II. Description

1. Title: Air Quality Management Policy (**J12-00807**)

2. Period of program
Preliminary Phase in a participant's home country: December 2012 to January 6, 2013
Core Phase in Japan: January 7, 2013 to February 23, 2013
Follow-up Phase in a participant's home country: February 24 to May 31, 2013

3. Target Regions or Countries:
Argentina, Bosnia and Herzegovina, Cambodia, China, Egypt, India, Morocco, Pakistan, Viet Nam

4. Program Objective:
Through the course, participants will be able:

(1) to acquire the knowledge of whole system of air quality management,

(2) to understand the benefits of various tools for air quality management (e.g. air quality monitoring, atmospheric transport models, and emission inventory),

(3) to examine applicability of technical aspects of air pollution countermeasures (stationary and mobile sources) learned through the course in respective country, and

(4) to formulate an Action Plan for solutions of specific air quality management problems.

5. Overall Goal:
Participants are expected to contribute to the improvement of air quality management policy in their own countries by making best use of the knowledge and techniques on air quality management policy acquired in Japan.

6. Eligible / Target Organization :
Officials responsible for air quality management administration.

7. Total Number of Participants : 9

8. Language to be used in this project: English

9. Contents:
This program consists of the following components. Details on each component are given below:

	Subject	Hours	Contents
	National air quality monitoring network	1.5(L)	Air quality monitoring system/ Quality control and quality assurance/ Online data disclosure system/ Pollution warning system/ trend in concentration of air pollutants
	Countermeasures against stationary sources	2.5(L)	Pollution control measures/ Control technology against stationary sources/ Outline of laws and ordinances/ Emission Standard/ Enforcement of regulatory measures (report, spot inspection)
	Environmental impact assessment	2(L)	Concept of Environmental Impact Assessment/ Targeted facilities/ Procedure
	Air pollution control administration by local governments	2.5(L)	Roles and obligations of local government/ Relationship between Laws and Ordinances/ Pollution prevention agreement/ Guidance and spot inspection given to enterprises/ Ambient air monitoring system/ Handling complaints from residents/ Program for citizens' awareness raising
	Automobile exhaust-gas emission control	2(L)	General topics (numbers of automobiles, etc.)/ Automobile exhaust gas emission prevention technologies/ Automobile emission gas regulation (emission substances, volume, effect of low-emission vehicle, etc.)/ Outline of automobile fuel regulation (history, law enforcement situations, emission gas test, etc.)
	Automobile traffic regulation	2(L)	Background and implementation of automobile traffic regulation/ Tax and subsidy/ Awareness raising/ Environmentally Sound Transportation
	Air pollution policy case study for automobiles	8(O)	Observation of automobile traffic regulation, R & D Institute for Automobile, Automobile inspection & registration system, Automobile painting
	Transboundary air pollution	1.5(L)	Transboundary air pollution/ acid deposition/ regional cooperation
To understand the benefits of various tools for air quality management (e.g. air quality monitoring, atmospheric transport models, and emission inventory)	Techniques for measurement of air pollution and sampling	10(L/P)	Introduction/ Sulfur dioxide/ Carbon monoxide/Nitrogen oxide/ Photochemical oxidant/ Hydrocarbon/ PM and heavy metal/ Comparison of analytical methods
	Analysis technology, present situation	5(L/O)	Manufacturer of analytical instrument, Ambient air telemetry system, General ambient monitoring station, Roadside ambient monitoring station

※1 Participants in this course will make presentation of their Country Reports ***at the beginning of the training course***. For this purpose, participants are highly recommended to bring visual materials for their presentation, i.e. Power Points etc. About 30 minutes including Q&A session are allocated to each participant.
For further information on the country report requirements, please see Annex II. The country report will be the basis of Action Plan elaboration.

※2 Course participants are expected to work on personal computers intensively for various assignments during the course including elaboration of action plans. Desktop computers are available in the training center. But it is recommended that the participants bring their own personal computers, if possible, for their convenience.

