ANALYSIS OF THE IMPLEMENTATION OF COASTAL RECLAMATION IN TELUK PALU

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Abstract - The coastal reclamation of Teluk Palu is carried out in Palu City, Central Sulawesi aims to make the coastal area a new tourism area and increase the regional income of Palu City. The land formed as a tourism area can be used by local governments to attract foreign investors to invest their capital. However, coastal reclamation in addition to providing benefits also has a negative impact on the surrounding environment and the people living around the coast. The aims of this research are to find out more about the process of implementing coastal reclamation in Teluk Palu and the impact of the implementation of coastal reclamation in Teluk Palu. The research method used is a normative juridical with an empirical juridical approach as research support. The data sources are divided into primary and secondary data. Coastal reclamation in Teluk Palu has a positive impact on the government in terms of increasing state and community income in terms of increasing employment opportunities. However, it has also the negative impacts, such as to the socio-economic, physical, and biological impact.

Keywords: Coastal reclamation, Teluk Palu, Impact

I. INTRODUCTION

Indonesia is a legal state as stated in Article 1 point 3 of the 1945 Constitution. Referring to this, all actions and behavior of the nation are based on the constitution. In the preamble of the 1945 Constitution, the fourth paragraph talks about a government that is made to protect the entire nation and the homeland of Indonesia, promote public welfare, and educate the nation's life.

Development policies and spatial planning in Indonesia must prioritize the balance between social, economic and environmental aspects (Fitriana, Supriyono, & Nurani, 2014). In creating a sustainable city, it must have a strong economy, a relatively equal social level with justice, environmental uniformity and community participation in state life (Budiharjo & Sujarto, 2005). In carrying out sustainable development and spatial planning, there are three important aspects that must be implemented, namely planning, utilization, and control. Today, the problem of spatial planning in Indonesia is closely related to reclamation. Article 1 number 23 of Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands states that, Reclamation is an activity carried out with the aim of increasing the benefits of land resources from an environmental and socio-economic point of view by means of backfilling, drying of land or drainage.
According to Suharto (1996), the main reason for reclamation is to expand the city, other reasons for reclamation are as follows:

1. The increasing number of people caused by natural population growth and people who come to migrate.
2. Lack of community welfare makes people want to move to the edge to avoid competition in the middle of the city with the excuse of getting better welfare in a new place to start a business to improve their welfare.
3. The distribution of urban density is carried out from the initial center in the city to be expanded for the sake of the need for a new place, to accommodate activities that can no longer be carried out in the city.

The efforts of the regional government in providing services and improving the welfare of the people in the region are based on regional government laws and are realized in the administration of regional government. In implementing an effective and efficient regional government, the central government grants the right of autonomy to carry out its own government affairs. Regional governments are authorized to regulate and manage their own regions in accordance with the interests of the local community as long as they do not conflict with the public interest and the state constitution which is directed at how to innovate, potential, regional creativity, utilization of local wisdom and competitiveness. Regional autonomy has a positive impact on the management of coastal areas, so there needs to be a commitment between the local government and the community in terms of managing the sea within their jurisdiction in a sustainable manner (Suharto, 1996).

Sustainable development in Palu City requires control to maintain environmental stability to avoid serious impacts on the environment, so preventive measures are needed to reduce the occurrence of negative impacts through an environmental permitting procedure called AMDAL. AMDAL or Analisis Mengenai Dampak Lingkungan aims to maintain environmental stability in order to ensure the sustainability of sustainable development (Rokhim, 2002).

The local government has prepared the RTRW which is then implemented through the Palu City Regional Regulation Number 16 of 2011 concerning the 2010-2030 RTRW of Palu City. Palu City is the capital of Central Sulawesi Province which is located at the end of Teluk Palu. One of the objectives of the Palu city spatial plan itself is to realize the space of Palu City as a bay city that is environmentally sound, based on services, trade, and industry, and is based on excellence and local wisdom for sustainable development (RTRW Palu City, 2030). Palu is an urban area that is experiencing rapid development and growth. This is because Palu City is an area of government activity, full of human activities in the social and cultural fields, economy, trade and services, and even activities in the political field.

