

Report on JICA training course “Capacity Development for Adaptation to Climate Change –Climate Modeling and Analysis”

ICHARM conducted a JICA training course entitled “Capacity Development for Adaptation to Climate Change –Climate Modeling and Analysis” from 8 February to 10 March 2011 under a contract with JICA Tokyo. This training course was scheduled for three consecutive years from 2008. It was conducted at the Meteorological Research Institute in the first two years and this year at ICHARM.

The purpose of this training course was to strengthen the abilities of government officials in developing countries to evaluate the impacts of climate change on rivers and to design adaptation strategies to them.

Seven trainees participated in the training; one each from Bangladesh, Thailand, the Philippines, Viet Nam and three from Indonesia.

The training course started with the opening ceremony at PWRI. The ceremony was attended by Mr. Shimoda (Director of the Economic Infrastructure Development and Environment Division, JICA Tokyo), Ms. Yoshida (Deputy director of the Division, JICA Tokyo), Ms. Sato (JICE Coordinator), Director Takeuchi, Dr. Jayawardena (research and training adviser of ICHARM), and Deputy Director Tanaka.



Opening Ceremony

In the first week, the trainees received a lecture outlining disasters by Dr. Takeuchi and engaged in exercises to learn from Ms. Aoki (Senior consultant of IC Net Limited) how to use the Project Cycle Management (PCM) technique, with which they can

analyze problems objectively writing tree diagrams and plan effective countermeasures by making Plan of Operation.

In the second week, they continued being given lectures on fundamentals of climate change. Dr. Kito, Dr. Kamiguchi and Dr. Nakaegawa, all from the Meteorological Research Institute, lectured on the Intergovernmental Panel on Climate Change (IPCC) and future climate forecasting by a high resolution climate model and the validation of its reliability. Dr. Nakamura of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) delivered a lecture on climate change adaptation strategies to cope with water-related disasters in Japan. Mr. Ishiwatari of JICA also gave a lecture on climate change adaptation strategies in developing countries. ICHARM researchers also lectured on various subjects: Mr. Fukami on how to utilize GCM, Dr. Huang on hydrological analysis, Dr. Sayama on rainfall and runoff analysis, and Mr. Kanno on hydrological observation.



PCM exercise by Ms. Aoki
(IC Net)



Lecture by Dr. Kito
(Meteorological Research Institute)



Lecture by Mr. Ishiwatari
(JICA)



Lecture by Mr. Kanno
(ICHARM)

In the third week, they started practical exercises to learn how to conduct impact assessment of climate change while continuing exercise on hydrological statistic by Dr. Huang. They were also given IFAS exercise instructed by Mr. Nabesaka, Mr. Ozawa and Mr. Kawakami, all from ICHARM, by which the trainees simulated discharge change under different precipitation conditions possibly caused by climate change by using data of their own countries.

The trainees also participated in field trips around Japan. They visited the Tokyo Shirako River regulating ponds to see flood countermeasures in the densely populated city, thanks to the Tokyo 4th Construction Office. Arakawa River Downstream Office of MLIT also kindly gave the trainees a chance to see the super-levee in Shinden District and the disaster awareness promotion named “Marugoto-Machigoto hazard map”, in which they post flood information signs at a number of places around the ward as if using the ward itself as a hazard map. They also visited the Gokase and Kita Rivers in Nobeoka City, Miyazaki Prefecture, to learn flood countermeasures of rural area. They received explanations by Ms. Doi and Mr. Yamada of NPO Gokase River Basin Network, Mr. Takahashi of Nobeoka Public Works Office of Miyazaki Prefecture, Mr. Sakamoto and Mr. Kai of MLIT branch officers, and visited some sites to learn non-structural countermeasures such as an “e-disaster prevention map (using with GIS)”, *tatami* levees (*tatami is Japanese traditional mat used in houses*), excavations, several *kasumi* levees (discontinuous levees), elevated houses, signs indicating past flood water levels. The trainees were surprised to find that not only large-scale structures but also countermeasures designed based on the concept of living with nature have been implemented, as well as measures to raise awareness of disaster prevention.



Shirako River regulating pond



Marugoto-machigoto hazard map



Explanation of Gokase River
at Riverpal Gokase by Mr. Sakamoto
(MLIT)



Explanation of activities of the
Gokase River basin Network by Ms.
Doi and Mr. Yamada



Tatami levee in Gokase River



Explanation of an excavation site by Mr.
Kai (MLIT)



Explanation of kasumi levees and signs
of past flood levels by Mr. Takahashi
(Nobeoka River and Road Office)



Explanation of the elevated house



Explanation of the elevated house
under construction

After the field trips, the trainees each prepared an action plan by using the PCM method. They planned activities that will be implemented in their own countries and presented their action plans on the last day of the course.



Action plan presentation



Speech by Dr. Takeuchi

After the presentation, the closing ceremony was held at PWRI attended by Mr. Aoyama (JICA senior advisor on climate, environment and energy), Ms. Yoshida of JICA, Director Takeuchi and Deputy Director Tanaka. After Mr. Aoyama handed the certificate to each trainee, Mr. Mai Khiem Van from Viet Nam made a speech on behalf of the group. The training course ended the whole program successfully.

At last, we would like to express special thanks to Tokyo 4th Construction Office, Arakawa River Downstream Office of MLIT, Nobeoka River and Road Office of MLIT, Nobeoka Public Works Office of Miyazaki Prefecture, NPO Gokase River Basin Network for their contribution to the field trips despite their busy schedules.

