17. Environmental Management

PITD Leaders Sector : Environmental Management

1080100

**尾薬物管理技術と環境教育** Sub-Sector : Environmental Administration 18 participants English TARGET ORGANIZATION / GROUP **OBJECTIVE** This program is designed for officers and engineers relating to waste management or environmental Government officers and engineers in charge of waste management will gain education in central or local government. capacity to formulate basic policy for proper Solid Waste Management (SWM) and Environmental Education (EE). <Outputs> 1) To clarify the issues and causes of solid waste management in own countries. 2) To understand the historical process of environmental policy and waste management system in Japan. 3) To understand the techniques and measures adopted in each process of solid waste management (collection and transportation, intermediate treatment, final disposal) in Japan. 4) To understand the importance and concrete methods of environmental education/awareness for solid waste management 5) To propose basic policy towards proper waste management in own countries. Sep / 11/2010 Jun / 20 / 2010 CONTENTS Participants will learn followings through lectures, site visits, and practices; IMPLEMENTING Kitakyushu International PARTNER Technocooperative Association (KITA) 1) Issue analysis-workshop and interim discussion JICA CENTER JICA Kyushu 2) · Countermeasure for environmentin Kitakyushu city ·Solid waste management administration and environment impact assessment COOPERATION 2008~2010 3) · Flow of general waste PERIOD ·Compost from kitchen garbage Incineration and hazardous waste treatment 4) · Regulation and structure of final disposal site · Good example of final disposal site in Samoa The course will be ocnducted twice REMARKS 5) · Environmental educationadministration in Kitakyushu in Japan fiscal year 2010: Jun. 2010 and NGO activity in local area - Sep.2010 and Feb. 2011 - May WEBSITE 6) Project Cycle Management 2011. Action Plan

Adaptive Watershed Management for Flood Countermeasures by Climate Change and Conservation of Ecosystem 気候変動による洪水対策と生態系保全のための順応的流域管理

PITD Trainers Environmental Management Sub-Sector : Environmental Administration 1080765

8 participants

English

**OBJECTIVE** 

TARGET ORGANIZATION / GROUP [Target Organizations] Project implementation

PROGRAM

[Course Objective] Adaptive watershed management methods will be systematically shared among organizations operating flood control and ecosystem conservation for watershed management by having midlevel working and senior administrative officers from the target organizations (a three-year objective).

[Expected Module Outputs] 1. First and Second year program: (1) To be able to explain the effects of climate change on the watersheds of their respective areas and discuss the possibility of introducing adaptive watershed management method, (2) To be able to analyze current flood risks and the conditions/patterns of ecosystem destruction in the watersheds of their respective areas and explain tasks related to area management methods and ongoing adaptive measures, (3)To formulate the Action Plan (draft) for an adaptive watershed management project in the target country. 2. Third year program: In addition to the Outputs (1) to (3), (4) To formulate the Action Plan of necessary method for adaptive management planning applicable to the watersheds in the target country.

months after returning home countries.

organizations engaging in flood control or ecosystem conservation in watershed areas [Target Group]1. First and second year: Midlevel working officers in charge of flood control and ecosystem conservation projects 2. Third year: Senior administrative officers of organizations related to flood control and ecosystem conservation and academic experts involved in management plans for individual watershed. It is strongly recommended for the same organizations related to flood control and ecosystem conservation to nominate an applicant every year.

the Program.

CONTENTS	PROGRAM PERIOD	Aug / 15 / 2010 ~ Oct / 16 / 2010
[Preliminary Phase in home country]Submission of Report (Present issues) [Core Phase in Japan]Following lectures, practical exercises, observations and	IMPLEMENTING PARTNER	Hokkaido University, Hokkaido Development Bureau
	JICA CENTER	JICA Obihiro
Post-Kyoto Protocol framework, Fundamentals of landscape ecology, Dams and watershed control (2) Conservation method of ecosystem, Flood plain management and Resident activities, Flood plain management methods, biodiversity and flood	COOPERATION PERIOD	2009~2011
frequency, River flood control and biodiversity conservation, Basic knowledge and operation of GIS, Flood plain management methods using GIS, Protection of biodiversity and small mammals (3) Workshop: Issue analysis, Capacity development, Consensus building, Cooperation with NGOs  2. Third year program: In addition to the Outputs (1) to (3), (4) D: Issues on the Action Plan (draft)  [Finalization Phase in home country] Submission of the Final Report within six	REMARKS and WEBSITE	Since the program objective is designed to be attained through 3 years, the duration of each year's program differs as follows:  -First and Second year: 60 days  -Third year: 21 days FY 2010 is the second year of

#### Environmental Impact Assessment in ODA Projects (EIA as a Tool for Sustainable Development) ODAにおける環境影響評価(持続可能な開発のための環境アセスメント研修)

PITD Trainers
Sector : Environmental Management
Sub-Sector : Environmental Administration

18 participants

English

1080936

#### **OBJECTIVE**

[Objective] This program is designed for examining authorities of Environment Impact Assessment (EIA) and implementing bodies of large-scale development projects which require EIA in National / Local Government or other relevant organizations.

[Expected Result] (1) To be able to explain the basic concepts of EIA, necessary procedures and the difference in the EIA systems between Japan and their own country and to be able to understand the efforts of international aid agencies for environmental considerations and to explain the requirements expected in the development projects (2) To be able to explain necessary points of the EIA examination and necessary technical methods to conduct EIA (3) To be able to explain a process to conduct EIA smoothly and communication methods with residents etc.

#### TARGET ORGANIZATION / GROUP

[Target Organization]

Examining authorities of Environment Impact
Assessment (EIA) and implementing bodies of
large-scale development projects which require EIA
in National / Local Government or other relevant
organizations

[Target Group] (1) To be technical administrative officers in charge of EIA and/or planning and implementation of large-scale development projects and ODA projects (2) To have basic knowledge and more than three y ears of working experience in EIA (3) To be under forty-five (45) years of age (in principle) and to be university graduates or posses the equivalent background in the field

#### CONTENTS Jun / 27 / 2010 ~ Jul / 24 / 2010 [Preliminary Phase] Submission of Inception Report and Questionnaire **IMPLEMENTING** OVERSEAS ENVIRONMENTAL [Core Phase] **PARTNER** COOPERATION CENTER, JAPAN Purpose and concept of EIA and the EIA system in Japanese situation of the EIA system in their own country JICA CENTER IICA Tokyo(Economy&Env.) Examination system of EIA in Japan, key points of examination (how to check COOPERATION EIA report), case studies 2010~2012 PERIOD Process and communication methods required for EIA etc. [Finalization Phase] Development of a plan to conduct EIA based on specific development projects (exercise), Discussion on the improvements of the above plan and points of the examination, Discussions on the improvement of the EIA system in their own REMARKS and countries WEBSITE