In the context of structuring Teluk Palu in order to increase the selling value of a more beautiful area, coast reclamation is carried out, coast reclamation can also meet the need for land to increase tourism in the city of Palu. Synergistic cooperation between the Government, the Regional People's Representative Council, Non-Governmental Organizations (NGOs), universities and the local community itself is very much needed so that the objectives of the implementation of the Teluk Palu coastal reclamation can have more positive impacts than negative impacts. The reclamation carried out must be environmentally friendly, so that it can reduce the economic, social and disaster risks in order to avoid the risk of natural disasters and social disasters.

Reclamation is considered a very important action to pay attention to because reclamation has a positive impact on people's lives but on the other hand it also has a negative impact on the environment and the surrounding community which in this case is the Palu community. When talking about the implementation process of reclamation, it must be in accordance with the regulations relating to reclamation. Does the implementation of the Teluk Palu reclamation have an impact on the environment according to the laws and regulations? Based on the description above, the research problem of this research is does the implementation of the Teluk Palu reclamation have an impact on the environment according to the laws and regulations? Therefore, the aims of this research are to find out more about...
the process of implementing coastal reclamation in Teluk Palu and the impact of the implementation of coastal reclamation in Teluk Palu.

II. RESEARCH METHOD

To discuss the problem posed, the research method used is a normative juridical approach with an empirical juridical approach as research support. This approach is carried out by approaching the problem from a legal perspective, then discussing and reviewing library materials in the form of books and provisions of laws and regulations relating to the issues to be discussed. The empirical approach that will be used as a supporter is to assess the current legal provisions of what is happening in society (Muhamad, 2006). The approach is done by knowing the facts that exist or occur in the community at the research location. Gathering information about existing events will be linked to the issues to be discussed.

The data sources that will be used are divided into primary and secondary data obtained from library research containing theories, views or legal doctrines and legal rules relating to the issues discussed. The primary data source obtained and collected comes from the data source directly. Secondary data sources are obtained through primary, secondary and tertiary legal materials. As for the support in analyzing data, namely using library research where data obtained from library studies are clarified with data from field studies (Ali, 2015).

III. RESEARCH RESULT AND DISCUSSION

Coastal Reclamation in Terms of Legislation

Talking about coastal reclamation, we must know what reclamation is. Article 1 point 1 of Presidential Regulation Number 122 of 2012 concerning Reclamation in Coastal Areas and Small Islands states that “reclamation is an activity carried out by people in order to increase the benefits of land resources from an environmental and socio-economic point of view by way of backfilling, drying of land or drainage”. Procurement of coastal reclamation is generally carried out to turn previously useless areas into areas that have benefits.

Reclamation is an action that has a high risk, so the government is very careful in approving the implementation of reclamation. The implementation of reclamation must meet the criteria set out in Presidential Decree no. 122 of 2012 concerning Reclamation in Coastal Areas and Small Islands. Article 3 paragraph (2) mandates that “reclamation planning is carried out through several stages, namely, location determination activities, preparation of feasibility studies and preparation of detailed reclamation designs”.

1. Location Determination

Location determination is the first stage in the reclamation planning process. At this stage, the right location for reclamation and the source of reclamation material is determined by taking into account the regional zoning plan and/or the suitability of the regional spatial plan. In determining the location, several aspects must be considered, namely technical aspects, environmental aspects, and socio-economic aspects that need to be considered. “Local governments and everyone who will carry out reclamation are required to have a location permit and a permit for the implementation of reclamation, as regulated in Article 15 of Presidential Regulation no. 122 of 2012”.

2. Prepare the master plan for reclamation.

At the stage of preparation of the master plan for reclamation, it must be carried out by taking into account the Strategic Environmental Assessment or Kajian Lingkungan Hidup Strategis (KLHS), the appropriate Zoning Plan, all kinds of physical facilities and infrastructure on the reclamation land and around the land to be reclaimed, public access, public facilities, the condition of the coastal ecosystem, land ownership and/or tenure, economic activities, social institutions, population and local wisdom.

