

Project Title	Improved Information about Urban Air Quality Management (RCA)
Oracle Project Number	
Objectives	To obtain a sufficiently large set of high-quality regional data characterizing airborne particulate matter (APM) in the fine and coarse breathable modes for (i) development of a regional database that contains selected data characterizing the aerosols in the region; (ii) employment of advanced receptor models to provide a more detailed and accurate descriptions of the types and locations of pollution sources; and (iii) assessment of the effectiveness of actions taken by participating countries to reduce concentrations and impact of particulate pollution.

General Project Data

Field(s)	(7L) Isotopes and Radiotracers in Ecotoxicology and Pollution Studies
APC Code(s)	(H5) Assessment in Support of Sustainable Management of the Terrestrial Environment
Project Achievements	OUTPUTS

In order to meet the objectives of the project, five Regional Training Courses were conducted, a total of six meetings comprising of progress assessment meetings and technical meetings with the participation of end-users were held, and ten expert missions were fielded to assist the Member States in project implementation. The IAEA also provided assistance to the Member States for sample analysis as well as minor equipment required for the collection of air samples. Data coordinator services were also provided to assist Member States to compile and analyse the large volume of data collected through this project and to create a regional database.

OUTCOMES

Due to this project, a regional database combining high-quality data characterizing airborne particulate matter in the fine and coarse breathable modes has been established. The database focuses on urban, suburban, rural and industrial sampling location in 15 Member States for the sampling period from January 2003 to December 2006. It contains more than 10 000 individual filter data analyzed by nuclear analytical techniques for up to 40 chemical species. This enables fine and coarse particulate matter compositions to be quantitatively determined for each of the sampling site in these Member States. The complete, quality assured (validated) database was made available to all the participating Member States and the IAEA.

Sources of air pollution at local and trans-boundary scales were identified and quantified, using advanced receptor models. The project has generated information on the type and location of specific sources contributing to the total mass of air particulate matter. Details can be found in individual country reports presented at the Final Progress Review Meeting of the Project. Seventy five per cent of all samples analyzed (total number larger than 10 000) have been processed by advanced receptor models including PCA (principle component analysis), PMF (positive matrix factorization), CMB (chemical mass balance) and CPF (conditional probability function) for quantitative source apportionment. This number is similar to the number of Member States that have completed source apportionment of their analyzed data. The likely locations of these pollution sources have been estimated using back trajectory techniques for more than 70 % of the sampling sites. The back trajectory studies have indicated regional and trans boundary air pollution events during the sampling period (2003-2006).

Information is now available on the effectiveness of measures taken to control air pollution. The data produced by the project has been effective in contributing to air pollution management in a significant number of Member States. In particular, it has been useful in two key areas: the project data has been used to drive changes in legislation and has provided effective evidence on the conditions before and after the newly introduced legislation. Eleven countries have taken significant legislative steps in controlling air pollution. Nine countries have been actively following changes in air pollution pre- and post- legislative changes.

		REMARKS		
		This project was implemented during the period of 2003-2006 with the participation of sixteen RCA Member States (Australia, Bangladesh, China, India, Indonesia, Republic of Korea, Malaysia, Mongolia, Myanmar, New Zealand, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam).		
ACC Sector			Project Status	Completed on 2008-02-27
Original Funding	Core		1st Year Of Approval	2003
Estimated Duration	1 year(s)			

IAEA Personnel

Programme Management Officer	DIAS, Mahendra Prinath		Asia and the Pacific Section 1
Section Head	MAKSOU DI, Mokdad		Asia and the Pacific Section 1
Technical Officer(s)	MOKHTAR, Najat	NA	Nutritional and Health-Related Environmental Studies Section
Technical Officer(s)	MARKOWICZ, Andrzej Antoni		Physics, Chemistry and Instrumentation (PCI) Laboratory
Technical Officer(s)	HYDER, S.M. Ziauddin		Nutritional and Health-Related Environmental Studies Section

Recipient Institutes and Counterpart(s)

Australia	Australian Nuclear Science and Technology Organisation ANSTO; Physics Division; (COHEN, David Damien)
Bangladesh	Bangladesh Atomic Energy Commission (BAEC); Bangladesh Atomic Energy Commission (BAEC); Atomic Energy Centre (AECD); Division of Chemistry; (BISWAS, Swapan Kumar)
China	China National Nuclear Corp. CNNC; China Institute of Atomic Energy (CIAE); (NI, Bangfa)
China	China National Nuclear Corp. CNNC; China Institute of Atomic Energy (CIAE); China National Nuclear Corp. (CNNC); China Institute of Atomic Energy (CIAE); Department of Nuclear Physics; (TIAN, Weizhi)
India	Department of Atomic Energy (DAE); Department of Atomic Energy (DAE); Bhabha Atomic Research Centre (BARC); Division of Environmental Assessment; (MAHADEVAN, Tarakad Narayanaswamy)
India	Department of Atomic Energy (DAE); Department of Atomic Energy (DAE); Bhabha Atomic Research Centre (BARC); Division of Environmental Assessment; (PUNDIT, G.G.)
Indonesia	National Nuclear Energy Agency (BATAN); Center for Nuclear Technology of Material and Radiometry; (SANTOSO, Muhayaton)
Malaysia	Ministry of Science, Technology and Innovation - Malaysia, Kajang; Ministry of Science, Technology and Innovation; Malaysian Nuclear Agency; Division of Technical Services; (HAMZAH, Mohd Suhaimi)
Mongolia	National University of Mongolia; Nuclear Research Center, National University of Mongolia; (DAGVA, Shagjjamba)
Myanmar	Ministry of Science and Technology; Division of Atomic Energy - Yangon, Myanmar; (AYE AYE TOE)
Pakistan	Pakistan Atomic Energy Commission (PAEC); Pakistan Institute of Nuclear Science and Technology (PINSTECH); Division of Nuclear Chemistry; (WAHEED, Shahida)
Philippines	Philippine Nuclear Research Institute (PNRI); Analytical Measurements Research Unit; (SANTOS, Flora)
Republic of Korea	Korea Atomic Energy Research Institute KAERI - DAEJEON; Hanaro Center; Neutron Activation Analysis Project; (CHUNG, Yong-Sam)
Singapore	National University of Singapore; (TANG, Seung Mung)
Sri Lanka	Atomic Energy Board of Sri Lanka; International Division; (SENEVIRATNE, M. C. Shirani)
Thailand	Ministry of Science and Technology MOST, Bangkok; Office of Atoms for Peace (OAP); Division of Chemistry; (WIMOLWATTANAPUN, Wanna)
Thailand	Ministry of Science and Technology MOST, Bangkok; Office of Atoms for Peace (OAP); Division of Chemistry; (LEENANUPAN, Vibul)
Viet Nam	Institute for Nuclear Sciences and Technology; Centre for Radiation Protection; (VUONG, Bac Thu)