Measures Against Urban Environmental Problems 都市生活型の環境問題	Sub	PITD Solution 1080215 Sector (Environmental Meragament -Sector Environmental Administration
		8 participants 🖊 English
OBJECTIVE	TARG	SET ORGANIZATION / GROUP
[Objective] Plan to cope with urban environmental problems is officially formulated in the participant's belonging organization based on the Action Plan proposed in Japan	[Target Organizations] Central or Local Government in charge of urban environmental affairs (Preferably local government)	
[Outputs] 1.Understand water supply and sewage system in urban area 2.Understand control and monitoring system of air pollution in urban area 3.Understand waste management and recycling in urban area 4.Learn advanced approaches/methods of the environmental education 5.Propose an Action Plan to cope with urban environmental problems in the participant's respective countries	[Target Group] 1.Administrative officers in charge of urban environmental affairs (such as air and water pollution, sewage disposal, waste management etc.) at central/local government (preferably local government) 2.Individuals with at least 3 years of practical work experience	
CONTENTS	PROGRAM PERIOD	Jan /18/2011 ~ Mar / 2/2011
[Preparatory phase] Preparation and submission of Country Report [Phase in Japan] 1. Water supply and sewage system: Water pollution control, Groundwater pollution	IMPLEMENTING PARTNER	North Region Center, City of Sapporo
control & soil pollution control, Water works in Sapporo city, Sewage treatment	JICA CENTER	JICA Sapporo
plant, Water quality control laboratory  2. Control and monitoring system of air pollution: Air pollution controls in Sapporo city, Atmospheric environment monitoring system, Measures against hazardous	COOPERATION PERIOD	2006~2010
chemical substances, Atmospheric environment monitoring station 3. Waste management and recycling: Waste disposal administration of Sapporo city, Collection and transport of waste material, Intermediate treatment and recycling technology, Incineration plant, Final disposal landfill site, Treatment of medical waste 4. Advanced approaches/methods of the environmental education 5. Propose an Action: PCM (Project Cycle Management) method [Finalization Phase]	REMARKS and WEBSITE	

activities like documentation and

presentation.

will be wiped out and on the contrary, creates good relationship. Strategy of public

participation to local environment management by each sector will be considered.

(4)Composing Action Plan

[Finalization Phase] Implementation of the action plan

Mega-City Environmental Policy and Environmental Management System 大都市地域環境政策・環境マネージメントシステム	PITD Solution 1080: Sector : Environmental Management Sub-Sector : Environmental Administration		t .
Target Countries: With the mega-cities with more than 1 million people		10 participants 🖊	English
OBJECTIVE	TARGET ORGANIZATION / GROUP		
Capacity of participating organization will be improved and the process of formulation of Environment Management Plan will be indicated.  (Preparatory Phase in Participants' respective countries) 1) Country reports summarizing problems and issues of the organizations are facing are formulated.  (Phase in Japan) 2) Priority issues of participating organization will be identified through lectures about history and case study of environmental problems in Japan/Osaka and also through disucussion among participants.  3) Participants will learn the methodology of planning for both indivisual and integrated environment management plan.  4) Participants will learn the environment management system with PDCA cycle.  5) Draft process sheet for formulation of environment management plan will be formulated.  (Finalization Phase in participants' home countries) 6) Draft process sheet will be shared and examined in participating organization.	Officials of the division in National/Local government with responsibility for planning and implementation of environmental policy for the mega-cities with a population of more than 1 million people.  Two persons per year, totally six persons for this three year's training course from same organization		anning and cy for the than 1 million rsons for this
CONTENTS	PROGRAM PERIOD	May / 10 / 2010 ~ J	ul / 3/2010
organizations are facing •Formulation of country reports •Lectures and discussion about following theme, Fraging mental problems (air pollution, water, solid waste) in Japan and Osaka city	IMPLEMENTING PARTNER	GloTo be decided	
	JICA CENTER	JICA Osaka	
	COOPERATION PERIOD	2010~2012	
	REMARKS and WEBSITE		

Marine Environment Protection for Senior Officials in the Maritime Authorities and PITD Solution 1080822 Law Enforcement Authorities 海事及び法令執行機関における上級職員のための海洋環境保全 Sector: Environmental Management Sub-Sector : Environmental Administration 8 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP [Course Objective] [Target Organizations] The issues on the effective policies for marine environment protection will be Coast guard or maritime authority obliged to marine directed, and the practical measures to the issues on above field will be formulated. pollution prevention work [Expected Module Output] [Target Group] (1) The present situation and activities, issues of marine environment protection in (1) Individuals in a managerial position. respective countries will be clarified. (2) Individuals who have more than 5 years of (2) The international framework of marine environment protection will be clarified. occupational experience in the above field. (3) The way of strengthening the cooperation and networking among the neighboring countries, and the applicable measures to respective countries will be clarified. (4)The present situation and activities of marine environment protection in Japan, and the applicable measures to respective countries will be clarified. (5) The action plan on how to develop and promote the effective policy of marine environment protection will be formulated. CONTENTS Jan / 18/2011 Mar / 5/2011 Activity in Preliminary Phase in home country> IMPLEMENTING Preparation of the County report which describes the present situation of marine Japan Coast Guard Association PARTNER environment protection in the participants' countries, and participants' detailed work and roles of their organization JICA CENTER JICA Okinawa ⟨Activity in Core Phase in Japan⟩ COOPERATION This program consists of lectures, field work, observation tours and discussion. 2008~2010 **PERIOD** (1) Country report presentation and discussion. (2) International conventions relating to the marine environment protection including UNCLOS, MARPOL, OPRC, etc (3) Outline of the way of strengthening the cooperation and networking among the neighboring countries. (4) Outline of the Japan Coast Guard, Outline of the REMARKS ordinance / legislation of marine environment protection, Outline of discharged oil and /water analysis and oil spill combating, Off-shore and air surveillance. (5) WEBSITE Formulation and presentation of an action plan (Activity in Finalization Phase in home country) Share and discuss, modify the action plan in respective organizations

