

NBS Good Practices from Chinese government

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Establishing a robust regime for marine ecological protection in Rizhao, Shandong Province

1. Background

Situated in the southeast of the Shandong peninsula, Rizhao is a port city on the Yellow Sea with a coastline of 168.5 kilometers, 5,000 hectares of tidal flat, and 6,000 square kilometers of sea area. The city has vigorously implemented the 2030 Agenda and made significant progress in terms of protection and utilization of marine resources.

2. Influence and achievement

To cope with climate change, Rizhao Municipality has made tireless efforts to improve the protection and sustainable utilization of marine resources. Rizhao has set up an ocean-land integrative model that gives equal importance to the governance of river, sea, and land ecosystems, and introduced a whole set of protective measures, including law-based governance, coordination of protection and utilization, and raising public awareness.

3. Geographical coverage

Rizhao of Shandong Province

4. Measures

Under the ecological red-line regime, Rizhao has delineated 26 red-line zones covering 83.58 thousand hectares, about 13.9 percent of the sea areas under its municipal jurisdiction. One of the first Chinese cities to introduce a marine damage compensation mechanism, Rizhao has collected a total of RMB246 million in compensation funds. It is also the first municipal government in Shandong Province to set up a real-time marine-monitoring regime of 10 well-rounded monitoring networks distributed across 95 sites, covering major sewage outfalls, large aquaculture zones, and other ecologically-vulnerable areas. Meanwhile, the coastal city is also devoted to promote a sustainable marine economy by delineate a marine farm area of 66.7 thousand hectares composed of three national-level and eight provincial-level demonstration aqua-farm zones for different uses. For its many best practices in marine ecological preservation, Rizhao has been designated as one of the first national ocean parks and a national demonstration zone for marine ecological development. In 2017 Rizhao was honored the national demonstration zone for marine ecological preservation and development, the only city awarded for its achievements in marine ecological development.

Attaching equal importance to river, sea, and land governance, Rizhao's efforts to build a robust marine ecosystem has offered useful lessons.

First, building up a well-rounded and law-based regime for marine management and utilization. By implementing a number of policy plans, such as Delineation of Marine Functional Areas and Compartmentalized Management Plan for Coastal Areas, the city has improved its emergency-responding mechanisms for such contingencies as red tides and oil pollution, and strengthened marine authorities' role in ecological city planning, embankment construction, and coastal

governance.

Second, taking an ocean-land integrative approach. Land-based pollution is a major contributing factor to marine damage. Rizhao conducts strict environmental impact assessments for all sea-related projects and strengthens oversight before, during, and after the construction process. It has set up six sets of networked marine-monitoring systems and two sets of monitoring-buoy systems in ecologically-sensitive areas to detect and address marine anomalies. It has also introduced an expansive shelter-forest program covering mountainous, coastal, farming, and urban areas in both the north and south of the city whereby a total of 533 hectares of tamarisk trees and white ash trees are planted to restore coastal wetlands.

Third, coordination of marine preservation and utilization. Take aquaculture as an example. The city has delineated a total area of 42,667 hectares of aquaculture land and 39 aqua-farm demonstration zones to promote different models of aquaculture like multi-tier planting, recyclable cultivation, and intelligent cage culture in order to better utilize its marine resources and reduce offshore pollution. Besides, Rizhao has introduced new varieties of sea plants, such as undaria pinnatifida and kelp, to improve water quality.

Fourth, launching various public awareness campaigns. Through educational programs on marine preservation held at public museums in various forms such as photo, calligraphic, and painting exhibitions on occasions like World Environment Day and World Ocean Day, the city has raised its citizenry's awareness of the importance of marine protection.

5. Best practices and implications

Rizhao's best practices in marine preservation include: first, ensuring effective implementation of ocean-related policies by strengthening marine authorities' role and responsibilities in urban planning, embankment construction, and coastal area governance; second, striking a balance between preservation and utilization to increase marine ecological sustainability; third, taking an ocean-land integrative model to address land-based pollution by restoring ecosystems in coastal wetlands and outfalls; and fourth, vigorously promoting public educational programs to raise citizen awareness.