Current Year Financial Status

[illegible]

Financial Approvals

Core Approvals

Year	Experts	Meetings/Workshops	Fellowships	Scientific Visits	Training Courses	HR Total	Equipment	Subcontracts	Miscellaneous	PR Total	Total Approval
2003	24,080.00	25,000.00	0.00	0.00	0.00	49,080.00	40,000.00	15,000.00	0.00	55,000.00	104,080.00
2004	12,320.00	210,000.00	0.00	0.00	0.00	222,320.00	0.00	7,500.00	0.00	7,500.00	229,820.00
2005	16,660.00	40,000.00	34,080.00	5,880.00	50,000.00	146,620.00	20,000.00	15,000.00	0.00	35,000.00	181,620.00
2006	16,940.00	43,000.00	17,760.00	6,020.00	103,000.00	186,720.00	40,000.00	0.00	0.00	40,000.00	226,720.00

Footnote Approvals

Year	Experts	Meetings/Workshops	Fellowships	Scientific Visits	Training Courses	HR Total	Equipment	Subcontracts	Miscellaneous	PR Total	Total Approval
2003	0.00	0.00	32,640.00	5,740.00	0.00	38,380.00	14,000.00	0.00	0.00	14,000.00	52,380.00
2004	0.00	0.00	17,040.00	0.00	0.00	17,040.00	12,500.00	0.00	0.00	12,500.00	29,540.00

Experts

Task	Task title/Participant Name	Nationality	Candidate approached	Submitted:s Accepted:a	Withdrawn:w Rejected:r	Start Date	End Date	Duration (days)	
02	Use of Psitive Matrix Factorisation (PMF) Method for Evaluation of Air Pollution Data								Field: 7J
	Mission 01	JD Submitted: 2004-01-14							
	Duty Station : Quezon City(PHI)								
	WIMOLWATTANAPUN,	THA				2004-04-26	2004-05-07	11	
	Wanna								
03	Attendance and to Lecture at the National Executive Management Seminar on Environmental Impacts and WTO Challenges								Field: 7J
	Mission 01	JD Submitted: 2004-02-03							
	Duty Station : Islamabad(PAK)								
	BODE, Peter	NET	2004-02-04	2004-03-10a		2004-03-27	2004-03-28	1	
04	Training on the Use of k0-NAA Method								Field: 7J
	Mission 01	JD Submitted: 2004-02-19							
	Duty Station : Taejon(ROK)								
	NI, Bangfa	CPR				2004-05-31	2004-06-11	11	
05	Preparation of SOP manual for sampling air particulate matter by using GENT sampler								Field: 7J
	Mission 01	JD Submitted: 2004-06-29							

Task	Task title/Participant Name	Nationality	Candidate approached	Submitted:s Accepted:a	Withdrawn:w Rejected:r	Start Date	End Date	Duration (days)	
06	Duty Station : Wien(AUS) MARKWITZ, Andreas Michael Assist in installation of GENT sampler and provide training on sampling and analysis of air particulate matter. Mission 01 JD Submitted: 2004-07-20	GFR				2004-08-15	2004-09-30	46	Field: 7J
07	Duty Station : Ulaanbaatar(MON) MARKWITZ, Andreas Michael National Seminar on Improved Information of Urban Air Quality Management and consultancy on application of HYSPLIT Mission 01 JD Submitted: 2005-01-28	GFR				2004-08-30	2004-09-03	4	Field: 7L
08	Duty Station : Bangkok(THA) HOPKE, Philip Karl Regional Dialogue of Air Quality Management Programs in Asia Mission 01 JD Submitted: 2005-05-20	USA							Field: 7L
09	Duty Station : Bangkok(THA) MARKOWICZ, Andrzej Antoni MARKWITZ, Andreas Michael Technical mission to review the implementation and advise on future activities under the project in Mongolia Mission 01 JD Submitted: 2005-08-26	GFR	2005-05-26	2005-06-01a		2005-07-11 2005-07-11	2005-07-12 2005-07-12	1 1	Field: 7L
10	Duty Station : Ulaanbaatar(MON) MARKWITZ, Andreas Michael Participation in Better Air Quality Workshop in Indonesia Mission 01 JD Submitted: 2006-06-02	GFR	2005-09-14	2005-09-27a		2005-10-17	2005-10-21	4	Field: 7L
11	Duty Station : Yogyakarta(INS) MARKWITZ, Andreas Michael Data evaluation and interpretation using new EPA-PMF including HYSPLIT Mission 01 JD Submitted: 2006-07-05	GFR	2006-07-03	2006-07-30a		2006-12-13	2006-12-15	2	Field: 7L
12	Duty Station : Wellampitiya(SRL) HOPKE, Philip Karl To assist in a national workshop in Pakistan Mission 01 JD Submitted: 2006-10-13	USA		2006-07-11a		2006-12-11	2006-12-15	4	Field: 7L
	Duty Station : Islamabad(PAK) HUSAIN, Liaquat WIMOLWATTANAPUN, Wanna	USA THA	2006-10-19 2007-01-15	2006-10-19s 2007-01-16s		2007-04-09 2007-04-09	2007-04-13 2007-04-13	4 4	