KOICA-JICA JOINT TRAINING PROGRAM「Policy and Technology for Energy Conservation and Environmental Protection in East Asia」 日韓共同研修「東アジア環境・省エネルギー政策と技術」	Sub	PRTD Leaders 1084137 Sector: Environmental Management -Sector: Environmental Administration
Target Countries: South East Asia and East Asia	<u> </u>	14 participants / English
OBJECTIVE		ET ORGANIZATION / GROUP
[Objective] Government administrative officers and researchers in developing countries, who are in energy conservation or environmental protection in national/local government become able to set basic policy strategies to address own problems.  [Expected Results] (1) To understand the outline of energy conservation and environmental protection at national and local level in Korea and Japan, and in East Asia. (2) To observe and understand the concrete activities taken by national/local government and private companies. (3) To understand environmental education with community participation. (4) To propose "action plan" for energy conservation and sound material cycle society in own countries.	Department which deals with Policy and Technology for Energy conservation and Environmental protection in national/local government or Institution	
CONTENTS	PROGRAM PERIOD	Oct / 17 / 2010 ~ Oct / 30 / 2010
Participants will learn followings through lectures, sitevisits, and discussions.	IMPLEMENTING	Kitakyushu International
그렇게 하는 얼마를 잃었는데 살아지나 살아 보면 하는데 말이 하는데 하는데 하다.	PARTNER	Techno-cooperative Association (KITA)
1) Governmental strategy for environmental protection in Japan and Korea 2) Measures taken in private enterprises for environmental protection		Techno-cooperative Association (KITA)  JICA Kyushu
1) Governmental strategy for environmental protection in Japan and Korea 2) Measures taken in private enterprises for environmental protection 3) Environmental education initiated by community 4) Formulation of action plan, utilizing the program	PARTNER	Techno-cooperative Association (KITA)

Enhancement of Administrative Capacity for Promoting Environmental Education 環境教育推進のための行政能力強化	Sub-	PRTD Solution 108429 Sector : Environmental Management Sector : Environmental Administration
Target Countries: Chile		10 participants / Spanish
OBJECTIVE	TARG	ET ORGANIZATION / GROUP
[Objective] The action plan for promoting the environmental education model which developed in the JICA exhibital cooperation project at each municipality will be shared in the trainee's organization.  [Outputs] I/Through formulation and presentation of job reports and following discussion, trainees can clarify the thallenges for promoting environmental education in their areas 2/Trainees can explain the concept of ESD/Education for Sustainable Development) and current situation of ESD in Japan 3/Trainees can explain the activities related to environmental education in Nishinomiya City 4/Trainees can figure out their challenges and formulate action plans to solve them.  5/Trainees can develop their action plans after they go back and share in their organizations	Chile from Novem	
CONTENTS	PROGRAM PERIOD	Feb /13/2011 ~ Mar / 5/2011
This training aims to formulate plans for introduction of environmental education through learning the case of Nishinomiya City.	IMPLEMENTING PARTNER	NPO: Learning and Ecological Activitie Foundation for Children (LEAF)
1)To formulate and present job reports	JICA CENTER	JICA Hyogo
2)•The workshop for basic understanding of ESD Lectures of current situation of ESD in Japan 3)•Lectures of an environmental policy in Nishinomiya City	COOPERATION PERIOD	2009~2011
To visit schools for viewing the environmental learning  To visit waste disposal centers and private businesses' activities for waste reduction  Discussion with Eco-community members		
4)•To study a method of action plan formulation To formulate and present action plans	REMARKS and WEBSITE	Thia Course is closly connected with on going Technical Cooepration Project in Chile.

Human resource development program in environmental management and material cycle society (Master's Degree: Engineering or Environmental management) 環境管理と資源循環型社会を担う中核的人材育成(長期)	LONG-TERM Leaders 108120 Sector: Environmental Management Sub-Sector: Environmental Administration		
	en de la companya de	5 participants / English	
OBJECTIVE	TARGET ORGANIZATION / GROUP		
[Objective] The ability of environmental management and research for officers in central/local government and researchers in institution and university is improved.	Central/local government, research institute and university relating to environmental management and material cycle society		
[Expected Results] (1)To acquire the knowledge and measures of formulating policy and planning for sustainable environment (2)To acquire the knowledge and measures for analyzing substances in water and atmosphere, and pollution in groundwater based on physical, chemical and biological aspects. (3)To acquire the knowledge and measures for process developments, designing and analysis through learning various kinds of unit processes and analysis/monitoring methods to promote environmental protection and material cycle society. (4)Training on thesis writing			
CONTENTS	PROGRAM PERIOD	Sep / 20 / 2010 ~ Sep / 30 / 2012	
This program is designed for administrative officers and researchers who are in charge of environmental management and sound material cycle society to strengthen their capacity through acquiring master course degree of environment	IMPLEMENTING PARTNER	The University of Kitakyushu	
engineer and environment management.	JICA CENTER	JICA Kyushu	
(1)Environmental Economics, Environmental Reporting and Accounting, Environmental Policy and Administration, System of Sustainable Management, Urban Environmental Assessment and Planning, etc (2)Analysis of Toxic Chemicals in Environment, Aquatic Environment and Engineering, Remediation of Soil and Groundwater, etc (3)Environmental Preservation Engineering, Recycling Engineering, Environmental Information Technology and Computer Simulation, etc. (4)Special Study I, II	COOPERATION PERIOD	2009~2011	
	REMARKS and WEBSITE	University of Kitakyushu Faculty of Environmental Engineering website: http://www.kitakyu-u.ac.jp/env/lan g_en/	

Air Quality Management Policy 大気保全政策 1080864 PITD Solution Sector : Environmental Manas Sub-Sector : Air Pollution/Acid Rain 10 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP Participants are expected to contribute to the improvement of air pollution policy ·University graduates or holders of equivalent in their own countries by making the best use of the knowledge and technology on technical knowledge/qualification air quality management policy acquired in Japan. ·More than three years professional experience I to be able to explain the whole system of air quality management, · Technical officials in the central or local 2 to be able to explain the technologies on air pollution countermeasures government responsible for air quality control (stationary and mobile sources) applicable to their own countries, 3 to be able to explain the monitoring methods of various air pollutants, CONTENTS under planning L:History of Japan's Countermeasures against Air Pollution IMPLEMENTING L:Air Pollution Control Administration Japan Environmental Sanitation Center PARTNER L:Outline of Air Pollution Issues L:Environmental Quality Standards and Health Effect JICA CENTER JICA Tokyo(Economy&Env.) L:Countermeasures against Hazardous Air Pollutants COOPERATION L: Air Pollution Control Technology and Energy Issues 2010~2012 **PERIOD** L: Air Pollution Control Measures by Private Enterprises (1)Power Company L. Air Pollution Control Measures by Private Enterprises (2)Steel Company O: Air Pollution Countermeasures of Small and Medium sized Enterprises O: Municipal Solid Waste Incineration Plant REMARKS L/P: Techniques for Measurement of Air Pollution and Sampling and

