# 17. Environmental Management

Waste management Technique and Environmental Education 廃棄物管理技術と環境教育	PITD Leaders 1080100 Sector : Environmental Management Sub-Sector : Environmental Administration
	18 participants / Eng l i sh
OBJECTIVE	TARGET ORGANIZATION / GROUP
<ul> <li>⟨Objective⟩</li> <li>Government officers and engineers in charge of waste management will gain capacity to formulate basic policy for proper Solid Waste Management (SWM) and Environmental Education (EE).</li> <li>⟨Outputs⟩</li> <li>1) To clarify the issues and causes of solid waste management in own countries.</li> <li>2) To understand the historical process of environmental policy and waste management system in Japan.</li> <li>3) To understand the techniques and measures adopted in each process of solid waste management (collection and transportation, intermediate treatment, final disposal) in Japan.</li> <li>4) To understand the importance and concrete methods of environmental education/awareness for solid waste management</li> <li>5) To propose basic policy towards proper waste management in own countries.</li> </ul>	This program is designed for officers and engineers relating to waste management or environmental education in central or local government.
CONTENTS	PROGRAM   Jun / 20 / 2010
Participants will learn followings through lectures, site visits, and practices;  1) •Issue analysis-workshop and interim discussion	IMPLEMENTING Kitakyushu International Technocooperative Association (KITA)
2) •Countermeasure for environmentin Kitakyushu city	JICA CENTER JICA Kyushu
•Solid waste management administration and environment impact assessment 3)•Flow of general waste •Compost from kitchen garbage	COOPERATION 2008~2010
•Incineration and hazardous waste treatment 4)•Regulation and structure of final disposal site •Good example of final disposal site in Samoa 5)•Environmental educationadministration in Kitakyushu •NGO activity in local area 6) •Project Cycle Management •Action Plan	REMARKS and WEBSITE  The course will be ocnducted twice in Japan fiscal year 2010: Jun. 2010 - Sep.2010 and Feb. 2011 - May .2011.

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Adaptive Watershed Management for Flood Countermeasures by Climate Change ar 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 Tr Sector : Environmental Ma -Sector : Environmental Ad	· ·	765
		8 participants	/ Englis	sh
OBJECTIVE	TARG	ET ORGANIZATIO	ON / GROUP	
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.	organizations e ecosystem con. [Target Group working office ecosystem con. Senior administ related to flood and academic eplans for indivirecommended to flood contro	rs in charge of floo servation projects trative officers of	control or rshed areas and year: Midlevel od control and s 2.Third year: organizations system conservation management it is strongly nizations related conservation to	
CONTENTS	PROGRAM PERIOD	Aug / 15 / 2010	~ Oct / 16/201	.0
[Preliminary Phase in home country] Submission of Report (Present issues) [Core Phase in Japan] Following lectures, practical exercises, observations and discussions are provided.	IMPLEMENTING PARTNER	Hokkaido Universi Hokkaido Developi	ty, ment Bureau	
1. First and second year program: (1)Global environmental change/Kyoto Protocol,	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 months after returning home countries.	REMARKS and WEBSITE	Since the program objective designed to be attained through years, the duration of each program differs as follows:		

Environmental Impact Assessment in ODA Projects (EIA as a Tool for Sustainable **PITD Trainers** 1080936 Development) ODAIC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) Sector: Environmental Management Sub-Sector : Environmental Administration 18 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP Objective This program is designed for examining authorities of Environment Target Organization Examining authorities of Environment Impact Impact Assessment (EIA) and implementing bodies of large-scale development projects which require EIA in National / Local Government or other relevant Assessment (EIA) and implementing bodies of large-scale development projects which require EIA organizations. [Expected Result] (1) To be able to explain the basic concepts of EIA, necessary in National / Local Government or other relevant procedures and the difference in the EIA systems between Japan and their own lorganizations country and to be able to understand the efforts of international aid agencies for [Target Group] (1) To be technical administrative environmental considerations and to explain the requirements expected in the officers in charge of EIA and/or planning and development projects (2) To be able to explain necessary points of the EIA implementation of large-scale development projects examination and necessary technical methods to conduct EIA (3) To be able to and ODA projects (2) To have basic knowledge explain a process to conduct EIA smoothly and communication methods with and more than three y ears of working experience residents in EIA (3) To be under forty-five (45) years of age etc. (in principle) and to be university graduates or posses the equivalent background in the field PROGRAM PERIOD **CONTENTS** Jun  $/27/2010 \sim Jul /24/2010$ [Preliminary Phase] Submission of Inception Report and Questionnaire **IMPLEMENTING** OVERSEAS ENVIRONMENTAL COOPERATION CENTER, JAPAN [Core Phase] **PARTNER** Purpose and concept of EIA and the EIA system in Japanese situation of the EIA system in their own country JICA CENTER JICA 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 countries and WEBSITE

Measures Against Urban Environmental Problems 都市生活型の環境問題	PITD Solution 10802 Sector : Environmental Management Sub-Sector : Environmental Administration
	8 participants / Englis
OBJECTIVE	TARGET ORGANIZATION / GROUP
Cobjective Plan to cope with urban environmental problems is officially formulated in the participant's belonging organization based on the Action Plan proposed in Japan  Coutputs 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 Organizations] Central or Local Government in charge of urban environmental affairs (Preferably local government  [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   Jan / 18 / 2011 ~ Mar / 2 / 201
[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] Reporting the progress of implementing "Action plan" within three (3) months	REMARKS and WEBSITE

Pollution Control and Local Environmental Management 公害防止と地域環境管理	PITD Solution 1080133  Sector : Environmental Management  Sub-Sector : Environmental Administration
	10 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP
Course Objective The local government officer (who are in charge of the areal pollution control and environmental management) shall obtain the administrative management methodology on raising awareness, implementation of the practical countermeasures against actual environmental pollution cases.  [Expected Module Outputs] (1)Comprehension of industrial pollution problems (2) Environmental improvement, Environmental Management (3) Enhancement of Capacity on local environmental management (4) Based on the each country's situation, action plan to solve Environmental Management Problem is composed.	Local government official where industrial pollution (mainly, air or water quality issue) is recognized. His/her office is expected to have the control rights on the source.  •local government officers or technician of a nation al factory •5years or more experience in environmental protection, company advisor, pollution control & still in the similar position handling these jobs •graduate of university •be proficient in English •factory which emit pollution is located in the area in charge
CONTENTS	PROGRAM   Aug / 23 / 2010 ~ Oct / 7 / 2010
This is a practical training targeting for certain local areas with serious industrial pollution.  [Preliminary Phase] Compiling Job Report	IMPLEMENTING PARTNER International Center for Environmental Technology Transfer
[Core Phase in Japan](1)Comparing to the experience and status of Japanese	JICA CENTER JICA Chubu
pollution era, this chapter aims to promote the participants to have more consciousness upon the areal pollution (incl. medium & small scale one). Lecture but participatory discussion, analysis and presentation will be provided. (2)Review	COOPERATION 2009~2011
the concept of autonomous EMS. Introduce suitable EOP or CP technologies for the case studies reported by the participants. Incentives towards improvement such as ener-con, and social & economic approaches will be explained. Participants will settle feasible targets and their AP. (3)Areal environmental management will be focused. Hostile relationship among factory/company, government and local people 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	REMARKS and WEBSITE  This course aims to concrete solution to improve environmental problem by training in Japan. Thus the training contains self devotive activities like documentation and presentation.

[1-inalization r hase] implementation of the action plan	I	I		
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 S Sector : Environmental I	_	1080992
Target Countries: With the mega-cities with more than 1 million people		10 participants	/	English
OBJECTIVE	TARGET ORGANIZATION / GROUP			
summarizing problems and issues of the organizations are facing are formulated.	government wit implementation mega-cities wit people. Two persons p	division in Natio h responsibility for environmenta h a population of er year, totally s ining course from	for planning policy for formula, for the formula for the fix persons	r the n 1 million s for this
CONTENTS	PROGRAM PERIOD	May / 10 / 2010	~ Jul /	3/2010
•Analysis and examination of the envirionmental problems which participating organizations are facing •Formulation of country reports	IMPLEMENTING PARTNER	GloTo be decided		
·Lectures and discussion about following theme,	JICA CENTER	JICA Osaka		
Environmental problems (air pollution, water, solid waste) in Japan and Osaka city / social and economic factors, impact on citizens of environmental problems / various effort of gov., companies and citizens.	COOPERATION PERIOD	2010~2012		
•EMS(ISO14001), Environment Management System in Japanese enterprises •Formulation of draft process sheet •presentation and discussion about draft process sheet •Sharing and developing the draft process sheet •Report to JICA regional office about the progress of implementation of the process sheet.	REMARKS and WEBSITE			

Marine Environment Protection for Senior Officials in the Maritime Authorities and 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	PITD Solution 1080 Sector : Environmental Management Sub-Sector : Environmental Administration			1080822
		8 participants	/	English
OBJECTIVE	TARGI	ET ORGANIZATIO	N / GROU	JP
[Course Objective] The issues on the effective policies for marine environment protection will be directed, and the practical measures to the issues on above field will be formulated.	[Target Organizations] Coast guard or maritime authority obliged to mar pollution prevention work			to marine
[Expected Module Output] (1)The present situation and activities, issues of marine environment protection in respective countries will be clarified. (2)The international framework of marine environment protection will be clarified. (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.	[Target Group] (1) Individuals in a managerial position. (2) Individuals who have more than 5 years of occupational experience in the above field.			
CONTENTS	PROGRAM PERIOD	Jan / 18/2011 ~	- Mar /	5/2011
<activity country="" home="" in="" phase="" preliminary=""> Preparation of the County report which describes the present situation of marine environment protection in the participants' countries, and participants' detailed</activity>	IMPLEMENTING PARTNER	IMPLEMENTING		n
work and roles of their organization	JICA CENTER	JICA Okinawa		
Activity in Core Phase in Japan> This program consists of lectures, field work, observation tours and discussion. (1) Country report presentation and discussion. (2) International conventions	COOPERATION 2008~2010			
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 ordinance / legislation of marine environment protection, Outline of discharged oil / water analysis and oil spill combating, Off-shore and air surveillance. (5) Formulation and presentation of an action plan <activity country="" finalization="" home="" in="" phase=""> Share and discuss, modify the action plan in respective organizations</activity>	REMARKS and WEBSITE			

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 Leader Sector : Environmental Manageme -Sector : Environmental Administ	ent
Target Countries: South East Asia and East Asia		14 participants /	English
OBJECTIVE	TARG	ET ORGANIZATION /	GROUP
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.	Department which deals with Policy and Technology for Energy conservation and Environmental protection in national/local government or Institution		
(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.			
CONTENTS	PROGRAM PERIOD	Oct / 17 / 2010 ~	Oct / 30/2010
Participants will learn followings through lectures, sitevisits, and discussions.  (1) Governmental strategy for environmental protection in Japan and Korea	IMPLEMENTING PARTNER	Kitakyushu Internationa Techno-cooperative As	al ssociation (KITA)
(2) Measures taken in private enterprises for environmental protection	JICA CENTER	JICA Kyushu	
<ul><li>(3) Environmental education initiated by community</li><li>(4) Formulation of action plan, utilizing the program</li></ul>	COOPERATION PERIOD	2008~2010	
	REMARKS and WEBSITE	This program is imple by JICA and KOICA International Cooper After completing pro participants are to ta programs in Korea fr 2010 to Nov. 13, 201	, Korea ration Agency. grams in Japan, ake part in om Oct. 30,

