

Research on the Environmental Assessment of Tokyo Bay

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Water quality of rivers in the basin of Tokyo Bay has been improved year by year due to such actions as the construction of sewerage systems. However, the improvement of water quality of Tokyo Bay has been leveling off during over the past decade. And the situation cannot be described as agreeable in terms of water environment by having the occurrences of red tide during summer seasons. In order to make the water environment of Tokyo Bay more agreeable, it would be necessary to take more active measures for environmental improvement by introducing such measures as advanced treatment of wastewater.

However, in order to implement the environmental improvement measures, it will require a new investment in this period of hard financial conditions, then it will be necessary to grasp the tasks such as the needs of the citizens toward environment and their bearing of the cost.

In this report, we will report the result of our study to monetarily assess the value of Tokyo Bay that has no market value by using Contingent Valuation Method (CVM) as well as our study on the demands of local residents concerning Tokyo Bay.

In the CVM, we showed current (1998) situation of Tokyo Bay and the state of Tokyo Bay after the improvement by implementing the measure to improve water quality in a graph. Then, we studied by questionnaires the amount of money the local residents are willingness to pay (WTP) for the state of the bay after the improvement, and made it as a measure to assess the value of said environment.

In this research, we have made the study by sending the questionnaires to 12,000 households that reside in municipalities belonged to Tokyo Bay basin, and have obtained 4,500 replies (approximately 37%). As for the improvement of water quality in Tokyo Bay, over 90% of residents replied that it would be necessary. The amount of money the residents would be willingness to pay for the improvement of water quality in Tokyo bay was 825 yens per month per household. There was a tendency that showed higher WTP for the respondents who are interested in Tokyo Bay by recognizing the situation in which we still have the occurrences of red tide. And also, no significant difference was observed for the WTP according to the distance to Tokyo Bay.

In this research, we have made questionnaires study concerning the water quality improvement in Tokyo Bay, and have obtained free opinions concerning the measures for improving the water quality from 40% (approximately

1,700 replies) of questionnaires replied. By this, we were able to confirm that this method of research was an effective tool of communication to the residents.