O; Ambient Air Telemetry System O: Roadside Ambient Monitoring Station P:Techniques for Measurement of Air Pollution WEBSITE

KOICA-JICA JOINT TRAINING PROGRAM「Environmental Protection Technolo Management for Air Pollution Control」 日韓共同研修「大気環境保全管理」	gy & PRTD Leaders 1084138 Sector : Environmental Management Sub-Sector ? Air Pollution/Acid Rain
Target Countries: South East Asia and East Asia	16 participants 🖍 English
OBJECTIVE	TARGET ORGANIZATION / GROUP
Government administrative officers and researchers in developing countries, who are in charge of air quality management or monitoring in national/local government become able to set basic policy strategies to address own problems.  (1)To understand basic knowledge on air pollution problem (2)To understand the policy and regulation for air quality management at central and local government in Korea and Japan. (3)To acquire the knowledge of monitoring and inspection system taken by national/local government in Korea and Japan. (4)To observe and understand monitoring methodologies for prevention of environmental pollution by private company. (5)To propose "action plan" for air quality management in own countries.	1) Individuals with more than 5 years experience of administrative or research work in the area of air quality management 2) Administrative engineers and researchers in the field of air quality management 3) Age: 30-45 years old
CONTENTS	PROGRAM   Aug / 28 / 2010   ~ Sep / 11 / 2010
Korea: 1) Global environmental issues 2) Indoor air pollution	IMPLEMENTING Kitakyushu International Techno-cooperative Association (KITA)
3) Toxic organic and inorganic chemicals in atmosphere (POPs)	JICA CENTER JICA Kyushu
4) VOC control technology 5) Introduction of Research Institute of Public Health and Environment 6) Air quality policy in Korea	COOPERATION 2008~2010
Japan:  1) Observation of ambient air quality monitoring center  2) History and current state of air pollution control in Japan  3) Administrative measures for air pollution control  4) Administrative regulation of automobile exhaust gas  5) The way for promoting comprehensive air pollution control  6) Dust collection technology  7) Removal techniques of sulfur and nitrogen oxides	REMARKS and WEBSITE  REMARKS and WEBSITE  This program is implemented jointly by JICA and KOICA, Korea International Cooperation Agency. Participants will join programs in Korea from Aug. 15, 2010 to Aug. 28, 2010 before coming to Japan.

PRTD Solution Sector · Fruiromental Mana Sub-Sector: Air Pollution/Acid Rain

108428

9 participants

English

#### **OBJECTIVE**

Target Countries: All countries

Capacity of participating organization on making plans countermeasures for automobile pollution is improved.

[Expected Results] (1) The situation reports summarizing problems and issues of countermeasures against automobile pollution are formulated and based on the situation reports and discussions, participants are able to analyze problems and issues of countermeasures against automobile pollution. (2)Participants are able to explain about countermeasures against automobile pollution in the case of Japan. (3) Participants are able to explain how to measure, monitor and control air pollutant exhausted by automobile, (4)Participants are able to explain about city planning and education programs which are effective in prevention of automobile pollution, (5)Draft training plans for dissemination of applicable knowledge and skills about countermeasures against automobile pollution are formulated, shared and examined in their respective organization.

### TARGET ORGANIZATION / GROUP

< Target Organization >

Division in national/local government which in charge of policy planning on countermeasure against automobile pollution in urban area

<Target Group>

1) Administrative/Technical officers in charge of policy planning on countermeasure against automobile pollution in urban area

2) Experience in the relevant feild: have more than 3 year's experience

CONTENTS	PROGRAM PERIOD	Sep / 20 / 2010 ~ Nov / 13 / 2010
This training is designed for deepen understandings of automobile emissions and for	HAIL COMPANY AT 1 1 40	Global Environment Centre Foundation (GEC)
strengthening capacity on making plans countermeasures for automobile pollution.	PARTNER	http://gec.jp/
(1)Formulation of the situation reports summarizing problems and issues of countermeasures against automobile pollution in participants' respective countries	JICA CENTER	IICA Osaka
·Presentation/discussion of situation reports	COOPERATION	J
(2) Lectures on overview/history of countermeasures against automobile pollution	PERIOD	2009~2011
based on the case study from Osaka area •Lectures on legal structure related to automobile pollution		This program is aiming at
(3) Practical work on measurement of auto emission, figuring out the amount of		strengthening capacity of
emission. Site visit to facilities.		organization as well as individuals
(4) Lectures on City Planning aiming at Environmentally Sustainable Transport (5) Formulation of "draft training plans for dissemination of applicable knowledge	REMARKS and	through 3 year's program. It is desirable that participants are
and skills about countermeasures against automobile pollution. Finalization of draft	l	selected from the same organization
training plans.		through 3 yeras.

## The Acid Deposition Monitoring Network in East Asia 東アジア酸性雨モニタリングネットワーク強化

Target Countries: EANET cooprative countries in East and South East Asia

PRTD Solution Sector : Environmental Mer

1084078

Sub-Sector: Air Politition/Acid Rain

6 participants

English

#### **OBJECTIVE**

[Objectives] To develop the ability of mid-level engineers who are involved in EANET(Acid Deposition Monitoring Network in East Asia) activities in each countries, in order to improve each countries' abilities to monitor and evaluate the current situation of damage by acid deposition, reduce the pollutants coused for acid rain. [Outputs]

(1) To analyze damage and countermeasures of acid deposition in each countries

(2) To understand Japan's history, experiences, current situation and countermeasures in this field

(3) To improve the technique and accuracy of monitoring through practical

(4) To make action plans that answer to each countries' challenges

#### [Target Organizations]

Organizations engaging in the operation of the Acid Deposition Monitoring Network in each countries in East Asia (EANET)

TARGET ORGANIZATION / GROUP

[Target Group]

An engineering official or researcher engaged in the issue of acid deposition or air pollution and also related to EANET activities.

