V. CONCLUSION AND RECOMMENDATION

5.1. Conclusion

In this study, classification of remotely sensed data produces coral reef distribution map in 1992 and 2003, the both coral reef maps were played as the reference for coral reef categories. By using post-classification comparison method, change detection can be done easily and quickly, that is compare two or more map in difference time with same location and see the change of each categories include its attribute directly. To produce the information about coral reefs change can be determined through comparison the class labels to detect and realize changes, which helpful to the user to determine which categories of coral reefs have changed and how much hectare of change area.

The change analysis from remotely sensed data showed the area of coral reefs can be detected of 2213.57 ha. There are loss changes of live coral area of 271.08 hectare, dead coral area of 206.72 hectare, and dead coral with algal area of 256.94 hectare. While, there are gain changes sand area of 777.90 hectare, and macro algal area of 27.13 hectare. The increment of the coral reefs cover is mainly dominated by sand, this is caused by sand mining activities around the area, where our silting up of depth waters (sedimentation) and abrasion. This is very dangerous, because live habitat that existed in the surface of sea bottom and it’s flow will damage. This matter not only damages the environment, but also conflicts a financial loss for the communities mainly the traditional fishermen.
5.2. Recommendation

For next research, to omit the influence of water column radiance and find better water column correction method need to try combination method between regression methods using bathymetric map and also apply the radiation transfer algorithm of under water object reflectance from direct measured in the field using underwater spectrometer.