Meetings/Workshops

Task	Task title/Participant Name	Nationality	Candidate approached	Submitted:s Accepted:a	Withdrawn:w Rejected:r	Start Date	End Date	Duration (days)	
9001	IAEA/RCA Progress Assessment Mtg to review + evaluate analytical data in "Support of Urban Air Quality Managemt." (THA)								Field: 7J
	Mission 01 JD Submitted: 2003-09-29								
	Duty Station : Bangkok(THA)								
	AHMAD, Shujaat	PAK				2003-11-10	2003-11-14	4	
	SANTOS, Flora	PHI				2003-11-10	2003-11-14	4	
	BISWAS, Swapan Kumar	BGD				2003-11-10	2003-11-14	4	
	SENEVIRATNE, M. C. Shirani	SRL				2003-11-10	2003-11-14	4	
	DAGVA, Shagjjamba	MON				2003-11-10	2003-11-14	4	
	WIMOLWATTANAPUN, Wanna	THA				2003-11-10	2003-11-14	4	
	CHUNG, Yong-Sam	ROK				2003-11-10	2003-11-14	4	
	COHEN, David Damien	AUL				2003-11-10	2003-11-14	4	
	MARKWITZ, Andreas Michael	GFR	2003-10-08			2003-11-10	2003-11-14	4	
	VUONG, Bac Thu	VIE				2003-11-10	2003-11-14	4	
	HIDAYAT, Achmad	INS				2003-11-10	2003-11-14	4	
	HOPKE, Philip Karl	USA			2003-09-10w				
	MAHADEVAN, Tarakad	IND				2003-11-10	2003-11-14	4	
	Narayanaswamy								
	HAMZAH, Mohd Suhaimi	MAL				2003-11-10	2003-11-14	4	
	NI, Bangfa	CPR				2003-11-10	2003-11-14	4	
	MYO THANT	MYA				2003-11-10	2003-11-14	4	
	MARKOWICZ, Andrzej Antoni					2003-11-08	2003-11-14	6	
9002	Progress Review Meeting on Data Interpretation, Fingerprinting, and Source Apportionment of Air Pollution, Manila, PHI								Field: 7J
	Mission 01 JD Submitted: 2004-09-03								
	Duty Station : Quezon City(PHI)								
	ALMONEDA, Rosalina	PHI				2004-10-25	2004-10-29	4	
	BUNPRAPOB, Supamatthree	THA				2004-10-25	2004-10-29	4	
	DAGVA, Shagjjamba	MON				2004-10-25	2004-10-29	4	
	CASTANEDA, Soledad	PHI				2004-10-25	2004-10-29	4	
	Solomero								
	SIDDIQUE, Naila	PAK				2004-10-25	2004-10-29	4	
	COHEN, David Damien	AUL				2004-10-25	2004-10-29	4	
	MARKWITZ, Andreas Michael	GFR				2004-10-25	2004-10-29	4	
	VUONG, Bac Thu	VIE				2004-10-25	2004-10-29	4	
	WADUGE, Vajira Ariyaratne	SRL				2004-10-25	2004-10-29	4	
	WAHEED, Shahida	PAK				2004-10-25	2004-10-29	4	
	HOPKE, Philip Karl	USA				2004-10-25	2004-10-29	4	

Task	Task title/Participant Name	Nationality	Candidate approached	Submitted:s Accepted:a	Withdrawn:w Rejected:r	Start Date	End Date	Duration (days)	
9003	THI TAR, Aye	MYA				2004-10-25	2004-10-29	4	
	LIM, Jong Myoung	ROK				2004-10-25	2004-10-29	4	
	SUKHAPAN, Jariya	THA				2004-10-25	2004-10-29	4	
	KAHANAVITA	SRL				2004-10-25	2004-10-29	4	
	GAMARALLAGE, Samaranatha J.								
	BEGUM, Bilkis Ara	BGD				2004-10-25	2004-10-29	4	
	SANTOSO, Muhayatun	INS				2004-10-25	2004-10-29	4	
	JHA, Sanjay Kumar	IND				2004-10-25	2004-10-29	4	
	HUANG, Donghui	CPR				2004-10-25	2004-10-29	4	
	PABROA, Preciosa Corazon	PHI				2004-10-25	2004-10-29	4	
	IAEA/RCA Project Committee Meeting and Conference of Project Participants and End Users								Field: 7J
	Mission 01 JD Submitted: 2004-10-04								
	Duty Station : Wellampitiya(SRL)								
	MARKOWICZ, Andrzej Antoni					2004-11-15	2004-11-19	4	
	SARANTUYA, Ganjuur	MON	2004-10-13			2004-11-18	2004-11-19	1	
	ZHAO, Yue	CPR	2004-10-13		2004-11-23w				
	LIMVORANUSORN, Piyavadee	THA	2004-10-13			2004-11-18	2004-11-19	1	
	NI, Bangfa	CPR	2004-10-13			2004-11-15	2004-11-19	4	
	NWET NWET WIN	MYA	2004-10-13			2004-11-15	2004-11-19	4	
	MORADOS, Ma. Delia	PHI	2004-10-13			2004-11-18	2004-11-19	1	
	LEE, Jin-Hong	ROK	2004-10-13			2004-11-18	2004-11-19	1	
	AMARATUNGA, Chandana	SRL	2004-10-13			2004-11-18	2004-11-19	1	
	HOPKE, Philip Karl	USA	2004-10-11	2004-10-13s		2004-11-15	2004-11-19	4	
	HIDAYAT, Achmad	INS	2004-10-13			2004-11-15	2004-11-19	4	
	DAUD, Muhammad	PAK	2004-10-13			2004-11-18	2004-11-19	1	
	MARKWITZ, Andreas Michael	GFR	2004-10-13			2004-11-15	2004-11-19	4	
	COHEN, David Damien	AUL	2004-10-18			2004-11-15	2004-11-19	4	
	CHUNG, Yong-Sam	ROK	2004-10-13			2004-11-15	2004-11-19	4	
	DAGVA, Shagjjamba	MON	2004-10-13			2004-11-15	2004-11-19	4	
	YOKOYAMA, Kenichi					2004-11-15	2004-11-19	4	
	WIMOLWATTANAPUN, Wanna	THA	2004-10-13			2004-11-15	2004-11-19	4	
	SENEVIRATNE, M. C. Shirani	SRL				2004-11-15	2004-11-19	4	
	SANTOS, Flora	PHI	2004-10-13			2004-11-15	2004-11-19	4	
	AHMAD, Shujaat	PAK	2004-10-13			2004-11-15	2004-11-19	4	

