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SHORT COMMUNICATION

## **Reformulation of Regional Development Strategy to Strengthen Marine Sector in West Java, Indonesia**

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### **ABSTRACT**

Sustainable development in West Java Province is basically a development strategy that provides a kind of threshold on the rate of utilization of natural ecosystems and natural resources in it. This threshold is not absolute but is a flexible boundary that depends on technological and socioeconomic conditions regarding the utilization of natural resources, and the ability of the biosphere to accept the impact of human activities. In other words, sustainable development in West Java is a strategy for exploiting natural ecosystems in such a way that their functional capacity to benefit the lives of human beings is undamaged. Broadly speaking the concept of sustainable development has four dimensions: ecological, socio-economic-cultural, socio-political, and legal-institutional.

**Keywords:** Development, Strategy, West Java, social, economic

## **1. INTRODUCTION**

The obsession to rebuild the area of West Java will be to the political action of the local government (especially the West Java Provincial Government and several District Government in West Java) to mobilize the power of economic resources originating from natural resources endowment of West Java. The Central Government has enacted Law Number 23/2015 regarding Regional Government which in principle provides wide authority autonomy to provincial and district and municipal governments in managing various development sectors previously undertaken by the central government (Rizal et.al., 2017).

When regional autonomy is introduced with emphasis on the districts or municipalities, the most highlighted is the matter of handover of profitable and unprofitable affairs and the delivery of financial resources of central and regional financial balances. The issues of the management of financial resources or the share of financial resources between the central and local governments is considered as a leading factor and also a leading sector that determines the existence of regional autonomy and the success of its implementation. Actually when autonomy is defined as a policy or strategy to empower and create a region in development, as stated in Law No. 23/2015, the most important prerequisite is how local governments management and in the same time to evaluate the various sectors of the regional economy for the benefit and welfare of local communities. For that the local government should make it as a starting point in efforts to reposition and maximize regional development oriented for the interests of the region (Rizal et.al., 2018).

Based on macroeconomic theory that strategic sectors are set at growth centers to optimize the potential utilization of a region's territory (Alesina and Perotti, 1996). In determining the policy of regional development as part of national development should see the development of the existing economic sector, because the development of the role of the economic sector will determine the economic development of a region (Syaifuddin & Rizal, 2018; Rizal and Nurruhwati, 2018; Berggren, 2012).

Thus, in the context of regional autonomy, the local government with the potential of existing resources should make efforts to redefine its economic development and its territory. So as to create opportunities and strategies to get out of the existing problems (Rizal et.al., 2018). Two things that would constitute a fundamental challenge for development in the Southern part of West Java are first, how the local government repositioned the past development strategy, by choosing a strategic industry with double effect (added value). Second, the effort to defer the development of industrial commodities, by developing the commodity of resource-based industry rooted in society and also involving most of the population, especially marine resources.

## **2. BASIC METHOD CONSIDERATIONS AND THEORETICAL FOUNDATIONS**

In Taeihagh et al. (2009), an analogy has been drawn between process design and policy design, to inform transport policy. Their work is based on the theoretical frameworks of Process System Engineering. The framework used in this work, the Generic Conceptual Design Framework (GCDF), also has its roots in Process System Engineering. The Generic Conceptual Design Framework has been developed collaboratively at the Carnegie Mellon University and Delft University of Technology. It is illustrated in the Fig. 1.

