3.Water Resources/ Disaster Management

Effective Use of Industrial Water and Reuse of Waste Water
工業用水使用合理化及び廃水再生技術

Group 1280074
Solution New

Target Countries :

10 participants

Sector :Water Resources/Disaster Management/Comprehensive Water Resources Management

Sub-Sector :Economic Policy/Other Economic Policy Issues

Language :English

Appeal

This program is designed for administrative officers, who belong to the planning department of industrial water, to learn technologies and administrative system for the effective use of water and reuse of waste water.

Objective/Output	Target Organization / Group
【Objective】 To contemplate possible solutions for problems regarding effective use of industrial water and reuse of waster water and to formulate policy plan to solve problems. 【Objectives for each unit】 1. To understand and explain the necessity for industrial water and reuse of wastewater. To examine and make comparison between Japanese situation and own country. 2. To understand technologies of effective use of water and reuse of waste water in factories. 3. To understand the importance of policies which are necessary for promotion of effective use of water and reuse of wastewater. 4. To formulate a feasible action plan(AP) for participant' country and to present it.	【Target Organizations】 Policy planning ministries in charge of industrial water. 【Target Group】 (1st & 2nd year) Administrative officials who are in charge of duties at practical level. (3rd year) Senior officials who are responsible for decision making in the targeted organization. -Have at least five (5) years of experience in the aforementioned organization. -Individuals who have already mastered basic water treatment technologies at university.

Contents		
Objective 1 (1) Present current situations of water and waste water in participants' countries (2) Lectures on needs for effective use of industrial water and reuse of waste water (3) Compare situations among participant's countries and Japan and examine differences. (4) Site visits to factories and discussions Objective 2 (1) Basic theories and technologies on effective use of water and reusing waste water (2) Water treatment technologies which are easy to apply in developing countries Objective 3 (1) Outline of the industrial water policy in Japan and the role of METI. (2) Lectures on laws concerning industrial water (3) Lectures on regulations and incentive mechanisms for effective water use Objective 4 (1) Making and presentation of AP (2) Discussion on APs	Program Period	2012/10/14 ～ 2012/11/2
	Implementing Partner	Ministry of Economy, Trade and Industry (METI) Water Reuse Promotion Center
	JICA Center	JICA Tokyo(Industrial Dev.&Finance)
	Cooperation Period	2012～2014
	Remarks and Website	

Integrated Water Resources Management
総合水資源管理

Group 1280839
Solution Updated

15 participants

Target Countries : All Countries(except Middle-East Countries and Afghanistan)

Sector :Water Resources/Disaster Management/Comprehensive Water Resources Management

Sub-Sector :

Language :English

Appeal

This program is designed for an administrative officer concerning with IWRM to enhance the capacity on planning and implementation of IWRM. The program includes the case study of IWRM in Tone river basin by site visit and discussions [Coordination among stakeholders (between upstream and downstream, different sectors), Construction of dams, canals, barrages], Monitoring water table and land subsidence, Application in respective countries

Objective/Output

【Objective】
This course aims at the capacity development of the participants on the planning and implementation of IWRM.

【Expected Results】
(1) To understand the concept of IWRM
(2) To understand the hydrological and water-demand-supply balance, the methods of monitoring, assessment and analysis for planning and implementing of IWRM
(3) To understand the water resource development plan, the fair and efficient water utilization plan, the planning methods and the practice of IWRM
(4) To understand the causes of water conflicts among different sectors, regions and those of between upstream and downstream, and to get the clues to solve water conflicts
(5) To formulate an Action Plan to implement IWRM in the certain river basin which is identified as the candidate river basin for IWRM practice in the country by prioritizing current problems and solving them by using acquired skills in the training course

Target Organization / Group

【Target Organization】
Administrative organizations concerning with water resources management, which belong to the central/local government

【Target Group】
(1) To be responsible for a plan on implementation of IWRM in an administrative organization or a department of central/local concerning with IWRM or RBOs
(2) To have more than 5 years of experiences in water resources management
(3) University graduate or who has an academic record equal to a university graduate

Contents

【Preliminary Phase】
Submission of country report

【Core Phase】
(1) Outline of IWRM
(2) Surface and ground water –Development/Utilization/Administration-, Monitoring water table and land subsidence, Water supply and demand control in waterworks side, Water demand management (domestic and agricultural water)
(3) Outline of water resources policy in Japan, Integrated dam operation and drought adjustment, Application of Japanese efficient water use and advanced water related technologies to foreign countries
(4) Consensus building for comprehensive river development, Implementation of IWRM in international rivers, Case study of water conflict management in Japan and the world, Planning for IWRM -Planning process with conflict management-
* Site Visit and Discussions
(5) Presentation of Action Plan

【Finalization Phase】
Sharing of Action Plan in respective organizations within 6 months after the training in Japan

Program Period	2012 / 9/17 ～ 2012 /10/ 6
Implementing Partner	Under Planning
JICA Center	JICA Tokyo(Economy&Env.)
Cooperation Period	2012～2014
Remarks and Website	There is another area-focused program "Integrated Water Resources Management for Middle East" aside from this program.

Water Resource Conservation Management in Islands Area
島嶼における水資源保全管理

Region-Focused Trainers | 1284030 Continuing

13 participants

Target Countries : Oceania (Samoa,Tonga,Marshall,Nauru,Cook,Niue,Solomon,Fiji,PNG)

Sector :Water Resources/Disaster Management/Comprehensive Water Resources Management

Sub-Sector :

Language :English

Appeal

Participants learn not only a principle of water resources management and concept of Integrated Water Resources Management including water policy and drought prevention program of Okinawa, but also are expected to formulate the red between the personnel of water project in Pacific Island Countries. Furthermore, it's expected to contribute to human resources development of water utility organization in Okinawa.

Objective/Output	Target Organization / Group
【Course Objective】 To improve organizational management capacity of waterworks and the concerned government agencies in Pacific Island area with Okinawa's knowledge and skills about water conservation management and effective use which is applicable to Island countries. 【Expected Module Output】 (1) To acquire Okinawa's policy of water resources and integrated water resources management. (2) To acquire methods of water source development in Islands area and study the possibility of application to own country. (3) To acquire methods of conservation management of water source in Islands area and study the possibility of application to own country. (4) To acquire slow filtration system and water supply system of Islands area and to be able to plan to introduce their own countries (5) To acquire the concept and works of Okinawa's water supply system, and to be able to plan of water supply facilities improvement planning based by actual situations of their problems.	【Target Organization】 Authority or government in charge of water supply in Pacific islands countries. 【Target Group】 (1) A engineer or government officer who has engaged in organization mentioned above. (2) At least more than 3 years' experience in the field of water supply.

Contents		
【Preliminary Phase in home country】 Formulation and Submission of Country Report 【Core Phase in Japan】 (1) Policy of water sources and the concept of integrated water resources management in Okinawa (2) Water resources development (the case of Okinawa) (3) Water resources conservation management in Islands area. (4) Slow Sand Filtration system (low cost and easy maintenance) in Islands area. (5) Countermeasure for water leakage, Non-Revenue water management, water quality control system, planning of waterworks facilities maintenance and improvement. 【Finalization Phase in home country】 Reporting in home country, application and implementation of action plan.	Program Period	2012 / 7 / 4 ～ 2012 / 8 / 25
	Implementing Partner	Okinawa prefectural Government
	JICA Center	JICA Okinawa
	Cooperation Period	2010～2012
	Remarks and Website	Okinawa Prefectural Enterprise Bureau http://www.eb.pref.okinawa.jp/jigyou/kokusaikouryuu/index.html

Integrated Water Resources Management for Middle East
中東地域統合的水資源管理

Region-Focused Trainers | 1284233 Continuing

7 participants

Target Countries : Middle East (JICA classification) and Afghanistan

Sector : Water Resources/Disaster Management/Comprehensive Water Resources Management

Sub-Sector :

Language : English

Appeal

This program is designed for an administrative officer concerning with IWRM to enhance the capacity on planning and implementation of IWRM. The program includes the case study of IWRM in Yoshino river basin by site visit and discussions [Coordination among stakeholders (between upstream and downstream, different sectors), Construction of dams, canals, barrages], Monitoring water table and land subsidence, Application for Middle East Area.

Objective/Output

【Objective】
This course aims at the capacity development of the participants on the planning and implementation of IWRM.

【Expected Results】
(1) To understand the concept of IWRM
(2) To understand the hydrological and water-demand-supply balance, the methods of monitoring, assessment and analysis for planning and implementing of IWRM
(3) To understand the water resource development plan, the fair and efficient water utilization plan, the planning methods and the practice of IWRM
(4) To understand the causes of water conflicts among different sectors, regions and those of between upstream and downstream, and to get the clues to solve water conflicts
(5) To formulate an Action Plan to implement IWRM in the certain river basin which is identified as the candidate river basin for IWRM practice in the country report by prioritizing current problems and solving them by using acquired skills in the training course

Target Organization / Group

【Target Organization】
Administrative organizations concerning with water resources management, which belong to the central/local government

【Target Group】
(1) To be responsible for a plan on implementation of IWRM in an administrative organization or a department of central/local government concerning with IWRM
(2) To have more than 5 years of experience
(3) To be university graduates or equivalent

Contents

【Preliminary Phase】
Submission of country report

【Core Phase】
(1) Outline of IWRM, Global warming issues and its impact in Middle East
(2) Surface Water -Development/Utilization/Administration-, Sustainable groundwater use, Monitoring water table and land subsidence, Water supply and demand control in waterworks side, Water demand management (domestic and agricultural water)
(3) Outline of water resources policy in Japan, Integrated dam operation and drought adjustment, Application of Japanese efficient water use and advanced water related technologies to foreign countries, New Water Resources.
(4) Consensus building for comprehensive river development, Utilization of Decision Support System (DSS) for IWRM, Implementation of IWRM in international rivers, Case study of water conflict management in Japan and the world, Planning for IWRM -Planning Process with Conflict Management- * Site Visit and Discussions
(5) Presentation of Action Plan

【Finalization Phase】
Sharing of Action Plan in respective organizations within 6 months after the training in Japan

Program Period	2013 / 1/20 ～ 2013 / 2/9
Implementing Partner	Japan Water Agency (JWA)
JICA Center	JICA Tokyo(Economy&Env.)
Cooperation Period	2010～2012
Remarks and Website	

Non-Revenue Water Management (Leakage control)
上水道無収水量管理対策(漏水防止対策)

Group 1280229
Solution Continuing
15 participants

Target Countries :

Sector :Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :Water Resources/Disaster Management/Rural Water Supply

Language :English

Appeal

This course focuses on improving non-revenue water management skills and knowledge: water leakage detection and prevention, water volume control, water pipe planning and pipeline rehabilitation/replacement. Nagoya City, whose water leakage rate is 3.3%, will provide the technical training with sufficient practices at its massive training center, to increase revenue from the water use, while delivering safe water to all in the respective countries.

Objective/Output

<Program Objective>
To understand activities and systems for maintaining and managing waterworks in Japan as well as to build human capacity in applying the outputs of the program effectively to developing the participant's duties in his/her home country

<Expected modules outputs>
1. To acquire a comprehensive knowledge of various problems on non-revenue water
2. To understand leakage detectors' operation
3. To understand classification of leakage prevention works and analysis of water distribution volume and leakage volume
4. To be able to plan leakage prevention
5. To acquire practical knowledge and techniques for planning, designing and construction management as measures of leakage prevention

Target Organization / Group

<Target Organization>
(1)Waterworks section of central/local government, waterworks public corporation, administration body in charge of water resources
(2)Special organization in charge of maintaining and managing waterworks system

<Expected Job Title>
A technical official or a middle-class administrative official
<Expected Job Experience>
At least 5 years in maintaining and managing waterworks system
<Other Qualifications>
Applicants are expected to be playing a core role in leakage control in his/her country.