Task	Task title/Participant Name	Nationality	Candidate approached	Submitted:s Accepted:a	Withdrawn:w Rejected:r	Start Date	End Date	Duration (days)	
9004	Executive meeting on Air Pollution Related to Transboundary Effects, Visibility, Climate Change and Agriculture								Field: 7L
	Mission 01 JD Submitted: 2005-02-18								
	Duty Station : Menai(NSW, AUL)								
	MARKWITZ, Andreas Michael	GFR	2005-02-26			2005-04-05	2005-04-07	2	
	HOPKE, Philip Karl	USA	2005-02-21			2005-04-05	2005-04-07	2	
	BEGUM, Bilkis Ara	BGD	2005-02-23			2005-04-05	2005-04-07	2	
	HUIZENGA, Cornelius	NET	2005-02-21			2005-04-05	2005-04-07	2	
	Regnerus								
	SANTOS, Flora	PHI	2005-02-23			2005-04-05	2005-04-07	2	
	WIMOLWATTANAPUN, Wanna	THA	2005-02-23			2005-04-05	2005-04-07	2	
	COHEN, David Damien	AUL				2005-04-05	2005-04-07	2	
	MARKOWICZ, Andrzej Antoni					2005-04-05	2005-04-07	2	
9005	Progress Assessment Meeting								Field: 7J
	Mission 01 JD Submitted: 2005-11-24								
	Duty Station : Bandung(INS)								
	PANDIT, Gauri Girish	IND				2006-02-06	2006-02-10	4	
	MARKOWICZ, Andrzej Antoni					2006-02-06	2006-02-10	4	
	NI, Bangfa	CPR				2006-02-06	2006-02-10	4	
	SANTOSO, Muhayatun	INS				2006-02-06	2006-02-10	4	
	SUKENJAH, Ayu	INS				2006-02-06	2006-02-10	4	
	KHIN CHAW SU KYI	MYA				2006-02-06	2006-02-10	4	
	MARKWITZ, Andreas Michael	GFR				2006-02-06	2006-02-10	4	
	HOPKE, Philip Karl	USA	2005-11-28			2006-02-06	2006-02-10	4	
	VUONG, Bac Thu	VIE				2006-02-06	2006-02-10	4	
	COHEN, David Damien	AUL	2005-12-05			2006-02-06	2006-02-10	4	
	CHUNG, Yong-Sam	ROK			2006-02-08w				
	DAGVA, Shagjjamba	MON				2006-02-06	2006-02-10	4	
	WIMOLWATTANAPUN, Wanna	THA				2006-02-06	2006-02-10	4	
	SENEVIRATNE, M. C. Shirani	SRL				2006-02-06	2006-02-10	4	
	AHMAD, Shujaat	PAK				2006-02-06	2006-02-10	4	
	SANTOS, Flora	PHI				2006-02-06	2006-02-10	4	
9006	IAEA/RCA Final Progress Assessment Meeting combined with the Planning Meeting for a New Project and End-Users Conference								Field: 7L
	Mission 01 JD Submitted: 2007-02-13								
	Duty Station : Lower Hutt(NZE)								
	DIAS, Mahendra Prinath	SRL				2007-03-26	2007-03-30	4	