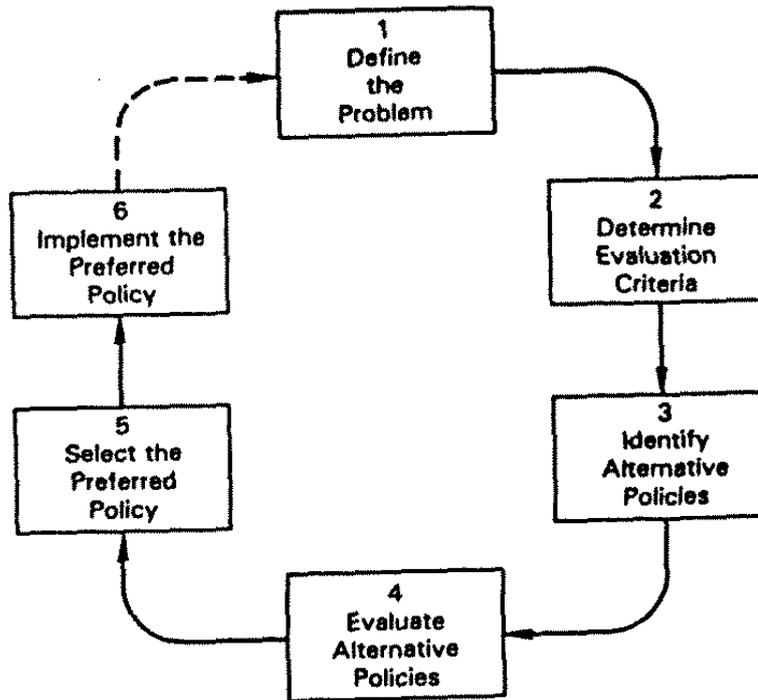


Fig. 1. Generic conceptual design framework from Herder and Stikkelman (2004).

This work is based on the design framework (specifically the problem definition and conceptual design aspects) initially developed by Williamson (1998), which draws heavily from process system engineering, and is described in detail and applied by Herder and Stikkelman (2004) and Subrahmanian et al. (2003). The framework comprises of the following main concepts, which together, structure the content of any level in a design process: 1. Define the problem; 2. Determine Evaluation Criteria; 3. Identity Alternative Policies; 4. Evaluate Alternative Policies; 5. Select the Preferred Policy and 6. Implemented the Preferred Policy.

There is a set of systematic procedures or policy analysis methods that can be used to attack contemporary policy problems. We also believe there is a subset of these methods that are basic methods, yielding quick results and serving as theoretically sound aids to making good policy decisions. Some people might argue that the variety of public policy problems is so great that no one set of systematic procedures could be developed for dealing with all of them. Critics might also say that the geographic and political context for these problems is so far-ranging that they don't have much in common, thus defying any standard approach. Yet a process for approaching these problems has evolved and has been applied. Called the rationalist model, one version takes the form of Figure 1, in which problem definition leads to the identification and evaluation of alternatives followed by policy implementation. There is evidence that when time and resources are available, the analytical process does take this or an acceptably similar form.

Regarding To implement conceptual design framework we need reviewing the Principles of Sustainable Development in West Java Regional Development Management.

The concept of sustainable development (sustainable development) is one of the requirements to achieve optimal and sustainable development. Sustainable development is the development to meet the needs of life today without damaging or decreasing the ability of future generations to meet their life needs. The framework of the approach used in sustainable development is the integrated approach in optimizing the utilization of natural resources. The success of sustainable development is characterized by three indicators of success, namely economic efficiency, equity and equity and sustainability of natural resources (Rizal et.al, 2018; Cooke et.al, 2013; Sjöholm, 1999; Sunley, 1996).

## **2. 1. Ecological Dimensions**

Regarding the sustainability concept, the utilization of natural resources in the region of West Java in a sustainable way means how to manage all development activities that exist in West Java region so that the total impact does not exceed its functional capacity. Each natural ecosystem has four basic functions for human life, viz., life support services, convenience services, natural resource providers, and waste recipients (Sjöholm, 1999).

Life support services cover a wide range of things that are necessary for the existence of human life, such as air and clean water and space for the operation of all human activities. The convenience services provided by the natural ecosystem is a location along with its beautiful and soothing attributes that can be a place for recreation as well as a peaceful restoration of the soul. Natural ecosystems also provide natural resources that can be consumed directly or as input in the production process (Storper and Scott, 1995). While the function of recipient waste from an ecosystem is its ability to absorb waste from human activities, to become a safe condition. Based on these four ecosystem functions, ecologically there are three requirements that can guarantee the achievement of sustainable development, viz., spatial harmony, assimilation capacity, and sustainable use.

Spatial harmability requires that in a development area, such as East Coast of Borneo, Batam Island, and North Coast of West Java, should not be entirely designated as a utilization zone, but should also be allocated for preservation and conservation zones. Examples of preservation areas are spawning ground and coastal green lines. In this preservation zone, no development activities are allowed, except for research. Meanwhile, some development activities, such as natural tourism, sustainable use of mangroves and fisheries (sustainable basis) can take place within the conservation zone .

The existence of preservation and conservation zones within a development zone is vital in maintaining various life support processes, such as hydrological and nutrient cycles; natural waste cleaning; and the source of biodiversity (biodiversity). Depending on the natural conditions, the area of preservation and optimal conservation zones within a development zone should be between 30 - 50% of the total area (Cooke et al., 2013).

