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Coastal ecosystems management

Measurements For Environmental Conservation In Enclosed Coastal Seas

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For the environmental conservation in enclosed coastal seas, Japan has implemented such measures as effluent regulations to achieve “clean seas.” But some areas such as the Seto Inland Sea, where the water quality has been comparatively improved, entered the next phase, and the new goal is a “beautiful, bio-diverse, bustling-with-people and bountiful ocean.” In this context, we are working on Environmental Quality Standards for bottom-layer dissolved oxygen, which is one of the important elements for inhabitation of water creatures, and water transparency, a factor which affects the growth of aquatic plants and the familiarity of waters. Some enclosed coastal sea areas in our country are still suffering from frequent generations of algae blooms and oxygen deficient water masses due to eutrophication. In other areas, however, the reduction of nutrient loads, hindering nutrient circulation to organisms of higher trophic levels in food chain, is considered to have changed the balance of ecosystem and caused a decline in fishery resources. For such areas, it is necessary to rebalance the circulation of nutrients through the entire cycle from land to sea areas. To deal with these problems, efficient and effective management policies for smooth nutrient circulation through land and sea areas should be specifically established for respective coastal sea areas. For this purpose, the Ministry of the Environment (MOE) has had discussions to develop “Action Plan for Healthy Material Circulation in Ocean” for three years since 2010. The plan, by integrating management of land and sea areas for smooth material circulation, aims to improve not only water quality but also biodiversity and biological productivity and to conserve habitats of aquatic creatures. This will bring about richer and healthier oceans in the future. The plans are drawn up per region selected as a model, and the plans are being implemented one by one upon completion. In addition, MOE supports the restoration efforts of the regions affected by the Great East Japan Earthquake on March 11th of 2011. The environments of such areas were greatly damaged by landform changes in coastal lines and sea bottoms as well as disappearance of seaweed beds. We assist the environmental recovery, using the method and the knowhow of “Sato-umi creation.” Sato-umi is defined as a coastal zone where the livelihood of human beings and the blessings of nature coexist harmoniously with coastal area eco-systems. We apply this approach to disaster-affected sea areas in hope of accelerating the recovery and

promoting the Sato-umi creation.