VI CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Parangtritis Village has the potential for many activities. Based on suitability analysis, it was found that the highly suitable area for tourism (S1) covers about 36.33%, while 32.88% were considered as suitable area (S2), 24.77% marginally suitable (S3) and 6.00% as not suitable area (N). Meanwhile, for paddy field the land classified as S2 was about 33.63%, 52.47% as S3 and 13.89% as N. The suitability results for the corn field were 6.03% for S2, 72.24% as S3 and 21.71% as N.

Based on land suitability analysis, only 14.7% of S1 tourism conflicted with S2 paddy field, and 26.58% of S2 tourism with S2 for paddy field. The conflicts based on existing land use are the development of hotel/infrastructure in the area of sand dune conservation, the plantation to protect paddy field in sand dune. That is the evidence of discrepancy between the desired and real conditions.

The assessment criteria (sand dune conservation, economic development and sustainable development) were defined and submitted to determine the best alternative. The alternative of Alt4b (the sustainable development emphasizing on the sand dune conservation) was found to be the best alternative. The second best was the alternative of Alt3c (the economic development) and the third best was the alternative of Alt5c (the sustainable development emphasizing on tourism infrastructure development). The zone of land use are sand dune wilderness zone, sandy beach wilderness zone, paddy field wilderness zone, natural environment zone, settlement conservation zone and development zone.
6.2 Recommendations

The capabilities of GIS to assist decision maker need to be enhanced by combining with Multi Criteria Analysis (MCA) method. It offers the analytical and statistical modeling facilities to deal with multiple-choices objectives and multi-criteria. The quantification of assessment criteria per land use category of one area are different from other places. It depends on the main goal of the land utilization, therefore, the usage of criteria obtained from one place need “cautious” when applied for other places.

The result of this research can be used for the local government to plan and develop land coastal tourism. With the alternative land use of Alt4b, it needs infrastructure such as road for the pedestrian to reach the area of sand dune conservation through special route. To anticipate movement of sand grains that may threaten the paddy field, it needs a canal as the border and trapping of sands, while sands can be exploited.

The local government must conduct socialization of the land status and tourism zone to the community and local regulation must be enforced. This socialization can be done through coordination among related institutions, such as local government through Regional Planning Agency (Bappeda), NGO’s, universities, etc. Others may involve technical assistance, training, and seminar. As a consequence the illegal buildings and infrastructures in the sand dune conservation area must be relocated.

The next research should be addressed to better understand the assessment of suspended load of sand grains in Opak River as the main sand supply of sand dune formation and for an estimation on sustainability of the sand dune.
REFERENCES


Sharifi, MA. 2002. *Integrated Planning & Decision Support System for Sustainable*