Contents

【Module 1】
・Introduction to waterworks in Japan and Nagoya
・Non-revenue water management in Nagoya
【Module 2】
・Property of leakage
・Mechanism and operation of leakage detection equipment
【Module 3】
・Analysis of distributed water volume and leakage volume
・Classification of leakage prevention and repair work
【Module 4】
・Planning of leakage prevention work
・Cost-effectiveness analysis
・Selection of materials
【Module 5】
・Main facility designing
・Distribution control
・Corrosion control
・Designing of transmission pipes
・Rehabilitation and replacement of pipeline
・Types and specification of meters, pipes joints
・Management of mapping data
・Disaster control

Program Period	2012/11/ 4 ～ 2012/12/14
Implementing Partner	Nagoya City Waterworks & Sewerage Bureau
JICA Center	JICA Chubu
Cooperation Period	2011～2013
Remarks and Website	"Non-revenue water control" is not primarily focused on acquiring the technique for leakage control, rather than illegal water use.

Operation and Maintenance of Urban Water Supply System(Water Quality and Purification)
都市上水道維持管理（浄水・水質）

Group 1280275
Trainers New
10 participants

Target Countries :

Sector :Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :

Language :English

Appeal

This intensive and practical training aims technical transfer and dissemination, especially targeting at field engineers who are engaged in "Water Quality and Purification" in Urban Water Supply organizations in developing countries.

Objective/Output	Target Organization / Group
【Objective】 Applicable knowledge and techniques of "Water Quality and Purification," including disaster management, are shared among engineers in the organizations which is in charge of operation and maintenance of urban water supply system in participating countries. 【Objective for each unit】 (1) "Water Quality and Purification" situation of the participating countries are shared through Country Report presentation and discussion. (2) To acquire and explain overall knowledge of water supply business administration in Japan and Osaka (3) To learn and explain "Water Quality and Purification" activities at Osaka Municipal Waterworks Bureau, and acquire technologies about operation and maintenance of the facilities. (4) To learn and explain adequate water business administration and practical knowledge and technologies of "Water Quality and Purification." (5) To formulate and present Action Plan which includes dissemination activities to solve problems in the participating countries utilizing the knowledge acquired in the training course (6) To implement the Action Plan including dissemination activities.	【Target Organizations】 Organizations in charge of urban water supply system and in relation with Japanese bilateral cooperation program 【Target Group】 *Engineers in "Water Quality and Purification" field of urban water supply organizations who are responsible for the training of other engineers. *More than 5 years of practical experience in the above-mentioned field. Under 45 years of age. *Proficient in spoken and written English.

Contents		
【Activity in Preliminary Phase in home country】 Formulation and submission of Country Report and Preparation for the Country Report presentation 【Activity in Core Phase in Japan】 ・Country Report Presentation ・Discussion (training needs assessment) ・(Lecture) ・Water Business in Japan and Osaka City・Disaster Management (Lecture/Site Visit)・Water Purification Plant ・Waster Quality control methods ・Water chlorination theory・Purification treatment ・Trouble case study (Lecture・site Visit・Practice) ・Operation and maintenance of Purification Plant ・Operation and maintenance of Intake and distribution facilities・Operation and maintenance of electro-mechanical equipment・Water quality control (Jar test) ・Interim Discussions・Consultation・Action Plan Presentation 【Activity in Finalization Phase in home country】 Dissemination activities are carried out in the participant's organization and a completion report is submitted to JICA in 3 months.	Program Period	2012 / 6/18 ～ 2012 / 7/12
	Implementing Partner	Osaka Municipal Waterworks Bureau, Osaka Water General Service Co. Ltd.
	JICA Center	JICA Kansai (I)
	Cooperation Period	2012～2014
	Remarks and Website	

Waterworks Engineering
上水道技術者

Group 1280763
Solution Continuing
10 participants

Target Countries :

Sector :Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :

Language :English

Appeal

This course contains the total viewpoint including water source management, purification, supply&distribution, and wide knowledge to ensure water quality&quantity, and it is beneficial for problems solving in developing countries. In the course, which consists of lectures, practical exercises and site visits, skillful engineers in Waterworks Bureau of Sapporo transfer systematic&concrete techniques to participants, and they will acquire skills to apply the know-hows of waterworks management into their countries. In Action plan preparation, current situation analysis in their organization will be supported, and they will get useful feedbacks by experts for mid-term report and Action Plan to achieve high-quality report.

Objective/Output

<Course Objective>
Participants prepare action plan, which is essential for safe and stable water supply, to improve problems about waterworks system and appropriate activities are implemented based on the action plan after returning.

<Objective for each unit>
1)To acquire knowledge and experiences to improve water purification plant and operation
2)To acquire knowledge and experiences to improve water distribution and service
3)To acquire knowledge and experiences to improve leak prevention
4)To acquire knowledge and experiences to improve water source and water quality control
5)To account eco-friendly water business management
6)To acquire knowledge of public administration, plan overview and human resource development
7)To consider the solution for water business problems in participant's country and to make a presentation of action plan
8)To share the action plan in organization and to implement it after returning

Target Organization / Group

<Target Organization>
Governmental, semi-governmental, or corporate organizations in charge of public water supply

<Expected Job Title>
Waterworks engineers for governmental, semi-governmental, or corporate organizations in charge of public water supply

<Expected Job Experience>
To have at least 3 years of practical experience for those university graduate or equivalent; or at least 7 years of practical experience for those polytechnic graduates or equivalent

Contents

<Preliminary Phase>
To prepare Country Report
<Core Phase in Japan>
1)Design/integrated operation/maintenance of rapid-filter water treatment plant, Advanced water purification, Mechanism of water purification process, Slow-filter water treatment plant visit
2)Water supply&distribution, Distribution pipe design/laying plan, Pipeline maintenance, Network analysis of pipes, Outline of service installation, Pipe&meter manufacturing plant visit, Disaster control, Water rate system, Call center
3)Leak prevention planning, Block metering plan/operation, Leak prevention method/Detection
4)Water source development & water problems caused by algae, Water source control/monitor/patrol, Water quality control/judgment by aquatic organism, Design of pumping facilities/drilling technology for water well, Waterworks facilities utilizing ground water, Jar test
5)Eco-friendly water supply business management and facilities
6)Water supply & distribution in Sapporo & in Japan, Water circulation & its risk, Planning & demand projection, Water business in the world & Japan technology
7)Country report presentation, Problem analysis, Mid-term consultation, Action plan, Progress report within 6 months
<Final Phase in participants' countries>
8)To submit Progress Report to JICA

Program Period	2012 / 7 / 4 ～ 2012 / 9 / 19
Implementing Partner	Waterworks Bureau, City of Sapporo
JICA Center	JICA Hokkaido (Sapporo)
Cooperation Period	2011～2013
Remarks and Website	

Operation and Maintenance of Urban Water Supply System(Water Distribution and Service)
都市上水道維持管理(給・配水)

Group Trainers: 1280870
Updated: 10 participants

Target Countries :

Sector :Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :

Language :English

Appeal

This intensive and practical training aims technical transfer and dissemination, especially targeting at field engineers who are engaged in "Water Distribution and Service" in Urban Water Supply organizations in developing countries.

Objective/Output	Target Organization / Group
【Objective】 Applicable knowledge and techniques of "Water Distribution and Service," including disaster management, are shared among engineers in the organizations which is in charge of operation and maintenance of urban water supply system in participating countries. 【Objective for each unit】 (1) "Water Distribution and Service" situation of the participating countries are shared through Country Report presentation and discussion. (2) To acquire and explain overall knowledge of water supply business administration in Japan and Osaka (3) To learn and explain "Water Distribution and Service" activities at Osaka Municipal Waterworks Bureau, and acquire technologies about operation and maintenance of the facilities. (4) To learn and explain adequate water business administration and practical knowledge and technologies of "Water Distribution and Service." (5) To formulate and present Action Plan which includes dissemination activities to solve problems in the participating countries utilizing the knowledge acquired in the training course (6) To implement the Action Plan including dissemination activities.	【Target Organizations】 Organizations in charge of urban water supply system and in relation with Japanese bilateral cooperation program 【Target Group】 *Engineers in "Water Distribution and Service" field of urban water supply organizations who are responsible for the training of other engineers. *More than 5 years of practical experience in the above-mentioned field. Under 45 years of age. *Proficient in spoken and written English.

Contents		
【Activity in Preliminary Phase in home country】 Formulation and submission of Country Report and Preparation for the Country Report presentation 【Activity in Core Phase in Japan】 ・Country Report Presentation ・Discussion (training needs assessment) ・(Lecture) ・Water Business in Japan and Osaka City・Disaster Management (Lecture/Site Visit)・Water Treatment Plant・Operation and Maintenance of Pipe line (Overall・Leakage Detection and Repair) ・Operation and Maintenance of Water service facilities (Overall・Water meter) (Lecture/Site Visit/Practice)・Operation and maintenance of pipeline (leakage detection plan, piping and branching, drilling etc.) ・Water service equipment practice (adhesion, tapping, water suspension, disassembly of small pipes etc.) ・Interim Discussions ・Consultation・Action Plan Presentation 【Activity in Finalization Phase in home country】 Dissemination activities are carried out in the participant's organization and a completion report is submitted to JICA in 3 months.	Program Period	2012/ 6/18 ～ 2012/ 7/19
	Implementing Partner	Osaka Municipal Waterworks Bureau, Osaka Water General Service Co. Ltd.
	JICA Center	JICA Kansai (I)
	Cooperation Period	2012～2014
	Remarks and Website	

Water Supply Administration for Better Management of Water Supply Services
水道管理行政

Group 1280915
Solution Continuing
13 participants

Target Countries :

Sector :Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :

Language :English

Appeal

This course is designed for executive officers of water supply administration or waterworks bureau to share experience in Japan on administration for safe and stable water supply such as regulation, operation and maintenance, water quality control, countermeasures for non-revenue water, and performance indicators. This course focuses on "sound management of waterworks" and includes a discussion with executives/experts related to waterworks in Japan.

Objective/Output	Target Organization / Group
【Objective】 To understand water supply administration, management and operation and maintenance in Japan, in particular, water quality control, measures against non-revenue water and water supply standards, to clarify the future subjects through sharing information and to formulate an improvement plan on the feasible basis. 【Expected Results】 (1) Sharing information on current situations and key problems in the participating countries (2) To be able to understand water supply administration, management and operation and maintenance in Japan (3) To be able to understand water quality management, in particular, water safety plans (4) To be able to understand the countermeasures for reduction of non-revenue water (leakage) (5) To be able to understand the water supply standards including water supply management guidelines and performance indicators	【Target Organization】 The division / department in charge of administration on management of water services in central / local government / waterworks bureau 【Target Group】 (1) To be executive officers or senior administrative officers such as - between Director Generals and Directors of Departments in Central Governments - Director Generals of Departments or equivalent in waterworks bureau (2) To be expected to continue their careers in the water supply field (3) To have a sufficient command of English

Contents		
【Preliminary Phase】 Submission of the country report 【Core Phase】 (1) Country report presentation, Improvement plan formulation (2) Water supply administration in Japan, History of water supply in Japan (3) Water quality control, Water safety plan, Public health and water supply (4) Countermeasures for non-revenue water, Relation to financial management (5) Appropriate management of water supply management (International standards and Japan's guidelines, Performance indicators, discussion on sound management) (6) Field Visit (Water Treatment Plant, Training Center) 【Finalization Phase】 Sharing of Improvement Plan in respective organizations within 6 months after the training in Japan	Program Period	2012 / 6/24 ～ 2012 / 7/7
	Implementing Partner	Japan International Cooperation of Welfare Services (JICWELS)
	JICA Center	JICA Tokyo(Economy&Env.)
	Cooperation Period	2010～2012
	Remarks and Website	This course will be held 2 times in the fiscal year 2012. 1st : 2012/ 6/24 - 7/7 2nd : 2012/11/18 - 12/1 *12 participants

Engineering on Water Supply Systems
上水道施設技術

Group 1280944
Solution Continuing

Target Countries :

13 participants

Sector :Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :

Language :English

Appeal

This program is designed for an engineer to obtain the integrated knowledge and technique of water supply plan, design, O&M, management regarding large-scale water supply services. <Curriculum> [Practice] Water Demand Forecasting, Pipeline Network Analysis(hydrologic), Basic Planning and Design (Pipeline Network, Water Purification Facility) [Lecture] Waterworks Management, Regulation, Tariff System [Observation] Manufacturing Factory, etc.

