

Integrated Management of Jakarta Bay and Ciliwung River

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Jakarta the capital city of Republic of Indonesia located in the coastal region with 660 km² land area and around 100 islands called Kepulauan Seribu (Thousand Islands). The city has 10 million people night-time population and 12 million people day-time population due to commuting workers. The Greater Jakarta area has a total population of around 25 million people. Per capita income of the city is around US\$ 3,600, well higher than that of other provinces in the country but still lower than that of cities in the developed countries. The city for decades has been the economic development center of the country and the resulting urbanization has created social problems like illegal residents occupying slum areas.

The city's geographical condition is characterized by a low lying region, with 13 river systems coming from neighboring administrative regions of Banten and West Java Provinces flowing to Jakarta Bay in the northern part of the city. The coast line of the city is about 32 km long and characterized by estuaries of 9 tributary rivers. The geographical condition causes the city to become vulnerable to flood due to heavy rain combined with sea level rise.

One of the rivers flowing into the bay is the Ciliwung River, which in the past used to be an economically-important transportation route but now functioning mainly as a flood control canal. Ciliwung River, flows through 72 Sub districts, with many slum areas along the river banks occupied by illegal residents. This situation has resulted to a decrease in the water flow of the river due to the garbage thrown in by citizens in addition to the sedimentation caused by land erosion upstream. In addition, industrial waste, agricultural waste, livestock manure, and market waste flow into the river without treatment. This has decreased the river's carrying capacity to purify water pollution and eventually water pollution has become pervasive in the Ciliwung River and the receiving Jakarta Bay.

Though there are many constraints including budget limitation, the city government has done its best to develop an environmentally sound city. Dealing with the Ciliwung River, the city has implemented a clean river program, and has done periodic environmental quality monitoring. The city has also endeavored to control effluent pollution from industrial and commercial activities, and actively undertaken river clean up campaigns.



Meanwhile dealing with coastal water pollution, the city separately has implemented programs such as Clean Coastal External Sea, Letter of Declaration for Improvement of Performance in Waste Management for companies which are located along the coast, spatial planning of coastal area, strategic environmental assessment for coastal reclamation and revitalization, and beach clean up campaigns. These efforts however have not been successful in reducing the pollution in Jakarta Bay such that a new approach is now needed.

Given the city's geographical and socioeconomic condition, it is now very important to manage the Jakarta Bay coastal area and the tributary rivers in an integrated manner, primarily through coordination among the national government, local governments, neighboring administrative regions, private sector and industries, communities and other stakeholders. This, however is quite challenge.