(3)Follow-up Phase in a participant's home country
(February 24 to May 31, 2013)
Participating organizations produce final outputs by making use of results brought back by participants. This phase marks the end of the Program.

Modules	Activities
Follow-up Report	① Present the Action Plan in your organization, ② Disseminate your knowledge and information you obtained in your organization, and ③ Report your progress to JICA by the end of May, 2013

※3 All participants are required to submit the report (questionnaire) on the result of the discussion and implementation (in participants' organizations or countries) based on the Action Plan **within three (3) months after the end of the phase** in Japan. (Detail will be explained after the arrival in Japan)

3. **Required Documents for Application**

(1) Application Form: The Application Form is available at the respective country's JICA office or the Embassy of Japan.

(2) Country Report: to be submitted with the application form. (See the **Annex I and II**)

All participants are required to make presentation on their own reports. Approximately 30 minutes will be allocated to each presentation, for which participants are able to use Power Points and video-projector. In such case participants are requested to bring related data or materials on their arrival in Japan.

*Pregnancy
Pregnant participants are strictly requested to attach the following documents in order to minimize the risk for their health.
A) letter of the participant's consent to bear economic and physical risks
B) letter of consent from the participant's supervisor
C) doctor's letter with agreement of her training participation.
Please ask National Staffs in JICA office for the details.

4. **Procedure for Application and Selection:**

(1) Submitting the Application Documents:

Closing date for application to the JICA Tokyo : **November 30th 2012**

Note: Please confirm the closing date set by the respective country's JICA office or Embassy of Japan of your country to meet the final date in Japan.

(2) Selection:

After receiving the document(s) through due administrative procedures in the respective government, the respective country's JICA office (or Japanese Embassy) shall conduct screenings, and send the documents to the JICA Tokyo, which organizes this project. Selection shall be made by the JICA Tokyo in consultation with the organizations concerned in Japan based on submitted documents according to qualifications. *The organization with intention to utilize the opportunity of this program will be highly valued in the selection.*

(3) Notice of Acceptance

Notification of results shall be made by the respective country's JICA office (or Embassy of Japan) to the respective Government by **not later than December 7th 2012.**

5. **Conditions for Attendance:**

(1) to observe the schedule of the program,

(2) not to change the program subjects or extend the period of stay in Japan,

(3) not to bring any members of their family,

(4) to return to their home countries at the end of the program in Japan according to the travel schedule designated by JICA,

(5) to refrain from engaging in political activities, or any form of employment for profit or gain,

(6) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances participants may be required to return part or all of the training expenditure depending on the severity of said violation.

(7) to observe the rules and regulations of their place of accommodation and not to change the accommodation designated by JICA, and

(8) to participate in the whole program including the preliminary phase prior to the core phase in Japan. The beneficiary organizations are expected to support implementation of the action plans by the course participants and to utilize the knowledge/skills which participants have gained in Japan.

III. Conditions and Procedures for Application

1. Expectations for the Participating Organizations:

(1) This training program is designed primarily for organizations that intend to address specific issues or problems related to air quality management, identified in their operation. Participating organizations are expected to utilize this opportunity for those specific purposes.

(2) This program is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the program to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.

(3) As this program is designed to facilitate organizations to come up with concrete solutions for their issues, participating organizations are expected to make due preparation before dispatching their participants to Japan by carrying out the activities of the Preliminary Phase described in section II-9 .

(4) Participating organizations are also expected to make the best use of the outputs produced by their participants in Japan by carrying out the activities of the Follow-up Phase described in section II-9.

2. Nominee Qualifications:

Applying organizations are expected to select nominees who meet the following qualifications. Applicants should:

(1) be nominated by their government in accordance with the procedures mentioned in Section III-4 below,

(2) be officials responsible for air pollution control administration especially in a position to participate in planning and decision making in either central or local governments or public organizations with his/her more than 3 years of experience,

(3) have a sufficient command of spoken and written English,

(4) be university graduates or those who possess equivalent technical qualification or relevant operation in this field,

(5) be under 50 years of age (in principle),

(6) be in good health, both physically and mentally, to undergo training, and

(7) not be serving in the military.

