

Implementation of Educational Reconstruction Support Project through Industry-University Collaboration

: Roles and Accomplishments of the Dust My Broom Project and Recycling Research in Reconstruction Assistance

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1. Foreword

Ever since the occurrence of the Great East Japan Earthquake, my laboratory at the Department of Interregional Environmental System, Graduate School of International Cultural Studies, Tohoku University, has made research and study on the actual state of waste from the earthquake including damaged vehicles continuously. We have taken part in the Revival Education Support Project by the Ministry of Education in Ishinomaki. Another activity we have been conducting is “Dust My Broom Project” under the university-industry collaboration. This presentation contains reports on our activities, our roles in the regional revival support activities and what we have achieved.

2. Field survey of stricken vehicles

My laboratory worked on the study of vehicles which were swept away by tsunami immediately after the earthquake. It was very difficult to identify owners of such badly damaged vehicles and to move them to the temporary disposal sites. There were even vehicles that were supposedly subjected to radiation decontamination. It was thought to be necessary to devise guidelines for transportation, proper treatment and recycling of these vehicles.

※This work was supported by the special aid fund of the chancellor of Tohoku University.



3. Interview survey and field survey of local governments which were damaged

Within a short time after the disaster, the interview survey to the officers of local authorities and administrative organs in Miyagi Prefecture was started. At the same time, field surveys were conducted at the temporary disaster waste storage sites and facilities where the waste was properly treated and recycled.

During site visits in 2011 to 2012, there were cases where the initial response was slow. Disaster waste management plan and installation of incinerators were smoothly conducted and other cases where disaster waste was not properly separated in the initial stage making treatment in the later stage more difficult.

In February to April 2014, we visited the coastal area of Sanriku of Iwate to Fukushima Pref. that was affected by radiation from the nuclear power generation plant. At the time of the survey, debris removal was already completed and rehabilitation and new town projects started in Iwate and Miyagi prefectures. In Fukushima Pref., however, even debris removal was slow in progress. In the areas where radiation decontamination was delayed, disaster waste was still scattered all over even three years after the earthquake.

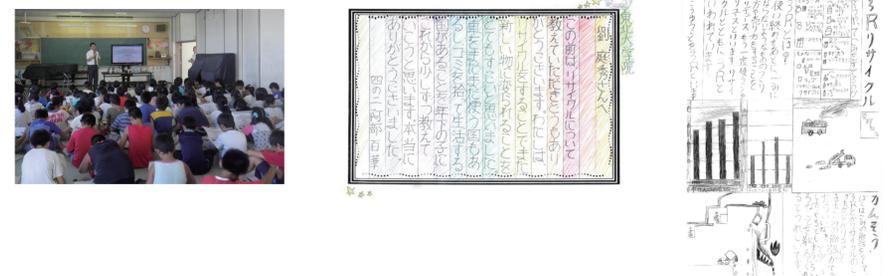
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4. Supporting disaster recovery education

With our proposal for “supporting disaster recovery education” selected by the Ministry of Education, we visited eight primary schools in Ishinomaki City, Miyagi Pref. selected by the board of education of Ishinomaki City, to conduct classes on the treatment and use of waste for 4th grade children in Sep. 2012. In the special classes, the children were invited to think about issues such as the true meaning and the actual situation of reusing and recycling, and the global resource circulation of packaging waste and used cars. We also discussed appropriate disposal and recycling of disaster waste in Ishinomaki City – equivalent to roughly 100 years of municipal waste – and about future community development.

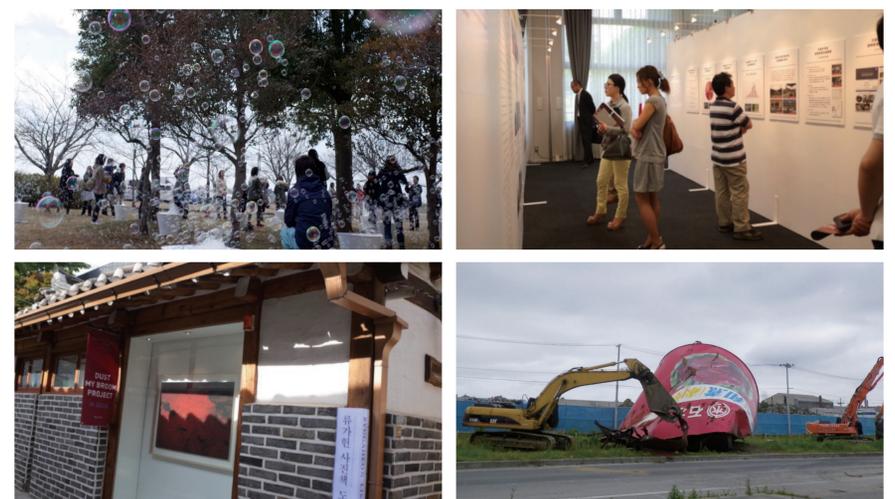
※This work was supported by MEXT (The Ministry of Education,Culture,Sports,Science and Technology).



5. “Dust My Broom Project”

We have established the “Dust My Broom Project” to keep supporting the area devastated by the 11 March 2011 tsunami. In this project, we conducted surveys and special lectures. We had conferences to disseminate information on this Project in June 2012 and 2014 in Sendai, Japan, and in November 2014 in Seoul, South Korea. We are also holding the abovementioned special classes for primary school children in Ishinomaki City as an ongoing initiative. Another activity of the project was the dismantling and removal of a huge (11 m high) metal tank, which was washed some 300 m by the powerful tsunami from a seafood processing factory on the Ishinomaki coast. This project is introduced on Tohoku University’s website “Reconstruction Action 100+”. (<http://www.idrrr.tohoku.ac.jp/en/action100puls/>).

※This work was performed as a part of collaborative research with SEINAN CORPORATION.



6. Conclusion

As described above, our research team has worked on support for revival of such area based on the viewpoint of “waste”, in which a wide range of issues from the daily problems to international resource recycling are involved. For the revival of the earthquake stricken area, various supports are indispensable in both hardware such as the establishment of infrastructures and software aspect like personal training. Indeed, our activities under the university-industry collaboration, have achieved great successful results.