Coastal Land Use Change and the Need of Green Space Based Development Coastal Area Settlement of South Sulawesi

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Abstract. Green space is a major concern due to imbalance and uncontrolled land use and the deterioration of the environment. This is caused by the increasing number of people that is reflected in the activity of open space and land-use change in the protected area of urban coastal area. Development of natural resources currently leads to the front view based on the needs with less concern on the environment. It caused environmental disturbance such as erosion and flood. Thus it would require land use management scenarios that can be the basis for the planning of development of sustainable coastal areas as a coastal settlement.

1. Introduction
One of the main issues of sustainability was the potential of adverse impact due to coastal area the land-use change that leads to the formation of the settlement area, thus causing imbalances soil water storage within the ecosystem [1]. The land use change in the coastal area would have an impact on global climate change, resulted in the percentage decrease in precipitation and increase potential evapotranspiration of green space [2]. The impact of land use change that results in imbalances for the development sustainable of the resources potential could be attenuated by the provision of green space that can be used as a component of an urban coastal ecosystem [3]. The initial idea of coastal area development sustainable was based on water resources planning as part of the transformation of the environment with the potential for coastal area urban green space [4]. Development of water resources coastal area edges becomes important to get attention because it was the first part integrating water resources with other physical aspects such as the beach among the land, and water, the minted and coastal waters [5]. Also, a riverside and beach were the most attractive area for human settlement [6].

Balance conditions need potential evapotranspiration on a land area of green space coastal, around the coastal areas of the urban coastal area is an important indicator in showing the quality of the environment [7]. This is related to population pressure, as reflected in the pattern of land use that is not controlled in the urban coastal area, the negative impact of the uncontrolled land use is the growing surface runoff, which can lead to erosion and landslides in areas with slope > 30 %. Besides, with the limited ability of the soil to infiltrate as it is covered by a waterproof layer that prevents the entry of water, there will be a decrease in the volume of groundwater and increases the potential for flooding [8]. This reduction is based on the ability of coastal beaches in
the Cape region receives pressure and had fairly high sedimentation [9]. Furthermore, the environmental management measures on the coastal area and watershed areas should be systematically by using an integrated approach, thus the necessary analysis exact model and can answer environmental problems area and the coastal area [10-15].

The problems of environmental degradation, especially in potential coastal urban green space in the coastal area due to uncontrolled land use change occurs essentially throughout the urban coastal areas, especially the coastal and upstream systems that systematically affect land use for green space integrated coastal area.

Thus, this study compared the impact of coastal area development sustainable area caused by the transformation of land use change, which occurs in coastal urban areas and the methods used in analyzing the change induced land. The study area was Tanjung Bunga coastal area, Makassar, South Sulawesi.

2. Coastal Area and Transformation
Development of water resources is important and part of the first to integrated the use of the potential of urban green space to coastal area development such as beach, river, and land [6]. The something is seen also on the side of the property benefit is easy to see [16], with regard to the concentration of coastal areas on the shore based in many cities in the world, coastal areas began to be used as a commercial center, and a transportation center of manufacturing, as the main focus of supporting regional coastal urban areas. Because of this problem is very complex and diverse, and this issue due to change in the coastal area [13, 17]. This condition was no longer a positive impact as a result of the economic supply and imaging of a region [18]. There are also negative impacts begin degradation in slump environmental value and social inequality as a result of uncontrolled land use [19]. On the other hand, the deterioration caused sedimentation impacts are quite high [20,21] using statistical and spatial methods are then modeled using basins, which states that the quality of the hydrology of a watershed depends on the type of land use on environmental management are taken around the other coastal area.

The study in the Amazon Basin of Peru [22] is a pre-plan to cause most of the deforestation in the area where cases with population pressure and net migration. Furthermore, the need for land use change in conditions causes the impact of a change in policy and excessive land [23] and it has been proved through the analysis of the state emperor in Peruvian Selva, Peru, the relationship between income and the cleanliness of the land is a positive identity but its Non monotonic [24]. When we look at history, especially the development of the coastal area in Indonesia in the past were more prevalent in the region -the coastal area [25]. It is also emphasized in detail again[5], which is most evident in the city’s history-cities, such as Jakarta, Makassar, Semarang, and the cities along the Straits of Malacca and several other cities, especially areas with the purpose of transit cruise in trade center [19] but in the development of social change with the transformation of conflict society [26]. This, then also makes an important impact on the development of the coastal area with the change of the social system [27,28], which leads to the use of land and its use for the benefit of society that sometimes leads to a major conflict in an area of urban coastal area green space.

3. Coastal Area Impact Based on Coastal Area Management
Territory coastal areas of coastal is a venue for a variety of environmental processes, economic and social activities of the rest of the container activity of waste. So that it becomes a waterfront coastal region as a whole have a variety of complex environmental problems [29, 30]. Makassar city coastal areas degraded environmental carrying capacity quite significantly which caused the
uncontrolled use of space reclamation construction activities [31], as well as exacerbated with the condition of coastal geomorphology coastal areas prone to disaster risk and mitigated will result in damage to the coastal environment also affect the surrounding area [32].

Coastal area required integrated planning for the coastal area that dealt with how to develop the concept of disaster mitigation through appropriate zoning taking into account the level of risk and coastal area study area [33]. Other changes are also happening in Mindanao Region, Philippines, where the impact of coastal zoning against inland green infrastructures [34, 35]. Thus the need for a solution in describing, assessing, and evaluating each of these issues, so that the quality and utilization coastal area and open space land use around the region can be sustained and controlled [36].

4. Sustainable Coastal Area Land Use Based on Green Space Management

Development sustainability is determined by the potential availability of open space lands, this triggers the rapid development of the coastal area in line with the development of a physical environment that harms by the coastal area of Makassar [37, 38]. This is a linkage to climate and land-use patterns of land-use intensity, which in turn affects the quality of the green space quality and water infiltration. Consequently, the function occurs green space limitations in meeting the needs of society. Imbalances and the need for irrigation management towards the integration of sustainable development between the factors of green of quality, quantity, and distribution of open space availability of green space is increasingly limited, that was very worrying Makassar for reducing green space by about 20%. Therefore, there is a need for comprehensive regulation in addressing problems in the area of green space in coastal area, among others determining four factors that must be developed, namely: (1) Resource Potential Green space itself (2) Development of the Green Line (3) Recovery of Water Soil and (4) Utilization of Vacant land as Catchment area.

The present need to balance land use for human activities and open space is 70 : 30% [19]. The impact of land to potential users an open space on urban coastal areas can be measured based on population and need for open space functions that can be used as a component of urban ecosystem in the community. Use of open space land by Government regulation number: 63 of 2002 is to maintain the balance of the ecosystem which includes elements of the urban environment, plan social and cultural area that must be planned for approximately 25% of the total area [36], then it analyzed through special value of green open space [37].

The study analysis was residing in the coastal areas of urban coastal green space area of Tanjung Bunga, Makassar Mariso District, where degradation occurs and was influenced by two main factors, namely the pull-up and driven factors [38] as described in Figure 1.

By minimizing the factors driving through the realignment of open space land use patterns by the measurement criteria of land suitability using Geographical Information System (GIS), on each coast coastal areas green space, it can increase the potential availability of urban green space, It was confirmed by using Analytical methods for Benefit-Cost Ratio [36] that there is a need for expanding green space area in the coastal areas in the coming years.
5. Conclusion
There is a need for green space in coastal areas, especially coastal settlement is present. green space can reduce negative impacts coming from the environment such as sea pressure and activities of the settlement.

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