



Grand Design of Legal Capacity Based on *Green Economic* for Mangrove Micro, Small and Medium Enterprises

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Abstract. Delta Mahakam has a productive, enormous natural resources, and a unique coastal ecosystem. Good management of this potential will have an impact not only on the economic aspect but also on the ecological aspect, in line with the idea of green economics. Micro, Small and Medium Enterprises (MSMEs) are one of the important actors in increasing welfare and reducing the risk of environmental damage, regardless to that fact, the MSMEs in the Delta Mahakam are dominated by fishery products processing instead of developed businesses in mangrove processing. Therefore, a design is needed to increase legal capacity for MSME actors. By using the social legal research method, this research aims to answer the urgency of green economic-based legal capacity for MSMEs for mangrove rehabilitation and the grand design of Green Economic-based legal capacity for Mangrove MSMEs. The results showed that process fishery products MSMEs from environmentally friendly ponds must be developed to process mangroves because they have the potential to reduce environmental damage, especially in mangrove ecosystems. The community will participate in participatory mangrove rehabilitation in order to obtain direct benefits from mangroves as a raw materials business. Therefore, legal capacity for mangrove MSMEs is very important to encourage community involvement in mangrove rehabilitation. The grand design of legal capacity based on Green Economics for Mangrove MSMEs contains two aspects, which are the control of the business and the mangrove ecosystem that is arranged in a participatory manner.

Keywords: Green Economic · Legal Capacity · UMKM · Mangrove · Delta Mahakam

1 Introduction

The Delta Mahakam has a productive, unique coastal ecosystem and enormous natural resources [1]. If this gets good management, it is not impossible to become a contributor that can improve the national and regional economy [2]. Encouraging the potential of mangroves as a *green economy* for Micro, Small and Medium Enterprises [3] needs to be done as it is an important sector in the economic resilience of the community

[4]. However, the situation in the Delta Mahakam mangrove area is actually deteriorating [5] for many reasons, such as many mangrove forest areas have been converted due to development interests by individuals [6] and companies [7] despite various mangrove rehabilitation efforts that have been made [8]. The Low community participation in mangrove rehabilitation is one important factor that affects the failure of mangrove rehabilitation. The role of the community in maintaining and caring for mangrove forests is one of the fundamental functions of preserving mangrove forests [8].

The mangrove ecosystem is one of the ecosystems with enormous economic, social, political and environmental impacts. East Kalimantan, especially Kutai Kartanegara Regency, has extensive mangrove areas. The Delta Mahakam is a delta area in Kutai Kartanegara that was formed by sediments at the mouth of the Mahakam River and the Makassar Strait, with a fairly high diversity of mangrove plants [9]. Mangrove forests in the Delta Mahakam have traditionally been used by the community for various daily needs such as firewood, building huts, or charcoal. Such utilization can still be tolerated as long as it is not for commercial purposes. Roads, tourism, aquaculture, and industry on a large scale has caused thousands of hectares of mangrove forests to disappear from coastal areas [10]. Logging of mangrove trees in the Delta Mahakam has been widespread from year to year, mostly due to aquaculture ponds [11].

Mangrove Forest area has been reduced in Delta Mahakam by an estimated 60,000 ha or around 55% of the total area [12]. Fisheries ponds in the Delta Mahakam area are examples of a destructive management from clearing mangrove forests [13] and resulting in fundamental changes to existing environmental conditions. Inappropriate management can cause damage to mangrove ecosystems, resulting in widespread damage to mangrove areas in critical conditions [14]. Sepatin Village is one of the villages located in the Delta Mahakam Delta which has experienced quite alarming damage to the mangrove ecosystem due to destructive management of the mangrove ecosystem disregarding the sustainability aspects of the mangrove ecosystem [15].