Enhancement of Administrative Capacity for Promoting Environmental Education 環境教育推進のための行政能力強化	PRTD Solution 1084290 Sector : Environmental Management Sub-Sector : Environmental Administration
Target Countries: Chile	10 participants / Span i sh
OBJECTIVE	TARGET ORGANIZATION / GROUP
[Objective] The action plan for promoting the environmental education model which developed in the JICA technical cooperation project at each municipality will be shared in the trainee's organization. [Outputs] (1) Through formulation and presentation of job reports and following discussion, trainees can clarify the challenges 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	[Target Organization] CONAMA, City Government [Target Group] those who understand and promoting outputs of JICA project in Chile from November 2007 to Octber 2010 "Development of Environmental Education model to Strenghen Local Capabilities"
CONTENTS	PROGRAM   Feb / 13 / 2011
This training aims to formulate plans for introduction of environmental education through learning the case of Nishinomiya City.	IMPLEMENTING NPO: Learning and Ecological Activities 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 on going Technical Cooepration WEBSITE 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 Lo Sector : Environmental M -Sector : Environmental A	-	1081206
		5 participants	/	English
OBJECTIVE		ET ORGANIZATI		
[Objective] The ability of environmental management and research for officers in central/local government and researchers in institution and university is improved.		government, rese ating to environm 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,	COOPERATION PERIOD	2009~2011		
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	REMARKS and WEBSITE	University of Kit Environmental E http://www.kita g_en/	ingineering	website:

Air Quality Management Policy 大気保全政策	Sub-	PITD Solution Sector : Environmental Management -Sector : Air Pollution/Acid Rain	1080864
		10 participants /	English
OBJECTIVE	TARG	ET ORGANIZATION / GR	OUP
Participants are expected to contribute to the improvement of air pollution policy in their own countries by making the best use of the knowledge and technology on air quality management policy acquired in Japan.  1 to be able to explain the whole system of air quality management,  2 to be able to explain the technologies on air pollution countermeasures  (stationary and mobile sources) applicable to their own countries,  3 to be able to explain the monitoring methods of various air pollutants,	•University graduates or holders of equivalent		
CONTENTS	PROGRAM PERIOD	under planning	
L:History of Japan's Countermeasures against Air Pollution L:Air Pollution Control Administration L:Outline of Air Pollution Issues	IMPLEMENTING PARTNER	Under Planning	
L:Environmental Quality Standards and Health Effect	JICA CENTER	JICA Tokyo(Economy&Env	7.)
L:Countermeasures against Hazardous Air Pollutants L: Air Pollution Control Technology and Energy Issues L: Air Pollution Control Measures by Private Enterprises (1)Power Company	COOPERATION PERIOD	2010~2012	
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  L/P:Techniques for Measurement of Air Pollution and Sampling  O: Ambient Air Telemetry System  O: Roadside Ambient Monitoring Station  P:Techniques for Measurement of Air Pollution	REMARKS and WEBSITE		

KOICA-JICA JOINT TRAINING PROGRAM Environmental Protection Technolog Management for Air Pollution Control」日韓共同研修「大気環境保全管理」		PRTD L Sector : Environmental -Sector : Air Pollution/	_	1084138		
Target Countries: South East Asia and East Asia		16 participants	/	English		
OBJECTIVE	TARG	ET ORGANIZAT	ION / GRO	UP		
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.	administrative quality manage 2) Administrati	ve engineers and ity management	in the are	a of air		
CONTENTS	PROGRAM PERIOD	Aug / 28 / 2010	~ Sep /	11/2010		
Korea: 1) Global environmental issues 2) Indoor air pollution	IMPLEMENTING PARTNER	Kitakyushu Interr Techno-cooperat	national ive Associat	ion (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				esearch Institute of Public Health and Environment   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	This program is by JICA and KO International Co Participants will Korea from Aug 28, 2010 before	DICA, Kore poperatoin l join progr g. 15, 2010	ea Agency. rams in to Aug.		

Countermeasure against Automobile Pollution in Urban Area 都市における自動車公害対策	Sub-	1084287 t		
Target Countries: All countries		9 participants /	English	
OBJECTIVE	TARG	ET ORGANIZATION / (	GROUP	
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.	<pre><target organization=""> Division in national/local government which charge of policy planning on countermeasure against automobile pollution in urban area  <target group=""> 1) Administrative/Technical officers in charg policy planning on countermeasure against automobile pollution in urban area 2) Experience in the relevant feild: have mor 3 year's experience</target></target></pre>			
CONTENTS	PROGRAM PERIOD	Sep $/20/2010 \sim N$	Nov / 13/2010	
This training is designed for deepen understandings of automobile emissions and for strengthening capacity on making plans countermeasures for automobile pollution. (1)Formulation of the situation reports summarizing problems and issues of	IMPLEMENTING PARTNER	Global Environment Cen (GEC) http://gec.jp/	tre Foundation	
countermeasures against automobile pollution in participants' respective countries	JICA CENTER	JICA Osaka		
•Presentation/discussion of situation reports (2) •Lectures on overview/history of countermeasures against automobile pollution based on the case study from Osaka area	COOPERATION PERIOD			
•Lectures on legal structure related to automobile pollution (3)• Practical work on measurement of auto emission, figuring out the amount of emission•Site visit to facilities. (4)•Lectures on City Planning aiming at Environmentally Sustainable Transport (5)•Formulation of "draft training plans for dissemination of applicable knowledge and skills about countermeasures against automobile pollution•Finalization of draft training plans.	REMARKS and WEBSITE	and desirable that participants		

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	Sub-	PRTD Solution 10840' Sector : Environmental Management -Sector : Air Pollution/Acid Rain
Target Countries: EANET cooprative countries in East and South East Asia		6 participants / Englis
OBJECTIVE	TARG	ET ORGANIZATION / GROUP
[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 trainings (4) To make action plans that answer to each countries' challenges	Deposition More East Asia (EAN Target Group An engineering the issue of acirelated to EAN Experience: In the field of a	engaging in the operation of the Aci nitoring Network in each countries in NET)  I  g official or researcher engaged in d deposition or air pollution and also IET activities.  have more than 3 years' experience sid deposition monitoring tackground: be equal or surpassing
CONTENTS	PROGRAM PERIOD	Oct / 17 / 2010 ~ Dec / 18 / 2010
<ol> <li>To present country reports and discuss current situation and problems in each countries.</li> <li>•To study the role of central government, local government and business</li> </ol>	IMPLEMENTING PARTNER	Hyogo Environmental Advancement Association
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,	COOPERATION PERIOD	2008~2010
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	REMARKS and WEBSITE	The result of this training course is highly evaluated for capacity-building of participating countries at the EANET governmental conference.

Air Pollution Source Management 大気汚染源管理	Sub-	on 1084286 ent in	
Target Countries: Asia, Middle East and Latin America		8 participants /	English
OBJECTIVE	TARG	ET ORGANIZATION /	GROUP
[Objective] Policy rerated to air pollution source management at own organaization is formulated for promoting air pollution management.  [Expected Results] (1)Participants are able to explain the overview of the administrative system for air pollution prevention. (2)Participants are able to explain the overview of monitoring and analysis method implemented. (3)Participants are able to explain the overview of technology for air pollution prevention to visit government of local government and private companies. (4)Participants are able to formulate action plan for introducing of air pollution source management. (5)After returning, the proposal (Action plan) created by participants is shared in the organization and discussed towards the realization and implementation	central/local g	management departn government	nent at
CONTENTS	PROGRAM PERIOD	Oct / 17 / 2010 ~	Dec / 18/2010
Participants will learn followings through lectures, site visits and observations; (1) · History of industrial pollution and health effects of air pollution     Law system of air pollution prevention, Plant Inspection system in kitakyushu city	IMPLEMENTING PARTNER	Kitakyushu Internationa Techno-cooperative As	al ssociation (KITA)
Anti-air pollution measures for automobile exhaust gas	JICA CENTER	JICA Kyushu	
Environmental education     (2) Air pollution monitoring system in Kitakyushu city     Monitoring and analysis of air pollution substance	COOPERATION PERIOD	2009~2011	
<ul> <li>Measurement of automobile exhaust gas</li> <li>(3) Technology of dust collection and control of Sulfur and Nitrogen oxides</li> <li>Visit to steel company and thermal power station</li> <li>(4) Lecture of Project cycle management, Instruction for creating Action plan and Issue analysis sheet</li> <li>(5) Presentation of proposal (Action plan)</li> <li>Presentation for the final report</li> </ul>	REMARKS and WEBSITE		

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Water Environmental Monitoring 水環境モニタリング	Sub-	Sector : Environmental -Sector : Water Pollutio		1080962
		10 participants	/	English
OBJECTIVE	TARG	ET ORGANIZAT	ION / GRO	OUP
[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	central/local go charge of water [Target Group] (1)be technical field of water q government or (2)be university or have the equ have enough kr (3)not be less t more than thirt (4)have sufficie	zation]This progovernment and proposer quality monitor and proposer or labor uality monitoring public institution graduates (scieuivalent academinavledge on wathan twenty five (35) years nt command of cation in English	nublic instrains ratory staff g in centra ns, ence or en c backgro er enviror 25) and no of age,	fs in the hal/local gineering) bund, and hament, ot be
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 Environ Training Institute		earch and
L: Mechanism of Water Pollution	JICA CENTER	JICA Tokyo(Eco	nomy&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 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 [Finalization Phase] Action Plan introduction (presentation or discussion with related persons)	REMARKS and WEBSITE			

Operation and Maintenance of Sewerage Systems 下水道維持管理	PITD Trainers 1080762  Sector : Environmental Management  Sub-Sector : Water Pollution
	7 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP
[Objective] Every participant shares and implements its action plan, and then reports progress to JICA	[Organizations] Sewerage works entities (can be governmental/semi-governmental/corporate)
[Expected Outputs] (1) To understand sewerage systems in Japan (2) To understand and experience planning and designing of sewerage systems to improve those in participant's country (3) To understand and experience operation and maintenance of sewerage systems to improve those in participant's country (4) To understand and experience industrial wastewater and pre-treatment to improve those in participant's country (5)To propose "Action Plan" to clarify how to improve participant' job and organization based on Modules 1)~4)	[Personal Qualifications]  (Current Duties) Senior sewerage works engineers (Experience) More than five (5) years in relevant field (Educational background) Engineering, Sanitation (Age) In principle, Under 40 years old
CONTENTS	PROGRAM   PERIOD   Sep / 7/2010 ~ Nov / 6/2010
[Preparatory Phase] Each participant prepares Job report to identify its issues [Core Phase] (1) Current situation and rules & regulations of sewerage system in Japan, sewerage	IMPLEMENTING PARTNER Construction Bureau, City of Sapporo
system in Sapporo, master plan of sewerage systems	JICA CENTER JICA Sapporo
(2) Sewer network planning, planning and construction of treatment plant, principal of biological treatment, appropriate selection of treatment method (3) Construction of pipe, operation and maintenance of pipe, operation and	COOPERATION 2008~2010
maintenance of water treatment plant, practice of water quality inspection, efficient use of sludge (4) Water quality regulations, water quality control, wastewater treatment plant (5) Job report presentation, discussions, guidance for action plan proposal, action plan presentation [Finalization Phase] With in 6 months after completion of the course, every participant is requested to share its knowledge and experience in Japan at respective organization, then reports Action Plan progress to JICA	REMARKS and WEBSITE

Sewerage Technology for Wastewater Control and Urban Drainage 下水道維持管理·都市排水		PITD Ti Sector : Environmental M -Sector : Water Pollution 10 participants	Management n	080105
OBJECTIVE	TARC	ET ORGANIZATION		iig i i Sii
[Objective] Based on the Action Plan proposed by respective participant, the gained knowledge or skills shall be shared in his/her organization. [Expected Results] (1) To acquire basic knowledge of sewerage systems and wastewater treatment	Target Organi National/Local treatment, sewa Target Group (1) be universit equivalent tech have more than (2) be senior te	zations] authority in charage work and sto ] y graduate or the nical qualification five(5) years of chnical officers in rainage managem	rge of wastewarmwater drain ose who have ns in this field practical expe n charge of	age , and erience
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 sewerage system of the participating country. [Program in Japan]	PARTNER	Public Works Bure Government and C Engineering Associ	Osaka City Sew	
(1) General knowledge on the regulation and situation of sewerage system in Japan especially in Osaka.(Lecture) (2) Planning, designing and constructing of Sewerage facilities.(Lecture,	COOPERATION PERIOD	2008~2010		
Observation) (3) Maintenance of sewerage systems.(Lecture, Observation) (4) Sewerage administration and international cooperation.(Lecture) (5) Preparation/Presentation of Action Plan.  [Finalization Phase in Participant's home country]  - Report to JICA on the progress of knowledge/skills sharing among the relevant engineers in the participating organization.	REMARKS and WEBSITE			