Objective/Output	Target Organization / Group
【Objective】 To draw basic plan drawings for a purification facility and pipeline network, and to formulate an action plan to solve problems that respective organizations have encountered 【Expected Result】 (1) To sort out the necessary technology for improvement of their water supply systems (2) To sort out the necessary functions and roles of related entities for improvement of their water supply management (3) To master the skill of basic planning and design for pipeline network and water purification systems (4) Through information and skill from this training, to formulate an action plan that solves problems their organizations have encountered, and to share the plan in respective organizations	【Target Organization Departments of water supply planning or designing in a water supply utility, central/local government 【Target Group】 (1) To be presently in a management position or a senior engineer who is currently or expected to be engaged in the formulation of waterworks plan (2) To be engineers with more than 5 years of experience in water supply and to be university graduates from the faculty of engineering such as civil, sanitary, environmental, or have equivalent academic background

Contents		
【Preliminary Phase】 Submission of Country Report 【Core Phase】 (1) Pipeline Network Analysis (hydrologic), Water Demand Forecasting, Basic Planning and Design (Pipeline Network, Water Purification Facility, Water Supply Systems) (2) Water Purification Process, Operation and Maintenance of Distribution Facilities, Construction of Water Supply Facilities, Countermeasures of Water Leakage Prevention (3) Waterworks Management and Tariff System in Japan, Observation of Manufacturing Factory, Sanitation Research Organization, Small-scale Hydraulic Power Generation Plant (4) Country Report Presentation, Action Plan Presentation, 【Finalization Phase】 Sharing of Action Plan in respective organizations within 3 months after the training in Japan	Program Period	2012 / 5/ 9 ～ 2012 / 7/25
	Implementing Partner	Japan Water Works Association (JWWA)
	JICA Center	JICA Tokyo(Economy&Env.)
	Cooperation Period	2010～2012
	Remarks and Website	

Waterworks Engineering in Cold Climate Regions
寒冷地上水道技術

Region-Focused Trainers | 1284143 Continuing | 6 participants

Target Countries : Those in Cold Climate Regions

Sector : Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :

Language : Russian

Appeal

This program is for senior engineers to improve knowledge & techniques of waterworks engineering to propose feasible solutions for their issues. In the course, which consists of lectures practical exercises and site visits, skillful engineers in Waterworks Bureau of Sapporo transfer systematic&concrete techniques to participants, and they will acquire skills to apply the know-how of waterworks management into their countries.

Objective/Output

【Objective】
Each participant shares and implements its action plan in respective organization, and reports progress to JICA

【Expected Outputs】
(1)To acquire knowledge and experiences to improve water treatment facilities and water treatment method in the participant's country
(2)To acquire knowledge and experiences to improve water distribution, service installation, maintenance, and water charge systems in the participant's country
(3)To acquire knowledge and experience to improve leak prevention in the participant's country.
(4)To acquire knowledge and experiences to improve water quality control in the participant's country
(5)To acquire particular knowledge and experiences in cold climate regions to improve water supply system in the participant's country

Target Organization / Group

【organization】
Public corporation/governmental bodies in charge of water SUPPLY in cold climate regions

【Personal Qualification】
<Current Duties>
senior waterworks engineers (WATER SUPPLY ONLY; NOT for sewerage work)

<Experience>
at least three (3) years for those university graduate; OR have at least seven (7) years of practical experience for those not

Contents

【preparatory phase】
To prepare country report to identify issues

【core phase】
(1) visit/structure/design/operation of water purification plant, advanced water purification (membrane)
(2) distribution reservoir/pipe laying plan, pumping station, maintenance, design & quantity calculation for new installation, construction site, networks analysis, manufacturing plant, metering, charge collection,call center, metering site, environmentally conscious management
(3) leak prevention/planning/detection/on-site prevention method, block metering
(4) water quality control, water source & algae, design/pump/drilling of pumping station, bioassay
(5) country report presentation, problem analysis, discussion, action plan consultation/presentation

【finalization phase】
To share the knowledge based on action plan, then report its progress to JICA in 6 months

Program Period	2013 / 1/ 9 ～ 2013 / 2 / 28
Implementing Partner	Waterworks Bureau, City of Sapporo
JICA Center	JICA Hokkaido (Sapporo)
Cooperation Period	2010～2012
Remarks and Website	

African Region Urban Waterworks Engineering
アフリカ地域都市上水道技術者養成

Region-Focused Trainers | 1284337 Continuing

10 participants

Target Countries : African Region

Sector : Water Resources/Disaster Management/Urban Water Supply

Sub-Sector :

Language : English

Appeal

Following the statement of TICAD 4 which was held in May 2008 in Yokohama, this program is proposed to secure the safe water in the African Region by transferring useful and practical know-how on water supply for urban waterworks senior engineers engaging in the planning, constructing, and maintenance of water supply system.

Objective/Output	Target Organization / Group
【Objectives】 Knowledge on integrated waterworks management and solution on specific issues will be understood and will be spread out through the program. 【Outputs】 1. To understand the history, system, and challenges of water works in Japan, and to be able to compare with the situation of the respective country 2. To understand the basic water works technology, such as filtration plan mechanism, water purifying, water supply system, and prevention of water leakage, and to be able to compare with the situation of the respective country. 3. To understand the integrated/efficient water works management system considering environment. 4. To formulate the Draft Action Plan to resolute the specific issue(s).	【Target Organizations】 Central or provincial government, or in local bodies in charge of waterworks engineering. 【Target Group】 1. Senior technical officers in charge of waterworks engineering in central or provincial government, or in local bodies. 2. At least 10 years of practical experience in this field. 3. University graduates or persons who have equivalent technical qualifications in waterworks engineering.

Contents		
[Preliminary Phase] 1. Preparation of Inception Report on waterworks in each country. [Core Phase in Japan] 1. Lectures, observations, and discussions on followings will be conducted. * History, system, and challenges of water works in Japan. * Basic water works technology, such as filtration plan mechanism, water purifying, water supply system, and prevention of water leakage in Japan. * Integrated/efficient water works management system. 2. Development of the draft action plan, and its presentation and discussion. [Finalization Phase] 1. Presentation and discussion of the draft action plan among the stakeholders in respective countries. 2. Submission of the final report on action plan.	Program Period	2012/11/ 4 ～ 2012/12/1
	Implementing Partner	Under Planning
	JICA Center	JICA Yokohama
	Cooperation Period	2011～2013
	Remarks and Website	

Community Empowerment through Safe Water Management for Arid Regions in French Speaking African Countries
仏語圏アフリカ乾燥地域 村落飲料水管理

Region-Focused Solution | 1284248 Continuing

12 participants

Target Countries : Arid Region in French Speaking African Countries

Sector :Water Resources/Disaster Management/Rural Water Supply

Sub-Sector :

Language :French

Appeal

In rural communities in the developing countries, it is generally recognized that not only the lack of fundamental water supply facilities but also fragile social systems to operate and maintain those facilities are the main challenges. In fact, in order to sustain the water supply system at the community level, it is essential to establish the community participation approach; however, it is also pointed out that those communities often lack the "Key Person" to lead the communities for proper management of the system. This training program aims to cultivate such human resources and stimulate them to establish an appropriate system in their respective country.

Objective/Output	Target Organization / Group
【Objective】 The official plan to establish/strengthen a sustainable, participatory and gender-sensitive operation and maintenance system for safe drinking water supply in a small-scale community is formulated/improved by the organizations to which the participants are belonging. 【Expected Module Output】 1. To acquire knowledge and skills necessary for safe drinking water supply in small-scale community (quantity, quality, treatment and distribution of water) 2. To acquire knowledge and skills for sustainable, participatory and gender-sensitive operation and maintenance system for safe drinking water supply 3. To propose an “Action Plan” for sustainable, participatory and gender-sensitive operation and maintenance system for safe drinking water supply	【Target Organization】 Central/local government and NGOs engaged in safe drinking water supply and /or management in small-scale communities 【Expected Qualification】 1. Government officials/NGO staffs 2. More than three (3) years of practical/research experiences in the relevant field 3. Female participants are more preferable 4. Competent language skill in French (spoken and written)

Contents		
【Preliminary Phase】Prepare and submit a Country Report and Gender Report 【Phase in Japan】 1) Safe drinking water supply in small-scale community: Drinking water supply in small-scale communities, Appropriate technology for drinking water supply, Groundwater utility, Sanitation, Biomes circulation & environmental management, Environmental contamination, Drinking water utilization patterns 2) Knowledge and skills to establish a community participation system: Community development, Gender mainstreaming, Micro-credit, Facilitation skills on hygiene and environment education,Communication skills for promoting community participation 3) Preparation of the Action Plan: Presentation of “Country Report”, Methodology on “Project Cycle Management (PCM)”, Preparation and presentation of an “Action Plan” 【Finalization Phase in a participant's home country】 Preparation and submission of the Final Report on the achieved progress/results (within 3 months after the completion of the program in Japan)	Program Period	under planning
	Implementing Partner	Fuji Women's University
	JICA Center	JICA Hokkaido (Sapporo)
	Cooperation Period	2010～2012
	Remarks and Website	

Training for Expert on Flood-related Disaster Mitigation
洪水関連災害防災専門家育成

Group Leaders 1280043 Continuing

24 participants

Target Countries :

Sector :Water Resources/Disaster Management/Wind and Flood Disaster(Flood Control)

Sub-Sector :

Language :English

Appeal

This program is provided to technical officials, engineers or researchers of governmental organizations concerning river management or water-related disasters. This program aims to develop the participant's capacity to practically manage the problems and issues concerning water-related disasters in developing countries.

Objective/Output

【Objective】
The program objective is to develop the participant's capacity to practically manage the problems and issues concerning water-related disasters for contributing to mitigation of water-related disasters in their countries.

【Outputs】
1. To be able to explain basic concept and theory on Generation Process of Water-related Disasters, Control measures for Landslide and Debris Flow.

2. To be able to explain basic concept and theory on Water-related Hazard Risk Evaluation, Disaster Risk Management Policy and Technologies.

3. To formulate the countermeasures (Master Thesis and Action plan) to solve the problems and issues concerning water-related disasters for applying techniques and knowledge acquired through the training course in their countries.

Target Organization / Group

【Target Organizations】
This program is designed for the governmental organization concerning to river management or water-related disaster mitigation.

【Target Group】
1. Administrative officers and/or engineers and/or researchers in the field of water management in above-mentioned organization.
2. Experience in the relevant field: more than 3 years' experience.
3. Be university graduates in civil engineering, water resource management, or disaster mitigation, etc. equivalent background.

English proficiency: TOEFL PBT 550

Contents

【Preliminary Phase】
To make an Inception Report on current situation and problem of water-related disasters in their countries.

【Phase in Japan】
To acquire the necessary skill and technique for reducing water-related disasters through lectures, discussions, research, practical exercises and site visits, etc.

(1)Generation Process of Water-related Disasters, Control measures for Landslide and Debris Flow
・Hydrology, Flood hydraulics and sediment transport, Mechanics of sediment transportation and river changes, Control measures for landslide & debris flow, etc.

(2)Water-related Hazard Risk Evaluation
・Disaster management policy, Disaster risk management, Integrated Flood Risk Management, Local disaster management and hazard mapping, etc.