Task	Task title/Participant Name	Nationality	Candidate approached	Submitted:s Accepted:a	Withdrawn:w Rejected:r	Start Date	End Date	Duration (days)
	COHEN, David Damien	AUL				2007-03-26	2007-03-30	4
	CHUNG, Yong-Sam	ROK				2007-03-26	2007-03-30	4
	WIMOLWATTANAPUN, Wanna	THA				2007-03-26	2007-03-30	4
	OO, Ko Ko	MYA				2007-03-26	2007-03-30	4
	DAGVA, Shagjjamba	MON				2007-03-26	2007-03-30	4
	SENEVIRATNE, M. C. Shirani	SRL				2007-03-26	2007-03-30	4
	SANTOS, Flora	PHI				2007-03-26	2007-03-30	4
	BISWAS, Swapan Kumar	BGD				2007-03-26	2007-03-30	4
	QUIRIT, Leni	PHI				2007-03-26	2007-03-27	1
	MARKOWICZ, Andrzej Antoni					2007-03-26	2007-03-30	4
	MITCHELL, Tamsin	NZE				2007-03-26	2007-03-30	4
	NASIRUDDIN, MD	BGD				2007-03-26	2007-03-27	1
	NGUYEN, Minh Cuong	VIE			2007-03-15w			
	JHA, Vivekanand	IND			2007-03-21w			
	PANDIT, Gauri Girish	IND				2007-03-26	2007-03-30	4
	HARWATI, Fitri	INS				2007-03-26	2007-03-27	1
	NI, Bangfa	CPR				2007-03-26	2007-03-30	4
	SANTOSO, Muhayatun	INS				2007-03-26	2007-03-30	4
	SUKHAPAN, Jariya	THA				2007-03-26	2007-03-27	1
	AMARATUNGA, Chandana	SRL			2007-03-23w			
	HOPKE, Philip Karl	USA				2007-03-26	2007-03-30	4
	DAVY, Perry	NZE				2007-03-26	2007-03-30	4
	MARKWITZ, Andreas Michael	GFR				2007-03-26	2007-03-30	4
	TROMPETTER, William	NZE				2007-03-26	2007-03-30	4
	WAHEED, Shahida	PAK				2007-03-26	2007-03-30	4
	SEREETER, Lodoisamba	MON				2007-03-26	2007-03-27	1
	VUONG, Bac Thu	VIE				2007-03-26	2007-03-30	4

Fellowships

No	Name	Nominated	Awarded:a Non-awarded:n Withdrawn:w	Host Country	Type	Proposed:p Accepted:a Rejected:r	Anticipated Start Date	Start Date	End Date	Proposed Duration
BGD02014	Ms. YEASMIN NAHAR, Yeasmin	2001-09-06	2003-03-04 a	AUL	I	2003-06-18 a	2004-02-15	2004-02-15	2004-04-08	00/200
TC Field:	Nutritional and Health-Related Environmental Studies (Historical)(BGD02014)									
Training:	To analyze low atomic number elements such as AL, NA, and H in airborne particulate matter collected on filters, using PIXE, PIGE and PESA techniques. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	ANSTO Australian Nuclear Science and Technology Organisation; Environment Division, Menai									
CPR04018	Ms. ZHANG, Guiying	2004-04-07	2004-05-27 a	AUL	I	2004-09-24 a	2005-03-31	2005-03-31	2005-06-27	00/300
TC Field:	Nutritional and Health-Related Environmental Studies (Historical)(CPR04018)									
Training:	Interpretation of multielemental data obtained for APM; sampling techniques; black carbon determination; methodology of PIXE for analysis of APM. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	Australian Nuclear Science and Technology Organisation ANSTO; Division of Mineral Physics, Lucas Heights									
CPR05006	Mr. HUANG, Donghui	2004-12-13	2005-01-21 a	USA	I	2005-03-22 a	2005-07-01	2005-07-01	2005-09-27	00/300
TC Field:	Isotopes And Radiotracers in Ecotoxicology and Pollution Studies(7L)(CPR05006)									
Training:	Training programme should include: (i) statistical analysis of APM data, (ii) receptor modelling in air pollution studies, (iii) environmental interpretation of multielemental data, and (iv) NAA with Compton-suppression technique. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	University of Texas at Austin; University of Texas at Austin; Nuclear Engineering Teaching Laboratory (NETL), Austin									
INS02011	Mr. HIDAYAT, Achmad	2002-03-07	2002-05-17 a	CPR	I	2004-02-19 a	2004-05-14	2004-05-14	2004-06-29	00/114
TC Field:	Radioanalytical Techniques(2C)(INS02011)									
Training:	OJT on neutron activation analysis of airborne particulate samples collected under RAS/9/082. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	China National Nuclear Corp. CNNC; China Institute of Atomic Energy (CIAE); China National Nuclear Corp. (CNNC); China Institute of Atomic Energy (CIAE); Department of Nuclear Physics, Beijing									
INS03016	Ms. SANTOSO, Muhayatun	2003-07-08	2003-08-18 a	CPR	I	2003-11-14 a	2004-05-15	2004-05-15	2004-06-14	00/100
TC Field:	Radioanalytical Techniques(2C)(INS03016)									
Training:	OJT in Methodology and applications of Kop-NAA technique. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	China National Nuclear Corp. CNNC; China Institute of Atomic Energy (CIAE), Beijing									
INS06010	Ms. SANTOSO, Muhayatun	2005-10-29	2006-02-17 a	USA	I	2006-05-31 a	2006-08-19	2006-08-19	2006-11-18	00/300
TC Field:	Isotopes and Radiotracers in Ecotoxicology and Pollution Studies(7L)(INS06010)									
Training:	Statistical interpretation of analytical data on air particulates composition including pollution source identification and apportionment; HYSPLIT back trajectory technique and PMF applied to national data generated by RAS7013 and key transboundary events. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	Clarkson University; Department of Chemical and Biomolecular Engineering, Potsdam									

[illegible]

