ABSTRACT

ABDULLAH AMAN DAMAI. Spatial planning system of coastal area: Lampung Bay case study. Under direction of MENNOFATRIA BOER, MARIMIN, ARIO DAMAR, and ERNAN RUSTIADI.

Coastal area is complex and dynamic in nature, and also vulnerable against stress. On the other side, it has various resources and environment services, and hence tend to be overexploited. For that reason, conflict of space utilization whether inter sectors or internal sector, and various of stakeholders’ interest, became an ordinary problem. The conflict has to be prevailed through a proper administration spatial management based on spatial planning that might accommodate economic and population growth, and also implementable. Through the system approach, comprehensive spatial planning of coastal area could be met, which able to accommodate stakeholders’ interest. Due to its complexity, in which various activities and stakeholders are present, coastal area of Lampung Bay was determined as study area. The research was aimed to develop an approach of spatial planning of coastal area that integrate waters and terrestrial space, in a system framework with participatory features. The research was carried out through system dynamics approach that incorporated with geographic information system. Furthermore, participatory prospective analysis for mapping stakeholders’ need, and regional analysis, was prepared. The result showed that: (1) system approach is able to provide a scenario of coastal area spatial planning comprehensively, in which waters and terrestrial space could be integrated through simultaneous analysis of components of system and their interactions, and further intervention on it; (2) stakeholders involvement through participatory prospective analysis is the key of simplification of spatial policies formulation, in which various of interest in an area could be accommodated; (3) main components of system (i.e. population, economic activities, and space availability) in coastal area of Lampung Bay, are interrelated and interdependent, and in order to achieve sustainable relation among them until the end of analysis (year 2029), consequently it has to be attained and maintained a proportion of protected area as 54,482 ha (42.09%) of land and 4,822 ha (3.02%) of waters; (4) accomplishment of spatial planning of coastal area of Lampung Bay require conversion of a part of production area (50.67%) to become protected area, and development of service centers and infrastructure networks; and (5) Suggestions of space allocation and service center hierarchies, could be prepared based on model simulation of condition and regional capabilities of Lampung Bay coastal area, the scenario could accommodate stakeholders’ need toward the sustainable regional development.

Keywords: coastal area, spatial planning, system dynamics, Lampung Bay.