(3)To formulate flood countermeasures
・Individual study (Formulation of Master thesis, Action Plan)

Program Period	2012/10/ 1 ～ 2013/ 9/18
Implementing Partner	International Centre for Water Hazard and Risk Management (ICHARM), PWRI National Graduate Institute for Policy Studies (GRIPS)
JICA Center	JICA Tsukuba (Training&Partnership)
Cooperation Period	2010～2012
Remarks and Website	ICHARM http://www.icharm.pwri.go.jp/index.html GRIPS http://www.grips.ac.jp/index.html

Capacity Development for Flood Risk Management with IFAS
統合洪水解析システム(IFAS)を活用した洪水対応能力向上

Group 1280264
Solution Updated

Target Countries :

9 participants

Sector :Water Resources/Disaster Management/Wind and Flood Disaster(Flood Control)

Sub-Sector :

Language :English/Vietnamese

Appeal

This training course aims to mitigate flood damage by strengthening the participating countries' coping capacity including the development of local flood risk management plans with early evacuation of local residents through the application of the Integrated Flood Analysis System (IFAS) to flood vulnerable areas.

Objective/Output

【Objective】
Coping capacity for flood damage mitigation including appropriate flood forecasting and early evacuation of residents is strengthened in each participating country.

【Outputs】
(1)Understand the problems and possible solutions for flood damage mitigation based on the analysis of flood risk management concept, system or structures in the respective country.

(2)Understand concept and actual calculation of run-off and flood analyses and flood risk management by learning the operation of IFAS system and outline of disaster management/ evacuation plan

(3)Develop draft local flood management plan for a flood vulnerable area.

Target Organization / Group

[Target Organization/ Group]
Combination of national/local governmental organizations responsible for flood forecasting, early warning system, flood risk management and evacuation of residents

Meteorologic engineer, Civil engineer in charge of river management, Administrative officer in charge of evacuation of residents

[Required experience/ knowledge]
More than 2 years

Knowledge of Meteorology, Civil engineering (Especially in hydraulics and hydrology), Evacuation planning, respectively

Contents

[Preliminary Phase]
Participants from each country jointly prepare Inception Report on flood situation.

[Phase in Japan]
Output(1)
- Workshop to improve problem-analysis skill
- Lectures on flood countermeasures

Output(2)
- Lectures and exercises on run-off and flood forecasting including operation of IFAS
- Lectures on outline of disaster management/ evacuation plan
- Study tours on flood countermeasures (including early flood forecasting/warning systems and interviews with local municipalities)

Output(3)
- Workshop to improve planning skill
- Drawing up of a feasible draft local flood management plan by applying IFAS to the target flood vulnerable area in each country

[Finalization Phase]
Participants jointly hold debriefing sessions, and finalize the Action Plan.
Implement the Plan organizationally and submit Progress Report after 3 months.

Program Period	2012 / 7/ 9 ～ 2012 / 8/8
Implementing Partner	International Centre for Water Hazard and Risk Management (ICHARM), Public Works Institute
JICA Center	JICA Tsukuba (Training&Partnership)
Cooperation Period	2012～2014
Remarks and Website	ICHARM http://www.icharm.pwri.go.jp/index.html

Water Related Disaster Management(Preparedness, Mitigation and Reconstruction) in Asian Region
アジア地域 水災害被害の軽減に向けた対策

Region-Focused Solution | 1284356 New

15 participants

Target Countries : Asia

Sector : Water Resources/Disaster Management/Wind and Flood Disaster(Flood Control)

Sub-Sector : Water Resources/Disaster Management/Soil and Water Disaster

Language : English

Appeal

This course aims to develop participant's capacity to solve water related problems and contribute to mitigate water related disaster in their countries aggravated by climate change through lectures and practices on the knowledge and technologies accumulated in Japan, and also the experience of recovery and reconstruction for the Great East Japan Earthquake and Tsunami will be introduced.

Objective/Output

【Objective】
The program is intended to develop capacity of policy making to reduce water related disaster through learning technologies and experiences of Japan and restructuring participant countries' water related disaster management policy.

【Objective for each unit】
1:To learn the importance of the hydrological technology and disaster preparedness, with case study in recent natural disasters, such as Great East Japan Earthquake.
2:To be able to explain basic concept and theory on flood control and disaster management.
3:To acquire the technology of flood control and disaster management in Japan.
4:To improve participants' capabilities by applying techniques and knowledge acquired through studies on issues in their countries and through developing action plans for solving the problems in their countries.

Target Organization / Group

<Target Organization>
Organization in charge of flood risk management, water resources management

<Target Group>
Person who satisfies following requirement 1) or 2) and has a good English ability
1) A degree of water resource management, hydraulics or disaster management
2) Working experience over five years in the field of water resources management, hydraulics or disaster management

Contents

<Activity in Preliminary Phase in home country>
To make the country report on present measures of water related disasters in their own countries.

<Activity in core Phase in Japan>
(1) Lectures with basic subjects related with river planning and strategy on flood control and disaster management in Japan.
(2) Site visits related with flood control facilities in Japan.
(3) Practice with IFAS and Common MP (hydraulic analysis technology)
(4) Project Cycle Management about the problem of flood control and disaster management with their countries.
(5) Making action plans for solving the problems in their countries and having a discussion in the end of the course.

<Activity in Finalization Phase in home country>
To hold a debriefing session
To introduce and explain the Action Plan based on the analysis and interpretation of their own problems by applying the knowledge and techniques acquired in the course.

Program Period	under planning
Implementing Partner	Under Planning
JICA Center	JICA Tsukuba (Training&Partnership)
Cooperation Period	2012～2014
Remarks and Website	

Disaster Risk Management Technology on Volcanic Eruption, Debris Flow and Landslide
火山学･総合土砂災害対策コース

Group Leaders 1280876 Continuing

11 participants

Target Countries :

Sector :Water Resources/Disaster Management/Soil and Water Disaster

Sub-Sector :

Language :English

Appeal

This course is to improve participants' technology on volcanic observation or Sabo who will be key persons in those fields.

Objective/Output	Target Organization / Group
Participants of this course are expected to improve their technology on volcanic observation or comprehensive sediment management and be able to enhance their capacity on making countermeasures to the disaster prevention / mitigation of their countries. 【Common Program 】 to understand and be able to explain: (1) the basic common knowledge of volcanology and erosion & sediment control engineering (2) the administration of disaster management in consideration of inhabitants' participation. 【Volcanology Course】to understand and be able to explain: (1) basic knowledge of volcanology (2) and to be able to carry out volcano observation data analysis and interpretation 【Sabo Course】to understand and be able to explain: (1) basic knowledge of erosion and sediment control engineering (2) basic mechanism of sediment-related disasters such as debris flow (3) comprehensive sediment-related disaster prevention measures, structural and non-structural measures (4) the environmentally -sound comprehensive sediment management	<Target Organization>Ministry of Public Works, Ministry of Water Resources, Institute of Volcanology, Seismology, Geology or Geophysics.

Contents		
This course consists of 3 components, i.e. common program, thematic program (volcanology or sabo) and individual program. The key component of this course is the individual program. Each participant will conduct 3/4 months individual training /research at university, volcano observatory, institution or foundation based on interests of the participating personnel and their organization. The theme of individual program will be set by the needs clarification form. As a result of individual training/research, each participant will be required to make a final report and present to the curriculum committee members. 【Common Program】 (1)Basic common knowledge of volcanology and sabo 【Volcanology Course】 (1) Basic knowledge volcanology (2) Methodology of observation 【Sabo Course】 (1) Basic knowledge of sabo engineering (2) Structural measures (3) Non-structural measures 【Individual Program】 (1) Individual training / research and making a final report	Program Period	2012 / 5/30 ～ 2012 /11/24
	Implementing Partner	SABO Technical Center (STC)
	JICA Center	JICA Tokyo(Economy&Env.)
	Cooperation Period	2009～2012
	Remarks and Website	The 2nd course, originally planned for 2010, was postponed and implemented in 2011. This is the 3rd course.

Operating Management of Earthquake, Tsunami, and Volcano Eruption Observation System
地震津波火山観測システムの運用･管理

Group Leaders 1280035 Continuing

6 participants

Target Countries : Frequently disasters by earthquake, tsunami, or volcano eruption.

Sector : Water Resources/Disaster Management/Earthquake Disaster

Sub-Sector : Water Resources/Disaster Management/Comprehensive Disaster Management

Language : English

Appeal

A simple concept such as evacuating seashore after a strong quake should mitigate tsunami victims. However, developing countries have no mitigation program, and thus damages are expanding. In the training, through lectures, field works, and discussions at the university, participants learn about disaster mitigation (including lessons learned from failures in Japan) and establish a strong monitoring system in their home countries. They develop the skills to act as key persons in the JICA disaster mitigation programs in their countries.

Objective/Output	Target Organization / Group
<Program Objective> To upgrade the potential of experts in target countries by improving earthquake observation technology and understanding earthquake generation mechanism for contribution to the implementation of the observation network on earthquake and others. <Expected module outputs> 1. To understand the fundamental theories of Earthquake, Tsunami and Volcano eruption and principles of seismometer, observation system 2. To learn the field practices, the early tsunami warning system and observation methods used in the case of emergency 3. To understand the observation with international cooperation and the joint observation in the plate subduction zone 4. To improve participants' capacities to apply knowledge and techniques acquired in lectures and practices through their studies on individual topics, and to make action plans in order to solve problems in their respective countries	<Target Organization> Meteorological Office, Geographic Observatory, Seismic Research Institute and Technological University <Expected Job Title> Middle-class Manager <Expected Job Experience> At least 5-year experience on earthquake, tsunami, and volcano eruption observation and preferably engaged in field work <Other Qualifications> Master's degree or PhD

Contents		
【Module 1】 ･Earthquake, tsunami, and volcano eruption observation system ･Principles of earthquake, tsunami, and volcano eruption 【Module 2】 ･Analysis of earthquake, tsunami, and volcano eruption ･Crustal movement observation and its analysis ･Real-time observation and its operation 【Module 3】 ･Plate tectonics ･Earthquake and tsunami in the plate subduction zone ･Volcano eruption in the plate subduction zone 【Module 4】 ･Earthquake, tsunami, volcano eruption as great disasters in the world ･Great disasters due to earthquake, tsunami, and volcano eruption and their effects on people's lives ･Action Plan guidance ･Presentation of Action Plan	Program Period	2012 / 9 / 2 ～ 2013 / 2 / 28
	Implementing Partner	Nagoya University
	JICA Center	JICA Chubu
	Cooperation Period	2011～2013
	Remarks and Website	The training participant shall have basic research ability, as he/she is going to be working on an individual research in the latter part of the training period.

Seismology, Earthquake Engineering and Disaster-recovery Management Policy
地震･耐震･防災復興政策

Group Leaders 1280875 Updated

21 participants

Target Countries :

Sector :Water Resources/Disaster Management/Earthquake Disaster

Sub-Sector :

Language :English

Appeal

This course aims to develop the participants' capacity to establish, utilize and disseminate earthquake disaster mitigation technologies, i. e., Seismology, Earthquake Engineering and Disaster-Recovery Management Policy with much experience accumulated in Japan, for contributing to reduce the damage of earthquake disasters in their own countries, as the leading specialists of the corresponding field.

Objective/Output	Target Organization / Group
【Objective】 To foster persons capable to plan, apply, educate, and disseminate knowledge and technologies for earthquake disaster mitigation, through the training in the fields of Seismology, Earthquake Engineering and Disaster-Recovery Management Policies that are accumulated in Japan. 【Outputs】 (1)To be able to explain basic concept and theory on Earthquake Mechanism and Earthquake Resistant Design as a basis of Earthquake Disaster Mitigation Scheme (2)To be able to explain basic concept and theory on Seismic Hazard Estimation, Earthquake Disaster – Recovery Management Policy inevitable to establish Earthquake Disaster Mitigation Scheme (3)To improve participant's capabilities to apply techniques and knowledge acquired through their studies on individual topics and to make Master Thesis / Action plans to solve the problems in their countries	[Target organization] Governmental organizations concerning the public interest in Seismology, Earthquake Engineering and Disaster-Recovery Management, and/or universities, NGOs Technical officials, engineers or researchers working with governmental organizations concerning Seismology, Earthquake Engineering and Disaster-Recovery Management, or with others of the same role [Qualification] university graduates in the field of Seismology, Earthquake Engineering or Disaster-Recovery Management, or in other science and technology fields Working experience:more than 3 years English proficiency: TOEFL PBT 550.