Scientific Visits

No	Name	Nominated	Awarded:a Non-awarded:n Withdrawn:w	Host Country	Type	Proposed:p Accepted:a Rejected:r	Anticipated Start Date	Start Date	End Date	Proposed Duration
CPR05055	Mr. NI, Bangfa	2005-08-22	2005-09-08 a	AUL	I	2005-12-05 a	2006-03-20	2006-03-20	2006-03-31	00/14
TC Field:	Isotopes And Radiotracers in Ecotoxicology and Pollution Stu(7L)(CPR05055)									
Training:	Sc.visit requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013). As China is going to develop and implement ion beam analytical techniques in support of air pollution monitoring the the applicant should visit a well established and recognised analytical laboratory where PIXE, PIGE and RBS techniques are applied. The host institution is RRU under the project in the relevant field. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	Australian Nuclear Science and Technology Organisation ANSTO, Sydney									
PAK05039	Mr. ZAIDI, Jamshed Hussain	2004-12-29	2005-04-11 a	HUN	I	2005-08-09 a	2005-09-26	2005-09-26	2005-10-07	00/14
				NET		2005-06-22 r	2005-07-11 (*)	2005-07-11 (*)		00/00
TC Field:	Isotopes And Radiotracers in Ecotoxicology and Pollution Stu(7L)(PAK05039)									
Training:	Scientific visit should include methodology and practical use of ko technique, as well as epithermal and prompt gamma neutron activation analysis applied for air pollution monitoring. The training requested is related to the IAEA's TC project entitled: Improved Information about Urban Air Quality Management (RCA)(RAS7013).									
Host Institute(s):	Hungarian Academy of Sciences - Budapest; Energiatudományi Kutatóközpont; Chemical Research Center; Hungarian Academy of Sciences; Institute of Isotopes and Surface Chemistry; Chemical Research Center; Nuclear Research Department, Budapest									
VIE01034	Ms. TRAN, Thi Tuyet Mai	2001-04-02	2001-11-20 a	THA	I	2003-01-23 a	2003-02-09	2003-02-09	2003-02-22	00/14
TC Field:	NUTRITIONAL AND HEALTH-RELATED ENVIRONMENTAL STUDIES(7J)(VIE01034)									
Training:	SV to learn ion chromatography for cations and anions in airborne particulate matter collected on polycarbonate filters. The training should be focused on Dionex (preferably DX-600) IC systems. The training requested is related to the IAEA's TC project entitled: Isotopic and Related Techniques to Assess Air Pollution - Joint UNDP/RCA (RCA).									
Host Institute(s):	Dionex Asia Technical Center, Bangkok									

Training Courses**TC #001 IAEA/RCA Regional Training Workshop on Data Validation for Airborne Particulate Data**

Objective: The purpose of the workshop is (i) to provide the participants with an understanding of data validation approaches to ensure that their data quality meets the needs of the policy makers, and (ii) to familiarise the participants with the data validation methods that will permit them to quantitatively examine their data, develop mass closure estimates, and examine the data for outliers and extreme values. The participants will also learn the approaches to developing a data quality management system and multilevel data validation methods.

Start Date: 2003-10-13 End Date: 2003-10-17

Course Type: Regional Training Course Small Development

Field: 7J Nutritional and Health-Related Environmental Studies (Historical subject. As of 2004 use 6I and 6J)

APC Code: F402 Radiation Metrology Supporting the Network of Secondary Standards Dosimetry Laboratories

Language: ENGLISH

Estimated participants: 0 Number of Participants: 24

No of selected candidates: 18
Course Director MAHADEVAN, Tarakad Narayanaswamy

Number of lecturers: 4
Host Country Information

Host country	Host institute	Start Date	End Date
India	Division of Environmental Assessment	2003/10/13	2003/10/17

Lecturers

Name	Nationality	Sponsor	Start Date	End Date	Travel Free	Salary Free	Perdiem Free
COHEN, David Damien	AUL		Blank	Blank			
HOPKE, Philip Karl	USA		2003/10/13	2003/10/17			
MARKWITZ, Andreas Michael	GFR		2003/10/13	2003/10/17			
FAJGELJ, Ales		IAEA	2003/10/13	2003/10/16			

Regular Participants

Nomination country	Name	Nationality	Sex	Sponsor	Start Date	End Date	Travel Free	Stipend Free
Myanmar	THIN THIN SOE				2003/10/13	2003/10/17		
Bangladesh	YEASMIN NAHAR, Yeasmin	BGD	F		2003/10/13	2003/10/17		
China	HUANG, Donghui	CPR	M		2003/10/13	2003/10/17		
China	NI, Bangfa	CPR	M		2003/10/13	2003/10/17		
Indonesia	HIDAYAT, Achmad	INS	M		2003/10/13	2003/10/17		
Indonesia	SANTOSO, Muhayatun	INS	F		2003/10/13	2003/10/17		
Malaysia	ABDULLAH SALIM, Nazaratul Ashifa	MAL			2003/10/13	2003/10/17		
Philippines	ESGUERRA, Luz	PHI	F		2003/10/13	2003/10/17		
Philippines	SIADOR, Cesar, JR.	PHI	M		2003/10/13	2003/10/17		
Republic of Korea	MOON , Jong-Hwa	ROK	M		2003/10/13	2003/10/17		
Sri Lanka	MAHAKUMARA, Prasad Dhananjaya	SRL	M		2003/10/13	2003/10/17		
Sri Lanka	WIJESEKARA KANKANAMAGE, Sarath Wijesekara	SRL	M		2003/10/13	2003/10/17		
Thailand	BUSAMONGKOL, Arporn	THA	F		2003/10/13	2003/10/17		
Viet Nam	SIEU, LE NHU	VIE	M		2003/10/13	2003/10/17		

Local Participants

Name	Nationality	Sex	Start Date	End Date
INAMPUDI, Vijaya Saradhi	IND	M	2003/10/13	2003/10/17
KUMAR , Rakesh	IND	M	2003/10/13	2003/10/17
PHILIP, S.	IND	M	2003/10/13	2003/10/17
SANKAR THIRUMALKONE, Manikandan	IND	M	2003/10/13	2003/10/17

TC #002 National Seminar on Improved Information of Urban Air Quality Management and Consultancy on Application of HYSPLIT

Objective: The expert will deliver lectures on (i) Current approaches in sampling and analysis of APM, and (ii) Advances in receptor modeling during a National Seminar on Improved Information of Urban

Air Quality Management. Moreover, he will advise on application of advanced methods of data analysis including HYSPLIT techniques and back trajectory models.

