Annex D: Contracts and Local Consultants

Table D Contracts and Local Consultants

Contracts	Consultants	Period	Total M/M
Formulation of Integrated Water Quality Management Framework	DARUMA Technologies	2006.8-2007.3	9.0
Development of Procedural Guidelines for Designation Water Quality Management Area, Attainment and Non-Attainment Areas and WQMA Action Planning	CEST	2006.6-2007.3	16.0
Designation of Water Quality Management Areas, Identification of Non-Attainment and Attainment Areas	CEST	2006.5-2007.12	33.0
Market-based Instruments and Wastewater Charge System (Public Consultation for Waste Water Charge System)	Aquatreat Environmental System	2006.11-2006.12	1.5
Development of the Policy and Guidelines on Market-Based Instruments for Water Quality Management	Tetra Tech	2007.6-2008.1	18.0
Managing Ambient Water Quality, Development of Procedural Guidelines for Categorization, Effluent Standards and Regulatory Compliance Enforcement	Woodfields Consultants	2006.8-2007.3	33.5
Revising Water Quality Monitoring Manual (Surface water)	Woodfields Consultants	2007.6-2008.1	12.0
Finalization of revised water quality guidelines and development of effluent standards	Innogy Solutions	2007.6-2007.12	25.5
Development of the Database for Water Quality Management (Phase 1)	Woodfields Consultants	2006.10-2007.2	23.0
Development of the Database for Water Quality Management (Phase 2)	Woodfields Consultants	2007.6-2007.12	18.5
Regional and National Water Quality Status Report for Public Information and Advocacy	Innogy Solutions	2006.8-2007.3	19.5
Integration of Guidelines on Water Quality Management	Tetra Tech	2007.9-2007.12	3.0
Preparation of WQMA Action Plan for Three Pilot Regions (Year 1)	CEST	2008.06-2009.02	78.5
Supplemental Consulting Services 1 for Preparation of WQMA Action Plan for Three Pilot Regions	CEST	2009.01-2009.02	3.0
Supplemental Consulting Services 2 for Preparation of WQMA Action Plan for Three Pilot Regions	CEST	2009.1-2009.2	2.6
Development of Industry- Specific Effluent Standards (Year 1)	Innogy Solutions	2008.06-2009.02	23.0
Water Quality Management Implementation (Water Quality Management Fund)	Innogy Solutions	2009.01-2009.02	3.5
Preparation of WQMA Action Plan for three Pilot Regions (Year 2)	CEST	2009.06-2010.02	54.0
Development of Industry- Specific Effluent Standards (Year 2)	Innogy Solutions	2009.06-2010.02	16.0

Revision of Guidelines for PCO accreditation and Compliance Inspection Manual	Innogy Solutions	2009.09-2010.02	3.5
Finalization of Wastewater Charge System and Harmonization	Innogy Solutions	2009.09-2010.02	4.5
Development and Validation of Methods for Animal Fats and Vegetable Oil (AVFO) and Petroleum Oil in Water/Wastewater	Dr. Evangeline C. Santiago	2009.08-2010.02	2.5
Area Cooperation Arrangement, Pollution Source Prioritization and Inspection and Public Information in the three Water Quality Management Areas	CEST	2010.05-2010.12	19.0
Classification of Waterbody	Woodfields Consultants	2010.06-2010.12	15.5
Enhanced Use of Database/Information System	Woodfields Consultants	2010.06-2010.12	9.0
Enhancement of Proposed Water Quality Management Fund Guidelines	Innogy Solutions	2010.07-2010.12	6.0
Philippines Effluent Management Strategy Policy Review	Innogy Solutions	2010.06-2010.12	6.0