Contents		
[Preliminary Phase] To draft an Inception Report on Seismology, Earthquake Engineering and Disaster-recovery Management Policy in participant's country and organize the idea on related issues preliminarily [Phase in Japan] Output(1) Lectures, Practices and Observation Visits related with Basic Subjects (Information Technology, Earthquake Phenomenology, Structural Analysis & Dynamics) and Advanced Subjects (Earthquake Circumstance, Characteristics of Earthquake Disasters, Seismic Design, Evaluation and Retrofitting) Output(2) Lectures, Practices and Observation Visits related with Earthquake Hazard, Risk Assessment and Earthquake Disaster-Recovery Management Policy(Disaster mitigation and recovery policy,Risk management and Development assistance) Output(3) Individual guidance for specific studies (Master Thesis) / Action Plan based on the analysis and interpretation of their own problems by applying the knowledge and techniques acquired in the course.	Program Period	2012/10/ 1 ～ 2013/ 9/18
	Implementing Partner	IISEE, Building Research Institute (BRI), National Graduate Institute for Policy Studies (GRIPS)
	JICA Center	JICA Tsukuba (Training&Partnership)
	Cooperation Period	2012～2014
	Remarks and Website	IISEE http://iisee.kenken.go.jp/ GRIPS http://www.grips.ac.jp/index.html

Strategy for Disaster Risk Reduction against Mega-Earthquake Disaster
巨大地震災害軽減のための総合戦略

Group 1280892
Trainers Updated
12 participants

Target Countries :

Sector :Water Resources/Disaster Management/Earthquake Disaster

Sub-Sector :Health/Health System

Language :English

Appeal

Mega-disasters such as the Great Hanshin-Awaji Earthquake and the Great East Japan Earthquake with Tsunami have clearly shown that urban and rural societies have a complex & wide variety of risks and vulnerabilities against mega-earthquake. The strategy for disaster risk reduction for such disasters will be taught using risk assessment, risk management, and risk communication framework.

Objective/Output	Target Organization / Group
【Objective】 DRR (Disaster Risk Reduction) strategy for urban earthquake and tsunami, which is based on a pro-active approach of DRR utilizing various tools and knowledge in risk assessment, risk management, and risk communication, is to be studied and built at each organization to implement urban earthquake DRR. 【Objective for each unit】 (1)Ability to explain of Risk Assessment Tools and Knowledge (2)Ability to explain of Risk Management Tools and Knowledge (3)Ability to explain of Risk Communication Tools and Knowledge (4)Ability to explain of International Activities for Urban DRR and Education for Leaders (5)Ability to make DRR strategy for urban earthquake is to be studied and built at each organizations to implement urban earthquake DRR	【Target Organizations】 Organizations which conduct Mega-earthquake disaster risk reduction (DRR) (government, research & technological institution, medical institution etc.) 【Target Group】 (1)Bachelor degree More than 2 years' experience in disaster prevention (2)Medical practitioner, engineer, scientist and administrative officer in disaster prevention

Contents		
【Preliminary Phase】Preparation for country report 【Core Phase】 (1)The lectures of "Earthquake (EQ) Mechanism", "Seismic Ground Motion & Hazard Map", "Building Codes", "Lifeline Damage Assessment" (2)Technical visits to relevant institutions and lectures (3)Learning on the risk assessment tools & knowledge prior to the occurrence of EQ (4)The lectures of "Recovery of Kobe & Community","Disasters Medical Response & Public Health", "Environmental Impacts", "Economic Impacts of the quake" (5)Visits to relevant institutions (6)Learning on the risk management tools & knowledge during and after the quake (7)The lectures of "IT for Emergency Management", "Disaster Information Sharing","Education for DRR" (8)Technical visits to relevant institutions and lectures (9)Learning on the risk communication tools and knowledge that are needed prior to and after the occurrence of urban earthquake (10)The lectures of "Int. Collaborations for DRR", "International Organization on DRR and Educational System" (11)Learning on how to achieve and obtain an international recognition as an urban DRR specialist to support their own DRR activities at home country (12)Study on DRR strategy for urban EQ, which is based on a pro-active approach of DRR utilizing various tools and knowledge in risk assessment, risk management,and risk communication 【Finalization Phase】 Build similar DRR strategy at each organization to implement urban EQ DRR	Program Period	2012 / 9 / 24 ～ 2012 / 11 / 16
	Implementing Partner	Kobe Univ.(Research Center for Urban Safety and Security)
	JICA Center	JICA Kansai (Ⅱ)
	Cooperation Period	2012～2014
	Remarks and Website	

Tsunami Disaster Mitigation
津波防災

Region-Focused Leaders | 1284165 Updated

7 participants

Target Countries : Countries along the Pacific or Indian Ocean

Sector : Water Resources/Disaster Management/Earthquake Disaster

Sub-Sector : Others/Others

Language : English

Appeal

The 2004 Sumatra, 2011 Great Tohoku, and other subduction earthquakes caused serious tsunami damage. To mitigate tsunami damage, this course nurtures human resources highly capable of understanding advanced earthquake and tsunami technology and new countermeasures based on the lessons from the 2011 Great Tohoku earthquake, and capable of making plans to improve tsunami countermeasures in their countries.

Objective/Output

【Objective】
Drafts for improvement of Tsunami Early Warning System, Tsunami Hazard Assessment and other Tsunami countermeasures are prepared in the target country.

【Outputs】
(1)To acquire basic concepts and theory of the generation, propagation and inundation of tsunamis caused by earthquakes as a basic knowledge required for tsunami disaster mitigation.

(2)To acquire basic concepts and theory of Tsunami Early Warning System, Tsunami Hazard Assessment/Maps, Tsunami Disaster Mitigation Policy, and Tsunami Disaster Mitigation Countermeasures.

(3)To understand new countermeasures for earthquakes and tsunamis based on lessons from the Great East Japan Earthquake disaster and reconstruction processes.

(4)To make plans for improving Tsunami Early Warning System, Tsunami Hazard Assessment, or other Tsunami countermeasures and compile them into Master Thesis/ Action Plan.

Target Organization / Group

[Target Organization]
governmental or other research organizations and universities concerning to the public interest in the field of tsunami or tsunami disaster mitigation.

Technical officials, researchers

[Qualification]
university graduates in the field of Tsunami or Tsunami disaster mitigation or in other science and technology fields Working experience:more than 3 years
English proficiency: TOEFL PBT 550.

Contents

[Preliminary Phase]
To draft an Inception Report on Tsunami Disaster Management in participant's country and organize the idea on issues related to Tsunami Disaster Management preliminarily

[Phase in Japan]
Output(1)
Lectures, practical studies and field trips regarding tsunami generation by earthquake, tsunami propagation and its run-up procedure.

Output(2)
Lectures, practical studies and field trips regarding technologies on Tsunami Early Warning System, Tsunami Hazard Assessment and countermeasures and policy-making on tsunami disaster.

Output(3)
Lectures and field trips regarding the Great East Japan earthquake disaster

Output(4)
Compilation of Master Report through analyses by individual study and discussion.

Program Period	2012/10/ 1 ～ 2013/ 9/18
Implementing Partner	IISEE, Building Research Institute (BRI), National Graduate Institute for Policy Studies (GRIPS)
JICA Center	JICA Tsukuba (Training&Partnership)
Cooperation Period	2012～2014
Remarks and Website	IISEE http://iisee.kenken.go.jp/ GRIPS http://www.grips.ac.jp/index.html

Global Seismological Observation
グローバル地震観測

Group 1280887
Continuing participants

Target Countries :

Sector :Water Resources/Disaster Management/Earthquake Disaster

Sub-Sector :

Language :English

Appeal

This program is designed to introduce up-to-date technologies and knowledge in the field of seismological observation and its application for nuclear test monitoring technology, and the participants are expected to play important roles in a global monitoring network for nuclear tests.

Objective/Output	Target Organization / Group
【Objective】 To acquire knowledge and advanced techniques of global seismological observation for playing important roles in the monitoring system of nuclear tests under the CTBT. 【Outputs】 1. To acquire knowledge of the CTBT regime and the role of seismology in the International Monitoring System (IMS). 2. To understand global seismological observation technologies for monitoring nuclear tests and earthquakes. 3. To acquire data analytical techniques to discriminate nuclear tests from natural earthquakes. 4. To Make an Action Plan (Project Proposal) which they should do in their country after a homecoming.	【Target Organization】 This program is designed for a governmental organization which is expected to play important roles in a global monitoring network on nuclear tests. 【Target Group】 1. Target Person: Administrative officers who are expected to play important roles in a global monitoring network on nuclear tests. 2. Experience in the relevant field: more than 3 years' experience 3. Others: be well versed in basic mathematics such as differentiation and integration.

Contents		
【Preliminary Phase】 To make an Inception Report on the current situation of the global seismological observation in their country. 【Core Phase in Japan】 To understand the overall view of the global seismological observation through lectures, practical exercises and site visits. (1)Outline of CTBT & IMS ・ Introduction of CTBT Regime concerning seismology, etc. (2)Seismological Observation, National Data Center ・ Seismometer, Seismic Network, Design of Seismic Network, National Data Center (3)Data Processing, Data Analysis, Nuclear test identifying method ・ Retrieval of Digital Seismic Data and Disposal of Format, Introduction to UNIX, Analysis of Teleseismic waves, Seismic Array Data Analysis, Discrimination by mb-Ms, Seismicity and Tectonics, etc. (4)Formulation and Discussion on Action Plan. ・ Making an Action Plan, and Presentation of Action Plan	Program Period	2013 / 1/14 ～ 2013 / 3/14
	Implementing Partner	IISEE (Building Research Institute)
	JICA Center	JICA Tsukuba (Training&Partnership)
	Cooperation Period	2009～2012
	Remarks and Website	IISEE Web Site：http://iisee.kenken.go.jp/

Reinforcement of Meteorological Services
気象業務能力向上

Group 1280780
Trainers Continuing
8 participants

Target Countries : Member States of WMO (World Meteorological Organization)

Sector :Water Resources/Disaster Management/Meteorology

Sub-Sector :

Language :English

Appeal

This is a unique course that provides comprehensive knowledge and techniques on meteorology and climatology. Most of the lectures are provided by staff members of the Japan Meteorological Agency, one of the most advanced meteorological services. In this training course, participants also visit various kinds of fields which utilize weather information. At the end of the course, every participant is requested to formulate an action plan to improve the meteorological service in his/her country.

Objective/Output	Target Organization / Group
<Course Objective> This course aims at promoting activities to reinforce the meteorological services of each country applying meteorological data/products such as numerical weather and climate prediction and satellite images for disaster risk reduction and climate change adaptation. <Objective for each unit> To be able to explain the fundamental technique such as numerical weather prediction (NWP), satellite meteorology. To be able to make up meteorological information which meets users' requirements based on fundamental techniques such as NWP and satellite meteorology. (Weather Forecasting Course) To be able to brief general condition of climate and global environment and make up climate prediction applying climatological and global environmental information. (Climatology Course) To draw up a master plan to improve the meteorological services of the participants' organizations, and to be used in participants' countries.	<Target Organization>National Meteorological and Hydrological Services <Expected Job Title>Be meteorological officials classified as "Meteorologist" according to the World Meteorological Organization (WMO) personnel categories, <Expected Job Experience>Be presently engaged in meteorological services for their governments or government-related public organizations, <Other Qualifications>Be familiar with and have experiences of using basic PC software Not be serving in the military

Contents		
Enabling explanation of fundamental techniques such as numerical weather prediction (NWP) and satellite meteorology. - Lectures on the basics of numerical weather prediction and its application, Lectures outlining satellite meteorology and the application of satellite data. [Optional Course: Weather Forecasting] Enabling the production of meteorological information that meets user requirements based on fundamental techniques such as NWP and satellite meteorology. - Exercises in satellite data application, Exercises in operational forecasting, Lectures on the knowledge and skills needed to produce meteorological information that meets user requirements. [Optional Course: Climatology] Enabling briefing on climate conditions and production of climate information using climatological and global environmental data and products. - Lectures on climatological and global environmental information, Exercises in the application of climatological and global environmental information. Drawing up draft master plans to improve the meteorological services of participants' own organizations for use in their home countries. - Creation of final reports (including master plans), Presentation of final reports and discussion.	Program Period	2012 / 9 / 11 ～ 2012 / 12 / 15
	Implementing Partner	Japan Meteorological Agency
	JICA Center	JICA Tokyo(Economy&Env.)
	Cooperation Period	2011～2013
	Remarks and Website	Japan Meteorological Agency http://www.jma.go.jp/jma/index.html

Satellite Remote Sensing Data Analysis Technology for Disaster/Environmental Monitoring
災害･環境監視のための衛星リモートセンシングデータ解析技術

Group 1280068
Trainers Continuing
10 participants

Target Countries : Hoping for improving SAR data analysis

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language :English

Appeal

Remote-sensing data show actual land surface for disaster/environmental measurements. The synthetic aperture radar(SAR) can work for the damage analysis and the recovery planning during bad weather. This program deals with SAR data analysis technology with geographic information system for various measurements. Through this program trainees are expected to master the technology and to provide useful information to their related agencies.

