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Co-creation of sustainable regional innovation for reducing risk of high-impact environmental pollution

Mercury (Hg) is a toxic metal that seriously threatens the embryonic and early-childhood development of humans, and extremely poisonous to the human body. Mercury pollution is one of the most serious environmental issues and requires global action for its resolution. One of the main causes of Hg pollution is an artisanal and small-scale gold mining (ASGM), in which Hg is used as the traditional method of amalgamation to extract gold from the ore rock. Those ASGM activities are also the sources of social problems. The objectives of the research project is 1) to understand the link between poverty reduction and environmental management in ASGM areas, 2) to establish a process for constructing sustainable societies through regional innovations in ASGM areas, and 3) to strengthen environmental governance in ASEAN countries. In the project, we conduct within the context of all ASEAN countries: a) Case studies on reduction of Hg pollution using a future scenario of ASGM in Indonesia and Myanmar, b) Study on interregional networks that aim to generate Hg-free societies in Indonesia and Myanmar, c) Study on improvements in environmental governance in ASEAN countries, and d) Theoretical and practical studies of the design, practical use, and evaluation of TBO, and cultivation, development process, and roles of TDCOP. The regional innovation arises as a consequence of environmental and industrial innovations introduced with a transdisciplinary approach, including the development of a future scenario for an Hg-free society, the co-creation and practical application of TBOs, and the mobilization of TDCOPs.

Biography

Masayuki Sakakibara is working as a principal investigator of Sustainable Regional Innovation for Reducing Environmental Pollution project at the Research Institute for Humanity and Nature, Kyoto, and also a professor at Graduate School of Science and Engineering, Ehime University. He is actively working as a leader for sustainable regional innovation and the reduction of mercury pollution and poverty problems in ASGM sectors in Indonesia. He also contributes to an international conference such as TREPSEA and TRPNEP which focus on the transdisciplinary approach of research and practice, and various kinds of innovations on the reduction of environmental pollutions in ASEAN countries.

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