Start Date: 2005-05-16 End Date: 2005-05-20

Course Type: National Training Course Small Development

Field: 7L Isotopes and Radiotracers in Ecotoxicology and Pollution Studies

APC Code: F402 Radiation Metrology Supporting the Network of Secondary Standards Dosimetry Laboratories

Language: ENGLISH

Estimated participants: 0 Number of Participants: 0

No of selected candidates: 0 Number of lecturers: 1

Course Director WIMOLWATTANAPUN, Wanna

Host Country Information

Host country	Host institute	Start Date	End Date
Thailand	Office of Atoms for Peace (OAP)	2005/05/16	2005/05/20

Lecturers

Name	Nationality	Sponsor	Start Date	End Date	Travel Free	Salary Free	Perdiem Free
HOPKE, Philip Karl	USA		2005/05/16	2005/05/20			

TC #003 IAEA/RCA Regional Training Course on the Use of Receptor Models in Development of Air Quality Management Strategies

Objective: to provide the participants with the additional information on clean air legislation and regulations, health and welfare effects of air pollution, and approaches in applying analytical data generated by nuclear analytical techniques in support of air quality management planning and implementation process

Start Date: 2005-09-12 End Date: 2005-09-16

Course Type: Regional Training Course Small Development

Field: 7L Isotopes and Radiotracers in Ecotoxicology and Pollution Studies

APC Code: D3 Utilization of Accelerators and Instrumentation

Language: ENGLISH

Estimated participants: 20 Number of Participants: 25

No of selected candidates: 17 Number of lecturers: 3

Implementation Clerk/Assistant SCHLOEGLHOFER, Susanne Course Director NI, Bangfa

Host Country Information

Host country	Host institute	Start Date	End Date
China	China Institute of Atomic Energy (CIAE)	2005/09/12	2005/09/16

Lecturers

Name	Nationality	Sponsor	Start Date	End Date	Travel Free	Salary Free	Perdiem Free
COHEN, David Damien	AUL		2005/09/12	2005/09/16			
HOPKE, Philip Karl	USA		2005/09/12	2005/09/16			
MARKWITZ, Andreas Michael	GFR		2005/09/12	2005/09/16			

Regular Participants

Nomination country	Name	Nationality	Sex	Sponsor	Start Date	End Date	Travel Free	Stipend Free
Bangladesh	BEGUM, Bilkis Ara	BGD	F		2005/09/12	2005/09/16		
Bangladesh	QURAIISHI, Shamshad Begum	BGD	F		2005/09/12	2005/09/16		
India	MISHRA, Suchismita	IND	F		2005/09/12	2005/09/16		
Indonesia	SANTOSO, Muhayatun	INS	F		2005/09/12	2005/09/16		
Indonesia	SUKENJAH, Ayu	INS	F		2005/09/12	2005/09/16		
Pakistan	DAUD, Muhammad	PAK	M		2005/09/12	2005/09/16		
Pakistan	WAHEED, Shahida	PAK	F		2005/09/12	2005/09/16		
Philippines	PABROA, Preciosa Corazon	PHI	F		2005/09/12	2005/09/16		
Republic of Korea	LIM, Jong Myoung	ROK	M		2005/09/12	2005/09/16		
Republic of Korea	MOON , Jong-Hwa	ROK	M		2005/09/12	2005/09/16		
Sri Lanka	RANASOORIYAGE, Nuwan Rohana Jayaratne	SRL	M		2005/09/12	2005/09/16		
Sri Lanka	WADUGE, Vajira Ariyaratne	SRL	M		2005/09/12	2005/09/16		
Thailand	GARIVAIT, Hathairatana	THA	F		2005/09/12	2005/09/16		
Thailand	TEDTHONG, Sanya	THA	M		2005/09/12	2005/09/16		
Viet Nam	TRUONG, Y	VIE	M		2005/09/12	2005/09/16		
Viet Nam	VUONG, Bac Thu	VIE	M		2005/09/12	2005/09/16		

Local Participants

Name	Nationality	Sex	Start Date	End Date
LIU, Cunxiong	CPR	F	2005/09/12	2005/09/16

TC #004 IAEA/RCA RTC on PMF apportionment applied to regional data & key transboundary events & methods to quantify transboun. pollut. incl. residence time weighted concentration analysis

Objective: This RCA training course will focus on understanding local and regional pollution sources using Statgraphics and PMF apportionment applied to data collected by the participants to study key transboundary events that might have occurred during 2002-2005.

Start Date: 2006-04-03 End Date: 2006-04-07

Course Type: Regional Training Course Small Development

Field: 7L Isotopes and Radiotracers in Ecotoxicology and Pollution Studies

APC Code: D3 Utilization of Accelerators and Instrumentation

Language: ENGLISH

Estimated participants: 20 Number of Participants: 23

No of selected candidates: 21 Number of lecturers: 2

Course Director AHMAD, Shujaat

Host Country Information

Host country	Host institute	Start Date	End Date
Pakistan	Pakistan Institute of Nuclear Science and Technology (PINSTECH)	2006/04/03	2006/04/07

Lecturers

Name	Nationality	Sponsor	Start Date	End Date	Travel Free	Salary Free	Perdiem Free
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MARKWITZ, Andreas Michael	GFR	2006/04/03	2006/04/07
WIMOLWATTANAPUN, Wanna	THA	2006/04/03	2006/04/07

