

Environmental Area Study in Area around Maizuru Bay

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Area around Maizuru Bay holds lots of predominance for the enclosed coastal sea located on the Sea of Japan side, as follows. 1) Maizuru Bay is a typical enclosed inland bay, where the mouth is only 1 km. 2) Mountains (Max. height: Mt. Aoba, 692 m) surround area around Maizuru Bay and result in the closed system spatially, too. 3) Maizuru has no big river (Max. flow: Isazu River 5 m³/s) and the river transport is quite a little. 4) This area almost equals with only one local public bodies "Maizuru City" and about 95 thousand population is closed socially and there is no bigger city near Maizuru. 5) Maizuru Bay is located at center of Honshu Island (Japan Islands) on the Sea of Japan side. Most environmental data are observed in Tokyo and Nagoya: Tokaido Megalopolis on the Pacific Ocean side, or Osaka and Hiroshima beside the inland sea and Lake Biwa. There exist few data on the Sea of Japan side. 6) Maizuru is located 5 km close to Takahama Nuclear Power Plant. There exist so many Nuclear Power Plants that Wakasa bay area is called as "Genpatsu Ginza (Nuclear Power Plant Shopping Mall)". Besides, construction of a Coal Power Plant on the mouth of Maizuru Bay has been in progress. We will have more pollutant in area around Maizuru Bay. 7) The Sea of Japan side is damaged more than the Pacific Ocean side by acid precipitation for transboundary pollution from China and Korea, especially in winter. As our measurement, the pH value reached to 3.9 and conductivity 129 $\mu\text{S}/\text{cm}$. 8) Maizuru belongs Western Japan, and is the most northeast end of Western Japan.

We faced latent or notable environmental issues in Maizuru, mainly have investigated in Maizuru Bay, river and atmosphere, *in situ*. Since 1989, we have measured water quality of sea and river in every month. With increased public awareness of the environment, an NGO, Kankyo Miru!-Kiku-Kangaeru Kai, which consists of about 30 volunteer citizens, has measured NO_x concentration in atmosphere in every month since 2000. Our continuous analytical data could show environmental changes of area around Maizuru Bay. The number of alive carp stocked Tera Rive with, shows an exponential decrease. The East Bay has more pollutant than West one for geological difference: sewage works and layer of discontinuity. The pollution in atmosphere is in proportional to traffic amount. Maizuru Bay has faced a worsening habitat with declines in variety and pure number of species and a reduction in the catch of marine species. We have investigated by an interview of fishermen or specialists and tried. This report gives the outline about sociogeochemical research for area around Maizuru Bay in the present and future.