·Experience: have more than 3 years' experience in the field of asid deposition monitoring

·Educational Background: be equal or surpassing to a graduate of university

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CONTENTS	PROGRAM PERIOD	Oct / 17/2010 ~ Dec / 18/2010
countries.	IMPLEMENTING PARTNER	Hyogo Environmental Advancement Association
2. •To study the role of central government, local government and business enterprises and their countermeasures, development of legal systems.	JICA CENTER	JICA Hyogo
• To iconduct field research at smoke generation facilities, smoke treatment facilities and air environment observation facilities.  3. • To learn skills of monitoring on wet and dry deposition, monitoring on soil, vegetation and inland aquatic environment, monitoring on air pollutant.  • Exercise of quality management and quality control  • Transportation of air pollutants and generation source inventory.  4. • To review the training  • To formulate an action plan for solving problems analysed at the beginning.  • To discuss for the regional cooperation in East Asia	COOPERATION PERIOD	2008~2010
	and	The result of this training course is highly evaluated for capacity-building of participating countries at the EANET governmental conference.

Issue analysis sheet

(5) Presentation of proposal (Action plan)
Presentation for the final report

and

WEBSITE

Water Environmental Monitoring 水環境モニタリング	Sub	PITD Leaders 1080962 Sector : Environmental Management -Sector : Water Pollution
		10 participants 🖊 English
OBJECTIVE	TARG	ET ORGANIZATION / GROUP
[Objective] This program is designed for leading technical officers and laboratory staffs in the field of water quality monitoring to enhance technical capabilities and helping them develop action plans for improving their operations.  [Expected Results]  1. To be able to explain relations between various social activities and water pollution, spreading mechanism of the pollutants in the water environment and their effect on ecosystems  2. To be able to explain the water quality management system based on water quality monitoring  3. To gain essential and most relevant skills and methods to water quality monitoring and data processing and to make practice report  4. To analyze the challenges on water quality monitoring done in respective countries and to formulate an action plan	[Target Organization] This program is offered to central/local government and public institutions in charge of water quality monitoring [Target Group] (1) be technical officers or laboratory staffs in the field of water quality monitoring in central/local government or public institutions, (2) be university graduates (science or engineering) or have the equivalent academic background, and have enough knowledge on water environment, (3) not be less than twenty five(25) and not be more than thirty five (35) years of age, (4) have sufficient command of discussing and making presentation in English	
CONTENTS	PROGRAM PERIOD	Sep / 5/2010 ~ Oct / 23/2010
[Preliminary Phase] Formulation of the Counrt Report [Core Phase] L: History of Water Pollution Problem in Japan	IMPLEMENTING PARTNER	National Environmental Research and Training Institute
L. Mechanism of Water Pollution	JICA CENTER	JICA Tokyo(Economy&Env.)
L/V: Water Pollution and Its Effect L: Method of Sampling P: Measurement of Flow Rate and Velocity P: Analysis of Poisonous Organic Compound / Agrichemicals (HPLC) P: Analysis of Volatile	COOPERATION PERIOD	2010~2012
Organic Compound (Headspace/GC/ECD) P: Analysis of Volatile Organic Compound (Headspace/GC/ECD) P: Analysis of Organic Compound(COD/TOC) P: Analysis of Microorganism P: Analysis of Benthic Environment P: Analysis of Poisonous Metal (AAS) P: Method of Analytical Data Processing [Pinalization Phase]  Action Plan introduction (presentation or discussion with related persons)		

respective organization, then reports Action Plan progress to JICA		
Sewerage Technology for Wastewater Control and Urban Drainage 下水道維持管理·都市排水		PITD Trainers 1080105 Sector: Environmental Management Sector: Water Pollution 10 participants
OBJECTIVE	TARG	ET ORGANIZATION / GROUP
or skills shall be shared in his/her organization.  [Expected Results] (1) To acquire basic knowledge of sewerage systems and wastewater treatment (2) To acquire knowledge necessary for planning and designing of sewerage systems (sewer network, wastewater treatment plants) (3) To acquire knowledge necessary for maintaining sewerage systems (sewer network, wastewater treatment plants)	[Target Organizations] National/Local authority in charge of wastewater treatment, sewage work and stormwater drainage [Target Group] (1) be university graduate or those who have equivalent technical qualifications in this field, and have more than five(5) years of practical experienc (2) be senior technical officers in charge of sewerage and drainage management in central /local government	
CONTENTS	PROGRAM PERIOD	Aug / 23 / 2010 ~ Nov / 6 / 2010
[Preliminary phase in Participant's home country]  Country Report is formulated to clarify the present situation and problems in the	And the second second	Public Works Bureau of Osaka City Government and Osaka City Sewerage Engineering Association
sewerage system of the participating country.  [Program in Japan]	JICA CENTER	JICA Osaka
(1) C. It and does not the population and attraction of converge system in Japan	COOPERATION PERIOD	2008~2010
Observation)		

Operation and Maintenance of Sewerage System and Waste Water Treatment Technique 下水道維持管理システムと排水処理技術	PITD Trainers 1080103 Sector : Environmental Menagement Sub-Sector : Water Pollution
	9 participants ✓ English
OBJECTIVE	TARGET ORGANIZATION / GROUP
[Objectives] Based on the Action Plan proposed by respective participant, the knowledge or skills shall be shared his/her organization. [Outputs] (1) To review basic knowledge of sewerage systems and wastewater treatment (2) To acquire knowledge necessary for planning and designing of sewerage systems (sewer network, wastewater treatment plants) (3) To acquire knowledge necessary for maintaining sewerage systems (sewer network, wastewater treatment plants) (4) To acquire knowledge necessary for industrial wastewater treatment and pretreatment facilities for discharge to sewerage systems (5) To propose sewerage systems improvement plans as "Action Plans" for the participant's respective countries, with a clear understanding of relevant experiences and knowledge acquired in the	Target Organizations  National/Local authority in charge of sewerage system operation and maintenance
respective countries, with a clear understanding of relevant experiences and knowledge acquired in the course  CONTENTS	PROGRAM   Jan / 10/2011 ~ Mar / 12/2011
(1)—Japanese regulation and situation of sewerage system —Sewerage in Kitakyushu —Basic planning for sewerage system	IMPLEMENTING PARTNER  Kitakyushu International Techno-cooperative Association (KiTA)
(2)—Sewer network planning — Construction and designing of sewage treatment facilities	JICA CENTER JICA Kyushu
- Principles of biological treatments and selections of treating methods  (3) - Construction of sewer network	COOPERATION 2008~2010
<ul> <li>Operation and maintenance of sewer network</li> <li>Maintenance of wastewater treatment facilities</li> <li>Water quality practices and effective use of sewage sludge</li> <li>(4) - Water quality regulation of industrial wastewater</li> <li>Water quality inspection of industrial wastewater</li> <li>Wastewater treatment facilities</li> <li>(5) - Job report preparation (in advance), and presentation</li> <li>Action plan preparation, and presentation</li> <li>Report to JICA the progress of knowledge/skills sharing among the respective organization.</li> </ul>	REMARKS and WEBSITE

