Comprehensive Benefit Evaluation of Typical Regional Large Scale Reclamation in Chin

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The coastal area makes great contributions to human survival and social development. In recent years, a new round of development pattern has formed in coastal regions in China due to the approval and implementation of several national coastal development strategies. Sea reclamation played a key role in the sea use of national important projects construction and the development of the eastern coastal zones in China. The regional large-scale reclamation planning system had been implemented by SOA since 2006 in order to promote intensive and economical utilization of marine resources. By the end of 2014, 104 regional large-scale reclamation plans had been approved with more than totally 1100 km² reclamation area [1]. However, there was a huge impact on marine ecological system and the sustainable development of regional society and economy brought by large-scale reclamation. There were three typical regional large-scale reclamation plans implemented in Hebei Province in Bohai Sea regions, such as the Bohai new development zone, Caofeidian industrial zone and Jingtang harbor zone, whose total reclamation area and regional large-scale reclamation plan quantity ranked first in China. So that above three regional large-scale reclamation zones were taken for examples and their actual comprehensive influences were evaluated including marine environment, society, economy and implementation schedule impacts. The results showed that the economic benefits were remarkable, but the negative effects of sea reclamation could not be ignored. Especially the problem of idle land was very serious. Moreover, the regional marine environment quality was still unoptimistic, and the shallow tidal constituent structure was slightly changed due to dramatic coastline changes by large-scale reclamation.

Keywords: regional large-scale reclamation plan, marine environment, society and economy