Regular Participants

Nomination country	Name	Nationality	Sex	Sponsor	Start Date	End Date	Travel Free	Stipend Free
Bangladesh	AKTER, SHIRIN	BGD	F		2006/04/03	2006/04/07		
Bangladesh	BEGUM, Bilkis Ara	BGD	F		2006/04/03	2006/04/07		
China	LIU, Cunxiong	CPR	F		2006/04/03	2006/04/07		
China	ZHANG, Guiying	CPR	F		2006/04/03	2006/04/07		
Indonesia	LESTIANI, Diah Dwiana	INS	F		2006/04/03	2006/04/07		
Indonesia	SANTOSO, Muhayatun	INS	F		2006/04/03	2006/04/07		
Malaysia	ABDUL RAHMAN, Shamsiah	MAL	F		2006/04/03	2006/04/07		
Mongolia	DAGVA, Shagjjamba	MON	M		2006/04/03	2006/04/07		
Mongolia	MAVAG, Chadraabal	MON	M		2006/04/03	2006/04/07		
Myanmar	AYE AYE TOE	MYA	F		2006/04/03	2006/04/07		
Philippines	MORCO, Ryan	PHI	M		2006/04/03	2006/04/07		
Philippines	PABROA, Preciosa Corazon	PHI	F		2006/04/03	2006/04/07		
Sri Lanka	KAHANAVITA GAMARALLAGE, Samaranatha J.	SRL	M		2006/04/03	2006/04/07		
Sri Lanka	WADUGE, Vajira Ariyaratne	SRL	M		2006/04/03	2006/04/07		
Thailand	TEDTHONG, Sanya	THA	M		2006/04/03	2006/04/07		
Viet Nam	VUONG, Bac Thu	VIE	M		2006/04/03	2006/04/07		

Local Participants

Name	Nationality	Sex	Start Date	End Date
DAUD, Muhammad	PAK	M	2006/04/03	2006/04/07
FATIMA, Ismat	PAK	F	2006/04/03	2006/04/07
JAVED, Tariq	PAK	M	2006/04/03	2006/04/07
SIDDIQUE, Naila	PAK	F	2006/04/03	2006/04/07
WAHEED, Shahida	PAK	F	2006/04/03	2006/04/07

TC #005

Objective: IAEA/RCA Regional Training Course on HYSPLIT Back Trajectory Techniques Applied to Regional Data and Key Transboundary Events
A purpose of the training course is to familiarise the participants with the methods applied for identification of local and transboundary events. A special emphasis will be on using meteorological data to improve interpretation of source apportionment results.

Start Date: 2006-08-14 End Date: 2006-08-18

Course Type: Regional Training Course Small Development

Field: 7L Isotopes and Radiotracers in Ecotoxicology and Pollution Studies

APC Code: D3 Utilization of Accelerators and Instrumentation

Language: ENGLISH

Estimated participants: 0 Number of Participants: 27

No of selected candidates: 18 Number of lecturers: 3

Course Director VUONG, Bac Thu

Host Country Information

Host country	Host institute	Start Date	End Date
Viet Nam	Institute for Nuclear Science and Technology	2006/08/14	2006/08/18

Lecturers

Name	Nationality	Sponsor	Start Date	End Date	Travel Free	Salary Free	Perdiem Free
COHEN, David Damien	AUL		2006/08/14	2006/08/18			
HOPKE, Philip Karl	USA		2006/08/14	2006/08/18			
MARKWITZ, Andreas Michael	GFR		2006/08/14	2006/08/18			

Regular Participants

Nomination country	Name	Nationality	Sex	Sponsor	Start Date	End Date	Travel Free	Stipend Free
China	LIU, Cunxiong	CPR	F		2006/08/14	2006/08/18		
China	ZHANG, Yangmei	CPR	F		2006/08/14	2006/08/18		
India	BHALKE, Sunil	IND	M		2006/08/14	2006/08/18		
India	PARTHASARATHY, Kothai	IND	F		2006/08/14	2006/08/18		
Indonesia	LESTIANI, Diah Dwiana	INS	F		2006/08/14	2006/08/18		
Indonesia	SANTOSO, Muhayatun	INS	F		2006/08/14	2006/08/18		
Malaysia	ABDUL RAHMAN, Shamsiah	MAL	F		2006/08/14	2006/08/18		
Myanmar	AYE AYE TOE	MYA	F		2006/08/14	2006/08/18		
Pakistan	SIDDIQUE, Naila	PAK	F		2006/08/14	2006/08/18		
Pakistan	WAHEED, Shahida	PAK	F		2006/08/14	2006/08/18		
Philippines	MORCO, Ryan	PHI	M		2006/08/14	2006/08/18		
Philippines	PABROA, Preciosa Corazon	PHI	F		2006/08/14	2006/08/18		
Sri Lanka	RANASOORIYAGE, Nuwan Rohana Jayaratne	SRL	M		2006/08/14	2006/08/18		
Sri Lanka	WADUGE, Vajira Ariyaratne	SRL	M		2006/08/14	2006/08/18		
Thailand	TEDTHONG, Sanya	THA	M		2006/08/14	2006/08/18		
Thailand	WIMOLWATTANAPUN, Wanna	THA	F		2006/08/14	2006/08/18		

Local Participants

Name	Nationality	Sex	Start Date	End Date
VU VAN CAM	VIE	M	2006/08/14	2006/08/18
VUONG, Bac Thu	VIE	M	2006/08/14	2006/08/18

Equipment

WP	PO Num			Total Value	Order Date	Status	Vendor Name	Vendor Location	
Item	Quantity	Unit	Item Description					Planned Shipping Date	Actual Shipping Date

Sub-contracts

WP	PO Num		Total Value	Order Date	Status	Vendor Name	Vendor Location		
Item	Quantity	Unit	Item Description					Planed Shipping Date	Actual Shipping Date

Training Courses

WP	PO Num		Total Value	Order Date	Status	Vendor Name	Vendor Location		
Item	Quantity	Unit	Item Description					Planed Shipping Date	Actual Shipping Date

Others

WP	PO Num		Total Value	Order Date	Status	Vendor Name	Vendor Location		
Item	Quantity	Unit	Item Description					Planed Shipping Date	Actual Shipping Date