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 Sector : Environmenta Sector : Water Pollut	_	1080103
		9 participants	/	English
OBJECTIVE	TARGE	ET ORGANIZAT	TION / GRO	DUP
[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 course	[Target Organizations] National/Local authority in charge of sewerage system operation and maintenance			stem
CONTENTS	PROGRAM PERIOD	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 Inter Techno-coopera	national tive Associa	ntion (KITA)
(2) – Sewer network planning	JICA CENTER	JICA Kyushu		
<ul> <li>Construction and designing of sewage treatment facilities</li> <li>Principles of biological treatments and selections of treating methods</li> <li>(3) – Construction of sewer network</li> </ul>	COOPERATION PERIOD	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			

The Integrated Water Management of Coastal Seas / Bays and Catchment Areas 沿岸域・内湾およびその集水域における統合的水環境管理	PITD Solution 108 Sector : Environmental Management Sub-Sector : Water Pollution			1080997
		8 participants	/	English
OBJECTIVE	TARG	ET ORGANIZATIO	ON / GRO	DUP
A plan is drawn out to improve the policy for solution to the water pollution in the area managed by the governmental organaization which participants belong to.  [Output]  1. The water condition and issue of the coastal sea/bay area in own country are defined through preparing and presenting the Job Report.  2. The mechanism of the water pollution and the technique of environmental protection in the coastal sea/bay is comprehended by combining with the own issue.  3. The advanced law and policy for the environmental protection in the coastal sea/bay is comprehended and applicated them to their own social system.  4. Develop practicable action plan  5. As are sult of the discussion and consideration about reflection of the action plan to the policy of own section in the organaization, progres report is submitted about three month after return to the country.	management of Target Group officers, educated bodies who pre experience on the enclosed coasts.	ich is incharge of enclosed coastal ators, and engined sently need informathe environmental al seas e: more than 3 years.	seas ers in admation an manage	ministrative nd /or mant of
CONTENTS	PROGRAM PERIOD	Sep / 5/2010	~ Oct ,	/ 30/2010
<ul> <li>Preparing a Job Report and concidering in the organization</li> <li>General view of water pollution and provision in Hyogo/Japan</li> <li>A phenomenon of water pollution and its mechanism</li> </ul>	IMPLEMENTING PARTNER	International Cent Management of En (EMECS)	ter for En nclosed C	vironmental oastal Seas
•Model analysis of water pollution	JICA CENTER	JICA Hyogo		
<ul> <li>Field survey method and measurment for coastal seas/bays and catchment areas</li> <li>Ecosystem and material cycle</li> <li>Water environmental management and restoration technology</li> </ul>	COOPERATION PERIOD	2010~2012		
•Environment law and policy •Integrated water management •Midterm discussion and evaluation •Individual advice for the draft •Prepareing final action plan and presentation •Monitoring the action plan progress •Drawing the progress report and submission	REMARKS and WEBSITE			

Domestic Wastewater Treatment Techniques 生活排水対策	Sub-	PITD Sector : Environmenta -Sector : Water Pollut	_	1080006
		8 participants	/	English
OBJECTIVE	TARG	ET ORGANIZAT	ΓΙΟΝ / GRO	DUP
<ul> <li>Objective&gt;         Effective policy targeting waste water management is formulated by corresponding organizations in central / local government.</li> <li>Output&gt;         <ul> <li>Being able to explain measures taken by central / local government in Japan regarding waste water management.</li> <li>Being able to propose effective measures based on basic idea of waste water management systems and techniques.</li> <li>Being able to explain and apply how to measure pollution</li> <li>Being able to explain effective treatment measures against pollution from viewpoint of water recycle and water circulation</li> <li>Action plan is formulated, and its implementation is reported through final report.</li> </ul> </li> </ul>		s offered to tech s and sewerage overnment.		s dealing
CONTENTS	PROGRAM PERIOD	Aug / 22 / 2010	) ~ Dec	/ 11/2010
Participants will learn followings through lectures, site visits, practices and discussions:	IMPLEMENTING PARTNER	KITAKYUSHU TECHNO-COO ASSOCIATION	INTERNAT OPERATIVE	IONAL
(1) Wastewater treatment systems in Japan	JICA CENTER	JICA Kyushu		
<ul><li>(2) Sewerage treatment systems</li><li>(3) Monitoring and management of pollution</li><li>(4) Water treatment techniques</li></ul>	COOPERATION PERIOD	2010~2012		
(5) Presentation of Action Plan	REMARKS and WEBSITE			

Industrial Wastewater Treatment Technique 産業廃水処理技術	PITD Solution 1080815  Sector : Environmental Management Sub-Sector : Water Pollution
	8 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP
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]  (1) To understand the importance of wastewater treatment and the water pollution (2) To understand the water pollution control process, and the general concept of wastewater treatment technologies  (3) To acquire the method of selecting wastewater treatment by analysis, and the 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.	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  Experience in the relevant field: have more than more than 5 years of occupational experience in the field of wastewater treatment  Educational Background: be a university graduate, majoring in chemical, mechanical, electrical or civil engineering, or the equivalent.
CONTENTS	PROGRAM   Jul   / 19 / 2010
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.	MPLEMENTING Kitakyushu International Techno-Cooperative Association (KITA)
2.Core Phase in Japan (Lecture, practice and/or field study)	JICA CENTER JICA Kyushu
(1)Basic of Water Pollution Control (2)Basic Theory of Wastewater Treatment (3)Basic Plan of Wastewater Treatment	COOPERATION PERIOD 2008~2010
(4)Design and Construction of Wastewater Treatment Facilities (5)Operation and Maintenance of Wastewater Treatment Facilities (6)Formulation of Action 3. Finalization Phase in a participant's home country Application and implementation of the action plan is discussed in the participant's organization and its result will be submitted after leaving Japan, based on the follow-up questionnaire to be provided during the phase in Japan.	REMARKS and WEBSITE

#### Sewage Treatment Technique for Central America and the Caribbians 中米・カリブ地域「生活排水処理」 PRTD Trainers 1084018 : Environmental Management Sub-Sector : Water Pollution Target Countries: Central America and the Caribbians 12 participants Spanish **OBJECTIVE** TARGET ORGANIZATION / GROUP [Course Objective] Target Organization Participants will gain necessary knowledge and skills to plan and implement a •Central/local government and public organizations sewage treatment system suited to their countries, and share the knowledge within in charge of planning, operation, maintenance and their respective countries. management of sewage treatment facilities. [Expected Outputs] (1) To understand the issues of the sewage treatment in their respective countries. [Target Group] (2) To understand the importance of sewage treatment in relation to the • Technical officials in charge of sewage treatment preservation of water-environment and living-environment. at central/local government or public organizations (3) To gain basic knowledge on sewage treatment planning. ·3 years of experience in the field concerned (4) To gain basic knowledge on sewage treatment techniques. • The belonging organization owns a sewage (5) To gain basic kwnoledge on maintenance and management techniques of swwage treatment facility, or is in charge of its plan, treatment facilities. operation and maintenance (6)To plan dissemination lectures/workshops based on the training course and implement them within their respective organizations. **CONTENTS** Aug / 31 / 2010 ∼ Nov / The following lectures, workshops, and observations are to be carried out. **IMPLEMENTING** · Issue Analysis Workshop PARTNER Higashihiroshima City · Issues on water environment and sewage treatment · Japan's experience on the sewage treatment regulations and current problems JICA CENTER JICA Chugoku · Theory of sewage treatment planning COOPERATION · Sewage treatment management 2010~2012 **PERIOD** · Issues of sewage treatment planning in developing countries · General theory of sewage treatment technique Current conditions of the disposal site in Higashihiroshima · Maintenance and management of sewage treatment facilities REMARKS · Preparation and presentation of dissemination materials and WEBSITE Dissemination activities (in home country) · Submission of progress 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	PRTD Solution 108 Sector : Environmental Management Sub-Sector : Water Pollution			
Target Countries: Central Asian countires which face international river		7 participants	/	Russian
OBJECTIVE	TARG	ET ORGANIZATI	ON / GRC	DUP
[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.	Environment Pr Hydromet Cent [Target Group] •Policy maker a monitoring espe concervation. V but not including sanitary section this course. •Bachelor of so	rironment, State rotection or Natu ter	echnitian nmental of more thatersewag not appro	of water nan 3years se and priate for
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 Cent Technology Trans		ironmental
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	COOPERATION PERIOD	2009~2011		
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.	This course encourage administrative officer and worker dealing with surfact and water environment in			ce water

Capacity Development in Environmental Management (Air and Water Pollution Control) for Middle Eastern countries 中東地域環境管理能力向上(大気汚染·水質汚濁防止)	PRTD Solution 1084148 Sector : Environmental Management Sub-Sector : Water Pollution
Target Countries: Middle Eastern countries	8 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP
[Objectives] 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 JFY 2010, the program will focus on Water Pollution) [Outputs] (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	[Target Organizations] National/Local Governmental Organization engaged in Environmental Administration [Target Group] Administrative Engineers working in Natioanal/Local Government Organizations
CONTENTS	PROGRAM   Jan   / 10 / 2011   ∼   Feb   / 26 / 2011
Preparatory phase (Before coming to Japan)  • Participants are expected to write Country Report on the present situation and problems	IMPLEMENTING Global Environment Centre Foundation(GEC)
Program in Japan	JICA CENTER JICA Osaka
(1) Presentation of Coutry Report(Discussiion) (2) Environmental management (identification, analysis, planning) (Lecture, Observation, Discussion)	COOPERATION 2008~2010
<ul> <li>(3) Environmental Communication(Lecture, Discussion)</li> <li>(4) Formulation and Presentation of draft Action Plan(Guidance, Discussion)</li> <li>[Post-program activities (After participants' return)]</li> <li>Within 3 months of the end of the program in Japan, participants/participating organizations are expected to improve the above Action Plan and report the progress in Comletion Report.</li> </ul>	REMARKS and WEBSITE In JFY 2010 the program will focus on Water Pollution.

Workshop for Enhancement of the Governmental Capacity on Water Environment in Asian Countries アジア水環境ガバナンス強化ワークショップ	PRTD Int.Dialogue 1 Sector: Environmental Management Sub-Sector: Water Pollution			1084278
	7 participants / E			
OBJECTIVE	TARGET ORGANIZATION / GROUP			
[Objective] - Enhancement of the capacity of planning and implementation of water environmental management by gaining the understandings of water environmental 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.	Related organienvironmental	ization in the fiel management	d of water	r
CONTENTS	PROGRAM PERIOD	Sep / 5/2010	∼ Sep	/ 18/2010
Enhance the capacity of handling skill on water pollution at political level in south East Asia and East Asia countries with improving the partnership among these countries	IMPLEMENTING PARTNER	Institute for Globa Strategies	l Environn	nental
(1)•Inception-Report	JICA CENTER	JICA Yokohama		
•Introduce a kind of activities on development water environmental laws and monitoring system in each country (2)•Lecture and Pbservation(about water environmental law established in Japan)	COOPERATION 2009~2011			
-①Policies and systems for water environmental conservation at national and local levels. ②Development of watershed management/river basin management in Japan ③Water environment management system of local government level in Japan ④ Linkage of relevant stakeholders in water environmental management such as national and local governments; governmental sectors, private sector and NGOs. (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 report	REMARKS and WEBSITE			

Effluent Pollution Control Caused by Mining and Manufacturing Industries for Central **PRTD** Solution 1084246 and South America 中南米地域鉱工業による廃水汚染対策 : Environmental Management Sub-Sector : Mine Pollution 15 participants Spanish **OBJECTIVE** TARGET ORGANIZATION / GROUP Effective and tangible action plan to prevent environmental destruction by The central government ministries and local hazardous substances included in effluent from mining and manufacturing industries government offices responsible for monitoring the will be formulated with close coordination among the related organizations that take wastewater discharge caused by heavy metals charge of the control of the effuluent regulation. (inorganic) through mining and industrial activities. (Preparatory Phase in participants' respective countries) 1) Problems and issues of -In each country, a team must consist of three effluents from mining and manufacturing industries are clarified. persons belonging to different ministries and / or (Phase in Japan) 2) Problems and issues in participating countries will be sorted out municipalities that correspond to this requirement. 3) Draft action plan as a team will be formulated by respective countries Each team must be included at least one official 5) International common perception of the problem of waste effluent pollution administrator and / or an engineer. control will be developed among participating countries. -If a team consists of fewer than three persons and (Finalization Phase in participants' home countries) 6)Based on the draft action or people of these same ministers or local plan formulated in Japan, the action plan as organizations will be considered. government offices, that team will be disqualified from selection as a principle. **CONTENTS**  $8/2010 \sim Dec / 11/2010$ · Analysis and examination of the problems related to effluents pollution from mining **IMPLEMENTING** and manufacturing industries Γo be decided **PARTNER** •Formulation of country reports by team of 3 members in each country •Environmental Administration in Japan (central and local government) • Laws and JICA CENTER IICA 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