As an effort to encourage community involvement in mangrove rehabilitation by bringing the mangrove rehabilitation issue closer to programs that improve the economy of people living in mangrove ecosystem areas. The economic potential that is in line with mangrove rehabilitation efforts is based on *green economics*. MSMEs are the development options because they have great potential in absorbing labor and their contribution to the formation of gross domestic product (GDP) is also quite high [16]. The existence of MSMEs should provide fresh air for the community. However, its development in the Delta Mahakam Delta is currently not engaged in the mangrove sector as it is still dominated by the fisheries sector [17]. Based on this situation, there is a need for a design that can increase the capacity of MSMEs based on green economic mangroves that are good and legal for MSME actors in the Delta Mahakam. The concept of *green economy* itself is an economic idea that aims to improve the welfare and social equality of the community while significantly reducing the risk of environmental damage. The existence of mangrove-based MSMEs reduces the potential for environmental damage and participatory communities will participate in mangrove rehabilitation in order to obtain direct benefits from mangroves as their enterprise raw materials. The *socio legal research* method was used and conducted in the Delta Mahakam area of East Kalimantan

Province, Indonesia, covering Muara Badak Ulu Village and Salo Palai Village in Muara Badak District.

2 Legal Review of Micro, Small and Medium Enterprises (MSMEs)

MSMEs are productive business units that stand alone, carried out by individuals or business entities in all economic sectors. In principle, the distinction between Micro Enterprises, Small Enterprises, Medium Enterprises, and Large Enterprises is generally based on initial asset value (excluding land and buildings), average annual turnover, or the number of permanent workers. However, the definition of MSMEs based on these three measurement tools differs by country [18], therefore it is indeed difficult to compare the importance or role of MSMEs between countries [19].

As a country based on law (*rule of law*), it is appropriate for the government to establish a basic concept that contains legal guidelines regarding the direction of development of national law for a certain period of government [20]. Law Number 20 of 2008 concerning MSMEs states the definition of each business is as follows [21]:

- a) Micro Enterprises are businesses with a net worth of less than 50 million rupiah or generate sales of less than 300 million rupiah in one year.
- b) Small Business is a business with a wealth of between 50 and 500 million rupiah or generates sales of between 300 million and 2.5 billion rupiah for one year.
- c) Medium Enterprises are businesses with a wealth of between 500 million and 10 billion rupiahs or generate sales of between 2.5 and 50 billion rupiahs for one year.

After the enactment of Law Number 1 of 2020 concerning Job Creation, the definition of each MSME has changed. Which is contained in Government Regulation Number 7 of 2021 concerning Ease, Protection, and Empowerment of Cooperatives and Micro, Small, and Medium Enterprises. The criteria for MSMEs are written in Article 35–36 and divides MSMEs into criteria based on business capital/annual sales results, namely:

- a) Micro Enterprises with operating capital of < IDR 1,000,000,000.00 do not include land and buildings for business premises.
- b) Small businesses with business capital of > IDR 1,000,000,000.00 to < IDR 5,000,000,000.00 excluding land and buildings for business premises.
- c) Medium Enterprises have business capital of > IDR 5,000,000,000.00 to < IDR 10,000,000,000.00 excluding land and buildings for business (Table 1).

Table 1. Comparison of MSME criteria before and after the existence of the Job Creation Law

<i>Indicators</i>	Law No. 20 of 2008	Government Regulation No. 7 of 2021
<i>MSME groups</i>	Based on net worth or annual sales results. Net worth is the amount of assets after deducting liabilities or debts.	Based on business capital or annual sales results. Business capital is personal capital as well as loans to start a business.
<i>Business Capital or Net Worth</i>	<ol style="list-style-type: none"> 1. Micro Business: < IDR 50 million. 2. Small Business: > IDR 50 million to < IDR 500 million. 3. Medium Enterprises: > IDR 500 million to < IDR 10 billion. (Excluding land and buildings for businesses). 	<ol style="list-style-type: none"> 1. Micro Enterprises: < IDR 1 billion. 2. Small Enterprises: > IDR 1 billion to < IDR 5 billion. 3. Medium Enterprises: > IDR 5 billion to < IDR 10 billion. (Excluding land as well as buildings for businesses).
<i>Annual Sales Results</i>	<ol style="list-style-type: none"> 1. Micro Business: < IDR 300 million. 2. Small Business: > IDR 300 million to < IDR 2.5 billion. 	<ol style="list-style-type: none"> 1. Micro Business: < IDR 2 billion. 2. Small Business: > IDR 2 billion to < IDR 15 billion.