Annex E: Assignment of the JICA Technical Assistance Team

Name	Position	Period	
Group A (Long-Term)			
Hitoshi KIN	Team Leader/ Policy and Planning Specialist	FY2005	02/19/2006-04/21/2006
		FY2006	06/01/2006-09/26/2006 10/30/2006-03/28/2007
		FY2007	05/15/2007-08/27/2007 10/03/2007-02/29/2008
		FY2008	05/02/2008-09/09/2008 11/02/2008-03/19/2009
		FY2009	05/11/2009-06/30/2009 08/02/2009-08/30/2009 12/01/2009-12/15/2009 01/09/2010-03/19/2010
		FY2010	05/06/2010-07/09/2010 08/24/2010-12/14/2010 01/03/2011-01/31/2011
Yasuhiko MURAMATSU	Water Quality Management Specialist	FY2005	02/19/2006-04/21/2006
		FY2006	06/01/2006-11/30/2006 01/03/2007-03/28/2007
		FY2007	05/15/2007-12/25/2007
		FY2008	05/07/2008-08/02/2008 08/31/2008-12/06/2008 01/13/2009-02/14/2009
		FY2009	05/11/2009-07/17/2009 08/16/2009-12/12/2009 01/11/2010-03/19/2010
		FY2010	06/27/2010-12/22/2010 01/06/2011-01/31/2011
Yusuke GOTO	Organizational and Institutional Specialist	FY2006	07/02/2006-02/28/2007
		FY2007	05/15/2007-06/28/2007 08/21/2007-02/29/2008
		FY2008	05/07/2008-08/02/2008 08/31/2008-11/14/2008 01/13/2009-03/19/2009
		FY2009	07/01/2009-12/12/2009 01/04/2010-03/19/2009
		FY2010	05/25/2010-08/09/2010 08/31/2010-12/15/2010 01/06/2011-01/31/2011
Group B (Short-Term)			
Takashi ONUMA	Water Quality Monitoring	FY2005	03/15/2006-04/21/2006
		FY2006	09/02/2006-12/07/2006
Kenichi KURAMOTO	Pollution Source Control	FY2006	09/07/2006-11/30/2006 02/01/2007-03/17/2007
Yuichiro HAMADA	WQ Information System	FY2006	06/02/2007-09/14/2007
Makoto MITSUKURA	Water Quality Modeling/ Project Coordinator	FY2005	03/05/2006-04/05/2006
		FY2006	08/06/2006-10/04/2006 11/01/2006-11/30/2006
		FY2007	01/31/2008-02/29/2008
Miho NAKANO	Wastewater Management	FY2009	09/07/2009-12/15/2009
Yukiko ITAMI	Coordinator	FY2010	11/01/2010-12/15/2011

Annex F: Project Outputs and Status

Activity in the Project Document and Deliverables/Accomplishments

ID	Activity in the Project Document	Deliverables and Accomplishments	Status
Activity 1.1	Set up multi-agency coordination system to formulate an integrated water quality management framework and implementation plan.	Integrated Water Quality Management Framework and its Implementation Activities	Pending approval
Activity 1.2	Prepare procedural guidelines for designating Water Quality Management Areas (including identification of non-attainment areas as defined under the CWA)	Procedural Manuals for Designation of Water Quality Management Area	Approved MC 2009-15
		Procedural Guidelines for Designation of Non-Attainment Areas	Pending approval
Activity 1.3	Formulate a comprehensive policy on use of market-based instruments for water quality management, including procedural guidelines for implementation	1. Policy Regulatory MBI Framework on WQM 2. Guidelines on Incentives 3. Guidelines on Rewards 4. Procedural Guidelines on Effluent Quota	Pending approval Period of implementation should be carefully considered.
Activity 1.4	Prepare procedural guidelines for classifying inland and marine water bodies as well as groundwater, including guidelines for groundwater vulnerability mapping	Procedural Manuals on Classification/Reclassification of Surface Fresh Waters, Coastal and Marine Waters	Pending approval
Activity 1.5	Prepare procedural guidelines for facilitating WQMA action planning (by the Area Governing Board) and follow-on compliance planning (by LGUs)	1. Procedural Guidelines for Water Quality Management Area Action Planning and LGU Compliance Scheme 2. Reference Manual on Water Quality Management Area Action Planning and LGU Compliance Scheme	Pending approval
Activity 1.6	Prepare procedural guidelines, including system and procedures, for pollution load and charge computation in support of the discharge permitting system	Implementing Rules and Regulations of the Wastewater Charge System and Discharge Permits under Republic Act 9275	Pending approval
Activity 1.7	Prepare procedural guidelines for managing the National Water Quality Management Fund	1. Implementing Guidelines on the Operationalization of the National Water Quality Management Fund under Republic Act 9275	Pending approval
		2. Implementing Guidelines on the Operationalization of the Area Water Quality Management Fund under Republic Act 9275	Pending approval
Activity 1.8	Prepare procedural guidelines for categorization of industries, including point and non-point sources of water pollution	Significant Effluent Quality Parameters per Sector integrated into the General Effluent Standards	Pending approval The document was integrated into the water quality guidelines.
Activity 1.9	Develop approach and prepare guidelines for establishing cooperation programs with other agencies and civic groups in water quality monitoring	1. Water Quality Monitoring Manual Volume I - Manual on Ambient Water Quality Monitoring 2. Water Quality Monitoring Manual Volume II - Manual on Effluent Quality Monitoring	Approved EMB MC 2008-08

