

1. Technology 2.4 Others (Including Resource Recovery, Rivers, and Forests)
2. Project Name 2.4.27 New Evaluation Indicator Research Concerning Efficient Water Management (H28)
3. Keyword Industrial wastewater、 Rationalization of water use、 Effluent treatment、 Investigation
4. Objectives This project aims to research and examine information that would be valuable when considering the possibility of the rationalization of water use for efficient water management and its policies.
5. Contents In the FY2016, using literature we conducted a survey on water use, irrigation water treatment, and wastewater treatment commonly used in factories and all through society, and also on a new concept concerning water use thought to greatly affect water use rationalization policies and the application of said concept. We then organized and summarized our findings. We also conducted a numerical preliminary calculation on an application case study of the new concept of water footprint. As a result, we discovered that though water consumption is increased as a tradeoff if we use biomass in production, water footprint (WF) makes a suitable tool for evaluating the water consumption that occurs in such a tradeoff. We also found that the water footprint evaluation of the rationalization of water use in the production process at plant, etc. tends to be underestimated. In the water footprint case study where we focused on the operational stage of the seawater desalination facility, it became clear that the proportion of chemicals used was large when we evaluated utilities by the amount of water used. It may be possible to use it as an indicator.
6. Reference This project was subsidized by JKA (Public Interest Incorporated Foundation)