REMARKS

and

WEBSITE

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

•Developping common perception through discussion

·Sharing and developing the action Plan

plan or related activities

•Formulation and presentation and discussionof Action Plan as a team

•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 Solid Wastes 9 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP [Course Objective] Target Organization Participants will acquire comprehensive knowledge and skills for effective and Departments in charge of solid waste management proper planning and implementation of solid waste management (SWM). in national/local government or public organizations [Target Group] [Expected Outputs] (1) Technical staff in charge of solid waste To achieve the above mentioned objective, participants will; management at national/local government or public (1) analyze the problems and causes of SWM in their respective countries. organizations (2) understand the environmental policy and SWM system in Japan, (2) More than three (3) years of work experience in (3) understand the skills and techniques adopted for each SWM process (collection the field of solid waste management & 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 Aug / 25 / 2010 ∼ CONTENTS Nov / 21/2010 The following lectures, exercises, observations, and discussions will be carried out. IMPLEMENTING Hiroshima Prefecture, Hiroshima International Center (1)Issue analysis workshop **PARTNER** (2)Country report presentation (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" COOPERATION (5)Collection and transportation: e.g. Time and Motion 2006~2010 PERIOD (6) Waste treatment techniques: e.g. Recycling and hazardous waste treatment (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 REMARKS (10) Final report making & presentation and WEBSITE

WASTE MANAGEMENT and 3R(Reduce,Reuse and Recycle)POLICIES	PITD Solution 1080121 Sector : Environmental Management Sub-Sector : Urban Solid Wastes
	20 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP
The purpose of this program is to give the participants an overall knowledge of technologies for industrial waste management and recycling, present trends of legislation and policies in the field of industrial waste management & recycling, skills to develop and implement recycling plans for industrial waste, and an overall information on the facilities and equipment concerned.	Target Organization: Ministry of Environment, waste management section/ Ministry of Industry ,waste management section  Target Group:
	(1) Technical university graduates or holders of equivalent technical knowledge & professional experience (2) Technical officials in the central or local government with more than 5 years of practical experience in the field of industrial waste management and recycling (3) 30–45 years old
CONTENTS	PROGRAM PERIOD under planning
(1) Present status of industrial waste management & recycling in Japan     (2) Related legislation and strategies established in Japan     (3) Implementation of countermeasures towards the creation of recycle—oriented	IMPLEMENTING PARTNER Clean Japan Center
society (standardization / green purchasing / product assessment	JICA CENTER JICA Tokyo(Economy&Env.)
(including LCA) / 3R-oriented design (Design for Environment)) (4) Present status of recycling by products in Japan (packaging & containers / home electrical appliances / foods / construction	COOPERATION PERIOD 2009~2011
	REMARKS and be implemented twice within JFY2010

Seminar on Comprehensive Solid Waste Management and the 3R 廃棄物総合管理及び3R	PITD Solution 1080974 Sector: Environmental Management Sub-Sector: Urban Solid Wastes		
	12 participants / English		
OBJECTIVE	TARGET ORGANIZATION / GROUP		
The expected outcome of this program is for the organization to which a participant belongs to sort out directions of policy development for the improvement of waste management in their own countries based on an action plan to be drawn up by the participant through this program.  1 To be able to explain the overview and guiding principles of Japan's policy systems and technologies for waste management and the establishment of sound material—cycle society.(semi—senior object)  2 To be able to explain the overview and features of Japan's systems and policies for waste management and the 3Rs  3 To be able to explain waste management technologies that could be applicable to their own countries  4 To draw up an action plan for the improvement of waste management and recycling administration, taking account of the analysis of issues the participant's organization are facing.	t 1) Be ranked as at least a director general or a director in charge of SWM planning in central governments, provincial governments or local bodies 2) Have more than 2 years' experience in the relevant field 3) Be university graduates or possess equivalent technical qualifications in this field 4) Language: have a competent command of spole		
CONTENTS	PROGRAM   Jun / 13 / 2010		
L: History of Japan's waste management L: Institutions and mechanisms for waste management in Japan L: Public cleansing activities at local governments	IMPLEMENTING PARTNER Japan Environmental Sanitation Center		
L: Public awareness and environmental education	JICA CENTER JICA Yokohama		
L: International promotion of the 3Rs L: Technology for waste treatment and disposal V: refuse transfer stations, intermediate treatment facilities, recycling facilities,	COOPERATION PERIOD 2010~2012		
V: refuse transfer stations, intermediate treatment facilities, recycling facilities, final disposal facilities, research institutions L, V: Human waste treatment in Japan Practice: Analytical techniques of refuse and water quality Exercise: Presentation of country report Exercise: Group discussions Exercise: Drawing up action plans Exercise: Presentation of action plans	REMARKS and WEBSITE		

Urban Solid Waste Management by Local government 地方自治体における都市廃棄物処理		PITD Solution Sector : Environmental Management -Sector : Urban Solid Wastes	1080802	
		10 participants /	English	
OBJECTIVE	TARGET ORGANIZATION / GROUP			
proposed and discussed in participatory countries and organizations based on the action plans designed by participants.  [Outputs] (1) To realize issues on solid waste managements and get hints to address them through exchange the information and ideas with lecturers and/or other participants (2) To acquire knowledge and skills of urban waste countermeasures through the introduction of detailed actual conditions of waste treatment in major Japanese cities, mainly focused on Osaka city (3) To explain the role of citizens and the importance of the collaboration between	[Target Organizations] Local governments (or national governments' sections which support local governments' organizations) are in charge of urban solid management waste [Target Group] 1. Engineer or administrative officials of waste management experience or an equivalent level of knowledge 2. Experience in the relevant field: have more to 3 years' experience			
CONTENTS	PROGRAM PERIOD	Aug / 9 / 2010 ~ Oct / 2	0/2010	
1. Preliminary: Country Report preparation as a matrix form, which marshal their issues and the training modules in Japan. 2. In Japan:	IMPLEMENTING PARTNER	Global Environment Centre Fou (GEC) , Osaka City Environmen	ındation nt Bureau	
(1) Current situation and problems with waste management in Developing Countries	JICA CENTER	JICA Osaka		
(Workshop, Presentation and Discussion) (2) Current Situation and Problems of Waste Management in Japan (Lecture, Observation and Exercise)	Situation and Problems of Waste Management in Japan (Lecture, COOPERATION 2008~2010	2008~2010		
<ul> <li>(3) Collection and transport work (Lecture, Observation and Exercise)</li> <li>(4) Intermediate treatment work (Lecture, Observation and Exercise)</li> <li>(5) Final disposal (Lecture, Observation and Exercise)</li> <li>(6) Waste that requires special treatment (Lecture, Observation and Exercise)</li> <li>(7) Collaboration with Citizens (Lecture, Observation and Exercise)</li> <li>(8) Country Report/Action Plan Making (Exercise, Presentation and Discussion)</li> <li>3. After returning: Participants explain the action plans to their organizations.</li> <li>Participants report their activities on fields to JICA &amp; implementing partners.</li> </ul>	REMARKS and	IMPLEMENTING PARTNER Environment Centre Founda (GEC) http://gec.jp/	· .	

Solid Waste Management by Local Government 地方自治体における廃棄物処理	Sub-	PITD Sector : Environmenta -Sector : Urban Solid		1080091
		14 participants	· /	English
OBJECTIVE	TARG	ET ORGANIZA	TION / GRO	DUP
A draft plan for improvement of solid waste management will be formulated by a local government of an area designated as a model.  [Outputs]  (1) To grasp the reality and issues on waste management and to extract practical hints for solution through exchanging views among participants (2) To be able to explain the current state of measures against waste taken by a local government for the effective use in each country. (Planning, effective collection and transportation method, sanitary treatment/disposal method, etc.) (3) To be able to explain the roles of and cooperation among citizens, businesses, and local governments for the appropriate waste management (4) Action plan is formulated to solve issues related to waste management based on the reality of each country (5) Action Plan will be studied by each participating organization	Target Organ: Local governme in solid waste n designated by e Target Group (1) Current Du technical office management. C in charge of sup qualified. (2) Experience: in the field of s equivalent leve (3) Others: par solid waste man	ents & related of management of a cach country.  Ities: be an admorent rengaged in so officers of the noporting local generated have more that olid waste treat of knowledge. ticipants should	a model are  inistrative blid waste lational gov government an 3 years' thment or ha d stay enga	ea officer/ ernment, s, are also experience ave ged in
CONTENTS  [Preliminary Phase in a participant's home country] Formulation and submission of Inception Report	PROGRAM PERIOD IMPLEMENTING	Aug / 22 / 2010 Hyogo Environm		
[Core Phase]		Association		
Related to output (1): Sharing the information & ideas on waste (type and composition) through report presentation & discussion	JICA CENTER	JICA Hyogo		
Related to output (2): Waste treatment planning, Reducing wastes, Waste collection, Intermediate treatment, Waste incineration, Final disposal, Recycling.	COOPERATION PERIOD 2008~2010			
Discussion and suggestions to apply the above mentioned items to participants' countries.  Related to output (3): Citizens's role and and the importance of the collaboration between local government & citizens in the field of solid waste management.  Environmetal education and public awareness to reduce waste.  Related to output (4): Workshop and Discussion to design action plan and its improvement through individual guidance  [Finalization Phase] Submission of final report to JICA	REMARKS and WEBSITE	Guidance cons participanting be provided for This course wi twice for JFY 2 is from Jan. 10	country's s r each part ll be impler 2010. The s	situation will icipant. mented second one

## Waste Management Technology and 3Rs for Central and South American Countries 中南米地域 廃棄物処理技術及び3R Target Countries: South American Countries

PRTD Solution 1084026 : Environmental Management

Sub-Sector: Urban Solid Wastes

#### 13 participants Spanish **OBJECTIVE** TARGET ORGANIZATION / GROUP [Objective] Target Organization The Plan to improve solid waste management administration is officially formulated Central or local government in charge of solid by the participants organization, based on the Action Plan proposed through the waste management including 3R (Reduce, Reuse program in Japan. and Recycle) [Outputs] [Target Group] 1. Understand administration system of solid waste management aiming at 1. Officers in charge of solid waste management establishment of a sound material-cycle society including 3R (Reduce, Reuse and Recycle) in 2. Understand waste treatment technology (collection and transportation, central / local government intermediate treatment, final disposasl, reuse and recycling etc.) 2. Have at least five (5) years of practical work 3. Propose Action Plan in order to improve and strengthening of solid waste experience management administration, based on analysis of each problems and obtained knowledge and skills in Japan PROGRAM PERIOD **CONTENTS** Aug / 17 / 2010 $\sim$ Oct / 1 / 2010 [Preliminary Phase] Preparation and submission of Country Report ①Japan Environmental Sanitation Center, ②Environmental Affairs Bureau, City of Sapporo **IMPLEMENTING** [Phase in Japan] PARTNER 1. Administration system of solid waste management: Waste management system in Japan, Approach to 3R for establishing a sound material-cycle society, Waste JICA CENTER JICA Sapporo management and 3R policies at local government, Environmental(waste) education, COOPERATION Partnership with community 2010~2012 **PERIOD** 2. Waste treatment technology: Collection and transportation, intermediate treatment, final disposal, reuse and recycling, Compost etc. 3. Propose "Action Plan": Presentation of Country Report, Discussion, Presentation of Action Plan [Finalization Phase] Submission of the "Final Report" describing the progress of REMARKS implementing the Action Plan within 3 months and WEBSITE