ID	Activity in the Project Document	Deliverables and Accomplishments	Status
		3. Guidelines for Area Cooperation Arrangement for Water Quality Monitoring	Pending approval
Activity 1.10	Prepare guidelines and initiate coordination arrangements for appropriate discharge standards for specific types of industry sources.	The concept of regulatory flexibility are embedded and/or reflected in various guidelines developed under the Project.	Completed
Activity 1.11	Prioritize pollution sources and prepare an operations manual on conducting compliance inspections for various types of polluting facilities	5. Procedural Guidelines for Establishing Effluent Standards including General and Industry-Specific Standards	Completed as an internal document of EMB
		6. Procedural Guidelines for prioritization of polluters for compliance inspection	Pending approval
		7. Compliance Inspection Manual	MC 2010-005
		8. Revised Guidelines in the Accreditation of Pollution Control Officers	Pending approval
Activity 1.12	Review water quality guidelines to provide basis for water re-classification and revision of effluent standards	9. Water Quality Guidelines	Pending approval
		10. General Effluent Standards	Pending approval
		11. Industry Specific Effluent Standards for 1) Alcohol Distillery 12. Industry Specific Effluent Standards for Manufacturer of Pulp (Abaca), 13. Industry Specific Effluent Standards for Manufacturer of paper and paper products, 14. Industry Specific Effluent Standards for Sugar milling and refining 15. Industry Specific Effluent Standards for Hotel and Restaurant sub-sector.	Pending approval
		16. Philippines Effluent Management Strategy	Completed as an internal document of EMB
Activity 1.13	Design and implement a training program for EMB CO and RO staff in all regions for each set of procedural guidelines; prepare training materials and conduct the training.	Orientation and workshop conducted for the EMB CO and all the EMB RO at the end of each year.	Completed
Activity 1.14	Integrate Policies on Water Quality Management	Ten guidelines were integrated and harmonized from legal viewpoints.	Completed
Activity 2.1	Establish coordination system with EMB Regional Offices in implementing the guidelines developed under Output 1.	The EMB's management conferences were regularly assisted through updating information on the Project.	Completed
Activity 2.2	Select or develop appropriate water quality modeling techniques, including calibration, testing and demonstration in selected regions	Appropriate water quality modeling technique developed and tested.	Completed

ID	Activity in the Project Document	Deliverables and Accomplishments	Status
Activity 2.3	Design, develop, trial implement a national information campaign for raising public awareness of water quality management issues.	1. WQMA Water Quality Status Reports for MMO RS WQMA 2. WQMA Water Quality Status Reports for IB RS WQMA 3. WQMA Water Quality Status Reports for Sarangani Bay WQMA 4. Materials for National Awareness Campaign	Completed.
Activity 2.4	Design and develop a water quality and pollution source database management system for use by ROs, with capability for mapping pollution sources using GIS	Initial water quality and pollution source database management system	Completed
Activity 2.5	Design and develop an Internet-based WQM information and communication system to link the EMB CO with the ROs	Internet-based WQM information and communication system to link the EMB CO with the ROs A water quality and pollution source database with reporting system for use by ROs linking between CO and ROs	Completed
Activity 2.6	Integrate regional reports and publish the first national status report on water quality	1. Guidelines for the Preparing of the Regional and National Water Quality Status Reports for Public Information and Advocacy 2. National Water Quality Status Report 2001-2005	Published
Activity 2.7	Implement procedures for managing the national water quality management fund (based on procedural guidelines developed under Activity 1.7).	Operations Manual on National Water Quality Management Fund	Pending approval
Activity 2.8	Procure equipment for sampling and field monitoring for WQMS staff, and streamline operations of the EMB central lab as a reference laboratory and training center for RO field and laboratory personnel.	A set of equipment for WQMS staff and the Central Laboratory delivered	Completed
Activity 2.9	Design and implement a training program for EMB CO staff on use of the information and communication system developed, including fund management	Training through participatory development of the systems along with the Orientation and Workshop opportunity for the staff of EMB CO	Completed
Activity 2.10	Conduct activities to generate resources for non-pilot ROs, e.g., planning workshops with other donor agencies (e.g., World Bank, ADB).	Draft Project proposal along with planning workshops. One of the meetings included the Seminar on Implementation of the Philippines CWA of 2004 and Capacity Development Project on WQM (March 17, 2009)	Completed
Activity 3.1	Implement guidelines for WQMA delineation	1. Marilao-Meycauayan-Obando River System (MMO) WQMA in Region III	DAO 2008-07
		2. Iloilo-Batiano River System WQMA in Region VI	DAO 2009-11
		3. Sarangani Bay WQMA in Region XII	DAO 2009-12