	Subject	Hours	Contents
	Quality Control and Quality Assurance	2.5 (L)	Quality control scheme for environmental monitoring/ national training scheme
	Development of emission inventory	2.5 (L)	Types of emission sources/ Outline of emission inventory/ How to develop emission inventory
	Diffusion of pollutants in the atmosphere (model and practice)	2.5(L)	Pollutants sources and ambient concentration/ Plume model/ Meteorological effects on pollutant dispersion/ Long-term average/ Time–dependent simulation
To examine technical aspects of air pollution countermeasures (stationary and mobile sources)	Air pollution control measures by private enterprises (power, steel, automobile)	6(L)	Control measures in power, steel, and automobile industries and voluntary measures of enterprises (history)/ Corporate engagement classified by industries/ R & D in pollution prevention technologies/ Relief measures to victims/ Comparison between victims' compensation and pollution prevention cost
	Air pollution control case study at manufacturers, power stations	14(O)	Coal-fired thermal power plant/ City waste incineration plant/ Paper mill, Cement factory, Steel factory/ Demolition sites of building (asbestos control)
	Environmental impact assessment and information processing	4.5(L/P)	EIA process/ Technical theory related to evaluation(basic formula of diffusion process)/ Structure of lower atmosphere and generation of turbulence/ Plume gas concentration/ Diffusion model and simulation of air pollution/ EIA practice (including practice on calculator)/ Outline of simulation of environment/ Demonstration of PC based simulation software
To formulate an Action Plan for solutions of air pollution control problems	Country report presentation	6(P)	Presentation of Situations of the environment of participants' countries
	Action Plan workshop	10(P)	Exchanges of experiences of problems and counter-measures in air quality management
	Preparation and presentation of Action Plan	30(P)	Discussion, elaboration and presentation of action plan on air quality management improvement in the participants' countries
	Total	126	

(Notes) L: Lecture O: Observation P: Practice

(1) Preliminary Phase in a participant's home country
(December 2012 to January 6, 2013)
Participating organizations make required preparation for the Program in the respective country.

Modules	Activities
Country Report	Submission of Country Report with Application form to JICA (by November 30th, 2012)Preparation for country report presentation (See the ANNEX I and ANNEX II) Preparation for necessary documents or data for the action plan. (See the ANNEX III)

(2) Core Phase in Japan (activities in Japan, subject to minor changes)
(January 7 to February 23, 2013)
Participants dispatched by the organizations attend the Program in Japan.

Output	Subject	Hours	Contents
To acquire the knowledge of whole system of air quality management	History of Japan's countermeasures against air pollution	2.5(L)	Air pollution prevention measures (policies)/ Prevention technology/ Compensation for victims/ Roles of citizens and local government in prevention (mitigation) of air pollution/ Success factors in air pollution mitigation (education for technician, pollution control manager system, polluter-pays principle)/ Air pollution mitigation cost
	Air quality management administration	2.5(L)	Japanese administrative structure/ Current situation of air pollution/ Laws and ordinances for measures related to air quality/ Environmental Quality Standard (Significance, substances under control and standard values)/ Measures in different emission sources (stationary, mobile)/ Citizens' awareness promotion/ Measures against photochemical oxidant and PM/ Hazardous air pollutants
	Photochemical air pollution	2(L)	Present status of photochemical oxidant/ Formation mechanism of oxidant/ Secondary PM formation/Health effects caused by oxidant/ Photochemical oxidant effects on eco-system
	Environmental quality standard and health effects	2.5(L)	Health effects of air pollutants/ Environmental Quality Standard values (SO_2, NO_2, CO, PM, O_X, etc.)/ Significance of Environmental Quality Standard/ Formulation flow of Environmental Quality Standard/ Establishment of judgment criteria from the viewpoint of human health protection/
	Air pollution and climate change	1.5(L)	Climate impacts of air pollutants/ Co-benefits approach