Waste Management for Promoting Recycling-Oriented Societies in Central and South America 中南米地域 循環型社会形成促進のための廃棄物管理	Sub-	PRTD So Sector : Environmental M -Sector : Urban Solid Was	_	1084146
Target Countries: Central and South American Region		29 participants	/	Spanish
OBJECTIVE	TARG	ET ORGANIZATION	ON / GRO	UP
[Objective]Comprehensive master plan or related action plan on SWM will be formulated, and accordingly, the SWM system shall be improved. Thus, current problems/ challenges in the said field will be solved and recyclable society will be further promoted in Central and South America.  [Expected Results] 1)Understanding the outline and charactaristics of administrative waste management in Japan and extracting hints for improvement comparing with the status of respective country. 2)Understanding technologies for waste treatment and recycling. 3)Mastering know-how on encouragement for environmental awareness practicing by themselves focusing on waste management. 4)Presenting each of their plan in national/local government to be improved on waste management system for establishing a sound Material-Cycle Society and their role and duty accordingly.	governmentwho management pr American coun engouraged to [Target Group] •administrative management se matter(technica appropriate for •5years or mor	officer in Environation, who under	olid waste l and Sou nment of nmental stands te earcher is vaste man	oth ficials are chnical s not
CONTENTS	PROGRAM PERIOD	May / 17 / 2010	∼ Jul /	/ 3/2010
[Preliminary Phase in home country] Formulation of Inception Report [Core Phase in Japan] 1)Understanding Japanese policy, treatment system and recycling laws on waste	IMPLEMENTING PARTNER	International Cen Technology Trans		
management. Presenting current situation and problems of each country, local area	JICA CENTER	JICA Chubu		
and workplace through Job report in order to share with participants and clarify each problem.  2) Verifing 3R's methods, management system & technology for plastics, domestic	COOPERATION PERIOD	2010~2012		
appliances & automobile based on Japanese recycling laws.  3)Understanding each role and duty for encouraging environmental awareness in local government, NPO, School, household, enterprises and community.  Considering practical 3R's activities in small scale unit involving the local people for establishing a sound Material-Cycle Society.  4)Deliberating and making framework of masterplan or action plan as a result of the course to solve their problems and presenting the plan.  [Finalization Phase in home country] Implementation of Action Plan	REMARKS and WEBSITE			

#### Capacity Development for Local Government in Comprehensive Solid Waste PRTD Solution 1084017 Management in the Republic of Peru ペルー国向け地方自治体のための固形廃棄物総合管理 : Environmental Management Sub-Sector: Urban Solid Wastes Target Countries: PERU 15 participants Spanish OBJECTIVE TARGET ORGANIZATION / GROUP [Objective] Target Organization Local Gov'ts which are the A concreat Master Plan or Action Plan will be formulated or revised in each local target of Yen Loan project on waste management. government which the participants belong to. [Target Group] [Expected Results] ·administrative officer in Environmental management section, who understands technical 1)To extract clues for improvement through understanding outline and features of the Japanese solid waste management and comparing to own country. matter(technical manager or researcher is not 2)To understand technics related to treatment of the solid waste and recycling. appropriate for this course) 3)To aquire know-how for promoting ebvironmental consciousness through •5 years or more experience in waste management experiences preferred to be a graduate of university 4)To present the plan for improving the system of the solid waste management in own organization and actual activities and responsibility of participants. **CONTENTS** Jan / 31 / 2011 ∼ Mar / 13/2011 [Preliminary Phase] Formulation of Inception Report **IMPLEMENTING** International Center for Environmental Technology Transfer PARTNER [Training Program in Japan] 1) Find out the current problems and the improving plan among participants and JICA CENTER JICA Chubu overview of Solid Waste Management in Japan COOPERATION 2) Solid Waste Management Technologies 2010~2012 **PERIOD** 3) Environmental Education and awareness raising 4) Action Plan Development [Finalization Phase] Implementation of Action Plan REMARKS and WEBSITE

Dissemination of Education for Sustainable Development through environmental education in Pacific Region 大洋州地域 環境教育を通じたESD(持続可能な開発のための教育)の普及	PRTD Solution 1084074 Sector : Environmental Management Sub-Sector : Urban Sol id Wastes		
Target Countries: Nauru, Solomon Is., Marshall, samoa, Tonga, Palau	6 participants / English		
OBJECTIVE	TARGET ORGANIZATION / GROUP		
[Objectives] Under the theme of the waste disposal problem which is the common characteristic in Oceanian countries, ESD promotion plan will be formulated as suit the each countries' condition. [Outputs] (1)To understand the Japan's environmental policy and projects. (2)To understand the education for community and human development in a sustainable way through environmental issues. (3)To understand waste disposal problems, international trends and an environmental education. (4)To learn planning of problem solution and business promotion method utilizing the regional characteristics. (5)To formulate action plans for sustainable development of a region in each country.	[Target Organizations]		
CONTENTS	PROGRAM   Oct / 3 / 2010 ∼ Oct / 23 / 2010		
<ul> <li>1. •To take lectures about outline of basic environment plan of central and local government in Japan.</li> <li>•To take lectures about autonomy's activities from Nishinomiya City.</li> </ul>	IMPLEMENTING PARTNER  Learning and Ecological Activities Foundation for Children		
2. •To take lectures about basic notion of ESD	JICA CENTER JICA Hyogo		
•To visit the sites of education and activity of ESD in Nishinomiya City 3. •To visit Nishinomiya Waste Treatment Facility and private waste treatment facility	COOPERATION PERIOD 2008~2010		
•To take lectures about economic activity related to waste products and international trend 4. •Visit a school and local community to learn environmental education for waste products •To have a workshop of business solution about regional development 5. To make up an action plan through a workshop	REMARKS and WEBSITE		

Solid Waste Management with Community Participation 市民参加型廃棄物管理研修	Sub-	PRTD S Sector : Environmental   -Sector : Urban Solid Wa	-	1084224
Target Countries: ASEAN countries		10 participants	/	English
OBJECTIVE	TARG	ET ORGANIZATI	ON / GRC	UP
approved in organizations.	This program is offered to governmental organizations which are engaged in solid was management or environmental education for citizens.			
CONTENTS	PROGRAM PERIOD	Sep / 5/2010	~ Oct	/ 30 / 2010
Overview of waste management and its legal frameworks in Japan. OTrash separation, collection and treatment system in local governorates. OTechnologies in recycling solid waste and industrial waste	IMPLEMENTING PARTNER	Kitakyushu Intern Techno-Cooperat	ational ive Associa	ation (KITA)
OTechnologies in treating medical waste and hazardous waste OEnvironmental education and enlightment in local government	JICA CENTER	JICA Kyushu		
OEnvironmental activities by related facilities and organizations ODiscussion on environmental activities with citizens	COOPERATION PERIOD	2010~2012		
- 0	REMARKS and WEBSITE			

	ı	ı		
Establishment of Sound Material Cycle Society for ASEAN Countries アセアン地域 循環型社会の構築	PRTD Solution 108 Sector : Environmental Management Sub-Sector : Urban Solid Wastes			1084006
Target Countries: ASEAN Countries		6 participants	/	English
OBJECTIVE	TARG	ET ORGANIZATIO	ON / GROU	)
Objective Policy related to 3R and environmental education at national and local level is formulated for promoting establishment of sound material cycle society.  [Expected Results] (1) Participants will be able to explain the overview of the system for establishment of sound material cycle society in central and local government of Japan. (2) Participants will be able to explain the measures to understand concrete efforts implemented by local government and private company. (3) Participants will be able to explain the environmental education activity and management of final disposal site. (4) Participants will be able to formulate action plan for introduction of practical 3R and environmental education activities.		government and N		
CONTENTS	PROGRAM PERIOD	Jan / 10 / 2011	~ Feb / 1	9/2011
Participants will learn followings through lectures, site visits and practices; (1)Introduction of legal system for sound material cycle, Introduction of 3R system and environmental management in Japan, Administration of industrial waste	IMPLEMENTING PARTNER	Kitakyushu Interna Techno-cooperativ		n (KITA)
management, International waste material flow in Asian countries	JICA CENTER	JICA Kyushu		
(2)Overview of eco town project, Separate collection in offices and household, Data collection and analysis for general waste, Hazardous waste treatment in hospital (3)Environmental education for citizens, River clean-up campaign by citizen,	COOPERATION PERIOD	2009~2011		
, ,	and	KITA website: http://www.kita. x.html	or.jp/englis	sh/e_inde

#### Sustainable Solid Waste Management in Caribbean Islands カリブ島嶼国における持続可能な廃棄物管理 PRTD Solution 1084305 : Environmental Management Sub-Sector: Urban Solid Wastes Target Countries: Caribbean Coutries 12 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP [Course Objective] Target Organization Ministries, Agencies and NGOs concerned with The issues on sustainable solid waste management in small islands which participating organization are facing will be directed, and the practical measures to solid waste management the issues will be formulated. [Target Group] 1) Current Duties: Be involved (currently or [Expected Module Output] (1) Issues on sustainable solid waste management in participating country will be possibly in the near future) in solid waste solved management (2) Issues on sustainable solid waste management will be solved, regarding 2) Experience in the relevant field: have more than five (5) years' practical experience in the above Okinawa's case. (3) Issues on establishing participatory solid waste management will be solved. field (4) To be able to formulate an institutional action plan which aims for solving a issue in sustainable waste management. (5) The action plan will be shared and submitted in participating organization. CONTENTS Jun / $1/2010 \sim Jul / 10/2010$ <a href="#">Activity in Preliminary Phase in home country></a> **IMPLEMENTING** Formulating a Job Report describing the present situation of solid waste PARTNER Okinawa Citizens' Recycling Movement management in the participants' countries, and participants' detailed work and roles of their organization. JICA CENTER JICA Okinawa Activity in Core Phase in Japan> This program consists of lecture, field work, COOPERATION observation tour and discussion. (1) Formulation and presentation of Job Report 2009~2011 **PERIOD** (2) Solid Waste Management Legislation in Japan, Outline of Solid Waste Administration in Okinawa, Waste management in Japan, Waste management in developing nations, Current situation and issues of final disposal site, Fukuoka Landfill Method, Role of municipality, Naha Clean Center and Recycle-plaza This course will be implement twice (3) Necessity for citizens and companies to cooperate, Recycling, Environmental REMARKS for JFY2010. The second course is education (4) Discussion on the plan which aim sustainable solid waste and scheduled from 26th Oct. to 4th WEBSITE management, Discussion on the direction for solution creation, Formulation and Dec. in the same content. presentation of an action plan <Activity in Finalization Phase in home country>

Creation of Recycling Society based on Hazardous Waste Management and Appropriate Disposal in Asia 有害廃棄物管理・適正処理を基盤とするアジアの循環型社会形成	Sub-	PRTD So Sector : Environmental M -Sector : Industrial Soli	-
		10 participants	/ English
OBJECTIVE	TARG	ET ORGANIZATION	ON / GROUP
Issues for implementation/improvement of the Hazardous Waste Management and the waste recycling are identified, and the policy direction becomes clear. To be able to explain the issues of hazardous waste, including their background and exsiting counter measurs. Respective duty and issues within his/her organization will be confirmed/identified.  To understand the waste management administration system for recycle-based society, and be able to compare the case of Japan with respective country's situations.  To understand the technology of hazardous waste disposal(Waste collection, Transportation, Intermediate Processing, Final Disposal, Reuse, Recycling) and be able to compare the case of Japan with their respective country's situations.  Based on the problem analysis of each organization, which participants come from, the action plans in resepctive country will be prepared.  Discussions on the future plans for improvement of Hazardous Waste Management administration are undertaken and clear future directions are presented.	in charge of har and central gov 2) Educational or possess equifield 3) Language: h. and written Eng 250 or more 4) Health: must and mentally, t 5) Must not be 6) Age: be under	zardous waste mayernment agencies Background: be u ivalent technical of ave a competent glish which is equ t be in good healt o undergo the co- serving any form	university graduates qualifications in this command of spoken al to TOEFL CBT th, both physically
CONTENTS	PROGRAM PERIOD	Jul / 13 / 2010	~ Aug / 14/2010
Make the Job Reports, presentations and discussions.  Discuss for problem resolution of trainee by learning the policy for formulation the recycle-based society by the national and local government, the system for waste	IMPLEMENTING PARTNER		ntal Sanitation Center
management administration and role of stakeholder.	JICA CENTER	JICA Yokohama	
Discuss problem resolutions of trainees by learning the efforts about the hazardous waste disposal technology used by local government and private companies through lectures, field visits and practical work.	COOPERATION PERIOD	2010~2012	
waste disposal technology used by local government and private companies through	REMARKS and WEBSITE		