Furthermore, any development activity (industry, agriculture, aquaculture, settlement and other) in the utilization zone should be placed in a biophysically appropriate location, thus forming a harmonious mosaic. For example, the placement of shrimp farming activities in coastal areas of sandy texture or very acid, or adjacent to industrial areas will usually fail.

Meanwhile, if we consider the area of West Java as a provider of natural resources, the criterion of utilization for renewable resources is that the rate of extraction should not exceed its ability to recover from a certain period (Rizal et.al, 2017) . While the utilization of natural resources in West Java that can not be recovered (non-renewable resources) must be undertaken carefully, so that the effect does not damage the surrounding environment.

When utilizing West Java as a place for waste disposal, there must be a guarantee that the total amount of waste should not exceed its assimilative capacity. In this case, the assimilation power is the ability of an ecosystem to receive a certain amount of waste before there is an indication of the occurrence of environmental damage and intolerable health.

## **2. 2. Socio-Economic Dimension**

The ecological dimension as described above basically provides information about the carrying capacity (supply capability) of natural systems of West Java region in supporting all development activities and human life. Thus, in order for regional development in West Java to be sustainable, the pattern and pace of development must be managed in such a way that the total demand for natural resources and environmental services does not go beyond the supply capability (Sveikauskas, 1975).

The socio-economic-cultural concept of sustainable development requires that benefits derived from the utilization of natural resources in West Java should be prioritized to improve the welfare of the people around the project, especially those with weak economies, to ensure the sustainability of economic growth the region itself. For the newly developed region, this principle is very basic, because much of the damage to the coastal environment such as rock mining, mangrove logging, beach sand mining and fishing with explosives, is rooted in poverty and low level of knowledge of the perpetrators. The success of the Bali Provincial Government in tackling the coral mining case, by providing seaweed cultivation as an alternative livelihood for the perpetrators, is one example of how relevant this principle is to the continuity of development in West Java (Rizal et.al, 2018; Park, 1995).

## **2. 3. Socio-Political Dimension**

In general, the problems (damages) of natural resources are externalities. This means that the party suffering from the damage is not the destructor, but the other, usually the poor and the weak. For example, silting of dams and irrigation canals and increasing the frequency and magnitude of a river's floods due to irresponsible deforestation in the upstream areas. Similarly, the impact of global warming due to increased concentrations of greenhouse gases in the atmosphere, mostly caused by industrialized countries. Another characteristic of natural resource destruction is that the consequences of this damage usually appear after some time, when there is a time lag. For example, the contamination of Minamata Bay waters in Japan occurred since the 1940s. But the disease of minamata and ita-iatai emerged in the early 1960s (Carson, 1963). Given the nature of the problem of natural resources, sustainable development can only be implemented in a democratic and transparent political system and atmosphere. Without such a political condition, undoubtedly the rate of damage to natural resources will go faster than prevention and mitigation efforts.

## **2. 4. Legal and Institutional Dimensions**

Ultimately the implementation of sustainable development requires self-control of every citizen not to damage natural resources. For rich groups to share the ability and taste with his brother who still can not meet the basic needs, while reducing the consumerism culture. These personal requirements can be met through the application of an authoritative and consistent regulatory and regulatory system. And accompanied by the planting of ethics of sustainable development on every citizen. This is where the role of touching moral values will play a role.

### **3. DISCUSSION**

The enactment of Law no. 23/2015 replacement of Law no. 32/2004 on Regional Government, which shifts the authority of the Regional Government of Regency / City to the Provincial Government, which also includes regional authority in managing marine resources, is expected to be a fresh breeze that encourages the development of West Java region to a better direction. For that strategy to be implemented are:

#### **3. 1. Regional Development based on the region's core competence.**

Based on the characteristics and potentials of the regions in West Java, it is impossible for regional development in West Java to be carried out the same time. It is imperative that in the context of regional development, of course, the term "step region" or "golden region" is not known to an area of development. In essence, as much as possible in a comprehensive, integrated and equitable manner. However, due to various limitations (including funding, assets and potential), we use a scale of priority based on Core Competence in each region. This aspect relates to the appropriate harmonization of spatial and regional policies, in the utilization of marine commodities for each of the sites of the region.