Objective/Output	Target Organization / Group
<Course Objective> This program enables engineers and researchers to analyze SAR and other remote sensing data as a tool leading to solutions for disaster/environmental problems in their respective countries and also enables them to make concrete proposal to use and disseminate this technology in their own and related organizations. <Objective for each unit> 1: to be able to explain the principle and analysis method of SAR and other data 2: to be able to carry out basic and advanced processing of SAR data 3：to be able to apply SAR and other data to disaster/environmental monitoring and integrate the data into map information 4：to be able to make case study analysis and report the results by using SAR and other data, and make proposal to use and disseminate the technologies in their own and related organizations	<Target Organization> Organizations responsible for remote sensing data analysis related to disaster/environmental monitoring <Expected Job Title> be engineers or researchers in the field of remote sensing related to disaster/environmental management, be likely promoted to managers <Expected Job Experience> People who have more than 3 years' experience in optical data/image analysis, but have little experience in SAR data/image analysis

Contents		
【At home】Report making of the situation of remote sensing their own country. 【In Japan】 Introduction to remote sensing, ALOS system and product, case study for disaster/ environmental monitoring, online data search, principle of SAR, SAR data correction, Principle of interferometric SAR (InSAR), principle of polarimetric SAR (PolSAR), analysis of PALSAR level 1.5 dataAnalysis of PALSAR level 1.0 data, Interferometric SAR analysis, polarimetric SAR Analysis, applied analysis of optical data for disaster monitoring and environment monitoring, integrated use of the analysis results and map information (including ground truth),applied analysis of SAR data for disaster monitoring and environment monitoring, Integrated use of the analysis results and map information, case study analysis(analysis using the data of each participant's country)and report, making proposal to use and disseminate acquired technology in their own and related organizations, output presentation 【At home】 Share the result of case study and a proposal to use and to disseminate in organizations.	Program Period	2012 / 8/ 1 ～ 2012 / 9/8
	Implementing Partner	Remote Sensing Technology Center of Japan
	JICA Center	JICA Tokyo(Economy&Env.)
	Cooperation Period	2011～2013
	Remarks and Website	

Raising Awareness of Disaster Reduction
防災意識の啓発

Group Leaders 1280119 Updated

18 participants

Target Countries :

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Language :English/Vietnamese

Appeal

The people in each country acquire the necessary knowledge and techniques during disasters, and the damaged caused by natural disasters will be reduced, through the application of the activities of raising awareness of disaster in Japan. (E.g. community-based disaster risk management, disaster prevention education, transmission of the experience of disaster to next generation.)

Objective/Output	Target Organization / Group
【Objective】 The participants are expected to make and implement action plan for raising awareness for the citizen of each country to acquire necessary knowledge and emergency response activities during the disaster. 【Objective for each unit】 To understand the significance and activities of raising awareness on disaster in school education. To understand the significance and activities of raising awareness on disaster at community level. To understand the significance and function of the institutions to contribute the raising awareness on disaster for the people To understand the significance and activities of raising awareness on disaster through mass media To make Action Plan for the people in each country of the participants to acquire the necessary knowledge and techniques during disaster.	Department in charge of the provision of disaster information, disaster prevention education and raising awareness on disaster prevention to citizen in central or local government Person in charge of raising awareness of disaster prevention to citizen or dissemination of disaster information or public relations in central or local government Those who has more than 2 years' experience in the relevant field. Those who has a competent command of spoken and written English.

Contents

Participants will learn the strategy and activities on disaster prevention education through the program in high schools or universities for future leaders on promoting disaster prevention, as well as the disaster prevention education in elementary and junior high schools,

Participants will learn the examples of raising awareness to the residents in peculiar area, especially tips for receiving attention of ordinary people, and promoting disaster promotion through the activities which has no relation with disaster prevention.

Some examples that buildings or organizations related with disaster contribute the raising awareness and the role which the will be introduced.

The participants are expected to understand the examples on raising awareness on disaster prevention through mass media through introducing the examples that mass media treats information on disaster and preparedness(NHK, AM/FM radio, community radio, meeting with mass media).

The participants are expected to make their concrete action plan for promoting rising awareness on disaster prevention through the training program of the above-mentioned modules 1 to 4.

Program Period	2013 / 1/ 7 ～ 2013 / 2/9
Implementing Partner	Under Planning
JICA Center	JICA Kansai (II)
Cooperation Period	2012～2014
Remarks and Website	

Disaster Mitigation and Restoration for Public Works (River, Road and Port)
インフラ施設(河川・道路・港湾)の自然災害に対する抑止・軽減対策及び復旧対策

Group Trainers | 1280221 Continuing

17 participants

Target Countries :

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :Urban/Regional Development/Other Urban and Regional Development Issues

Language :English

Appeal

Japan has experienced various disasters, has taken various measures to protect infrastructures from those disasters. Especially in Kinki Region various data have been stored and various measures have been taken from Hanshin Earthquake in 1995. In this program participants will observe various measures to protect infrastructures such as road, river and port from kinds of disasters.

Objective/Output

< Course Objective > Participants acquire knowledge on applicable techniques for more practical, efficient and effective disaster mitigation, preparedness and restoration, and make dissemination plan for their organization in charge of relevant fields.
Following are objectives for each unit.
【1 Disasters and their characters】To analyze the nature of disaster in home country and to understand the similarities and differences with Japan.
【2 Disaster Prevention Systems and Restoration Systems】 To understand consider application, the introduction and improvement of disaster prevention systems and restoration system.
【3 Disaster Mitigation and Restoration】 To understand new confidence and capabilities for the application of special engineering methods for practical disaster prevention, mitigation and restoration.
【4 Balance of utility and disaster】 To understand the relation and the balance between utility and disaster or between life-cycle cost and disaster in infrastructure development projects.
【5 Dissemination Plan】 Plan to disseminate applicable techniques to the other engineers will be developed.
【6 Activity after the fact】 To completely disseminate and share the applicable technologies (knowledge) to their own countries learned in this training course to their office.

Target Organization / Group

<Target Organization>Governmental organizations in charge of disaster prevention and recovery for public works (Road, River and Port)

<Expected Job Title>be officials of central or local government who hold or will assume positions in charge of restoration works in the event of a major disaster

<Expected Job Experience>More than five years in the related field

<Other Qualifications> Educational Background: Be university graduates or have equivalent educational qualifications in infrastructure management, i.e. civil engineering
<Age>30-45 years old

Contents

【 Preliminary Phase in Home Country 】
Making an inception report which describe the issues and problems about disaster mitigation and restoration for public works in participant's organization and country.

【 Core Phase in Japan 】
【Objective 1】(1)Natural Disasters in Japan(2)Natural Disasters and its analysis in Each Country
【Objective 2】(1)Observation techniques (2)Disaster prevention policy (3)Disaster mitigation and restoration systems (4)Warning system / Hazard mapping
【Objective 3】(1)River improvement(River, Dam) (2)Sabo works(Sabo, Landslide) (3)Road works(Road,Bridge) (4)Sea coast, Port (5)Quake-resistance
【Objective 4】(1)Regional disaster mitigation plan (2)Restoration plan for disaster prevention (3)Asset management
【Objective 5】(1)Issue analysis workshop for planning (2)Formulation of dissemination plan (3)Presentation of dissemination plan

【 Finalization Phase in Home Country 】
【Objective 6】(1) Holding seminars for dissemination in their office after finishing this training course (2) Submitting the report on their dissemination activities six months after finishing this training course to JICA

Program Period	2012 / 6 / 4 ～ 2012 / 8 / 4
Implementing Partner	Kinki Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism etc.
JICA Center	JICA Kansai (II)
Cooperation Period	2011～2013
Remarks and Website	Web-site of Kinki Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism <http://www.kkr.mlit.go.jp/en/index.html>

Rescue Techniques
救急救助技術

Group 1280342
Trainers Continuing
10 participants

Target Countries :

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :Water Resources/Disaster Management/Other Water Resources/Disaster Management Issues

Language :English

Appeal

To help leaders of fire-fighting and first rescue organizations improve emergency rescue techniques and draw up a dissemination plan of the technique in their home countries.

Objective/Output	Target Organization / Group
Participants are expected to: - obtain knowledge necessary for the leader of fire-fighting, first rescue and aid mission, as well as to acquire the basic knowledge/techniques to rescue disaster victims from life-threatening circumstances. - learn the fundamental knowledge and skills to rescue victims facing dangerous situation caused by disaster and/or accidents such as earthquakes and fires and, therefore, unable to evacuate themselves on their own. - learn basic knowledge and techniques of emergency rescue measures including artificial respiration, cardiopulmonary resuscitation, blood stanching method and immobilization techniques. - acquire knowledge necessary for the leader of first rescue activity. - gain necessary knowledge and technique so that the participants could formulate a draft dissemination plan of human resource development in theirs workplaces by making active use of the knowledge and technique they learned.	-Those who are rescue leaders and will be able to widely spread knowledge and skills obtained in the course in their own countries, -Those who have experiences in the relevant fields, with at least three year of experience in rescue operation and are currently engaged in the operation. -Those under 35 year old who have already learnt and mastered many skills such as 50 meters swimming, 5 minutes water -treading, escalading and ladder-approaching to buildings.

Contents		
・Training (basic actions, using rescue instruments (ladder and ladder truck),water rescue, climbing techniques, descending techniques, mountain rescue, collapsed building, entry and rescue and others.) ・Lectures and practical trainings for emergency aids ・Joint training with International Rescue Team of Japan , safe management trainings and entry rescue trainings etc. ・Lectures on rescue command techniques ・Visits to local fire service departments ・Lectures on countermeasures to special disasters caused by hazardous materials and visit to these related facilities/infrastructure. ・Visits to manufacturer of disaster measures equipments/apparatus and related facilities.	Program Period	2012 / 7/25 ～ 2012 /10/7
	Implementing Partner	Osaka Municipal Fire Department
	JICA Center	JICA Kansai (II)
	Cooperation Period	2010～2012
	Remarks and Website	The program period will be slightly changed.

Adaptive Watershed Management to Climate Changes: Flood Control and Ecosystem Conservation
気候変動に対する順応的流域管理(適応策)「洪水対策と生態系保全」

Group 1280765
Solution Updated

Target Countries :

10 participants

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :Nature Conservation/Conservation of Biodiversity

Language :English

Appeal

Conventional flood countermeasures (dams and levees) are hardly responded in developing countries to unexpected level of heavy rain and drought caused by climate change on global scale. Meantime, disaster-prevention measures to keep the balance between ecosystem conservation and flood control are required. Therefore adaptive watershed management is needed to both reduce disaster and conserve ecosystem.