(5) Share and modify the action plan in respective organizations

#### Cleaner Production through Productive Maintenance 生産保全によるクリーナープロダクション PITD Solution 1080885 Sector: Environmental Management Sub-Sector : Cleaner Production 17 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP [Objective] (target organization) Integrated plan to introduce cleaner production based on productive maintenance This program is offered to engineers engaged in will be formulated, and proposed to target organizations. facility maintenance management in energy-related facilities or institutions related to promotion of CP. [Expected Results] (1)Participants will be able to explain the basic concept of CP technology for productivity improvement and energy conservation in Japan. (2)Participants will be able to explain the management measures for effective maintenance site and prevention of occupational and maintenance accident. (3)Participants will be able to explain maintenance technology and training methodology for energy conservation and productivity improvement in Japan. (4)Participants will be able to formulate action plan for introduction of CP technology. **CONTENTS** 1/2010 ~ Nov / 20/2010 Aug / Participants will learn followings through lectures, site visits and practices; **IMPLEMENTING** Kitakyushu International Techno-cooperative Association (1) • Global environmental issue and basic knowledge of cleaner production **PARTNER** ·History and current situation of environmental management in Kitakyushu city · Necessity of maintenance management JICA CENTER JICA Kyushu (2) • Management measures in productivity and maintenance site COOPERATION ·Methodology of how-to advance and improve maintenance management in each 2009~2011 **PERIOD** element of job ·Methodology for prevention of occupational and maintenance accident and risk management (3) History and background of maintenance management for productivity The program will be implemented REMARKS improvement and energy conservation twice for Japan fiscal year 2010: first •Technology and Training methodology for maintenance management and from Aug. 2010 to Nov. 2010, and ·Introduction of technology, methodology and supporting tool WEBSITE second from Jan. 2011 to Apr. 2011.

(4) • Presentations and formulation of progress report

Cleaner Production in Process Industries for Latin American Countries (for Managers and Engineers of Process Industries) 中南米地域 プロセス工業におけるクリーナープロダクション	Sub-	PRTD So Sector : Environmental M -Sector : Cleaner Product		1084155
		13 participants	/	Spanish
OBJECTIVE	TARG	ET ORGANIZATION	ON / GRO	UP
To be able to set the plan and goal in order to utilize Cleaner Production method in the production process of industrial material in order to solve the environmental problem, caused by industrialization in developing countries  [Outputs]  (1)To be able to explain the concept and specific usage method of Cleaner Production techniques.  (2)To be able to design or improve equipment to allow the reduction of environmentally—harmful waste products and keep resource and energy usage to a minimum.  (3)To be able to keep the release of environmental pollutants and raw material and energy loss associated with equipment trouble to a minimum through improving reliability of equipment, and maintaining efficiency.  (4)To be able to create an action plan for the introduction of Cleaner Production techniques.	industries such and steel, food 【Target Group Managers or er industries	pelonging to the f as chemical, peta and ceramic plan	roleum re t	finery, ion
CONTENTS	PROGRAM PERIOD	Aug / 9/2010	~ Nov /	26/2010
(1) Recent situation of global environment, Cleaner Production, TPM, 5S, Kaizen Activity, New QC Seven Tools, PCM, Plant Visit (2) Selection of Equipment, Selection of Motors, Selection of Materials, Corrosion	IMPLEMENTING PARTNER	Kitakyushu Interna Techno-cooperativ	ational ve Associat	tion
and Protection, Sequence Control, Process Control, Plant Visit	JICA CENTER	JICA Kyushu		
(3) Maintenance Management, Maintenance in Actual Plant, Visual Maintenance Management, Diagnosis TechniquePlant Visit (4) Orientation of training course, instruction of making action plan, instruction of	COOPERATION PERIOD	2008~2010		
Management, Diagnosis Technique Plant Visit	REMARKS and WEBSITE	This seminar will twice for JFY 20 is scheduled fron late May 2011 in content.(The ter course is not yet	10.The sen early Fent the same of this	econd one eb 2011 to e training

#### Promotion of Cleaner Production for Southern and Eastern European Countries 南東欧地域 クリーナープロダクション振興 PRTD Solution 1084076 : Environmental Management Sub-Sector : Cleaner Production 10 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP [Objectives] Target Organizations Participants will understand knowledge and techniques regarding cleaner Enterprise including former national enterprise in energy consumption industry, governmental producution aiming to develop an action plan to promote cleaner production activities in their countries. organization in charge of cleaner production, [Outputs] environment [Target Group] (1) To understand the definition, concept, necessity, role of governmental and private sector regarding cleaner production. (1)Individuals from above-mentioned organization (2) Individuals with more than 5 years occupational (2) To understand the knowledge and techniques regarding technology to minimize environmental impact. experience in this field (3) To understand the knowledge and techniques regarding energy conservation technology. (4) To understand the knowledge and techniques regarding resource saving technology. (5) To understand the knowledge and techniques regarding recycling technology. PROGRAM PERIOD **CONTENTS** Oct / 11 / 2010 ~ Nov / 20/2010 (1) Definition, concept, necessity, role of governmental and private sector **IMPLEMENTING** Kitakyushu International Techno-Cooperative Association regarding cleaner production, Green productivity, Public awareness activity, **PARTNER** Environmental law, Recycling society and global issue, Environmental administration and monitoring system, Inspection and guidance system for private JICA CENTER JICA Kyushu COOPERATION (2) Zero emission, Wastewater treatment (Plating waste), Exhaust emission control 2008~2010 **PERIOD** system, Reduce of solid waste, Environment impact assesment (3) Energy conservation and global issue, Energy conservation law and its enforcement in Japan, Energy management in a plant, Case study - Energy Participants will understand conservation activities in a plant, Energy conservation technology on heating comprehensive knowledge and furnace, Machine condition diagnosis techniques REMARKS techniques regarding cleaner (4) Production control, Program Evaluation and Review Technique (PERT), Quality and producution including technology Control using QC 7 tolls, Total Productive Management (TPM), Productivity and WEBSITE components of low enviromental equipment maintenance, 5S activity loading, resource saving, and (5) 3R(Reuse, Reduce, Recycle), Economy aspects of recycling, Support to private recycling.

company for 3R, Reclaimer of scrap metal, Separation and collection of waste			
Tropical Biomass and Bio-fuel Utilization 熱帯バイオマスおよびバイオ燃料利用	Sub-	PITD Trainers Sector : Environmental Management -Sector : Global Warming	1080032
Target Countries: Countries located in the tropical and subtropical area.		6 participants /	English
OBJECTIVE	TARG	ET ORGANIZATION / GF	ROUP
[Course Objective] The technologies for the effective utilization of biomass/bio-fuels that suit the condition of the home country in the tropics and the subtropical area are shared in the organization. [Expected Module Output] (1) To be able to explain the approaches to create the sustainable and re-cycling oriented society using biomass/ bio-fuels. (2) To be able to estimate the amount of the biomass resources or bio-fuels. (3) To master the Individual technologies for the planning of biomass/bio-fuels utilization. (4) To be able to make a plan for effective utilization system of biomass/bio-fuels based on the above-mentioned (1) to (3). (5) The action plan made in the training in our country is shared in the trainee's belonging organization, and it is corrected if necessary.	biomass and bious and bious arguments (1) Be administ planning of bious bious arguments with the presently work promoting bioms.	body and NPO engaged offuel utilization  rative officials presently mass utilization / researching process of biomass as an adviser to plannin	engaged in ch officials utilization / g and
CONTENTS	PROGRAM PERIOD	Sep / 28 / 2010 ∼ No	v / 27/2010
<activity country="" home="" in="" phase="" preliminary=""> Formulating a Job Report describing the present situation of biomass resources and its utilization in the participants' countries, and participants' detailed work and</activity>	IMPLEMENTING PARTNER	The faculty of agriculture, the Ryukyus	University of
roles of their organization.	JICA CENTER	JICA Okinawa	
<ul> <li>Activity in Core Phase in Japan&gt;This program consists of lecture, field work, observation tour and discussion.</li> <li>Environmental problems such as global warming and energy problem, Basic</li> </ul>	COOPERATION PERIOD		
frameworks of Biomass Nippon and Biomass Asia  (2) Estimation of the total amount and usable biomass/bio-fuels resources  (3) Production, collection and transportation of unused biomass and energy crops, Energy conversion technologies, Conversion of biomass as materials and its utilization, Measurement, monitoring and evaluation  (4) PDCA of biomass/bio-fuels utilization system, Formulation and presentation of action plan.  (Activity in Finalization Phase in home country)  (5) Share and discuss, modify the action plan in respective organizations	REMARKS and WEBSITE		

Adaptation for Climate Change 気候変動への適応	PITD Solution 1080 Sector: Environmental Management Sub-Sector: Global Warming			
		20 participants	/	English
OBJECTIVE	TARGET ORGANIZATION / GROUP			
impact assessment and vulnerability assessment in participants' organizations.  [Expected Results]  (1) To understand the current situation on adaptation to Climate Change in	[Target Organizations]			lanning office. int of of
CONTENTS	PROGRAM PERIOD	Sep / 26 / 2010	~ Oct / 2	7/2010
【Preliminary Phase】 •To make Inception Report	IMPLEMENTING PARTNER	JICA Tsukuba (ten	tative)	
[Core Phase in Japan]	JICA CENTER	JICA Tsukuba(Tra	aining&Partn	ership)
(1)~(3)To acquire the necessary skills and techniques of adaptation for Climate Change issues through lectures, discussions, practical exercises, site visits, etc.  •International framework and negotiation on adaptation to Climate Change	COOPERATION PERIOD 2008~2010			
<ul> <li>Climate Change policy in Japan</li> <li>Impact assessment and vulnerability assessment, measures, technology and cases on adaptation for Climate Change</li> <li>(4)To make and present Action Plan</li> <li>[Finalization Phase]</li> <li>To share and discuss the Action Plan(draft) in the participants' organizations</li> <li>To make and submit Final Report (within 6 months since returning home country)</li> </ul>	REMARKS and WEBSITE			

	1	I		
Development of Strategies on Climate Change 地球温暖化対策コース	Sub-	PITD S Sector : Environmental -Sector : Global Warming	_	1080572
		15 participants	/	English
OBJECTIVE	TARG	ET ORGANIZATI	ION / GRO	DUP
[Objective] To propose and make policies (draft) on Climate Change adaptation and GHG emissions.  [Expected Results] (1)To understand the concept of integration and mainstreaming of Climate Change concerns into sustainable development policies (2)To understand how national communications are prepared as articulated in the UNFCCC Art.12 and other decisions (3)To understand methodologies to prepare a GHG inventory (4)To understand mitigation (including through market mechanisms) and adaptation of Climate Change (5)To develop Action Plan (draft)	[Target Organization] a national (or local) governmental office which is involved in Climate Change issues and/or focal point of UNFCCC [Target Group] Current Duties:officer of national (or local) governmental office Experience in the relevant field: those who have experience on Climate Change issues			r focal
CONTENTS	PROGRAM PERIOD	Jan / 10/2011	~ Mar	/ 5/2011
[Preliminary Phase] To make Inception Report [Core Phase in Japan] (1)~(4)To acquire the necessary skills and techniques on Climate Change issues	IMPLEMENTING PARTNER	Not yet determine	ed	
through lectures, discussions, practical exercises, site visits, etc.	JICA CENTER	JICA Tsukuba(T	raining&Pa	rtnership)
•relevance between Climate Change and development activities and policy tools to adopt integrated approach •co-benefits approach which achieve GHG emission reductions as well as environmental improvement •the Climate Change	COOPERATION PERIOD	2010~2012		
regime(including the UNFCC and the Kyoto Protocol) and guidelines for national communications •development of GHG inventory including the use of a computer software.  (5)To make and present Action Plan  [Finalization Phase] •To share and discuss the Action Plan(draft) in the participants' organizations, and to propose and make policies (draft) on Climate Change adaptation and GHG emissions. •To make and submit Final Report (within 6 months since returning country)	REMARKS and WEBSITE			