Sub	PITD Solution 1080997 Sector: Environmental ManagementSector: Water Pollution	
TARG	ET ORGANIZATION / GROUP	
[Target Organization] Department which is incharge of environmental management of enclosed coastal seas [Target Group] •officers, educators, and engineers in administrative bodies who presently need information and /or experience on the environmental management of enclosed coastal seas •Job experience: more than 3 years in the field •Age: from 26 to 44		
PROGRAM PERIOD	Sep / 5/2010 ~ Oct / 30/2010	
IMPLEMENTING PARTNER	International Center for Environmental Management of Enclosed Coastal Seas (EMECS)	
JICA CENTER	JICA Hyogo	
COOPERATION PERIOD	2010~2012	
REMARKS and WEBSITE		
	TARG [Target Organ Department wh management of [Target Group officers, educa bodies who pre experience on enclosed coast. • Job experienc • Age: from 26  PROGRAM PERIOD  MPLEMENTING PARTNER  JICA CENTER  COOPERATION PERIOD	

Domestic Wastewater Treatment Techniques 生活排水対策	Sub-	PITD Solution 1980006 Sector : Environmental Management Sector : Water Pollution
	8 participants / English	
OBJECTIVE	TARG	ET ORGANIZATION / GROUP
<objective> Effective policy targeting waste water management is formulated by corresponding organizations in central / local government. <output></output></objective>	This program is offered to technical staffs dealing with waterworks and sewerage in central/local government.	
Being able to explain measures taken by central / local government in Japan regarding waste water management.  Being able to propose effective measures based on basic idea of waste water management systems and techniques.  Being able to explain and apply how to measure pollution  Being able to explain effective treatment measures against pollution from viewpoint of water recycle and water circulation  Action plan is formulated, and its implementation is reported through final report.		
ANIPPLIFA	PROGRAM PERIOD	A / 90 / 9010 D / 11 / 9010
CONTENTS  Participants will learn followings through lectures, site visits, practices and	PERIOD	Aug / 22 / 2010 ~ Dec / 11 / 2010 KITAKYUSHU INTERNATIONAL
discussions:	PARTNER	TECHNO-COOPERATIVE ASSOCIATION
(1) Wastewater treatment systems in Japan (2) Sewerage treatment systems	JICA CENTER	JICA Kyushu
(3) Monitoring and management of pollution (4) Water treatment techniques	COOPERATION PERIOD	2010~2012
(5) Presentation of Action Plan		
	REMARKS	
불度後, 사용하는 바이지 () 전에 되는 것 確認 () 실수 (화사 () 전 () 라마니 () 이 () 이 () 이 () 이 () () () () () () () () () () () () ()	and WEBSITE	
[발표] [발표] 12 - 12 - 12 - 12 - 12 - 12 - 12 - 12	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Industrial Wastewater Treatment Technique 産業廃水処理技術	Sub-	PITD Solution 1080815 Sector: Environmental Management Sector: Water Pollution
		8 participants / English
OBJECTIVE	TARG	ET ORGANIZATION / GROUP
[Objectives] Enhance the capability of officials and engineers in charge of industrial wastewater treatment to formulate adequate plans of industrial wastewater treatment in participant's countries. [Outputs]	[Target Organizations] Departments related to wastewater treatment in the central/local government or manufacturing enterprise. [Target Group] 1) Current Duties: be engineers in charge of wastewater treatment in government / municipal offices or manufacturing industries 2) Experience in the relevant field: have more than more than 5 years of occupational experience in the field of wastewater treatment	
<ul> <li>(1) To understand the importance of wastewater treatment and the water pollution</li> <li>(2) To understand the water pollution control process, and the general concept of wastewater treatment technologies</li> </ul>		
<ul> <li>(3) To acquire the method of selecting wastewater treatment by analysis, and the basic design of wastewater treatment facilities</li> <li>(4) To understand the techniques concerning the detail design and manufacturing</li> </ul>	2) Experience i more than 5 ye the field of was	facturing industries n the relevant field: have more than ars of occupational experience in tewater treatment
basic design of wastewater treatment facilities	2) Experience i more than 5 ye the field of was 3) Educational graduate, major	facturing industries n the relevant field: have more than ars of occupational experience in
basic design of wastewater treatment facilities  (4) To understand the techniques concerning the detail design and manufacturing control of the facilities for precipitation filtration, neutralization, removal of oil contents etc.	2) Experience i more than 5 ye the field of was 3) Educational graduate, major electrical or civ	facturing industries  n the relevant field: have more than ars of occupational experience in tewater treatment Background: be a university ring in chemical, mechanical,
basic design of wastewater treatment facilities  (4) To understand the techniques concerning the detail design and manufacturing control of the facilities for precipitation filtration, neutralization, removal of oil contents etc.  (5) To formulate action plans, utilizing contents of the program.  CONTENTS  1. Preliminary Phase in a participant's home country Applying organizations are required to submit the Job Report and the Issue	2) Experience i more than 5 ye the field of was 3) Educational graduate, major	facturing industries In the relevant field: have more than It is not compational experience in It is ewater treatment It is a university It ing in chemical, mechanical, It is engineering, or the equivalent.
basic design of wastewater treatment facilities  (4) To understand the techniques concerning the detail design and manufacturing control of the facilities for precipitation filtration, neutralization, removal of oil contents etc.  (5) To formulate action plans, utilizing contents of the program.  CONTENTS  1. Preliminary Phase in a participant's home country Applying organizations are required to submit the Job Report and the Issue Analysis Sheet together with the application form for selection in Japan.  2. Core Phase in Japan (Lecture, practice and/or field study)	2) Experience i more than 5 ye the field of was 3) Educational graduate, major electrical or cive PROGRAM PERIOD	facturing industries In the relevant field: have more than ars of occupational experience in the exact treatment Background: be a university ing in chemical, mechanical, ill engineering, or the equivalent.  Jul / 19/2010 ~ Nov / 27/2010  Kitakyushu International
basic design of wastewater treatment facilities  (4) To understand the techniques concerning the detail design and manufacturing control of the facilities for precipitation filtration, neutralization, removal of oil contents etc.  (5) To formulate action plans, utilizing contents of the program.  CONTENTS  1. Preliminary Phase in a participant's home country Applying organizations are required to submit the Job Report and the Issue Analysis Sheet together with the application form for selection in Japan.	2) Experience i more than 5 ye the field of was 3) Educational graduate, major electrical or civ  PROGRAM PERIOD  IMPLEMENTING PARTNER  JICA CENTER  COOPERATION	facturing industries In the relevant field: have more than ars of occupational experience in the ewater treatment Background: be a university ing in chemical, mechanical, il engineering, or the equivalent.  Jul / 19/2010 ~ Nov / 27/2010  Kitakyushu International Techno-Cooperative Association (KITA)
basic design of wastewater treatment facilities  (4) To understand the techniques concerning the detail design and manufacturing control of the facilities for precipitation filtration, neutralization, removal of oil contents etc.  (5) To formulate action plans, utilizing contents of the program.  CONTENTS  1. Preliminary Phase in a participant's home country Applying organizations are required to submit the Job Report and the Issue Analysis Sheet together with the application form for selection in Japan.  2. Core Phase in Japan (Lecture, practice and/or field study)  (1) Basic of Water Pollution Control  (2) Basic Theory of Wastewater Treatment  (3) Basic Plan of Wastewater Treatment	2) Experience i more than 5 ye the field of was 3) Educational graduate, major electrical or civ  PROGRAM PERIOD  IMPLEMENTING PARTNER  JICA CENTER	facturing industries In the relevant field: have more than ars of occupational experience in the ewater treatment Background: be a university ing in chemical, mechanical, il engineering, or the equivalent.  Jul / 19/2010 ~ Nov / 27/2010  Kitakyushu International Techno-Cooperative Association (KITA)
basic design of wastewater treatment facilities  (4) To understand the techniques concerning the detail design and manufacturing control of the facilities for precipitation filtration, neutralization, removal of oil contents etc.  (5) To formulate action plans, utilizing contents of the program.  CONTENTS  1. Preliminary Phase in a participant's home country Applying organizations are required to submit the Job Report and the Issue Analysis Sheet together with the application form for selection in Japan.  2. Core Phase in Japan (Lecture, practice and/or field study) (1) Basic of Water Pollution Control (2) Basic Theory of Wastewater Treatment	2) Experience i more than 5 ye the field of was 3) Educational graduate, major electrical or civ  PROGRAM PERIOD  IMPLEMENTING PARTNER  JICA CENTER  COOPERATION	facturing industries In the relevant field: have more than ars of occupational experience in the ewater treatment Background: be a university ing in chemical, mechanical, il engineering, or the equivalent.  Jul / 19/2010 ~ Nov / 27/2010  Kitakyushu International Techno-Cooperative Association (KITA)

