Factor Causing Recent Decrease Of Nutrients From Rivers

Masahide Ishizuka [1]

(1) Kagawa University, 761-0396 Takamatsu, Japan
Telephone: +81-87-864-2143 Email: ishizuka@eng.kagawa-u.ac.jp

As following the reduction of COD, TN, and TP generation loads from lands based on various measures such as the water pollution control law, the law concerning special measures for conservation of the environment of the Seto Inland Sea, and the total pollutant load control system, the number of red tide, which is the rapid growth of algae and damages culture fishery, decreased since 1970s. However, the amount of fishery in recent years decreased as compared with that in the peak in 1980s and was the same level in mid 1960. In the sea of Harima-nada, where is located in the eastern part of the Seto Inland Sea, Japan, a color fade of laver and a poor catch of oyster by the cultivation fishery are serious problems. This situation is suggested to oligotrophication. One of possible cause is the reduction of nutrients load from rivers. This study evaluates the horizontal distributions of generation loads of COD, TN, and TP and their long-term variations during 20-30 years using Geographical Information System (GIS) in the Sea of Harima-nada river basin. As a result, I clarify the construction of sewage plant has an important effect on the reduction of the generation loads and the recover of water quality of rivers. In the future, the control of sewage-treated water is very important to nutrient management in the semi-enclosed sea.