3 Result and Discussion

3.1 Mapping Results of MSMEs in Muara Badak District, Kutai Kartanegara Regency, Delta Mahakam Area

3.1.1 Muara Badak District

Muara Badak is a sub-district in the coastal area of Kutai Kartanegara Regency which is located between 117°07'E–117°32'E and 0°11' S–0° 31' S. Muara Badak has an area of 939.09 km² with a population of 57,712 people spread across 13 villages. It is administratively bordered by Marang Kayu District in the north, Anggana sub-district, and Samarinda City in the south, the Makassar Strait in the east and Tenggarong Seberang District in the west. Muara Badak is also one of the oil and gas producing areas such as the multinational oil and gas company VICO Indonesia. Apart from having potential natural resources in the form of oil and gas and coal, the Muara Badak sub-district also has great potential in the fisheries and plantation sectors.

This MSME mapping during the August–September 2022 period was carried out in 3 villages in the Muara Badak sub-district, Kutai Kartanegara Regency that are included in the Mahakam Delta region, which are Muara Badak Ulu Village, Salo Palai Village, and Saliki Village. These locations were chosen because the area has high mangrove potential with an area of 15,964 mangroves, the third widest after the mangrove area in Anggana District and Muara Jawa District.

3.1.2 Results of Mapping MSMEs in Three Villages in Muara Badak

From the MSME mapping process carried out by researchers in three villages in the Delta Mahakam during August–September 2022. Researchers found that there were 14 MSMEs in these three villages. Where is the first thing that can be seen that is related to the legal capacity of licensing aspects owned by MSMEs in Muara Badak. It can be concluded that only 50% of MSMEs in Muara Badak have Tax Identification Number, 42.9% of MSMEs do not have Business Identification Numbers, 42.9% do not have a distribution permit, 64.2% of MSMEs have not registered their brand, 35% of MSMEs do not include the product composition on the packaging label, 78.6% do not include the nutritional value content on the packaging label and 71.5% of MSMEs have not applied for a Halal label, as presented in Fig. 1.

The researchers then mapped related to Mangrove-based MSMEs as their business product and found that from the results above it can be concluded that the 3 villages in the Muara Badak sub-district, Kutai Kartanegara Regency which are included in the Mahakam Delta area which has high mangrove potential estimate 15,964 ha, the third largest after the mangrove area in Anggana sub-district and Muara Jawa sub-district. This extent of the mangrove potential, the researchers found that there were 14 Small and Medium Enterprises (SMEs) in the 3 villages, namely Muara Badak Ulu Village, Salo Palai Village and Saliki Village, and there was only one enterprise engaged in the utilization of mangroves, fruit *ovata* of the *Sonneratia ovata* type as raw material for processed products such as mangrove syrup, mangrove dodol, and mangrove hidden nuts. While the other 13 MSMEs are engaged in the utilization of fishery and plantation products. The results of these findings indicate that the potential for utilization of processed products from mangroves in Muara Badak is still very low (Fig. 2).

Interviews to business actors engaged in the mangrove field resulted that there are several obstacles presented in running this Mangrove-based MSMEs. They are: (1) the availability of raw materials is abundant, but not all of them can be processed, only good quality raw materials can be processed into mangrove processed products due to the fact that the availability of many raw materials is rotten and damaged; (2) the lack of