Objective/Output	Target Organization / Group
[Objective]Adaptive watershed management draft plan for countermeasures of climate change will be formulated among mid-level working and senior administrative officers who belong to the implementing organizations concerning both flood control and ecosystem conservation for watershed management. The objective will be achieved by whole program duration. [Expected Module Outputs] <The first and second year> (1)To be able to deepen the understanding of climate change on global scale, its effects, and necessity of adaptive watershed management, (2)To be able to explain analysis method on current flood risks and the conditions/patterns of ecosystem destruction in the watersheds of their respective drainage basin, (3)To be able to formulate specifically adaptive watershed management plan in their respective areas for mitigating to risk of flood and reducing impact of ecosystem. <The third year> (4)To be able to submit Final draft Action Plan based on the specific plan of adaptive watershed management in their respective areas.	[Target Organization] Central/local government or public organization related to flood control or ecosystem conservation in watershed areas *The same organization for three years continuously since the program objective is achieved through an accumulation of each year's achievement over three years [Target Group] 1st and 2nd year: Mid-level working officers, 3rd year:Senior administrative officers directly involved in planning of watershed management. *Have more than five years of experience in the field

Contents		
[Preliminary phase in home country] Submission of Inception Report: Situation on risk of flood and degradation of ecosystem in their areas [Core phase in Japan]Lectures, practices, field visits and discussions which cover below are provided. ＜the first and second year＞ (1)Global environmental change, adaptive approach on disaster management under changing climate, international effort to prevent global warming, sea level rise and shore erosion by climate change, (2)Dams and watershed control, fundamentals of landscape ecology, river management plan and monitoring, flood control by retention pool and by diversion channel, flood control and biodiversity conservation, control with environmental protection, basic knowledge of GIS and watershed analysis by remote sensing, River management plan designed by GIS application, (3)Issue analysis, capacity development on water resource, formulation of draft Action Plan ＜the third year＞ (4)Formulation of Final draft Action Plan after discussion of issues on their target areas in the first and the second year. [Finalization phase in home country] Submission of Final Report which is shared and improved by their organizations within six months of returning home. After submission of their final reports, JICA Obihiro shares them with concerned people and discusses on Follow-up cooperation as necessary.	Program Period	2012 / 6/11 ～ 2012 / 8/11
	Implementing Partner	Hokkaido University, Hokkaido Development Bureau, Rakuno-gakuen University
	JICA Center	JICA Hokkaido (Obihiro)
	Cooperation Period	2012～2014
	Remarks and Website	Duration of the Second Program:2012/9/17～2012/10/31

Fire Fighting Techniques
消火技術

Group Trainers 1280814 Continuing

Target Countries :

8 participants

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language :English

Appeal

With more than 20 years' experience, Kitakyushu Fire Department gives participants Japan's top-level fire fighting training. To establish participants' country's system after they return home, participants are able to analyze and make a plan for the problems their home countries are facing. Two-day OJT is planned to give participants a chance to experience fire drills and real fire scenes with Japanese fire units. Training facilities are well-equipped, and participants can experience various types of fire.

Objective/Output	Target Organization / Group
<Course Objective> 1) To be able to practice fire and rescues technique by utilizing the equipment appropriately and using various fire extinguishing methods. 2) To be able to command a unit by using the above-mentioned techniques and knowledge. 3) To be able to plan dissemination activities after returning home. <Objective for each unit> -To acquire the knowledge and the techniques on fire fighting, rescue work, and safe control for various fire sites in Japan such as buildings, dangerous substances, forests, vehicles, ships, and aircraft. -To acquire the knowledge and the techniques on operation of various firefighting equipment in Japan. -To understand and practice the knowledge and techniques of emergency rescue. -To be able to plan activities of disseminating knowledge, techniques, and systems regarding firefighting techniques after they return to their respective countries	<Target Organization>Fire Service Organization (Central Government, Local Government or Private Sector) <Expected Job Title>be or will be a commander of firefighting or an instructor of fire education institutions. <Expected Job Experience>be engaged in fire service and has more than 5 years of experience. <Other Qualifications>be university graduates or have the equivalent occupational experiences. Be under 40 years of age in principle. Be proficient in spoken and written English. Be in good health, both mentally and physically, to complete the course. Not be pregnant. Not be serving in the military.

Contents		
<Preliminary Phase> Formulation of report to present current situation in the participant's country <Core Phase in Japan> ・Fire suppression drills ・Fire investigation(lecture and practice) ・Safety control (lecture and practice) ・Command theory (lecture) Handling fire trucks and firefighting equipment (lecture and practice) Rescue and emergency measures in various fire sites (lecture and practice) Work-shop for the effective implementation of the action plan including invitation of outside lecturers.(lecture and practice) <Finalization Phase> Implementation of the formulated plan, and report progress in the form of final report	Program Period	2012 / 7 / 25 ～ 2012 / 10 / 19
	Implementing Partner	Fire Department ,Kita-Kyushu City
	JICA Center	JICA Kyushu
	Cooperation Period	2011～2013
	Remarks and Website	

Fire Prevention Techniques
火災予防技術

Group 1280933
Trainers Continuing
3 participants

Target Countries :

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language :English

Appeal

To help developing countries prevent and reduce the outbreak of fire related disasters by training and transferring the fire prevention techniques.

Objective/Output	Target Organization / Group
【Objectives】 The knowledge and the techniques of fire prevention will be shared within participant's organization and other relevant institutions. 【Outputs】 1. To identify the problems and challenges on the fire prevention activities and policies in the respective sections or organizations belong to, based on the newly acquired knowledge and experiences through training. 2. To make an Action Plan that suggests the formation of more practical fire prevention system, and improvement of the fire prevention measures, duties and services in the participants' organizations. 3. To implement the Action Plan in their home countries after they return to the respective countries.	【Target Organization】 The fire department/brigade or the fire and disaster management sector. 【Target Group】 (1) Be an administrative officer or a candidate of a fire service implementation agency, who is or will be engaged in planning/ drafting Fire Prevention System and Fire Service Systems. (2) Be proficient in spoken and written English. (3) Be under forty (40) years of age in principle.

Contents		
【Core Phase in Japan】 (1) Lectures and practical training about the outline of fire service system (central/local), legislation and practical measures (2) Visits/study tours to the relevant facilities, local fire stations (3) Practical training/ presentations and discussion about fire prevention techniques (4) Formulating and presenting Action Plan which features feasible plan to their organizations and their countries. 【Finalization Phase in a participant's home country】 (1) Application and implementation of Action Plan in respective home countries (2) Submission of the Final Report explaining what the participants have done to make their Action Plan come true as well as what goals/constraints they still have (in three months after returning to their home countries).	Program Period	2012 / 8/19 ～ 2012 / 9/15
	Implementing Partner	- Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications - Tokyo Fire Department
	JICA Center	JICA Tokyo(Public Policy)
	Cooperation Period	2010～2012
	Remarks and Website	- Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications http://www.fdma.go.jp/en/ - Tokyo Fire Department http://www.tfd.metro.tokyo.jp/eng/index.html

Comprehensive Disaster Risk Management
総合防災行政

Group 1280999
Solution Continuing
17 participants

Target Countries :

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language :English

Appeal

Officers of central or local Government will obtain the knowledge and experience on disaster reduction in Japan, and develop their capacity on disaster management

Objective/Output	Target Organization / Group
【Objectives】 Participants are requested to contribute to the institutional capacity development on disaster management through elaborating and implementing action plan in terms of disaster prevention and mitigation 【Outputs】 1. To understand roles of national and local governments in disaster management in Japan and examine how to adopt acquired knowledge in each country 2. To understand the role of private sectors such as NGOs and mass-media in disaster management and examine how to adopt acquired knowledge in each country. 3. To understand Japanese approaches to different disasters and examine how to adopt acquired knowledge in each country. 4. To formulate action plans for the challenging the problems in each country.	【Target Organization】 Ministry in charge of disaster risk management and local government 【Target Group】 <Position> Officers in charge of disaster risk management <Experience> More than 2 years in the relevant field

Contents

【Preliminary Phase】
Preparation of Job Report

【Core Phase】
－Disaster risk management in Japan
－Overview of Great Hanshin Awaji Earthquake and recovery
－Disaster prevention education
－Activities for raising awareness of disaster prevention
－Community based disaster risk management
－Collaboration between disaster and development/tourism in recovery pass
－Role of mass media in disasters
－Function of community radio
－Preparation of Action Plan

【Finalization Phase】
－Implementation of Action Plan

Program Period	2013 / 1/ 7 ～ 2013 / 2 / 23
Implementing Partner	Asian Disaster Reduction Center
JICA Center	JICA Kansai (II)
Cooperation Period	2010～2012
Remarks and Website	

Capacity Development of Policy Making in Climate Change Adaptation (CCA) in Water Sector
気候変動適応策水分野における政策策定能力向上

Region-Focused Int.Dialogue | 1284022 Continuing

Target Countries : Country severely affected by climate change

8 participants

Sector : Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language : English

Appeal

Policy makers at secretary and director general levels of disaster management and water management will strengthen their policy making capacity of Climate Change Adaptation(CCA).

Objective/Output	Target Organization / Group
【Objectives】 Policy makers at secretary and director general levels of disaster management and water management will strengthen their policy making capacity of Climate Change Adaptation(CCA). 【Output】 (1) To share most advanced knowledge in climate change among overseas participating countries and Japan (2) To have new idea through exchange of opinion about climate change among overseas participants and Japanese central governmental officers	【Target Organizations】ministry in charge of water resource or disaster risk management 【Target Group】 High rank officer of the above-mentioned ministry (undersecretary, director)

Contents

- Concept of policy making
- Current situation on the CCA
- Collaboration with local government and its example
- Raising citizen's awareness on CCA
- Development of the estimation model for climate change
- Exchange of opinions with the officers in charge of CCA who work for the central governments and JICA

Program Period	2012/11/ 4 ～ 2012/11/11
Implementing Partner	International Development Institute
JICA Center	JICA Kansai (II)
Cooperation Period	2010～2012
Remarks and Website	Course A 4.Nov-11.Nov (Japan) 12.Nov-16.Nov (Thailand) Course B 13.May-25.May

Comprehensive Disaster Management for Central Asia and Caucasus
中央アジア･コーカサス地域総合防災行政

Region-Focused Leaders | 1284047 Continuing

Target Countries : Kazakhstan, Uzbekistan, Armenia, Tajikistan, Kyrgyzstan

9 participants

Sector :Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language :Russian

Appeal

This program is designed for governmental officials to develop the DRM capacity as well as to deepen the Network DRM organization in the Region

Objective/Output	Target Organization / Group
【Objectives】 Action Plan to improve the DRM capacity in Participant's organization in accordance with the 5 priority actions in Hyogo Framework of Action 2005-2012(HFA) is prepared by the participant. 【Output】 1 To understand the Priority Action 1 of HFA,and are able to arrange to "Make Disaster Risk Reduction a Priority" 2 To understand the Priority Action 2 of HFA,and are able to propose a concrete plan for "Know the Risks and Take Action" 3 To understand the Priority Action 3 of HFA,and are able to propose a concrete plan for "Build Understanding and Awareness" 4 To understand the Priority Action 4 and 5 of HFA,and are able to propose a concrete plan for "Reduce Risks" and "Be prepared and Ready to Act" 5 Participants plan Action Plan in accordance with the HFA for improving DRM capacity in their organization. At the same time,regional Network of DRM organization is deepened.	【Target Organization】 Ministry in charge of disaster risk management or local government 【Target Group】 ＜Position＞ General or technical officer in charge of disaster risk management in central or local government ＜Experience＞ More than 2 years' experience in the relevant field

Contents		
【Preliminary Phase】 Preparation of Job Report 【Core Phase】 Creating effective, multi-sectoral national platforms for DRM Integrating DRM into development policies and planning Ensuring community participation Evolution of risks in DRM in National and Regional level Early Warning system Institution for observation and forecasting of Disaster Risk Re-strengthening of DRM capacity in Region, Nation and communities Promotion of DRM Education DRM program in Communities 【Finalization Phase】 Implementation of Action Plan	Program Period	2012 / 6/25 ～ 2012 / 8/4
	Implementing Partner	Asian Disaster Reduction Center
	JICA Center	JICA Kansai (II)
	Cooperation Period	2010～2012
	Remarks and Website	

Volunteer Management for Disaster Resilient Communities in Asian Countries
災害に強いコミュニティ作りに向けたボランティア・マネージメント

Region-Focused | 1284097
Trainers | Continuing
6 participants

Target Countries : Philippines, Thailand, VietNam, Myanmar

Sector : Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language : English

Appeal

This course is designed to develop Human Capital in Volunteer management for Disaster Resilient Communities (DRCs) in Asian Countries.