The master plan is made by containing several things, namely the plan for the designation of reclamation land, the need for facilities related to the allotment of reclamation, development plans, stages of development, and the time period for the implementation of reclamation.
3. Preparation of feasibility studies
At this stage, reclamation planning must comply with Article 13 of Presidential Regulation Number 122 of 2012 concerning Reclamation in Coastal Areas and Small Islands, including technical feasibility, financial economic feasibility and environmental feasibility. Technical feasibility is divided into hydro-oceanographic, hydrological, bathymetric, topographical, geomorphological, and geotechnical feasibility. Financial economic feasibility includes the feasibility of benefit and cost ratio analysts (Benefit Cost Ratio), Net Present Value, interest rate of return (Internal Rate of Return), investment return period (Return of Investment), evaluation of the economic environment of the source natural resources and the environment.

4. Detailed Design
The detailed design is regulated in Article 14 which states that “The preparation of the detailed design is based on the master plan as well as a feasibility study which includes a design for land preparation and the construction of infrastructure or facilities to support reclamation, land clearing and/or equalization, construction of retaining walls and/or breakwaters, transportation of reclamation materials from land and/or sea material sources, subgrade improvement, backfilling of reclamation materials, handling, stocking and stockpiling of land and/or sea materials, drying and maturation of reclamation land and drainage systems.”

Process of Coastal Reclamation in Teluk Palu

Benefits of Coastal Reclamation
Coastal reclamation is an effort to make arrangements in the coastal area so that it can be used as a residential area, tourist attraction, shops, to industry. For local governments, the procurement of reclamation can provide a space to increase their original regional income from the land that arises because of the reclamation (Imami, 2009). Through beach reclamation in the Palu Bay area, it can provide several benefits for the government, the business world, the community, and the surrounding environment.

a. Benefits for the government, namely the increase in Regional Original Income or Pendapatan Asli Daerah (PAD) of the city of Palu, especially in the sector of regional taxes, levies, and services related to the management and utilization of the results of reclamation. The ruler, according to Mahdi, made the reclamation project the fastest way to earn regional income (Mahdi, 2017).

b. Benefits for the business world, namely the availability of opportunities that can develop tourism businesses and service sectors in the city of Palu.

c. Benefits for the community, namely being able to develop employment activities through employment, both at the stage of reclamation work, and after the reclamation is completed.

d. Benefits for the surrounding environment, namely the existence of reclamation can contribute to improving the environment around the location so that it can be well organized.

Process of Coastal Reclamation in Teluk Palu
The process of reclamation of the Teluk Palu beach is carried out in a modern manner which lasts 4 (four) years through several stages of work. The initial stage lasts for 1 (one) year by stockpiling Teluk Palu which covers an area of 10 (ten) hectares. The stockpiling process is carried out by merging a number of regional companies and investors who want to assist in the process of implementing the reclamation. The high economic potential of Teluk Palu must be utilized to its full potential. The implementation of reclamation is based on one factor, namely because there are 1.8 million tons of sediment in Teluk Palu every year that comes from the Palu River. Construction for this large project is estimated at around Rp 200 billion.

The coastal fringes around Palu Bay have very promising tourism potential but are not well organized. Along the beach there are many sellers but there are no public facilities such
as places of worship, bathrooms, and others. Just imagine, to find a toilet or restroom is difficult even though it is a trivial matter but must be considered.

All developments carried out by the government and the private sector are claimed to be for the benefit of the community, not for individuals. The reclamation project carried out is expected to boost the price of land around the reclamation project as investment grows in the area. The government also guarantees that with the reclamation of Teluk Palu, it will not displace people's homes and places of business for the surrounding community. The reclamation is carried out in order to improve the economy of the capital city of Central Sulawesi Province and improve the standard of living of its people. However, the reclamation of Teluk Palu did not go as smoothly as planned. Before and after the symbiotic landfill was carried out, a number of environmental activists opposed the reclamation plan because of the negative impacts that occurred. The reclamation plan in addition to disturbing the coastal ecosystem, also has an impact on salt farmers. Other impacts will also reduce the catchment area of fishermen who have been inhabiting the place for a long time.