ID	Activity in the Project Document	Deliverables and Accomplishments	Status
Activity 3.2	Set up the Governing Board, Technical Secretariat and multi-sectoral working groups for the designated WQMAs	1. Creation of the Governing Boards of MMO RS WQMA, 2. Creation of the Governing Boards of IBRS WQMA and 3. Creation of the Governing Boards of Sarangani Bay WQMA	Completed Officially created upon the signing of ht DAOs on WQMAs
Activity 3.3	Facilitate the formulation of WQMA.GB action plans and LGU compliance plans based on guidelines developed under Activity 1.5.	1. Initial Ten Year Action Plan for Iloilo-Batiano River System Water Quality Management Area 2. Initial Ten Year Action Plan for Marilao-Meycauayan-Obando River System Water Quality Management Area 3. Initial Ten Year Action Plan for Sarangani Bay Water Quality Management Area	Pending approval
Activity 3.4	Assist WQMA GBs in establishing and managing the area water quality management fund and the activities of multi-sectoral monitoring groups.	Operations Manual on Area Water Quality Management Fund	Pending approval
Activity 3.5	Assist in establishing area-based cooperation arrangements in water quality monitoring based on procedures developed under Activity 1.9.	1. Multi-sectoral Monitoring Groups created for MMO WQMA 2. Multi-sectoral Monitoring Groups created for IBRS WQMA 3. Multi-sectoral Monitoring Groups created for Sarangani Bay WQMA	Completed
Activity 4.1	Identify attainment and non-attainment areas based on the procedures developed under Activity 1.2.	1. Delineated Non-Attainment Areas within MMO RS WQMA, 2. Delineated Non-Attainment Areas within IBRS WQMA and 3. Delineated Non-Attainment Areas within Sarangani Bay WQMA.	Pending approval
Activity 4.2	Classify or re-classify water bodies as needed based on guidelines developed in Activities 1.4 and 1.12.	1. Initial Classification for Albay Gulf 2. Initial Classification for Toledo-Balamban Coastal Water 3. Initial Classification for Macajalar Bay	Completed They require update when dry season monitoring is complete.
Activity 4.3	Implement the discharge permitting and wastewater charge system based on procedures developed under Activity 1.6.	The complete staff work for implementation of the discharge permitting and wastewater charge system supported by case studies and solutions for CO staff	Completed
Activity 4.4	Set up collection and accounting systems for permitting fees and wastewater charges.	1. Technical paper on procurement procedure for WQMA governing board operationalization of the water quality management funds 2. General loan provision procedure for WQMA governing board	Pending approval
Activity 4.5	Conduct pollution source inventories and water quality field surveys.	List of industries within the three WQMAs with categorization	Completed
Activity 4.6	Apply the water quality model developed under Activity 2.2, for example, in allocating pollution quotas in non-attainment areas.	Water Quality Modeling was applied in 1) Identifying NAA, 2) Preparing 10 year WQMA Action Plans, 3) Classification of Water bodies	Completed

ID	Activity in the Project Document	Deliverables and Accomplishments	Status
Activity 4.7	Implement procedures (developed under Activities 1.8 and 1.11) for pollution source categorization, prioritization and compliance inspections.	Recommendations on the Pollution Source Prioritization and Compliance Inspections	Completed
Activity 4.8	Manage the database of pollution sources and WQ data survey results, and link the regional database to the national database at the EMB CO.	Enhanced database developed under the Project operational	Completed
Activity 4.9	Procure equipment for sampling, monitoring and analysis, and develop training materials to enhance capability of EMB regional laboratories; also assist ROs in initiating laboratory partnerships.	1. A set of laboratory instrument and equipment for Region 3 delivered 2. A set of laboratory instrument and equipment for Region 6 delivered 3. A set of laboratory instrument and equipment for Region 12 delivered	Completed
Activity 4.10	Prepare and disseminate the first regional water quality status reports.	1. Region III Water Quality Status Report 2001-2005 2. Region VI Water Quality Status Report 2001-2005 3. Region XII Water Quality Status Report 2001-2005	Pending approval
Activity 4.11	Design and implement a program for RO staff in the non-pilot regions to visit and observe WQM procedures being implemented in the pilot regions.	Regional cross visit was conducted taking advantage of Orientation and Workshop convened in Metro Manila to visit some locations in MMO RS WQMA and wastewater treatment facilities operating in Metro Manila.	Completed