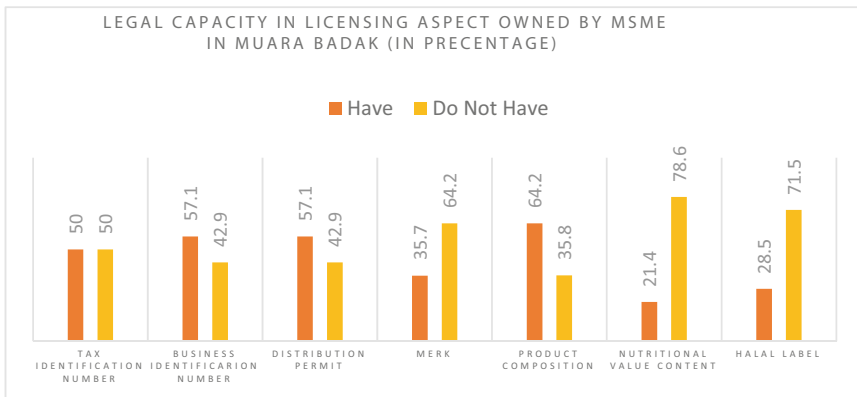


Fig. 1. Legal Capacity in Licensing Aspects Owned by MSMEs

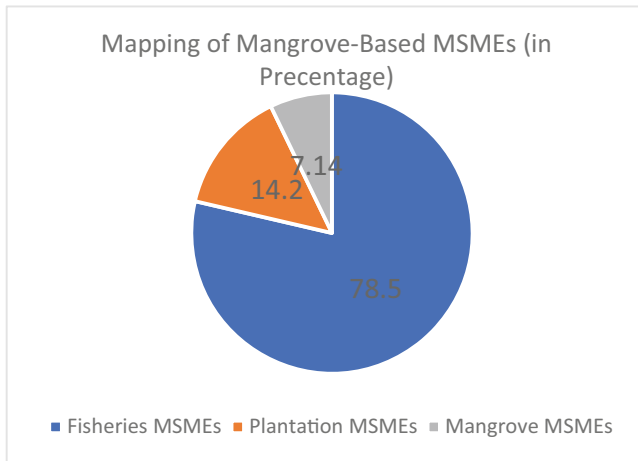


Fig. 2. Mapping of Mangrove-Based MSMEs

knowledge of business actors in developing product, so mangrove processing training needs to be held and assistance for business actors; (3) low interest in products, it is hoped that better production tools and packaging will strengthen people's purchasing power; (4) the lack of awareness regarding health benefits from mangrove fruit to the community; (5) These MSMEs do not yet have permits, so they have not been able to penetrate a larger market.

Based on the facts above, it is understood that mangrove ecosystems have significant roles in economic, social, and security activities for the surrounding community. Nevertheless, the community does not yet have great awareness of the presence of mangrove ecosystems because the direct economic benefits are lower than the indirect benefits of mangrove ecosystems. In addition, there is a strong relationship between mangrove MSMEs, mangrove reliability, and the *green economy*. It means that if mangrove MSMEs run optimally then the rehabilitation of mangroves will also improve. In the Green Economy framework, MSMEs based on Mangrove processing will improve people's welfare and reduce environmental damage.

3.2 Grand Design of Green Economic-Based Legal Capacity for MSMEs Actors

The previous discussion showed that there is a positive relationship between mangrove-based MSMEs and mangrove rehabilitation efforts. This paper offers a grand design for legal capacity based on green economics for MSME actors. Grand design is linguistically interpreted as a big plan, therefore in the context of grand design legal capacity for MSMEs actors has an important position in order to achieve certain goals based on existing conditions. The grand design of legal capacity is identified by linking the facts of MSME actors in research locations, green economic theory and concepts, as well as legal aspects of MSMEs and mangrove ecosystems.

Results showed that the grand design in legal capacity based on green economics for MSMEs is influenced by two variables, they are economic legal aspects and environmental legal aspects. The first variable is the Aspect of Economic Law, this is identified from the legal capacity that must be owned by MSMEs based on mangroves. Understanding of this legal aspect of economics is used to increase capacity both in establishing and developing a business associated with the concept of green economics. This aspect of economic law includes nine aspects. As for the second variable is the Legal Aspects of the Environment in the Mangrove Area, this means that coastal communities, especially in the Delta Mahakam must have correct legal information so that it has an impact on their legal behavior in the mangrove area, covering seven aspects. The details of the aspects in the two variables in the legal capacity of MSMEs based on green economics showed in Table 2.

In terms of economic law, the legal capacity of MSMEs is identified, starting from the capacity for legal access to establishment, product management to its development. Details of nine aspects of economic law can be seen as follows (Table 3).

It should be noted that all legal bases in terms of economic law will be affected by the enactment of Law No.11 of 2020 concerning Job Creation which revokes several laws including their derivative regulations. However, the Constitutional Court Decision Number 91/PUU-XVIII/2020 stated that some of the Job Creation Law substance is still not applicable until all Constitution Court requirements are fulfilled.

In the environmental legal aspect, there are seven aspects that are detailed in the environmental legal aspect that can be identified connected to mangrove ecosystems as follows (Tables 4 and 5):

Economic and environmental legal aspects are important variables in increasing the legal capacity of MSME actors. Both of these aspects are within the framework of green economics so that the goal of preserving mangrove ecosystems will be in line with improving the economy of the people in the Delta Mahakam Delta area. This is the