Based on the nature of commodity competition in the market, the price drop occurs when the excess of the commodity or product at the same time is not matched by an increase in demand for the commodity or product (Park, 1996). Therefore it is important to note in relation to the development of the area of a particular product, the two strategies (1) Specification of marine products for each region on the basis of available potency so that no resonance of the coconut commodity occurs at the same time and the same market. It should be created growth centers in such a way that is a representation of the distinctive potential that belongs to each region, and (2) If there is the same commodity must be created joint planning between regions in terms of production and marketing, resulting in positive synergies for development in an integrated manner. Spatial harmony demands the need for the preparation of spatial development in the area of West Java precisely and accurately based on the potential of existing resources. Spatial arrangement of the region includes three types: (1) Preparation of spatial based allotment of land and resources, which covers an area of preservation, conservation and areas for intensive development activities. (2) Spatial preparation of intensive development areas in the coastal and ocean areas for any local development activities undertaken. (3) Preparation of spatial illustrate the interconnectedness of development activities and the utilization of natural resources is done on land above and coastal and marine areas.

So if viewed in terms of assets and potential of West Java region can be sorted based on comparative advantage. Thus the determination of the leading sectors following the spatial arrangement and growth pole (growth center) can be implemented in harmony. Developed an important example of existing port in West Java as a commercial port to become the second gate after the Tanjung Priok Port, and of course the port in West Java must continue to improve its services, so as to accommodate the demand in Asia-Pacific trade.

#### **3. 2. Improved Performance and Competitiveness of Marine Sector**

Regarding the challenges and opportunities that exist for the development of West Java area, then to support the ongoing development, of course there is no other choice but to

improve the performance and competitiveness of marine commodities in West Java by several steps: First, make the process of increasing the value added some marine commodities through the effort deferencing the development of industrial commodities through the development of the agribusiness industry. Second, make efforts to increase cooperation between regions (provinces and districts or cities) in optimizing the utilization of facilities and infrastructure available (Rizal et.al, 2017; Rizal and Nurruhwati, 2018).

Based on the calculation of fish stocks, in West Java has not been overfishing, of course this is a development opportunity based on the principles of Sustainable Development. As it is implied in the definition of sustainable development, that development will be sustainable if the level (rate) of development and its overall impact on aggregate (totality) does not exceed the environmental carrying capacity of the area (Rizal et.al, 2018).

Meanwhile, the environmental carrying capacity of a region is determined by its ability in providing natural resources and environmental services for living creatures and human development activities, through four steps as follow: (1) the availability of suitable space for residential or settlement and various development activities; (2) availability of natural resources for consumption and further production process; (3) the ability of the area to absorb and assimilate waste as a by-product of human activities and its development activities; and (4) the ability of the region to provide life-supporting systems and comfort (amneties) such as clean air, fresh water, hydrological cycles, nutrient cycles, biogeochemical cycles, and beautiful and comfortable places for recreation and restoration of spiritual peace (spiritual renewal).

#### **4. CONCLUSIONS**

Any development activities undertaken and will change the natural landscape should pay attention to the characteristics and patterns of natural construction so as not to affect the existing marine ecosystem. In the design and construction or modification of landscapes (morphology) of seashore or deep seas, such as the construction of a jetty, breakwaters, and marinas, should be adapted to local biogeophysical characteristics and dynamics, including patterns currents, waves, and geological structures.

Often the success of development is related to the socio-cultural conditions of development actors, both subjects and objects. To achieve the success of the development, there are at least five criteria that must be fulfilled: (1) to increase sustainable activities based on local capacity, (2) to strengthen community participation in a community-based development framework; (3) to develop the endowment potential for self-supporting action, (4) expanding the development process oriented towards the various partnerships approach and, (5) the possibility of replication of local conditions.

Human Resource Factor is a vital factor for the ongoing process of regional autonomy. Creation and strengthening of reliable human resources and science and technology need to be done through the formation of networks that involve elements of universities, government and private. As reality can be observed in this world, no developed and powerful country without strong university or research institution support, and vice versa. Mission to optimize the utilization of marine resources in order to support the implementation of the development of West Java region must be through the rule of law and the empowerment of the people as legal control. So that the implementation of the law can be done without any discrimination.

On the other hand, efforts should be made to improve regulation on spatial utilization more operationally. So it can provide opportunities and ease for the growth of investment community or business performer. Reference and guidance in the development of inter-regional development areas should be arranged more efficiently and effectively for all development sectors, either by the government or the community or business parties. In addition, the joint effort in improving and developing existing Institutions to anticipate and meet the needs of marine resource management for improving the four critical dimensions of sustainable development, viz., ecological, socio-economic-cultural, socio-political, and legal-institutional.

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