Annex G: List of Equipment

Equipment Procurement to EMB Central Office

NO.	EQUIPMENT	Unit	Require Number		
			EMB CLAB	EMB CWQMS	Total
S : FOR FIELD SAMPLING/MONITORING					
S-1	Water Sampling Equipment	set		1	1
S-2	Sediment Sampler	set		1	1
S-3	Current Meter	set		1	1
S-4	Water Quality Checker	set		2	2
S-5	GPS Apparatus	pc		1	1
S-6	Digital Camera	set		1	1
S-7	Laptop Computer	pc		1	1
S-8	Water Quality Sampling Car	set		1	1
T : FOR TRAINING/ WORKSHOP/CONSULTATION MEETINGS					
T-1	LCD Projector	set		1	1
T-2	Laptop Computer	pc		1	1
T-3	Mini Screen	pc		1	1
T-4	IC Recorder	pc		1	1
L : FOR LABORATORY ANALYSIS					
L-1	Low-temperature Refrigerator for Standards, Reagents Storage	pc	1		1
L-2	Low temperature refrigerator for sample storage	pc	1		1
L-3	Water bath	pc	1		1
L-4	Hot plate with thermostat	pc	1		1
Total		**set**	**4**	**13**	**17**

Equipment Procurement to EMB Regional Office

For EMB Region III

	Equipment	Remarks
1	Current meter	The current meter will be used for ambient water quality monitoring. -
2	Sediment Sampler	Sediment sampler will be used for collection of sediment sample from riverbed and ocean. -
3	Water Sampler	- Type: Van Dorn type water Sampler -
4	Water Quality Checker	- Type: Portable type, applicable field measurement -
5	Secchi Disc	- Type: Secchi Disc for Transparency -
6	Transparency Meter	- 50cm height
7	Incubator	The incubator will be used for BOD, Coliform count. -
8	Autoclave	-
9	Water Bath	-
10	Hot Plate	-
11	Pure Water Supply Unit	-
12	Ultrasonic Cleaner	-
13	Distillation Unit	
14	Multiple Analyzer	
15	Laboratory Test Meter	-
16	Atomic Absorption Spectrophotometer	
17	Set of Support Apparatus for Analysis	- 1) Micro Pipette (5mL): 2 set each - 2) Dispenser: 2 sets - 3) Burette: 2 sets - 4) BOD Bottle: 96 pcs

For EMB Region VI

	Equipment	Remarks
1	Current meter	The current meter will be used for ambient water quality monitoring.
2	GPS	GPS will be used for identifying geological position of pollution sources and sampling sites of WQ monitoring. -
3	Sediment Sampler	Sediment sampler will be used for collection of sediment sample from riverbed and ocean. -
4	Water Sampler	- Type: Van Dorn type water Sampler -
5	Water Quality Checker	- Type: Portable type, applicable field measurement -
6	Secchi Disc	- Type: Secchi Disc for Transparency -
7	Transparency Meter	- 50cm height
8	Incubator	The incubator will be used for BOD, Coliform count. -
9	Autoclave	-
10	Water Bath	-
11	Hot Plate	-
12	Desiccating Cabinet	-
13	Pure Water Supply Unit	-
14	Ultrasonic Cleaner	-
15	Filtration Unit w/ pump (3 units)	-
16	Distillation Unit	
17	Multiple Analyzer	
18	Laboratory Test Meter	-
19	Set of Support Apparatus for Analysis	- 1) Micro Pipette (5mL): 2 set each - 2) Dispenser: 2 sets - 3) Burette: 2 sets - 4) BOD Bottle: 96 pcs

For EMB Region XII

	Equipment	Remarks
1	Current meter	The current meter will be used for ambient water quality monitoring.
2	GPS	GPS will be used for identifying geological position of pollution sources and sampling sites of WQ monitoring.
3	Sediment Sampler	Sediment sampler will be used for collection of sediment sample from riverbed and ocean.
4	Water Sampler	- Type: Van Dorn type water Sampler
5	Water Quality Checker	- Type: Portable type, applicable field measurement
6	Secchi Disc	- Type: Secchi Disc for Transparency
7	Transparency Meter	- 50cm height
8	Fume Hood with wash and exhaust Unit	- Dimension: 75(W) x 50(D) x 120(H) cm or more
9	Incubator	The incubator will be used for BOD, Coliform count.
10	Autoclave	-
11	Water Bath	-
12	Hot Plate	-
13	Desiccating Cabinet	-
14	Refrigerator	-
15	Pure Water Supply Unit	-
16	Ultrasonic Cleaner	-
17	Filtration Unit w/ pump (3 units)	-
18	Distillation Unit	
19	UV-Vis Spectrophotometer	-
20	Multiple Analyzer	
21	Laboratory Test Meter	-
22	Atomic Absorption Spectrophotometer	
23	Mercury Analyzer	-
24	Arsenic Generator and absorber assembly	-
25	Ion Chromatograph	-
26	Set of Support Apparatus for Analysis	- 1) Micro Pipette (5mL): 2 set each - 2) Dispenser: 2 sets - 3) Burette: 2 sets - 4) BOD Bottle: 96 pcs