Table 2. Economic and Environmental Legal Aspects of MSMEs in Grand Design

Economic Legal Aspects Legal	Environmental Legal Aspects
MSME Legal Access Capacity	Urgency for Mangrove Protection
Financial Aspects	Mangrove and Green Economic
Licensing Capacity	Related to Mangrove
Production Regulatory Capacity	Status of Mangrove Areas
Establishment of Business Entities	Village Authority in Mangrove Management
Business Permit Completeness	Mangrove Business Permits and Village Communities
Financing Applications Aspects	MSME Mangrove and Green Economic
Knowledge about Legal Agreements	
Intellectual Property Rights (IPR) Filing Capacity	

Table 3. Economic Legal Aspects in the Legal Capacity of MSME

ECONOMIC LEGAL ASPECTS IN THE LEGAL CAPACITY OF MSMEs			
No	Economic Legal Aspect	Form	Legal Basis/Access to Sources
1.	Capacity for Legal Access to MSME	Access to Information from Campus	
		Access to Information from Local Government	
		Access to Information from the Village	
2.	Financial Capacity	Gross Monthly Income	
		Total Business Capital	
		Total Debt	
		Term of Debt	
		Labor Financing	
		Status of Business Place Ownership	
3.	Licensing Capacity	Tax Identification Number	
		Business Identification Number	
4.	Aspects of Application	Banking Credit	1. People's Credit 2. Collateral-free Credit 3. Venture Capital. 4. Multipurpose Credit 5. Loans from Relatives. 6. MSME Loans from Online Funding Platforms.
		Corporate CSR	Submissions from the Village to Companies
		Grants or Regional Expenditure Budget Assistance funds	online East Kalimantan Province Government
5.	Business Permit	Business Identification Number	Government Regulation of the Republic of Indonesia No. 24 of 2018 concerning Electronically Integrated Business Licensing Services
		MSME Business Permit	Presidential Regulation of the Republic of Indonesia Number 98 of 2014 concerning Licensing for Micro and Small Enterprises
		Commercial Permit	Government Regulation of the Republic of Indonesia No. 24 of 2018 concerning Electronically Integrated Business Licensing Services.

(continued)

Table 3. (continued)

ECONOMIC LEGAL ASPECTS IN THE LEGAL CAPACITY OF MSMEs			
No	Economic Legal Aspect	Form	Legal Basis/Access to Sources
		Food product permits	BPOM Regulation No. 22 of 2018 concerning Guidelines for Issuing Household Business Level Production Certificates
		Halal Certification	Certificate Head of BPJPH Decree No. 33 of 2022 concerning Technical Assistance for Processing Halal Products in Determining Halal Certified Obligations for Micro and Small Business Actors Based on Statements of Business Actors.
6.	Business Entity	Individual Company	Government Regulation Number 8 of 2021 concerning Company Authorized Capital and Registration of the Establishment, Amendment, and Dissolution of Companies that Meet the Criteria for Micro and Small Businesses.
		Limited Company	Law number 40 of 2007 concerning Limited Companies
		Cooperative	a. Law Number 25 of 1992 concerning Cooperatives b. Government Regulation No.4 of 1994 concerning Requirements and Procedures for Ratifying Deeds of Establishment and Amendments to the Articles of Association of Cooperatives (State Gazette of the Republic of Indonesia No.8 of 1994) c. Government Regulation No. 9 of 1995 concerning Implementation of Savings and Loans Business Activities by Cooperatives (RI Activity Gazette of 1995) d. Decree of the Minister of Cooperatives and SMEs of the Republic of Indonesia Number: 98/KEP/M.KUKM/X/2004 concerning Notaries as Makers of Cooperative Deeds e. Regulation of the Minister of Cooperatives and SMEs of the Republic of Indonesia Number: 10/Per/KUKM/IX/2015 concerning Institutions
7.	Production Regulatory Capacity		Regulation of the Minister of Home Affairs Number 19 of 2017; President Regulation No 80 of 2019 concerning Trade Through Electronic Systems.
8.	Knowledge of the Legal Agreement	Referrals to the Agreement	Article 1320 of the Civil Code

(continued)

Table 3. (continued)

ECONOMIC LEGAL ASPECTS IN THE LEGAL CAPACITY OF MSMEs			
No	Economic Legal Aspect	Form	Legal Basis/Access to Sources
9.	Intellectual Property Rights (IPR) Filing Capacity	Merk Submission	Law Number 20 of 2016 concerning Merks and Geographical Indications
		Patent Rights	
		Copyright	
		Industrial Design	