### Ozone Layer Protection and the Global Warming Countermeasures ~ Measures to Reduce the Controlled Substances of the Montreal Protocol and the Kyoto Protocol

#### オゾン層保護と地球温暖化対策~モントリオール議定書と京都議定書規制対象物質 の削減対策~

PITD Solution
Sector: Environmental Management
Sub-Sector: Global Warming

10 participants /

English

1080937

#### **OBJECTIVE** TARGET ORGANIZATION / GROUP [Objective] Target Organizations International regulations for high-GWP gases (HCFC etc.,) and the technical Governmental organizations or related public direction for collection and destruction of fluorocarbons will be understood and organizations that are in charge of ozone layer protection and high-GWP gases reduction capacity of implementing the fund project to reduce HCFC will be improved. [Expected Results] Participants are able (1) To examine the recent activities, issues on ozone layer protection and [Target Group] high-GWP gases such as HCFC in respective countries, and make an inception -Administrative officers who are in charge of ozone layer protection, high-GWP gases reduction, report and its presentation. / (2) To explain the relation between the Montreal Protocol and the Kyoto Protocol. / (3) To explain the recent Japan's activity, collection and destruction of fluorocarbons and method, alternative technologies to convert HCFC in the area of cleaning. management of the project on multi-lateral fund of refrigerant, foam and fumigation, and also are able to explain the system and the Montreal Protocol. technologies on collection and destruction of fluorocarbons. / (4) To develop a -Individuals with sufficient command of spoken and draft project plan utilizing the multi-lateral fund of the Montreal Protocol. / (5) To written English in the aforementioned field. introduce each activity after participation in the training course to the next trainees one year later. PROGRAM PERIOD CONTENTS Jan / 16 / 2011 ∼ Jan / 29/2011 •Presentation on actual situation on high-GWP gases, recent approach and issues **IMPLEMENTING** Japan Industrial Conference for Ozone Layer and Climate Protection (JICOP) against global warming, introduction of on-going and up-coming projects PARTNER ·Linkages between the Montreal Protocol and Kyoto Protocol •Trends in discussions at COP (Conference of Parties) JICA CENTER IICA Tokyo(Industrial Dev.&Finance) •Recent Japan's activity, method, alternative technologies to convert HCFC COOPERATION ·Introduction on collection and destruction of fluorocarbons in commercial 2010~2012 **PERIOD** refrigerators and air conditioners •Introduction of the social and economic system in which each stakeholders can fulfill their responsibilities •Development of a draft project plan related to alternative technologies to convert HCFC or collection and destruction of fluorocarbons based on the knowledge and REMARKS experiences gained through the training course and •Report of activity after returning to home country to monitor how the trainees WEBSITE have applied the knowledge obtained through the training course to domestic policies

Capacity Building for Policy Staff regarding Kyoto Mechanism 京都メカニズム担当者養成コース	PITD Solution Sector: Environmental Management Sub-Sector: Global Warming			1080793
		10 participants	/	English
OBJECTIVE	TARG	ET ORGANIZATION	ON / GRO	UP
[Objective] Enhancement of capacity of national and local government staffs in designing policies in relation to the implementation of Kyoto Mechanisms [Expected Outputs]  1. To deepen the understanding on the influence of greenhouse gas accumulation on climate change  2. To deepen the understanding on the Kyoto Protocol and its flexible mechanisms  3. To deepen the understanding on environmentally friendly technologies, including for the energy conservation and introduciotn of renewable energies  4. To deepen the understanding on roles to be played by developing countries in implementing the CDM	corresponding Points (NFP) a [Target Group] Administration	tional Authorities organizations like nd CDM related (	National offices.	Focal or other
CONTENTS	PROGRAM PERIOD	May / 31 / 2010	∼ Jul /	17/2010
[Preliminary Phase] Formulation of Inception Report [Core Phase] Lecture, Practice, Observation, and Discussion on the following subjects.	IMPLEMENTING PARTNER	International Cent Technology Transf	er for Envi er (ICETT	ronmental )
1. Influence of the accumulation of GHGs on the climate change.	JICA CENTER	JICA Chubu		
Kyoto Protocol and rules of Kyoto Mechanism     Technologies for GHGs emission reduction including technologies of energy conservation and renewable energy.	COOPERATION PERIOD	2008~2010		
4. The roles of developing countries in the implementation of CDM projects [Finalization Phase] Organizational Approval of Action Plan, Submission of Progress Report.	REMARKS and WEBSITE	role of host countr		ers from and the Lyoto uyer also

#### Mitigation of Climate Change in the Southeast Asia and Oceania Region 東南アジア・大洋州地域 地球温暖化緩和対策 PRTD Solution 1084088 : Environmental Management Sub-Sector : Global Warming Target Countries: Southeast Asia and Oceania Region 15 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP [Objective] Target Organizations To strengthen capacity of participants' organizations to develop, implement and a national (or local) governmental office which is evaluate domestic mitigation to address Climate Change in a measureable, involved in Climate Change mitigation, such as reportable, and verifiable (MRV) manner under Nationally Appropriate Mitigation Focal Point of UNFCCC etc... Actions (NAMAs). [Expected Results] [Target Group] (1) To identity policy and technical challenges for domestic mitigation actions Current Duties: (2)To understand the framework of NAMAs for mitigation actions in a measurable, officer in charge of Climate Change mitigation (Preferably an officer especially in charge of GHG reportable, and verifiable (MRV) manner, such as in the UNFCCC. (3)To make draft plan on NAMAs. inventories) (4)To make Action Plan for tackling mitigation of Climate Change through Experience in the relevant field: elaborating strategies to mobilize and introduce mitigation technologies, which are more than 3 years suitable in local conditions. **CONTENTS** Jul / 25 / 2010 ~ Aug / 28/2010 [Preliminary Phase] To make Inception Report **IMPLEMENTING** [Core Phase in Japan] PARTNER Not yet determined (1)To make a presentation of Inception Report (2)(3) • administrative frameworks and policy tools for mitigation measures JICA CENTER JICA Tsukuba(Training&Partnership) •international framework after Bali Action Plan of COP13, and its implication on COOPERATION domestic mitigation actions. 2010~2012 **PERIOD** •Collective and individual guidance given for developing Climate Change draft action plans, which may include NAMAs. •quantitative evaluation methodologies for Climate Change action plan (eg. GHG reduction). role of GHG inventory REMARKS (4) • To make and present Action Plan and This course newly starts this year. [Finalization Phase] WEBSITE •To share and discuss the Action Plan in the participants' organizations •To make and submit Final Report (within 6 months since retuning home country)

Capacity Development for Adaptation to Climate Change - Climate Change Analysi (Regional) South America Region 気候変動への適応に係る能力強化(地域別)南米地域		PRTD Solution 1084105 Sector : Environmental Management -Sector : Global Warming
		5 participants / English
OBJECTIVE	TARG	ET ORGANIZATION / GROUP
(1) 1st year: Capacity development on Cliamte change analysis and calculation in the Sounth American region. Making the roadmap for analysis paper. (2) 2nd year: Complete the analysis paper. Unit Objective 1: Japan´s cliamte adapatation measure and present effort will be correctly understood. Unit Objective 2: Present condition, technique and case on cliamte change calculation applying Earth Simulator can be explained Unit Objective 3: Data using the cliamte change scenariol will be applied Unit Objective 4: Cliamte change calculation and analysis techniques will be masterd  ★Objective might be changed after preliminary survey	Meteorological Target Group Meteorological Change modelii	echnology and Engineering, Institute Researchers in charge of Climate
CONTENTS	PROGRAM PERIOD	under planning
<ul> <li>Presentation and discussion on job report of each country.</li> <li>Presentation on Japanese Cliamte change measure by japanese expert.</li> <li>Calculation, climate change evaluation and analysis on cliamte system using the</li> </ul>	IMPLEMENTING PARTNER	Meteorological Research Institute
numerical model from meteorological laboratory.	JICA CENTER	JICA Tokyo(Economy&Env.)
<ul> <li>Characteristic of atmospherical model using 20km mesh</li> <li>Japan's contribution on climate change monitoring using Earth Simulator</li> <li>Applying output data using the climate change scenario.</li> </ul>	COOPERATION PERIOD	2010~2011
<ul> <li>Calculation analysis using the cliamte changescenario and verification with own country s data.</li> <li>★Contesnts might be changed after preliminary survey</li> </ul>	REMARKS and WEBSITE	
	WEDSITE	

Capacity Development for Adaptation to Climate Change -Climate Modering and Analysis アジア地域 気候変動への適応にかかる能力開発 一気候変動予測解析	Sub-	PRTD Solution Sector : Environmental Management -Sector : Global Warming	1084141
Target Countries:Indonesia, Philippine, Thailand, Vietnum, Bangladesh	5 participants / Eng		
OBJECTIVE	TARG	ET ORGANIZATION / GRO	UP
• to develop a capacity for adaptation to climate change, particularly forecast and impact assessment  • in the first two years: be focused on climate change forecast where a technique of climate modeling based on the 'Earth Simulator' and a downscaling method will be learned  • in the last year:impact assessment by using the climate change forecast and	[Target Organizations] University of Technology and Engineering ,Meteorological Inatitute [Target Group] Meteorological Reseachers in charge of climate change model ilng		
CONTENTS	PROGRAM PERIOD	under planning	
★1st and 2nd year (1)Lectures (a)Adaptation policy in Japan	IMPLEMENTING PARTNER	under planning	
(b)Basic concept of Climate Change Model	JICA CENTER	JICA Tokyo(Economy&Env	.)
(c) and other related lectures (2)Exercise	COOPERATION PERIOD	2008~2010	
(a)Data analysis of Climate Change Model (b)Data modeling of Climate Change (c) and other related research  ★3rd year Impact assesment (under planning)	REMARKS	Applicants are expected nominate from same organ and/or person each year far as possible. The require condition for 3rd year is planning.	nization 2years) as ired

Promotion of Project Formulation of Clean Development Mechanism in Central Asia and Caucasus Region 中央アジア・コーカサス地域 クリーン開発メカニズム案件形成促進		PRTD Solution Sector : Environmental Management -Sector : Global Warming	1084280
Target Countries: Central Asia and Caucasus Region	oub		Russian
OBJECTIVE	TARG	ET ORGANIZATION / GROUP	)
[Objective] The formulation and registration of CDM projects will be promoted in the respective countries.  [Expected Outputs]  1. To grasp the problems which the CDM related organizations in their countries have in the process of project formulation (before coming to Japan).  2. The system to provide information for the stakeholders of CDM projects will be established in the respective DNAs. (the 1st year)  3. The guideline for the formulation of CDM projects considering the situations of the respective countries will be drafted. (the 2nd year)  4. The system to provide the consultation for the registration of CDM projects will be established in the respective DNAs. (the 3rd year)  5. To contribute to the solution of the problems which CDM related organizations have, with fruits of the training program in Japan (after going back to participants' own countries).	corresponding Points (NFP) and [Target Group] Those who has engaged in the registration.	cional Authorities (DNA) or ot organization like National Foo nd CDM related offices.	eal and is
CONTENTS	PROGRAM PERIOD	Nov / 21 / 2010 ~ Dec / 22	2/2010
[Preliminary Phase] Formulation of Inception Report [Core Phase] Lecture, Practice, Observation, and Discussion on the following subjects.	IMPLEMENTING PARTNER	International Center for Environ Technology Transfer (ICETT)	mental
1. To deliberate about the way of information service considering credit buyer's	JICA CENTER	JICA Chubu	
demand and experiences in leading host countries of CDM  2. To draft the guideline for proper CDM project formulation and registration application considering CDM project potential in the respective counties, demand	COOPERATION PERIOD	2009~2011	
of credit buyers and possible difficulties in the process from project formulation to the registration.  3.To acquire various perspectives needed for the project formulation consultation through PDD formulation practice.  4. To make the action plan.  [Finalization Phase] Organizational Approval of Action Plan, Submission of Progress Report.	REMARKS and WEBSITE		