1. Coastal Reclamation Planning
   
   In planning the reclamation of the Teluk Palu Beach, the Palu City Government put forward several coastal reclamation planning development programs, namely starting from the planning area for reclamation, when the physical development plan was implemented, the target of the coastal area planning program, and the legal basis for the Talise coastal area planning plan or Teluk Palu.

   Regarding the scope of authority, it is specifically regulated both in laws, regulations, and decisions, as follows:

   a) Law Number 27 of 2007 concerning Coastal and Small Island Management
   b) Palu City Regional Regulation Number 16 of 2011 concerning Spatial Planning of Palu City for 2010-2030
   c) Presidential Regulation Number 122 of 2012 concerning Reclamation in Coastal Areas and Small Islands
   d) Central Sulawesi Provincial Regulation Number 8 concerning RT/RW

2. Actors of Teluk Palu Coastal Reclamation
   
   The Palu Bay reclamation was carried out by the Palu City Government as the giver of the decree, in this case the mayor of Palu. In addition, there are business entities that carry out reclamation projects around Teluk Palu, namely PT. Yauri Properti Investama. The Teluk Palu coastal reclamation project covers an area of 38.33 hectares with a length that juts into the sea reaching 1,670 meters.

3. Material of Teluk Palu Coastal Reclamation
   
   In the master plan, the fill material is 1.8 million cubic meters, each of which is imported from different places, namely the Palupi, Kalora, Watusampum, Tondo, Silae, Kawatuna and Tipo rivers. This last sub-district is a follow-up in accordance with the Mayor's Decree dated July 17, 2013 which contains permission to CV. Trimitra Sejati owned by Jafri Yauri (a director of PT YPI) to exploit material in Tipo village with an area of 27.04 hectares. Taking this material source must not interfere with the sustainability of the ecosystem in coastal areas and small islands, disrupt the lives of the surrounding community, and not cause coastal erosion.

4. License of Teluk Palu Coastal Reclamation
   
   Regarding the reclamation permit, PT. Yauri Properti Investama has obtained a location permit and a reclamation permit based on the Mayor's Regulation Number 21 of 2013 concerning Procedures for Issuing Location Permits and Reclamation Implementation Permits. PT. Yauri Properti Investama has not yet obtained a regional mining permit for material retrieval. This means that the implementation of the Teluk Palu Coastal reclamation has not fully complied with Presidential Decree 122 of 2012.
Impact of the Implementation of Coastal Reclamation in Palu City

In order to increase the benefits and added value from the technical, environmental and socio-economic aspects, reclamation is carried out in coastal areas and small islands. On the one hand, reclamation is an activity that is not recommended but can be carried out, if it meets the criteria as stipulated in the legislation. The implementation of coastal reclamation must pay attention to the impacts that will arise, both positive and negative impacts. Consideration of the impacts that will occur is very important because the main purpose of reclamation is development towards change for the better. In general, the community sees that the implementation of reclamation has a negative impact on the surrounding environment. For this reason, it is necessary to explain in detail about the impacts that can arise from coastal reclamation, including:

1. Positive Impact

The implementation of reclamation can provide benefits, namely the use of land that was previously considered less productive becomes useful, can increase the value and economic quality of coastal areas, can reorganize coastal areas, can protect coastal areas, and improve the hydraulic regime in coastal areas. In addition, coastal reclamation also has positive impacts, namely:

a. There is an artificial addition to the land which is the result of coastal backfill where it can be used for various needs.

b. Coastal areas that are prone to erosion are safe by doing reclamation. This is because the safety construction made in the implementation of reclamation is very strong in order to withstand the current from the waves.

c. The emergence of new places that can become new business centers in the city such as malls, hotels, and other entertainment centers.

d. Palu city tourism is becoming more developed with the addition of new land that supports the tourism area.

e. The land formed as a tourism area can be used by local governments to attract foreign investors to invest their capital.

Reclamation has a positive impact on people's lives and local government in this case the city of Palu. In addition to the positive impact, reclamation also has a negative impact.

