List of Dissertation Abstract (Risk Management and Environmental Sciences)

Name	Supervisor	Title	Abstract
Yosuke MASUDA	Hiroki OIKAWA	More flexibility, more outcomes? -the concept of "flexibility" of biodiversity offset-	The paper presents "flexibility" as a new analytical view point for biodiversity offset. Analyzing marine fish habitat offset policy in Queensland, Australia and wetland mitigation policy in the United States, the researh organized the concept of flexibility and developed a guideline for indroduing flexibility in biodiversity offset policy. This paper also discuss how to interpret and justify the issue "non-identifalness" of biodiversity offset.
BAI Yuxiang	Hiroyuki MATUDA	Possibility of environment-friendly smaii scale dairiesin Inner Mongolia Autonomous Region, China	In recent years, demand of milk and dairy products increased with increasing incomes for Mongolians in Inner Mongolia Autonomous Region, China. Milk and dairy products were food resources sacred as the main sources of nutrient from ancient times. Although the dairy has been a major industry of Inner Mongolia, the pasturage in Inner Mongolia was excessively used by dairy and prairie was faced on the degradation and desertification. Pasturage was forbidden by the Government in 2004. The profit of dairy decreased with increasing the feed cost. The milk production notably increased with increasing consumption. Consumers got nervous after the Melamine Incident (the 2008 Chinese milk scandal) occurred aiming at cost reduction of producers. In order to seek sustainability, cost-effectiveness, supply-demand balance of milk, and dietary under the food safety, we investigated attitudes of the consumers toward preference of milk and dairy.
Jo NAKAYAMA	Atsumi MIYAKE	A framework on risk analysis for public safety of technological systems	The purpose of this study was to establish a framework on risk analysis for public safety of technological systems. Process safety was investigated to point out the lack of critical perspectives for public safety. It was revealed that a current risk analysis mainly focuses on detailed understanding of phenomena such as fire and explosion, and prevention of accidents, while it excepts societal minimization of accidental damages. The framework consisted of a risk analysis from a viewpoint of stakeholders and a risk reduction measure based on resilience concept. The effectiveness of the framework was validated by applying it to a hydrogen fueling station.

Yasuhide FURUKAWA	Takeshi KOBAYASHI	Astudy of Sustainable Remediation of CVOC-contaminated Soil under the Existing Facrories	There is considerable fear of further increase of Brownfield in Japan. The sustainable remediation, which is relatively new evaluation approach for contaminated site, was applied and compared with risk-based approach and cost-based approach in this study. Sustainable remediation could compare environmental footprints and the risk of remedy works, which include the risk of traffic accidents, with carcinogenesis risk of CVOC. In addition, relatively new technology using slant drilling was developed and also included in this case study. The proposed technique provided the benefit of future land use by attending the profit earnings ratio of land through the remedy duration.
Kana NISHINO	Mieko KUMASAKI	Study on small-scale blasting technique for rescue work	The technique to help the trapped victims in a building is called breaching, which opens a space in a remaining reinforced concrete (RC) wall or floor. This study employed explosives for breaching technique, and the applicability to a small-scale blasting was experimentally examined. Based on the results, the safe, speedy, and secure rescue work standard for various thickness of the wall was proposed, which changes borehole depth and amount of explosive per hole to control a fracture manner.
Masanori HIRANO	Masaru OYA	Relation Between Oral Care Awareness and Life Satisfaction	In order to explore a new viewpoint of consumer education in oral care field, we focused on oral care awareness and life satisfaction and studied its relationship. Factors with a high contribution ratio in the relationship between oral care awareness and life satisfaction were "economic". However the correlation between oral care awareness and life satisfaction was observed by excluding the economic factors. We can construct the hypothesis that oral care awareness leads to improvement of life style and life satisfaction.
Saori MIHO	Takashi KAMEYA	Reliability of simultaneous measuring method and environmental screening for unregulated hazardous chemicals in river water	Environmental Monitoring is important for risk management. In this study, simultaneous analysis methods using GC-EI/MS and LC-ESI/MS/MS were developed for unregulated hazardous chemicals in river water. And the analytical reliability was evaluated. Furthermore, environmental screening were conducted in many sites to demonstrate the usefulness and reliability of method.

Md. HABIBULLAH-AL-MAMUN	Shigeki MASUNAGA	Monitoring and Assessment of Persistent Organic Pollutants (POPs) in Water, Sediment, and Seafood from the Coastal Areas of Bangladesh	Coastal pollution by persistent organic pollutants (POPs) is an emerging concern worldwide, where Bangladesh is not an exception. Three groups of POPs [polychlorinated biphenyls (PCBs), perfluoroalkyl acids (PFAAs), and polyaromatic hydrocarbons (PAHs)] were measured in water, sediment, and seafood from the Bangladeshi coastal areas. The present levels of some POPs exceeded the international environmental quality standards and health based guidelines, indicating potential hazards to the ecological and human health. This study provides the baseline data on POPs pollution in the Bangladeshi coastal area which will be useful in designing and implementing the future pollution control strategies in Bangladesh.