Table 4. National Regulations Related to Mangrove Protection and Rehabilitation

No	Legal Basis	Article	Description
1.	1945 Constitution	Article 33 paragraf (3)	Regulating natural resources in Indonesia is generally regulated in the state constitution.
2.	Law No. 5 of 1990 concerning the Conservation of Living Natural Resources and Their Ecosystems	Articles 1 and 2	Regulates conservation goals for the preservation of living natural resources and the balance of their ecosystems in order to support efforts to improve people's welfare and the quality of human life.
3.	Law No. 41 of 1999 concerning Forestry	Article 50	Regulations for Mangrove Ecosystem Management in forest areas, such as regulations prohibiting logging and forest encroachment.
4.	Law No. 26 of 2007 concerning Spatial Planning	Article 5 paragraf (2)	Does not specifically regulate mangroves but binds/regulates coastal boundaries and status as a local protected area.
5.	Law Number 27 of 2007 Juncto Law Number 1 of 2014 Concerning the Management of Coastal Areas and Small Islands	Article 31 paragraf (2)	Affirms that mangroves are one of the Resources of Coastal and Small Islands which must be protected in setting the coast.

(continued)

Table 4. (continued)

No	Legal Basis	Article	Description
6.	Law Number 32 of 2009 concerning Environmental Protection and Management	Article 21 paragraf (3)	Include mangroves as one of the standard criteria for ecosystem damage.
7.	Law Number 11 of 2020 Concerning Job Creation	Article 1 number 4	Under this law, mangroves are one of the coastal resources. The work copyright law also regulates coastal areas starting from utilization, licensing, and management
8.	Government Regulation No. 26 of 2008 concerning National Spatial Planning	Article 52 paragraf (6)	This provision mentions the term "Ramsar" which is a wetland as stipulated in the Ramsar Convention. Mangroves are also part of the wetlands included in the type and distribution of national protected areas. This regulation also regulates the preparation of zoning regulations for mangrove ecosystem areas.
8.	Presidential Regulation No. 51 of 2016 concerning Coastal Borders		This Presidential Regulation contains the definition of mangroves as coastal vegetation that has a distinctive morphology.
10.	Presidential Regulation No. 121 of 2012 concerning Rehabilitation of Coastal Areas and Small Islands	Article 2	Conduct rehabilitation if the utilization of coastal areas and small islands results in ecosystem or population damage that exceeds the criteria for ecosystem or population damage.
11.	Presidential Regulation No. 120 Year 2020 concerning Peat and Mangrove Restoration Agency (BRGM).	Article 2 paragraf (1) letter b	BRGM has the task of carrying out accelerated mangrove rehabilitation in designated work areas.
12.	Decree of the Minister for the Environment No 201 of 2004 concerning Standard Criteria and Guidelines for Determining Mangrove Damage.	Articles 3 and 4	Defining mangroves and setting standard criteria for damage to mangroves to be said to be good or damaged.

Table 5. Regional Regulations Related to Mangrove Protection and Rehabilitation

No.	Regulations	Article	Description
1.	Regional Regulation of East Kalimantan No. 1 of 2014 concerning Environmental Protection and Management	Articles 41 to 47	Although it does not specifically regulate mangroves. The eighth part of this regional regulation regulates the control of damage to mangrove ecosystems, seagrass beds, reefs and coral. Small islands. Mangroves enter into limited use.
2	Regional Regulation of East Kalimantan No. 2 of 2021 concerning the Zoning Plan for Coastal Zone and Small Islands.	Articles 14 paragraf (5) i	Regulates related to zoning of coastal areas and small islands. Mangroves enter into limited use.
3.	Governor of East Kalimantan Regulation Number 13 of 2016 concerning Strategic Plans for Coastal Areas and Small Islands 2016–2036	Attachment: Final document RSWP3K	Include mangrove ecosystems as coastal resources which, however, are only limited to the area of land and the types of plants that exist in the area. East Kalimantan.
4.	Kutai Kartanegara Regent Regulation Number 5 of 2014 Concerning Environmental Protection and Management	Article 20 paragraph (3) letter d	Places mangrove damage as a standard criterion for ecosystem damage
5.	Kutai Kartanegara Regent Regulation Number 78 of 2015 concerning Guidelines for Implementing Administrative Sanctions in the Field of Protection and Management of the environment.	Article 5	Does not mention mangroves in detail, but here the district government has the authority to impose administrative sanctions on business activities that hold permits that violate environmental management and protection.