Additional Equipment Procurement to EMB CO

Item	Specifications
Server (1 Unit)	Rack-Mount Server (a) Processor: 2.66Ghz or more, 2x2MB cache, 800MHz FSB, Chipset: Intel 5000X (b) Integrated Dual Gigabit Network Card (c) Integrated Dual Channel Ultra 320 SCSI Controller (d) Raid 5 (PERC4e/DC with 256MB cache) (e) Bezel for Expansion Riser: 3x PCI-X slots (f) 4GB, DDR-2 533/667MHz (FBD) (g) 1.44MB 3.5" slim Floppy Drive, Cable for Floppy Drive (h) 17 inch TFT Monitor or bigger (i) (5x) 300GB Ultra320 (15K RPM, 80-pin) SCSI Hard Drive (j) 24x IDE slim CD-ROM Drive, Cable for Optical Device (k) 1000MT Single Port Copper Gigabit NIC (V7.1) (l) 2x Power Cable (IEC C13-C14 Pass through for UPS/PDU Connection), 1x Power Card, 6 feet 110/220V USA (Thailand, Guam, Philippines) (m) OS: Win 2003 Server (n) Software: (1) Server Management Software Kit, (2) MS SQL Server 2005 Standard 5 CALs Retail Box + MS SQL Server 2005 (5 CAL License only), (3) MS Visual Studio 2005 Professional Full Version [Component]: Keyboard, Optical Mouse, Server Rails, Redundant Power Supply (700W) [Server Rack]: Enclosure with slide UPS, Rack-mounted 3000VA USB & Serial 230RM (2U), Rack PDU, Basic Zero U, 10A, 230V(15)C13, Network Management Card with Environmental Monitoring
Firewall (1 Unit)	Firewall Appliances with IPSec, Anti-Virus/Spyware, Buffer Overflow Prevention and Control In/Outbound Network Traffic (o) Mini 1U format 19" Rack Mountable, (p) CPU: Pentium 2.0GHz or more, HDD:40GB or more, RAM: 512MB or more, (q) 3x10/100/1000- Network Interface, Certified to CC EAL4+. US Manufactured
PC Work station (1 Unit)	Desktop CD-R/RW/DVD:24×or more type (r) CPU: Pentium 2GHz or more, HDD: 150GB or more, RAM: 2GB or more (s) Display: 15 inch TFT monitor or bigger, (t) OS: Windows XP professional or more new version, (u) Software: (1) MS Office Professional 2003 or more new version, (2) Anti Virus Soft (one year or more license) [Component]: Keyboard, Optical Mouse, Internal Modem (56k or more)
Color Printer (1 Unit)	Inkjet Color Printer (v) Paper Size: A4, A3, B5 (w) Print speed: Black 14ppm or more, Color 11ppm or more (x) Resolution: 4800X1200 dpi (color), 600x600 dpi (black) or more (y) Networkable, USB interface and parallel (IEEE 1284 compliant) (z) Memory: 8MB built-in RAM, Processor: 33MHz [Consumables]: Black ink (2 sets), Tri-color ink (2 sets)

Annex H Format of the Questionnaire for Capacity Assessment

1. Institutional Aspect

1-1. Coordination with other agencies on WQM

1. There is quite few coordination with other agencies.
2. Coordination is undertaken only upon request of other agencies.
3. Coordination with relevant agencies is usually considered in the policy-making process. But, very few coordination is actually considered in the implementation.
4. Policy-making is always conducted in close coordination with relevant agencies, but only partially during the implementation stage.
5. Close coordination with other relevant agencies is ensured in all stages from policy-making to the implementation on WQM.

1-2. Integrated Water Quality Management Framework (IWQMF)

1. Policies or programs that are in effect are not in line with the Clean Water Act.
2. IWQMF is drafted ensuring the consistency with CWA and other policies and programs in effect.
3. IWQMF is approved as an Executive Order and the implementation plan becomes effective.
4. On-going program is in line with the IWQMF. Coordination of its enforcement with other agencies is limited.
5. Water Quality Management Policy is sufficiently recognized by and enforced in close cooperation with other agencies.

1-3. Guidelines relevant to WQMA

1. EMB does not have any draft guidelines on WQMA designation.
2. Guidelines on WQMA are drafted. Any WQMAs have yet to be delineated in line with the guidelines.
3. Guidelines on WQMA are finalized and approved. WQMA are duly designated and the GB is set up in certain Regions.
4. WQMA designation is put in place nationwide in line with the guideline. GB is organized in each WQMA.
5. Most of the Regions have WQMAs designated and the GBs develop the Action Plan.