- Subility stoll of brokess report				
Water Quality Monitoring for Effective Usage of Water Resources in Central Asia 中央アジア地域 水資源有効利用を目的とした水質モニタリング	Sub-	PRTD Solution 1084042 Sector : Environmental Management -Sector : Water Pol lution		
Target Countries: Central Asian countires which face international river		7 participants 🖊 Russian		
OBJECTIVE	TARG	TARGET ORGANIZATION / GROUP		
[Course Objective] In the organizations in charge of water quality monitoring and management, reccomendation paper will be presented on improvement of technical standard for adminitrating area and also on vast water area management.  [Expected Module Output] (1) Understanding Japanese laws, regulations, standards on water issue. (2) Improvement on the accuracy management on water quality monitoring. (3) Being able to process the Analysis Result and to apply Wide-area Water Quality Monitoring System (4) Understanding difference of values of respective authorities over the utilization of shared rivers/lakes. (5) Take the reccomendation report into an action.	[Target Organization] Ministry of Environment, State Committee for Environment Protection or Nature Protection, Hydromet Center [Target Group] Policy maker and monitoring technitian of water monitoring especially for environmental concervation. With experience of more than 3 years but not including agriculture, watersewage and sanitary section. Researcher is not appropriate for this course. Bachelor of science or adequate academic knowledge and be tough enough to attend practice and field work.			
CONTENTS	PROGRAM PERIOD	Nov / 1 / 2010 ~ Dec / 11 / 2010		
[Preliminary Phase in home country] Preparing Inception report [Core Phase in Japan] (1)Introduction of water quality control policy. Inception report presentation on the actual status and problems on water quality monitoring	IMPLEMENTING PARTNER	International Center for Environmental Technology Transfer		
in Central Asia. (2)Review of Current Water Quality Monitoring Technology and	JICA CENTER	JICA Chubu		
Improvement of Accuracy Management. (3)Data process and application towards compiling database and preparation for setting up GIS in order to utilize the information for further research and policy making. Also, to understand the importance of information disclosure and sharing. Some treatment technology will be introduced. (4)Utilization of water monitoring as process for wide—area environmental conservation and proactive water resource for shared use with the understanding of different situation and opinions of other participants. Its process and challenging issue will be summarized and presented as A/P.  [Finalization Phase in home country] Participants will prepare a report on progress of activities in the light of aquired knowledge in Japan in 6 months after the return.	COOPERATION PERIOD	2009~2011		
	REMARKS and WEBSITE	This course encourage administrative officer and labo worker dealing with surface water and water environment in lake or pond.		

