*meti*), *bacakar* or *bapilih* (nutmeg seed picking), and nutmeg seed splitting. In addition, the woumen of *Negeri Booi* also were responsible in managing the household finance, such as saving money in the bank, managing the household spending, and etc.

Furthermore, the involvement of neighbors as labors in the production activities was mostly done in the beginning of nutmeg harvesting season. The nutmeg could be harvested 3-4 times a year. This study finds that the involvement of neighbors in the harvesting process in the past did not require labor costs at all as it was these days. For the indigenous community of *Negeri Booi*, they only needed to ask for their help and they would be voluntarily to do so. For the *Negeri Booi* community in particular and Maluku community in general, this request for assistance was known as *masohi* (working together without being paid).

An informant stated that based on his experience on the involvement of labor during the process of harvesting nutmeg, the fee would be paid per day or following a contract system where the fee would be paid once after harvesting the whole one nutmeg *dusung*. The latter type of payment was based on the number of trees harvested, approximately IDR 100,000 – IDR 150,000 per tree. However, if the tree owners did not have cash, they would share 50% of the harvest to the labors. Based on the informant's perspective, this condition was very much different from the past which did not require any labor costs.

Natural asset. In addition to the social asset and human asset which were two important indicators of livelihoods, the accessibility to natural asset also played an important role for the sustainability of the livelihoods of the rural communities. For the coastal community, their main source of livelihood came from the fishery sector with a variety of products (Betcherman & Marschke, 2016; Jaiteh et al., 2017; Monagail et al., 2017). However, in the context of indigenous community of *Negeri Booi* living in the coastal area, the plantation sector was their main source of livelihood instead of the fishery sector. The fishery activities were only 'complementary' to meet their household consumption needs. Usually, the marine products obtained would be sold to fellow community members if there was an excess of catch.

This finding highlights that the production activities utilizing the potential of marine products were highly dependent on the needs of community members. Besides, they also had several traditions which utilized the marine potentials, including *bameti* and

balobe. The *bameti* was done when the sea water was low (*meti*). It was done by collecting *bia* (gleaning shellfish) and shrimps when the moon was dark. This activity did not require any tools as the shellfishes would be collected by hands, so it did not require any special skills. The *bameti* was mostly done together with a big family or clan.

Meanwhile, the *balobe* was carried out at night. The *balobe* was the opposite of *bameti* where it used tools such as machetes and *kalawai* (spears with three-edged ends). Since it was done at night, the catches could be several types of fishes, lobsters, and octopus. However, as time went by, there was a quite high demand and the catches were sold to increase their household income. Sometimes, they would also catch sea cucumbers and sell them. This condition actually implied that there were many marine products with a high economic value and that the waters in *Negeri Booi* were still highly maintained. However, it was very unfortunate that although the indigenous community of *Negeri Booi* lived in the coastal area and was surrounded by these hidden gems, their main source of livelihood was not from this fishery sector.

Further, in relation to the plantation sector of nutmeg plants (seeds and flowers) as the main livelihood of indigenous community of *Negeri Booi*, an empirical finding of this study shows that the nutmeg plantation area reached 13 hectares out of 31.4 hectares of the total plantation area. The average *dusung* ownership was between 0.5 – 2.5 hectares and each nutmeg plant could live for 100 years. For the indigenous community of *Negeri Booi*, the nutmeg plants was such an 'eternal treasure'. This indicated that the household needs could be met throughout the year since the nutmeg had a high economic value and could be harvested 3-4 times a year. However, this made them heavily dependent on the availability and access to the nutmeg plants (Kakerissa & Hahury, 2018). Moreover, the history proved that the nutmeg and cloves were commodities that made Maluku known to the world, long before Indonesia existed.

In relation to the dependence of rural communities on the natural resources, Fischer (2018) and Barbier (2015) supported that the high dependence of rural communities, especially the coastal community, to the natural resources could bring a negative impact on their vulnerability which potentially

could threaten the community's livelihood due to several factors, such as ecosystem and climate changes. In other words, the natural asset had an influence on the livelihoods of coastal community, yet it implied a high risk to their livelihood sustainability (Baffoe & Matsuda, 2018; Kuang et al., 2020). This perspective emphasized that the community who lived and were closed to the abundant natural resource potentials would not always live in prosperity.

However, the indigenous community of *Negeri Booi* living in the coastal area kept making the efforts to maintain the sustainability of their household livelihoods. Unfortunately, this study finds that they did not yet have adequate competency and knowledge on the management of marine products. To this date, the marine products had only been utilized as subsistence, not as a commodity with a high economic and commercial value for the benefit of their household income. They took more parts in the management and utilization of *dusung* produce for the benefit of their households. Similarly, studies by Kimengsi, et al (2019) and Quandt, et al (2019) confirmed that the rural communities mostly identified with poverty would often use forests (agriculture and plantations) as the main source of livelihood diversification for the survival of their households.