1-4. Policy on Market based Instruments (MBIs)

1. EMB does not have any policy on MBI or some MBIs are partially put in place without guidelines.
2. Guidelines on MBI-related tools are drafted but yet to be implemented.
3. Some of the guidelines on MBIs are approved and put in place in many regions.
4. Most of the guideline on MBIs are approved and applied to the activities in the WQMA Action Plan.
5. All of the guidelines on MBIs are properly applied nationwide or to the WQMAs designated.

1-5. Water Quality Management Fund (WQM Fund)

1. EMB does not have any draft guideline on WQM Fund.
2. Guidelines on National and Area WQM Fund are drafted.
3. Guideline on either National or Area WQM Fund is approved, and thereby the special account is duly opened to credit and withdraw the sources of fund.
4. Both guidelines on National and Area WQM Fund are approved and all the accounts needed for the fund management are opened.
5. WQM Funds are appropriately operationalized for WQM activities.

1-6. WQ Guideline and Effluent Standard

1. DAO 34 and 35 remain in effect. The revision has yet to be made.
2. The revised DAO 34, 35 and the guidelines for development of ISES are drafted.
3. Revised DAO 34 and 35 (WQG and GES) are duly approved. ISES for some sectors are developed.
4. The revised DAO 34 and 35 are recognized nationwide. ISES for some sectors are approved.
5. All the standards on WQ including WQG, GES and ISES are in effect. A system for renewal of standards is established.

1-7. Interaction between EMB CO and ROs, Coordination with other agencies

1. There is poor interaction between EMB CO and ROs and poor coordination with other agencies.
2. There are occasional opportunities for interaction between CO and ROs. Irregular meetings with other agencies are convened.
3. Regular meeting or conferences are held between CO and ROs, but occasionally with other agencies. Some activities are conducted under such coordination.
4. Meetings with other agencies are convened regularly. Only limited comments of those raised during the meetings are incorporated into the WQM policy.
5. Under the leadership of CO, activities are rendered in close coordination with other agencies, and their comments are properly incorporated into the WQM policy.

1-8. Classification of Water body

1. The existing guidelines of classification remain applied.
2. The guidelines of classification are revised.
3. The revised guidelines are approved. Classification of water body is initiated according to the revised guidelines.
4. All the water bodies classified in the past are reclassified. Some of the non-classified water bodies are newly classified.
5. Classification of all the water bodies is completed. A system for reclassification is established.

1-9. Water Quality Management Action Planning through participatory approach

1. There are no action plans for Water Quality Management Areas (WQMAs).
2. The procedural guidelines for WQM action planning through participatory approach are developed.
3. Under the initiative of EMB RO, Action Plan is prepared through participatory approach in particular WQMAs.
4. Action Plan is initiated in particular WQMAs.
5. Under the initiative of EMB RO, Action Plan is developed and implemented in all designated WQMAs.

1-10. Area cooperation on Water Quality Monitoring

1. EMB conducts regular monitoring of water quality. There is no guideline on area cooperation arrangement for WQMAs.
2. The guidelines on area cooperation arrangement are drafted for WQ monitoring in WQMA.
3. The guidelines are approved. Area cooperation is arranged for WQ monitoring in a particular WQMA.
4. WQ monitoring is continuously conducted based on the arrangement in a particular WQMA.
5. Continued WQ monitoring is made based on the sound arrangement in all WQMAs.

2. Organizational Aspect

2-1. Budget Allocation for EMB CO

1. Due to scarcity of budget, it is quite hard to design, establish, revise, operationalize and disseminate the WQM system.
2. Substantial budget is irregularly and limitedly allocated to revise prioritized guidelines or systems and manage the WQ data of regular monitoring.
3. Substantial budget is regularly but limitedly allocated to revise prioritized guidelines or systems and manage the WQ data of regular monitoring.
4. Substantial budget is allocated to newly develop, revise, disseminate prioritized guideline s or system s and manage the database and analyze the WQ data of regular monitoring.
5. Based on the local needs and the sufficient data of monitoring, substantial budget is properly and regularly allocated to review, revise and operationalize the WQM system.

2-2. Personnel Allocation

1. There is no staff in charge of Water Quality Management in the Office.
2. Limited number of personnel is allocated for the volume of mandates. Their individual capability to enforce them is also limited.
3. Limited number of personnel is allocated for the volume of mandates. They, however, have enough capability to enforce them.
4. The proper number of personnel is allocated for the volume of mandates. Most of them have enough capability to enforce them.
5. Enough number of personnel is allocated for the volume of mandates and all of them are sufficiently capacitated.