Objective/Output

【Objectives】
This course aims to build/strengthen the capability for organizing and managing volunteers in community level towards "Disaster Resilient Communities".

【Output】
(1)Participants share approaches to establish the "Disaster Resilient Communities" in Japan, as well as in the participants' countries.
(2)Participants understand the role of Government and NGO/NPO in DRM in disaster management at community level in Japan.
(3)Participants understand and practice the skills and methods for organizing and managing volunteers at community level.
(4)Participants prepare Action Plans to fulfill "Disaster Resilient Communities" in their involved communities.
(5)Action Plans prepared by the participants are reviewed and approved in their respective organizations in order to achieve "Disaster Resilient Communities".

Target Organization / Group

【Target Organization】
NGO/NPO, local government, and ministries which organizes and promotes community based disaster risk management

【Target Group】
<Position>
Staffs of NGO/ NPO, or Local/Central government officers who are promoting community based disaster risk management.

<Experience>
Experience in the relevant field, should have more than 3 years' experience. (You can count similar duties or activities.)

Contents

【Preliminary Phase】
Preparation of Job Report

【Core Phase】
(1)Sharing the efforts and issues in realizing Disaster Resilient Communities in participating countries/history, present situation and current issues on disaster management in Japan/ Case studies in Kobe city, and Hyogo prefecture
(2)Government support for community level disaster management in Kobe city, Hyogo prefecture/Group Exercises in DRM-Welfare Communities in Kobe
(3)"Participatory Group Dynamism" Training by Participatory Development Institute/Establishment and management of Volunteer Center/Shelter
(4)Preparation and sharing the Action Plan
(5)Sharing the prepared "Action Plan" with concerned organization(s)/communities/ Reporting the progress on revision and realization of Action Plan to JICA Hyogo

【Finalization Phase】
・Reporting the progress on revision and realization of Action Plan to JICA Hyogo

Program Period	2013 / 3/18 ～ 2013 / 4/26
Implementing Partner	Kobe Empowerment Center, Institute of Participatory Development
JICA Center	JICA Kansai (II)
Cooperation Period	2010～2012
Remarks and Website	

Control de Desastres
中米防災対策

Region-Focused Solution | 1284133 Continuing

Target Countries : 6 Countries in Central America | 13 participants

Sector : Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector : Water Resources/Disaster Management/Comprehensive Disaster Management

Language : Spanish

Appeal

This program is designed for governmental organization to develop the capacity of disaster risk management for the reduction of damage from natural disasters. Especially, the participants are requested to acquire the knowledge on the concrete countermeasure of evacuation of residents in the case of disaster, focusing on the transmission of the information on disasters

Objective/Output	Target Organization / Group
【Objectives】 Ministry or central governmental organization in charge of promoting disaster prevention or mitigation and/or local government enhance the capacity of disaster management through implementing the activities on disaster prevention or mitigation in a certain municipality. 【Outputs】 -To be able to explain the function and the methodology of the collaboration of administrative bodies through understanding the history of natural disasters and their damage in Japan -To understand the collaboration among administrative bodies, citizen, community, mass media and research institutes about the information management on natural disaster -To understand the concrete methodology for the dissemination on raising awareness of disaster prevention and information management, considering disaster risk reduction in communities -To understand the methodology for project management in each country -To make action plan	【Target Organization】 Central government in charge of Disaster Risk Management or Local Government 【Target Group】 (1) Current Duties: Officials in charge of Disaster Risk Management in Central or Local Government (2) Experience in the relevant field: have experiences for more than 2 years (3) Others: The person who will be in touch with JICA BOSAI project in the future is preferable.

Contents		
【Preliminary Phase】 Preparation of Country Report Exchange of opinion with ex-participants 【Core Phase】 - Overview of Great Hanshin-Awaji Earthquake and recovery - Early warning system for natural disasters in Japan - Function of mass media in disasters - Risk communication - Examples of community-based disaster management in Japan - Methodology about raising awareness of disaster prevention for residents, - Preparation of Action Plan 【Finalization Phase】 Implementation of Action Plan after discussing the action plan with the relevant persons like JICA officers in overseas offices and BOSAI Project	Program Period	2012/11/ 5 ～ 2012/12/10
	Implementing Partner	Disaster Reduction and Human Renovation Institution
	JICA Center	JICA Kansai (II)
	Cooperation Period	2010～2012
	Remarks and Website	

Pre-Recovery Planning from Natural Disasters
自然災害からの事前復興計画

Region-Focused Solution | 1284219 Continuing

15 participants

Target Countries : Disaster-prone countries

Sector : Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language : English

Appeal

The participants will formulate action plans for recovery from disasters in their countries.

Objective/Output	Target Organization / Group
【Objectives】Specific action plans for making preliminarily recovery program in each country with an eye to “social capital” are created. After the training ,the action plan should be shared in the department in charge of disaster recovery. 【Outputs】 (1) The participants will understand the outline of the Great Hanshin-Awaji Earthquake and emergency response to it. (2) The participants will understand the PDCA (Plan, Do, Check, and Act for improvement) Cycle in efforts for recovery. (3) The participants will understand the importance of the concept of “social capital” from the experience of role sharing among residents, business operators, and administrative bodies in the efforts to solve problems caused by the Great Hanshin-Awaji Earthquake. (4) The participants will understand new viewpoints (efforts of individuals and communities, infrastructure development, and crisis-control structure) to develop safe towns based on the lessons from the Great Hanshin-Awaji Earthquake. (5) Action plans for the respective countries will be created.	1) Current duties: be or will be officials who are highly motivated and in a position that enables them to become involved with the formulation of recovery plans from disasters (i.e. urban planning, housing reconstruction, economic recovery, disaster victims livelihood recovery) and to promote them in their countries, and be officials who will continue to become involved with the formulation of recovery plans from disasters and to promote in their countries after the completion of this training program. 2) Experience : have work experience of more than three (3) years in the field mentioned above. 3) Educational background: university graduate or equivalent

Contents		
【Preliminary Phase】 Preparation of Job Report 【Core Phase in Japan】 (1)Outline of the Great Hanshin-Awaji Earthquake/ Damages and emergency response in each field/ Visit on monument to the Great-Hanshin Awaji Earthquake/Study on other disaster damage cases (2)Recovery plan/ Promotion of recovery plan/ Actions taken to the issues at each period from the time of disaster emergency response to that of recovery or reconstruction and evaluations (3)Significance of social capital/ Case examples of "mutual help" by enterprises, NGOs, volunteers, and local communities/ Redevelopment projects (readjustment of town lots) and residents/ Mutual help in the participants' countries (4)Development of safe towns/ Creation of safe cities in the participants' countries (5)Session to exchange views between the Kobe City officials and the participants 【Finalization Phase】 Implementation of Action Plan	Program Period	2013 / 1/ 7 ～ 2013 / 3 /1
	Implementing Partner	Kobe International Center for Cooperation and Communication, Kobe Institute of Urban Research,
	JICA Center	JICA Kansai (II)
	Cooperation Period	2010～2012
	Remarks and Website	http://www.city.kobe.lg.jp/safety/hanshinawaji/revival/promote/index-e.html

Community-based Disaster Risk Management
コミュニティ防災

Region-Focused Leaders | 1284220 Continuing

15 participants

Target Countries : Disaster-prone countries

Sector : Water Resources/Disaster Management/Comprehensive Disaster Management

Sub-Sector :

Language : English

Appeal

The participants will understand the significance of disaster risk management for natural disasters and needs of self-help and mutual help, and acquire the concrete method for promotion of community based disaster risk management in each country through the activities of self-help organization of residents for disaster risk management in Japan.

Objective/Output	Target Organization / Group
【Objectives】 The concept and method of promotion of community based disaster prevention are acquired, through understanding the importance of comprehensive management for natural disaster 【Outputs】 (1) Significance of disaster prevention (2) Needs and mechanism of community based disaster prevention and how to take community into it (3) How to operate and conduct drills in community based disaster prevention (4) How to foster leaders for disaster prevention in community (5) Establishment of a simulated organization for community based disaster prevention and formulation of an action plan	【Target organization】 organizations which can play a leading role in promotion of community based disaster prevention and dissemination of self-help organization of residents for disaster prevention. (e.g. Disaster management planning organization/division, community development organization in central/local government) 【Target Group】 Position: Officials who can play a leading role in promotion of community based disaster prevention Experience in the relevant field: more than 2 years' experience

Contents		
【Preliminary Phase】 Preparation of Job Report 【Core Phase】 - Overview of Disaster Risk Management in the world - Disaster Risk Management in Japan - Great Hanshin Awaji Earthquake - "Disaster-Safe Welfare Community", promoted by Kobe city - Necessary equipment for the community-based disaster risk management - Planning and implementation of community-based disaster risk management - Disaster Prevention Education in schools and communities - Preparation of Action Plan 【Finalization Phase】 Implementation of Action Plan	Program Period	2012/10/15 ～ 2012/11/22
	Implementing Partner	Kobe City Fire Bureau, Kobe International Center for Cooperation and Communication
	JICA Center	JICA Kansai (II)
	Cooperation Period	2010～2012
	Remarks and Website	

Volcanic Disaster Prevention and Management for Central and South American Countries
中南米地域 火山防災能力強化

Region-Focused Solution | 1284264 Updated

10 participants

Target Countries : Latin American Countries

Sector : Water Resources/Disaster Management/Other Water Resources/Disaster Management Issues

Sub-Sector :

Language : Spanish

Appeal

Improve the countermeasure against volcanic disaster by creating good coordination between government and community, referring to Hokkaido's experiences.

Objective/Output	Target Organization / Group
【Objective】 The plan to improve the capacity of volcanic disaster management is officially formulated by the participant's organization based on the proposed "Action Plan" by respective participants. 【Objective for each unit】 1. To identify the issues of the volcanic disaster management in participants' country / area through understanding how to grasp volcanic disaster risk in Japan 2. To identify the issues of the volcanic disaster management in participants' country / area by understanding the disaster prevention plans and schemes in volcanic disaster vulnerable area in Japan. 3. To propose ideas for productive usage of volcanoes as resources for regional promotion by learning cases in Hokkaido 4. To propose appropriate and feasible "Action Plan" for volcanic disaster management in participants country/regions.	Central/Local government, University, Research Institutes and NGOs in charge of the group work for volcanic disaster prevention and management Senior staff in charge of volcanic disaster prevention and land use. More than five (5) years' experience in the field of volcanic disaster prevention and management

Contents		
1. Volcanology, Volcanic disaster, case study, Local government's operation for volcanic eruption and disaster (evacuation), Volcanic mudflow and sediment control in Hokkaido, Volcanic eruption and risk management in the world 2. Science of real-time monitoring, Eruption forecast and damage mitigation, Volcanic, Earthquake & tsunami disaster and Remote sensing, Cooperation among stakeholders for reducing damage, Human being and Disaster, Disaster recovery, Education program for following generation 3. Live symbiotically with volcanic mountain, Tourism around Volcanic area / UNESCO Geopark 4. Country Report Presentation, Mid-Term Discussion (see Annex II for Mid-Term Discussion), Group discussion, Proposing Action Plan	Program Period	2012 / 6/ 5 ～ 2012 / 7/12
	Implementing Partner	Crisis & Environment Management Policy Institute
	JICA Center	JICA Hokkaido (Sapporo)
	Cooperation Period	2012～2014
	Remarks and Website	