Financial asset. It was the basic asset a household needed to achieve any livelihood goals (Dehghani, et al., 2018 and Giri, 2022). It referred to the ownership of savings and how much access the people had to the formal and informal financial sources in the form of loans. This view implies that the financial asset consisted of two factors that could support the livelihoods of rural households: ownership of savings and access to loans. The condition of rural communities living close to the poverty line – and even tended to be identified with poverty due to low income and various other factors – had forced them to choose to adopt more profitable livelihoods. Usually, the main goal of this behavior was to get cash faster.

In their context, the ownership of cash was such a 'guarantee' to survive in relation to the effort to meet the household needs. Further, in terms of the access to loans, the rural community had more access to loans through an informal sector, such as borrowing from

their closest family. Meanwhile, the access to loans through a formal sector was highly complex for them to obtain. The causes mainly related to the access to capital (Singgalen et al., 2019) or in the form of 'collateral' requested by the bank. This shows that the access to finance played a role in the efforts to achieve an economic sustainability.

In the context of the indigenous community of *Negeri Booi*, the access to finance was the opposite from the global view of finance. The access to finance referred to the ownership of money stored in financial institutions. For the indigenous community of *Negeri Booi*, the access to finance could be in the form of accumulation of natural asset or social asset. In their traditional economic life, they considered the nutmeg plants as their financial asset, where they had the freedom to pick the nutmeg seeds without anyone stopping them although the plants were not theirs or their extended family's. In other words, the activity of picking the fallen nutmeg seeds on the ground had become the guarantee for them obtained through the existence of *bapilih* tradition for those with limited access to the access.

The traditional economic system exhibited by the indigenous community of *Negeri Booi* was different from the economic system implemented by Javanese community, such as the relationships between "a patron and a client" or "a superior and a subordinate", but more of the relationship between "work partners". This awareness had been passed through generations and was still well-maintained to this day. The researchers of this study view this relationship as a result of a complexity of the *dusung* inheritance system done paternally. This system made the women vulnerable to losing their financial assets in the form of *dusung* and nutmeg plants. This condition brought up the awareness as a fellow "*ana negeri Samahu Amalatu*", so that there was a mechanism to protect and guarantee the livelihoods of the indigenous women of *Negeri Booi* community.

Physical asset. It could be defined as a livelihood asset with an important contribution needed during the production activities (Dehghani et al., 2018; Faisal et al., 2020; Gong et al., 2021). It could be in the form of the availability of infrastructure supporting the livelihood activities of the rural community, either facilitated by the government or initiated

by the community itself. In relation to the government's role in providing the infrastructure for the community, Arif & Hussain (2018) stated that the government was responsible and played a role in providing supporting facilities, yet their sustainability was the responsibility of the community.

In the context of the *Negeri Booi* community, the access to physical asset provided by the government could be seen through the construction of roads and bridges that made it easier for the community to market their produce/*dusung* products. An informant explained that initially, there was no access road into and out of *Negeri Booi*. They had to carry the *dusung* produce and travel quite a distance to market them. Furthermore, *Negeri Booi* was located on top of a mountain and the access to go in and out of *Negeri Booi* was in the form of steps. This condition certainly had its own challenges for the indigenous community of *Negeri Booi* in their daily activities.

In addition, the availability of physical asset provided by the indigenous community of *Negeri Booi* was in the form of footpaths and *walang* (garden houses). The empirical findings of this study prove that these footpaths served as a connecting road to the *dusung*, while the *walang* was the garden house in the *dusung* functioned as a resting place, and a place to keep the produce during the harvesting season (Mahulete et al., 2020; Michael et al., 2018; Sahureka & Talaohu, 2018)

The livelihood diversification strategy of coastal community in Negeri Booi as a way out of poverty

The poverty condition experienced by the rural community at the moment had become a challenge for the government to be overcome, especially in developing countries. The poverty itself had been associated with low income, bringing an impact on the approach that would be used to overcome the poverty. In fact, it involved various conditions, such as social condition (Celikay and Gumus, 2017; Mood & Jonsson, 2016; Sun et al., 2021), gender (Mwiti & Goulding, 2018; Sun et al., 2021), health (Sanjay, 2011; Wang & Wang, 2016), and even the limited natural resources owned by the community (Hallegatte & Rozenberg, 2017). This view implies that the poverty was such a multidimensional problem,

so that overcoming it was not only focused on the efforts to increase the income, but also the needs to involve other factors as well (Barati et al., 2021; Dehghani et al., 2018).