2-3. Procedural guidelines and operation manuals

1. Procedural guidelines and Operation manuals on WQ management have yet to be prepared.
2. Some of the guidelines and manuals are prepared. EMB CO's understanding is still limited. Dissemination of guidelines and manuals to RO is arranged.
3. Some of the guidelines or manuals are approved. CO has a correct understanding of those documents. The guidelines and manuals are steadily disseminated to ROs.
4. All of the guidelines and manuals needed for WQM are approved. Many activities are implemented according to those guidelines and manuals in particular regions.
5. Many activities are implemented in all regions according to guidelines and manuals needed for WQM. A system for revision of the guidelines and manuals is established.

2-4. Scientific Analysis and Water Quality Model to address policy and planning needs

1. The methodology and model to scientifically analyze WQ data collected in regions have yet to be developed.
2. The methodology for scientific analysis and WQ simulation model are developed. Dissemination to EMB ROs is

limited.

3. The methodology for scientific analysis and WQ simulation model that have been developed are disseminated to most of the ROs.
4. According to the methodology, all of the ROs provide WQ data to CO, which has a validation system to ensure the reliability of WQ data.
5. Scientific analysis is applied to all of the water bodies and the WQ model is applied as the needs arise. WQ data of EMB ROs are always in conjunction with CO's.

2-5. Laboratory equipments and materials for WQ analysis

1. There is a severe shortage of the equipments and materials in EMB CO.
2. Minimal kinds of facilities and materials for conventional WQ parameters are provided in CO. But, understanding of their use is not enough.
3. Minimal kinds of facilities and materials for conventional WQ parameters are provided in CO. The staff has good understanding of how to use them.
4. Reasonable scale of facilities and materials for all the WQ parameter are provided. Their operation is good but their maintenance is limited.
5. Optimum scale of facility and materials for all the WQ parameter required to CO are provided. Their operation and maintenance are very good.

2-6. WQM Database/Information System

1. Information related to WQM is partially collected, but remains scattered.
2. A part of the information is assembled and analyzed. The information is irregularly updated.
3. With compiled database of various kinds of information, information management system is put in place. 1st National WQ Status Report is published.
4. All kinds of necessary information are compiled. The information is limitedly updated. National WQ Status Report is irregularly published.
5. All kinds of necessary information are compiled and linked with GIS system. The information is properly updated. NWQSR is regularly published.

2-7. Ownership of WQ management

1. EMB CO is less aware that it should play a central part in national WQ management.
2. Some staff of the CO is aware that EMB CO should play a central part in WQ management.
3. Most of the staff of the CO is well aware that EMB CO should play a central part in WQ management.
4. All the staff of the CO is aware that EMB CO should play a central part in WQ management.
5. The entire EMB CO is fully aware that it should play a central part in WQ management.

2-8. Leadership of EMB CO on WQ management

1. EMB CO does not play the role as the lead agency taking initiative of national WQ management.
2. EMB CO takes initiative in preparing particular WQ management policy, but has limited leadership in coordinating meetings with other agencies.
3. EMB CO takes initiative in preparing particular WQ management policy as well as in coordinating meetings with other agencies.
4. EMB CO takes strong initiative in implementing and going ahead with particular WQ management policy.
5. EMB CO plays a leading role in implementing and promoting all WQ management policies.

3. Individual Aspect

3-1. Perception of mandates tasked to personnel

1. Mandates tasked to each staff are unclear. Or, you do not have a solid understanding of the mandates.
2. Due to limited perception of fundamental assignments, your performance of duties is quite insufficient.
3. You have a correct understanding of your fundamental assignments and are performing your basic duties.
4. You have a correct understanding of most of your assignments and are performing your duties.
5. You have a correct understanding of all your assignments and are performing all your duties properly.

3-2. Knowledge for WQ management

1. There is a lack of knowledge and experience on WQ management needed for performing your duties.
2. You have fundamental knowledge in a fragmentary fashion regarding WQ management. Based on the knowledge, you can perform a part of your duties.
3. You have a correct understanding of the fundamental knowledge for WQ management but limited experience in

implementation.
4. You have an expertise in WQ management but need more experience in implementation.
5. You have a wide range of expertise in WQ management and discernment based on a great deal of experience.

3-3. Awareness for WQ management

1. You are less aware that it is critical to promote WQ management.
2. You are aware of the importance of WQ management, but have difficulty to keep such awareness due to a lot of issues on its implementation
3. You have some awareness to perform some of your duties on WQ management.
4. You have good awareness to perform most of your duties on WQ management.
5. You have high awareness to properly perform all of your duties on WQ management.