

The Amount of Pollution Loads and Water Quality of the Seto Inland Sea

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Ehime Prefecture has the fifth longest coastline of any prefecture in Japan and greatly benefits from the Seto Inland Sea. Here, in order to preserve the marine environment, we carry out investigations into water quality and the occurrence and sources of pollution. Up until now, from 1980 to 1999, through four stages, as a result of pursuing a policy of reducing Chemical Oxygen Demand, this has been reduced from 90 tons per day in 1979 to 70 tons per day in 1999. Also during the same period the reduction policy was put into practice, the quantity of phosphorus decreased from 6.3 tons per day to 5.4 tons per day, and in 1995 tacking the fourth stage of the reduction policy, nitrogen was reduced from 77 tons per day in 1994 to 73 tons in 1999. As a result of the reduction in pollution levels, with respect to the water quality of the Ehime Prefecture sea frontage, according to the environmental standards achievement rate for COD, the 58% in 1975, since 1981, achieved a success rate of over 80% which already exceeded the national average of environmental standards achievement rate, 74%. Also, the total amount of phosphorus since 1998 achieves the environmental standards 100%, and the total amount of nitrogen has an achievement rate from 60 to 80% since 1998. According to the results of investigating the overall water quality in the Seto Inland Sea, COD is below the standard value of Type A 2mg/liter, and phosphorus and nitrogen necessary for the growth of phytoplankton where the Bungo Straight meets the Pacific Ocean (between Sikoku and Kyusyu) roughly satisfies the standard value of Environmental Standards Type I and in other parts of the sea is below the standard value of Environmental Standards Type II. Thus, the water quality of the Ehime Prefecture sea frontage is comparatively good, the degree of eutrophication is low, and even with the water temperature decreasing in winter, the concentration of chlorophyll "a" is not particularly low, and it is surmised, that the primary production of phytoplanktons is active, and winter's COD value is about the same value as other seasons.