basis for preparing a grand design for green economic-based legal capacity building for MSMEs. The framework for the preparation of a grand design which includes economic and environmental legal aspects within the framework of green economics can be seen as following (Fig. 3):

This grand design is a guideline for achieving the goal of preserving the mangrove ecosystem and improving people's welfare. Mangrove MSMEs must be a priority scale to

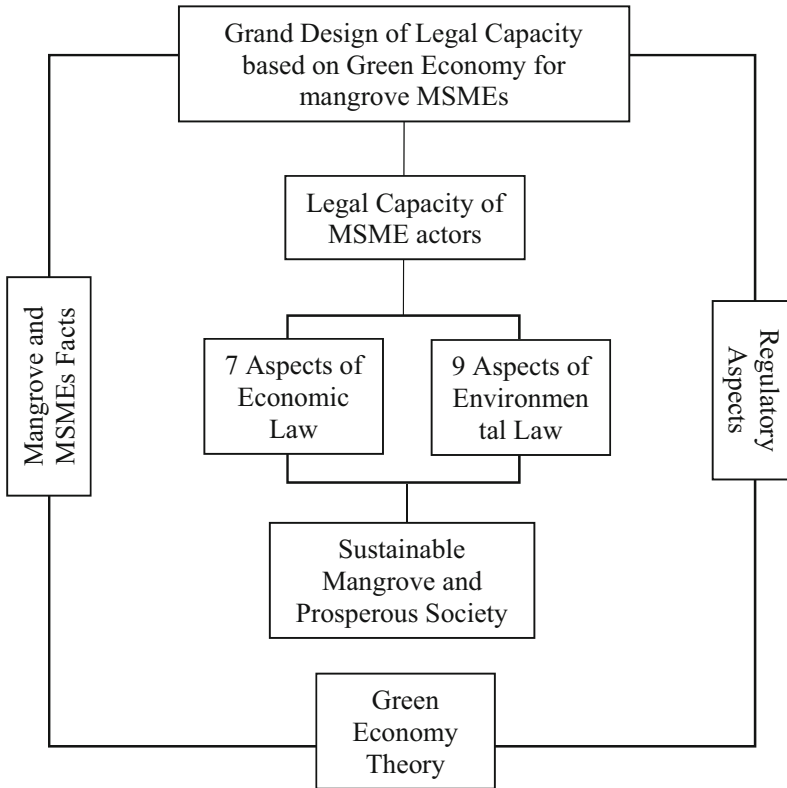


Fig. 3. Framework for the Development of a Grand Design

be formed and developed in various areas that have mangrove ecosystems. Ecological and economic relations in the concept of green economics will be realized by strengthening the existing aspects in the grand design of legal capacities based on green economics.

4 Conclusion

Based on the study conducted, it can be concluded that MSMEs that process fishery products from environmentally friendly ponds must be developed to process mangroves within a green economic framework, because they have the potential to reduce environmental damage, especially mangrove ecosystems. Legal capacity for mangrove MSMEs is very important to encourage community involvement in mangrove rehabilitation. For this reason, a grand design of legal capacity based on green economics for MSME actors is prepared by strengthening nine aspects of economic law and seven aspects of environmental law. This is implemented at the research location and is open for any development in other locations in the mangrove ecosystem area. Recommendations for this research can be concluded that increasing the legal capacity of MSMEs needs to be continuously improved by adopting the grand design of legal capacity based on *Green Economic* for

mangrove MSMEs. In order to achieve this, comprehensive support from stakeholders is needed in efforts to rehabilitate mangroves on a green economic basis.

Acknowledgments. This paper and the research behind it would not have been possible without the exceptional cooperations of all parties. We would like to offer our gratitude to village heads, village officials, and all villagers in the Salo Palai Village, Saliki Village and Muara Badak Ulu Village, Muara Badak Sub-district, Kutai Kartanegara District. Especially to all MSMEs and all its members in those three villages that have very important contributions in the research behind this paper, including all the students that have taken an unseparated part to the research. The research behind this paper cannot be separated from The Kedaireka program (Indonesian sovereignty for creative design) from the Ministry of Culture Education, Research and Technology Republic Indonesia; Peat and Mangrove Restoration Agency; and Mulawarman University.

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