The efforts to get out of various livelihood vulnerabilities continued to be carried out by the rural community using various strategies, including the efforts to combine various livelihood activities that could generate income to maintain the sustainability of household livelihoods (Soltani et al., 2012; Torell et al., 2017). A similar condition was also experienced by the coastal community who heavily relied on the marine products as a source of household livelihood. However, their hope of having a stable income was hampered by uncertain catches (Sadekin, 2018), climate changes (Das et al., 2020; Huang et al., 2019) as well as the limited knowledge as a result of the community's mindset which tended to be traditional in nature, and their poor management technique of the catches (Roy & Basu, 2020).

Besides, the livelihood strategies developed by the coastal community were different from one area to another, and highly dependent on the availability of potential coastal resources owned. Each community member would tend to choose a combination of livelihood strategies according to the ownership of available livelihood assets (Dehghani et al., 2018 and Wu et al., 2017). Therefore, the livelihood diversification was important for the coastal community to encourage the economic growth and helped to get out of the poverty they experienced (Alobo, 2019). In the perspective of DFID (2001), the livelihood assets were based on different household resources and classified into five categories: human asset, social asset, financial asset, natural asset, and physical asset. These assets were influential factors and had an important role in the household decision-making mechanism regarding the livelihood strategies to be adopted (Dehghani et al., 2018). Besides, the community's livelihoods could be considered sustainable if they could overcome and recover from pressures and shocks in maintaining or increasing the asset capabilities without destroying the existing natural resources (Chambers & Conway, 1992).

The diversification of livelihoods in the context of the indigenous community of *Negeri Booi* living on the southern coastal area of Saparua Island could be seen through the

community's main source of livelihood which relied on the *dusung* produce rather than the marine products. At this level, it could be concluded that the choice of livelihood assets was land-oriented. It was not only related to the ownership of nutmeg plants which had economic values, cultural values, and long history of Maluku and Indonesia. In fact, this condition explained the ability and knowledge possessed by the indigenous community of *Negeri Booi* which had not been maximized in utilizing the coastal area as a source of their livelihood. The empirical findings of this study also show that the marine products obtained were used to 'complement' their household consumption needs, not as the main source of livelihood. Jiao et al (2017) argued that this lack of knowledge triggered every household in the coastal area to change their livelihood strategies from time to time in response to the pressures and opportunities to develop.

Another phenomenon happened in the life of indigenous community of *Negeri Booi* was the application of traditions, customs, and local wisdoms which had their own uniqueness. For example, the inheritance of *dusung* ownership was done paternally. This caused women to be vulnerable to losing their source of income from the *dusung*, although they also had the rights on it. However, if they had got married, then the *dusung* must be returned to the extended family. Realizing that it was risky for the women, then the indigenous community of *Negeri Booi* made a common convention that the women of the indigenous community of *Negeri Booi* could pick the fallen nutmeg seeds on the ground from any *dusung* in the *petuanan* of *Negeri Booi* although the *dusung* did not belong to the women's extended family.

In this context, the indigenous community of *Negeri Booi* had actually adopted a livelihood diversification strategy whereas the women's livelihood was guaranteed by the tradition or local wisdom to this day. Lakshmi et al (2021) argued that the culture (tradition) played an important role in the management of agricultural land in the rural community. Further, this phenomenon also illustrated a high dependence of the community on the agricultural sector. The existence of the indigenous community of *Negeri Booi* in the coastal area whose main livelihood came from the agricultural sector (land) described a

livelihood diversification as a way out of the poverty they experienced (Soltani et al., 2012). Therefore, the livelihood diversification strategy could be seen as the ability of the community to change livelihoods from time to time based on the ownership of various assets due to the threat of vulnerability. In addition, it also aimed to stabilize the income obtained by the community (Getahun, 2022). In other words, the community's ability to diversify their livelihoods through the asset ownership was a way out of the community's inability to meet the basic needs of life. Meanwhile, the relationship as fellow "*ana negeri*" could be considered as a form of asset or social capital owned by the indigenous community of *Negeri Booi*. This social asset was able to provide opportunities for the creation of new livelihoods based on common conventions. This view was in line with the findings by Naithani & Saha (2021) which confirmed the influence of social capital on the new livelihood diversification opportunities.

Conclusions

The indigenous community of *Negeri Booi* had a variety of livelihood assets based on the availability of resources – including the natural asset, both in the waters and on land – which were also supported by the ownership of social asset, physical asset, financial asset, and human asset. These various assets were related to one another and used as a strategy to diversify the community's livelihoods. Meanwhile, the most dominant livelihood strategy of the indigenous community of *Negeri Booi* was the combination of natural asset and social asset. In this context, the use of natural asset was further supported by the presence of social asset through the implementation of traditional mechanism of nutmeg seed picking as a guarantee for the livelihood sustainability. At the same time, this condition emphasized that the ownership of livelihood assets of one community and another could not be the same, so that the livelihood strategies implemented would also be different and depend on the perspective and vulnerability they faced.

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