Capacity Development in Environmental Management (Air and Water Pollution PRTD Solution 1084148 Sector : Environmental Manag Control) for Middle Eastern countries 中東地域環境管理能力向上(大気污染·水質汚濁防止) Sub-Sector: Water Pollution 8 participants English Target Countries: Middle Eastern countries TARGET ORGANIZATION / GROUP **OBJECTIVE** [Target Organizations] National/Local Governmental Organization engaged The participants are expected to improve/acquire the capacity to formulate and execute the policy and regulations in the field of water pollution control. in Environmental Administration [Target Group] (In JFY 2010, the program will focus on Water Pollution) Administrative Engineers working in [Outputs] Natioanal/Local Government Organizations (1) to identify environmental problems of participating countries and obtain hints for the improvement of the situation (2) to learn from the experience of Osaka and other cities in Japan about water pollution and coutermeasures thereof (3) to obtain applicable knowledge on environmental communication (4) to produce draft Action Plan while in Japan and explain it to stakeholders in respective countries after returning CONTENTS Jan /10/2011 ∼ Feb / 26/2011 [Preparatory phase (Before coming to Japan)] IMPLEMENTING Global Environment Centre Foundation(GEC) Participants are expected to write Country Report on the present situation and PARTNER problems JICA CENTER JICA Osaka [Program in Japan] (1) Presentation of Coutry Report(Discussiion) COOPERATION (2) Environmental management (identification, analysis, planning) (Lecture, 2008~2010 PERIOD Observation, Discussion) (3) Environmental Communication(Lecture, Discussion) (4) Formulation and Presentation of draft Action Plan(Guidance, Discussion) [Post-program activities (After participants' return)] · Within 3 months of the end of the program in Japan, participants/participating REMARKS In JFY 2010 the program will focus organizations are expected to improve the above Action Plan and report the and. on Water Pollution. WEBSITE progress in Comletion Report. Workshop for Enhancement of the Governmental Capacity on Water Environment in PRTD Int.Dialogue 1084278 Sector : Environmental Management Asian Countries アジア水環境ガバナンス強化ワークショップ Sub-Sector : Water Pollution 7 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP Related organization in the field of water [Objective] - Enhancement of the capacity of planning and implementation of water environmental management by gaining the understandings of water environmental environmental management governance of each target country and also with the knowledge of specific measures and policies gained through this program; - Sharing of the information and knowledge provided by WEPA and also feedback updated information on water environmental governance in each country to WEPA; - Draft of a specific action plan for the improvement of water environmental management. [Expected Results]1) Sharing of information on water environmental management system in each target country to build common awareness among participants 2)Understanding the policies and systems of water environmental management in JP 3) Identification of common problems among participants and specific challenges in each country through sharing the information and knowledge on water environmental management systems among participants. Sep / 5/2010 ~ Sep / 18/2010 CONTENTS Enhance the capacity of handling skill on water pollution at political level in south IMPLEMENTING Institute for Global Environmental East Asia and East Asia countries with improving the partnership among these **PARTNER** Strategies countries JICA CENTER IICA Yokohama (1) Inception-Report ·Introduce a kind of activities on development water environmental laws and COOPERATION monitoring system in each country 2009~2011 PERIOD (2) Lecture and Phservation(about water environmental law established in Japan) - Policies and systems for water environmental conservation at national and local levels. 2Development of watershed management/river basin management in Japan (3) Water environment management system of local government level in Japan (4) Linkage of relevant stakeholders in water environmental management such as REMARKS and national and local governments; governmental sectors, private sector and NGOs. WEBSITE (3) Lecture and Discussion (Identification of common problems among participants) emerging management agenda such as Integrated Water Resource Management (IWRM) and Climate Change and Water (4) Action plan and Progress

PRTD Solution
Sector: Environmental Management
Sub-Sector: Mine Pollution

15 participants

Spanish

1084246

#### **OBJECTIVE**

Effective and tangible action plan to prevent environmental destruction by hazardous substances included in effluent from mining and manufacturing industries will be formulated with close coordination among the related organizations that take charge of the control of the effuluent regulation.

(Preparatory Phase in participants' respective countries) 1) Problems and issues of effluents from mining and manufacturing industries are clarified.

(Phase in Japan) 2) Problems and issues in participating countries will be sorted out 3) Draft action plan as a team will be formulated by respective countries

5) International common perception of the problem of waste effluent pollution control will be developed among participating countries.

(Finalization Phase in participants' home countries) 6)Based on the draft action plan formulated in Japan, the action plan as organizations will be considered.

## TARGET ORGANIZATION / GROUP

The central government ministries and local government offices responsible for monitoring the wastewater discharge caused by heavy metals (inorganic) through mining and industrial activities. —In each country, a team must consist of three persons belonging to different ministries and / or municipalities that correspond to this requirement. —Each team must be included at least one official administrator and / or an engineer.

-If a team consists of fewer than three persons and / or people of these same ministers or local government offices, that team will be disqualified from selection as a principle.

#### CONTENTS 8/2010 Dec / 11/2010 •Analysis and examination of the problems related to effluents pollution from mining **IMPLEMENTING** and manufacturing industries PARTNER To be decided ·Formulation of country reports by team of 3 members in each country Environmental Administration in Japan (central and local government) Laws and JICA CENTER JICA Osaka regulations on mining and mine pollution •Measures for hazardous metal • COOPERATION Generating mechanism, countermeasures and compensation issue of 2010~2012 PERIOD pollution-related diseases (based on Japanese experience) Discussion · Case study on Minamata disease and Itai Itai desease Site visit to Hishikari (current effluent treatment system) ·Site visit to effluent treatment system in Osaka City Formulation and presentation and discussion of Action Plan as a team REMARKS Developping common perception through discussion and WEBSITE ·Sharing and developing the action Plan Report to JICA regional office about the status of implementation of the action

# Comprehensive Waste Management Technique PITD Leaders 1080226 廃棄物管理総合技術 Sector: Environmental Management Sub-Sector: Urban 201d Wastes 9 participants ✓ English

#### **OBJECTIVE**

# Participants will acquire comprehensive knowledge and skills for effective and proper planning and implementation of solid waste management (SWM).

#### [Expected Outputs]

[Course Objective]

plan or related activities

- To achieve the above mentioned objective, participants will;
- (1) analyze the problems and causes of SWM in their respective countries,
- (2) understand the environmental policy and SWM system in Japan,
- (3) understand the skills and techniques adopted for each SWM process (collection
- & transportation, intermediate treatment, and final disposal) in Japan,
- (4) understand the importance of environmental education, and
- (5) understand the roles of environmental management such as EIA in SWM

#### TARGET ORGANIZATION / GROUP

[Target Organization]

Departments in charge of solid waste management in national/local government or public organizations [Target Group]

(1) Technical staff in charge of solid waste management at national/local government or public organizations

(2) More than three (3) years of work experience in the field of solid waste management

CONTENTS	PROGRAM PERIOD	Aug / 25 / 2010 ~ Nov / 21 / 2010
The following lectures, exercises, observations, and discussions will be carried out.  (1)Issue analysis workshop  (2)Country report presentation	IMPLEMENTING PARTNER	Hiroshima Prefecture, Hiroshima International Center
(3)Waste management policy: e.g. Administrative system of SWA in Japan	JICA CENTER	JICA Chugoku
(4)Landfill disposal techniques: e.g. Sanitary landfill technique "Fukuoka Method" (5)Collection and transportation: e.g. Time and Motion (6)Waste treatment techniques: e.g. Recycling and hazardous waste treatment	COOPERATION PERIOD	2006~2010
(7)Environmental education and awareness: e.g. Government, school, and private initiatives on environmental education and awareness (8)Environmental management: e.g. Concept, methods and case studies of EIA (9)Feedback session (10)Final report making & presentation	REMARKS and WEBSITE	
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