2. Negative Impact

Coastal reclamation is technically difficult to say that it does not have a negative impact. This is because the implementation of reclamation closes part of the sea area so that the sea flow does not run properly. As a result of changes in seawater currents, it can have an effect on areas that have many islands in the surrounding area, so the wave currents on these islands become very hard due to reflections due to the closure of the sea area. Reclamation also has an impact on the environment in the form of the destruction of marine ecosystems such as the loss of habitat for various biodiversity because it interferes with activities in the physical environment of the marine area.

In addition to environmental problems, coastal reclamation also has an impact on various sectors such as socio-economic, physical, and biological problems which are described as follows:

a. Socio-Economic Impact

Socially, the impact of beach reclamation must be felt directly by the people who live near the beach reclamation. The traditional life or habits of the people of the coastal area will change along with the reclamation of the coast. Economically, reclamation also has a direct impact, this impact causes traditional fishermen and communities who depend on marine catches to be evicted from their sources of livelihood. This is because the habitat of the marine ecosystem is disturbed by the implementation of coastal reclamation.

The city of Palu is known for its salt production, where its strategic location and the shape of the city area which has a long coastline make the people of Palu city choose the salt...
industry. Indonesia itself is an archipelagic country that has the second longest coastline in the world but Indonesia is still importing salt from abroad. Domestic salt production is very low so that the city of Palu is one of the domestic salt suppliers, but since the reclamation of the bay in the city of Palu. Communities around the coast who become salt-producing farmers really feel the impact. Salt production by salt-producing farmers decreased drastically by 60 percent. In addition to decreasing salt production, the quality of salt has also greatly decreased. Salt-producing farmers have complained about the effects of the coastal bay reclamation making sea water flow and wind direction change. People who rely their lives on marine products such as fishermen and salt-producing farmers, the impact that is felt both socially and economically is clearly not in accordance with or contrary to the 1945 Constitution of the Republic of Indonesia where article 28 letter I paragraph (3) talks about the state must protect the cultural identity and rights of traditional communities over time. This means that the constitution as the basis of the state mandates the protection of indigenous peoples' lives, including coastal communities. The delegation of the Basic Law is also contained in Law Number 27 of 2007 concerning the Management of Coastal Areas and Small Islands. In the law the purpose of reclamation is to increase the benefits of existing land and to prosper the local community. Reclamation in reality sometimes contradicts the original purpose of reclamation.

The ideal implementation of reclamation must pay attention to the principles of sustainable development because the basis of spatial planning is regulated in Law Number 26 of 2007 concerning Spatial Planning, namely sustainable development. Sustainable development is aimed at maintaining the fulfillment of the needs of future generations.

b. Physical impact

The implementation of reclamation has an impact on environmental changes, namely the emergence of new buildings on reclaimed land resulting in coastal erosion that affects changes in sea water flow and landscapes in the reclamation area. Changes in water flow cause areas outside the reclamation area to receive a lot of water, this causes abrasion which results in potential disturbances to the environment such as damaging water systems to changing tidal patterns and ocean currents. Another impact is the higher potential for flooding and inundation in coastal areas.

c. Biological impact

The biological impact of coastal reclamation is the destruction of marine ecosystems in the form of habitat destruction of various biodiversity, namely the disruption of mangrove ecosystems to the threat of marine biota.

IV. CONCLUSION

Reclamation is an activity that is not recommended but can be carried out if it meets the criteria set out in the legislation. Coastal reclamation is an effort to make arrangements in the coastal area so that it can be used as a residential area, tourist attraction, shops, to industry. Coastal reclamation in Teluk Palu has a positive impact on the government in terms of increasing state and community income in terms of increasing employment opportunities. However, reclamation is also an action that has a high risk of causing negative impacts, such as to the socio-economic, physical, and biological impact. The implementation of coastal reclamation must consider the impacts that arise because of the basis of Spatial Planning, namely the sustainability of sustainable development where development policies and spatial planning in Indonesia must prioritize a balance between social, economic and environmental aspects.

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