Nagoya University Global Environmental Leaders Program: Climate Change, Water and Waste Management and Biodiversity Conservation (Master's Degree: Environmental Studies / Engineering)
名古屋大学国際環境人材育成-地球温暖化対策、水•廃棄物対策、生物多様性-(長期)

LONG-TERM Leaders
Sector: Environmental Management
Sub-Sector: Global Warming

1081210

#### 4 participants English **OBJECTIVE** TARGET ORGANIZATION / GROUP [Objective] Agencies of central/local governments, private Policymakers and technitians will develop their capability of: 1) proposing and companies, or higher education bodies related to practicing approaches to solve the problems with a correct understanding of local climate policy and mitigation technology. situations, 2) coping with cross-sectoral and emerging problems, and 3) communication in the policy dialogues etc. that suits conditions of local society. [Expected Results] (1) To acquire the theories, advanced knowledge and the problem-solving way of thinking. (2) To improve practical abilities through the internship and seminars to solve the problems in the original countries of the participants. (3)To acquire the ability to wrap up and publicize special reports logically and make actions based on them. **CONTENTS** Sep / 17 / 2010 ∼ Sep / 30/2012 This program aims to develop global environmental leaders who are able to propose **IMPLEMENTING** Global Environmental Leaders Program, Nagoya University practical measures to solve the problems of climate change. PARTNER (1) The participants will take lectures, workshops and seminars under this course as JICA CENTER JICA Chubu required by the curriculum model and acquire credits (at least eight) to obtain the COOPERATION degree. 2009~2011 **PERIOD** (2) The participants will have a training or internship for a certain period in partner organizations from the Chubu Consortium for Environmental Leaders Development (cooperating body of this program). (3) The participants will complete a dissertation based on research instruction by main and assistant supervisors. REMARKS The dissertation should identify and analyze an important issue in their original and country, and provide measures to be taken to solve it. WEBSITE

Workshop on Administration of Environmental and Social Consideration Process for Implementation of a Japanese ODA Loan Project 円借款事業における環境社会配慮実務	PITD Leaders 108 Sector : Environmental Management Sub-Sector : Other Environmental Management Issues			
		36 participants	/	English
OBJECTIVE	TARG	ET ORGANIZATIO	ON / GRO	UP
Environmental and Social Considerations (ESC) to implement appropriate ESC and helping them to acquire the requirements for implementation of a Japanese ODA Loan project [Expected Result] (1) To be able to explain necessity of adequate environmental and social considerations referring to lessons from experience of ODA projects (2) To be able to explain outline of guidelines of environmental and social considerations required for a Japan's ODA loan project (3) To understand the fundamental ideas of EIA and to be able to explain their	Project (or a provision pr	tion body of a Jap roposed project), nd social consider 1 (2) the implemer	which rectation in the state of	quires e ody of the ience in harge of EIA ich the
CONTENTS	PROGRAM PERIOD	May / 23 / 2010	$\sim$ Jun /	5/2010
[Preliminary Phase] Formulatino of Inception Report	IMPLEMENTING PARTNER	Overseas Environn Center, Japan(OEC		peration
(1) Experience of environmental and social consideration for ODA projects and its	JICA CENTER	JICA Tokyo(Econ	omy&Env.	)
lessons, lessons and learns of large scale development project in Japan, Project economic analysis of a project and environmental and social consideration (2) Environment and Social Consideration of JICA	COOPERATION PERIOD	2008~2010		
(3) Overviews of EIA (Social Environmental Assessment, EIA Process (Screening, Scooping, Mitigation, Public Hearing & Transparency /Accountability, Monitoring & Follow-up) (4) Country Report Presentation, Case Study, Environmental Assessment law in Japan(Comparative study), Writing on findings through the program	REMARKS and WEBSITE			

Pollution Control for Hazardous Substances in the Environment 環境中の有害汚染物質対策	PITD Leaders 1080 Sector : Environmental Management Sub-Sector : Other Environmental Management Issues			
		6 participants	/	English
OBJECTIVE	TARG	ET ORGANIZAT	ION / GROU	JP
Objective> Participants will acquire the abilities to evaluate on the environmental pollution, and formulate measures to prevent pollution due to hazardous substances. Outputs> (1) Understand recent conditions and history of pollution caused by hazardous substances, including Minamata disease, etc. caused by metal contaminants. (2) Understand the effects on human health resulting from metal contaminants and other hazardous substances. (3) Understand local government's pollution controls for hazardous substances such as environmental assessment and systems based on laws and ordinances. (4) Understand analytical techniques of environmental monitoring. (5) Understand methods to identify sources of environmental pollution due to metal contaminants	charge of envir (Target Group (1) University and background, or (2) Key administ	Organization (coonmental adminity)  Graduates with a the equivalent strative engineer the environment.	istration. chemistry rs (not inclu	ıding
CONTENTS	PROGRAM PERIOD	May / 31 / 2010	~ Aug /	7 / 2010
<ul> <li>(1) Overview of Pollution Due to Hazardous Substances (Lecture)</li> <li>(2) Health Impacts, etc., of Hazardous Substances (Lecture)</li> <li>(3) Environmental Measures by Local Government (Lecture)</li> </ul>	IMPLEMENTING PARTNER	-	ent Centre	1, 2010
(4) Environmental Monitoring (Lecture/Practice)	JICA CENTER	JICA Osaka		
<ul><li>(5) Studies to Trace Pollution Sources</li><li>(6) 3R Promotion Techniques (Lecture/Observation)</li><li>(7) Pollution Control Technologies (Facility Tour)</li></ul>	COOPERATION PERIOD 2006~2010			
(8) Action Plan (Formulation/Presentation)  (Follow-up Activity after the training in Japan)  Verification of Manifested Effects of Training by Follow-up through JICA-GEC Network.	REMARKS and WEBSITE	Participants are some photos, s conspicuous ex substances poll	lides, or dat amples of h	ta of azardous

Environmental Education Focused on Fresh Water Environment -For Tertiary Level Teaching Staff- 水環境を主題とする環境教育	Sub-	PITD Sector : Environmenta -Sector : Other Enviro		1080991 ent Issues
		10 participants	s /	English
OBJECTIVE	TARG	ET ORGANIZA	TION / GRO	OUP
Action plan that spread and develop environmental education will be formulated in participatory organization.  The problems of environmental education will be pointed out.  The idea and aim of environmental education can be explained.  The skill to make textbook/program and skill of presentationlwill be acquired.  Action plan that spread and develop environmental education will be formulated.  Action plan that spread and develop environmental education will be shared and examinated.	University/Col or expected to 1) be an Univer equivalent * The secondary educe 2) be engaged of environmental of 3) Experience i 3 years experie education	engaged in enversity/ college leads course is for eation or expected to education on the relevant	vironmental ecturer or to cused on pa engaged in field: have	l education the rimary and more than
CONTENTS	PROGRAM PERIOD	Aug / 16 / 2010	0 ~ Oct	/ 15/2010
Making and submission and presentation of country report Lectures and practice on environmental idea, problem, and General public sanitation, Lectures, discussion, exercises about environmental education, making	IMPLEMENTING PARTNER	to be decided		
texbook •Environmental education in another countries networking among	JICA CENTER	JICA Osaka		
citizen, school, government •lecturers for university students by participants •Making and presentation of action plan	COOPERATION PERIOD	2010~2012		
•Sharing, examination and finilising action plan.	REMARKS and WEBSITE			

Risk Management and Residue Analysis of Chemicals for Environmental Safety 環境安全のための化学物質のリスク管理と残留分析	PITD Solution 1080811 Sector: Environmental Management Sub-Sector: Other Environmental Management Issues
Target Countries: Signatory countries of Stockholm Convention on POPs	8 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP
A draft of project for improving / diffusing the comprehensive risk management and monitoring technology will be formulated by relevant governmental organizations and this draft will be shared among those concerned.  [Outputs]  (1) To be able to explain about basic concept of risk management based on risk assessment of chemicals (2) To be able to explain about principles and operation of analytical techniques related to monitoring of chemicals in environmental resources & agricultural products (3) To acquire analytical techniques & skills in instrumental analysis, immunoassay, and bioassay (4) To submit reports at the end of 1st & 2nd half periods with given theme, and to formulate action plan on use of acquired knowledge and techniques (5) The action plan will be submitted and studied for its feasibility.	Target Organizations Administrative organizations in charge of risk management and research institutes in charge of monitoring of environmental and industrial chemicals.  Target Group (1) Current Duties: be an administration officer / supervisor in charge of risk management or a technical officer and researcher in charge of monitoring of environmental chemicals (2) Experience: have more than 3 years' experience in the field of risk management or monitoring of environmental chemicals. (3) Educational Background: be a graduate of university or equivalent
CONTENTS	PROGRAM   Feb / 28 / 2011 ∼ Aug / 13 / 2011
[Preliminary Phase] Formulation and submission of Job Mission Report [Core Phase]	IMPLEMENTING Hyogo Environmental Advancement Ass n, Kobe Univ., Hyogo Pref. Technology Center, etc.
Related to output (1): Lectures and Presentation	JICA CENTER JICA Hyogo
Basic concept of risk management of chemicals for environmental safety, outline of environmental chemicals, risk evaluation, risk management and risk communication, effects on ecosystems, human health etc.	COOPERATION PERIOD 2008~2010
Related to output (2)(3): Lectures and Lab Practices Chemical analysis for monitoring (soil, water, air & agricultural/livestock products), instrumental analysis, bioassay, and immunoassay of POPs, etc. Related to output (4): Workshop and Presentation Workshop and Guidance for Action Plan formulation. [Finalization Phase] Submission of final report to JICA within 6 months	REMARKS and WEBSITE  As legal restriction on environmental chemicals in Japan, important laws and regulation will be introduced. For producing realistic action plan, a technical advisor will be appointed for each participant.

Industrial Pollution Control Management for Middle Eastern Countries 中東地域産業環境対策	Sub-	PRTD Solution Sector : Environmental Management -Sector : Other Environmental Management	1084021 ement Issues	
Target Countries: Middle Eastern Countries		7 participants /	English	
OBJECTIVE	TARG	ET ORGANIZATION / GF	ROUP	
This program aims to enable administrators engaged in the management of industrial environments to formulate improvement plans in environmental issues/problems at work.  [Outputs] (1) To master air pollution control administration and pollution control technique, and propose a solution for the issue. (2) To master water pollution control administration and pollution control technique, and propose a solution for the issue. (3) To master waste disposal administration and recycling technique, and propose a solution for the issue. (4) To understand measurement of environmental pollutants and their affect on the human body and the nature, and propose a solution for the issue. (5) To formulate and propose Action Plan, utilizing contents of the program.	[Target Organization] Government Organization in charge of Industrial Pollution Control  [Target Group] 1) Current Duties: be a technical administrator in charge of industrial pollution control. 2) Experience in the relevant field: have more than 3 years' occupational experience in the field of industrial pollution control 3) Educational Background: be a graduate of university, majoring in engineering or the equivalent. 4) Language: be competent in spoken and written English			
CONTENTS	PROGRAM PERIOD	Jan / 10 / 2011 ∼ Apr	r / 29/2011	
1. Preliminary Phase in a participant's home country Preparation of Issue Analysis Sheet 2. Core Phase in Japan (Lecture, practice and/or field study)	IMPLEMENTING PARTNER	T K itakwichii Intornational		
(1) Air pollution control administration and pollution control technologies,	JICA CENTER	JICA Kyushu		
<ul><li>(2) Water pollution control administration and pollution control technologies,</li><li>(3) Waste treatment administration and effective treatment technologies,</li><li>(4) Measurement of environmental pollutants and their effects upon the human body</li></ul>	COOPERATION PERIOD			
and the natural world, and (5) Environmental improvement techniques, and design of an environmental improvement activity plan to suit an issue in the participant's home country.  3. Finalization Phase in a participant's home country Application and implementation of the action plan is discussed in the participant's organization and its result will be submitted by March, 2009 based on the follow-up questionnaire to be provided during the phase in Japan.	REMARKS and WEBSITE			