

PROJECT COMPLETION REPORT

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ABBREVIATION

1. Organizations

ADB	Asian Development Bank
ARMM	Autonomous Region in Muslim Mindanao
BENRO	Barangay Environment and Natural Resources Office
BFAR	Bureau of Fisheries and Aquatic Resources
BOI	Board of Investments
CAR	Cordillera Administrative Region
CO	Central Office
COA	Commission on Audit
DA	Department of Agriculture
DANIDA	Danish International Development Assistance
DBM	Department of Budget and Management
DBP	Development Bank of the Philippines
DENR	Department of Environment and Natural Resources
DepED	Department of Education
DILG	Department of Interior and Local Government
DOH	Department of Health
DOST	Department of Science and Technology
DPWH	Department of Public Works and Highways
DTI	Department of Trade and Industry
EMB	Environmental Management Bureau
EQD	Environmental Quality Division
FASPO	Foreign Assisted and Special Projects Office
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
LGU	Local Government Unit
LLDA	Laguna Lake Development Authority
LWUA	Local Water Utilities Administration
MGB	Mines and Geosciences Bureau
MSTQ	Metrology, Standards, Testing and Quality
MWSS	Metropolitan Waterworks and Sewerage System
NAMRIA	National Mapping and Resources Information Authority
NEDA	National Economic and Development Authority
MWCI	Manila Water Company, Inc
MWSI	Maynilad Water Services Inc.
NEPC	National Environmental Protection Council
NMIS	National Meat Inspection Service
NPCC	National Pollution Control Commission
NWAPCC	National Water and Air Pollution Control Commission
NWRB	National Water Resources Board
PAB	Pollution Adjudication Board
PCD	Pollution Control Division
PCAMRRD	Philippine Council for Aquatic and Marine Resources Research and Development
PCG	Philippine Coast Guard
PEZA	Philippine Economic Zone Authority
PIA	Philippine Information Agency
PMO	Project Management Office
RBCO	River Basin Control Office
RO	Regional Office
SIDA	Sweden International Development Agency
UN	United Nations
WB	World Bank

2. Terms and Acronyms

AA	Attainment Area
AWQMF	Area Water Quality Management Fund
BOD	Biochemical Oxygen Demand
CAA	Clean Air Act
CDPWQM	Capacity Development Project on Water Quality Management
CM	Compliance Monitoring
COD	Chemical Oxygen Demand
CST	Communal Septic Tank
CWA	Clean Water Act
DAO	Department Administrative Order
DBM	Department of Budget and Management
DO	Dissolved Oxygen
ECC	Environmental Compliance Certificate
EFDC	Environmental Fluid Dynamics Code,
FGD	Focus Group Discussion
EIS	Environmental Impact Statement
EO	Executive Order
GAA	General Appropriations Act
GB	Governing Board
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GNP	Gross National Product
IEC	Information, Education and Communication
IRR	Implementing Rules and Regulations
IWQMF	Integrated Water Quality Management Framework
IWRM	Integrated Water Resources Management
JAO	Joint Administrative Order
JCC	Joint Coordinating Committee
LGU	Local Government Unit
LISCOP	Laguna de Bay Institutional Strengthening and Community Participation
MBI	Market-Based Instrument
MIS	Management Information System
M/M	Minutes of Meeting
MMDA	Metropolitan Manila Development Authority
MSG	Multi-sectoral group
MTPDP	Medium Term Philippine Development Plan
MTSP	Manila Third Sewerage Project
NAA	Non-Attainment Areas
NCR	National Capital Region
NEUF	National Environmental Users Fee
NGO	Non-Government Organization
NOAA	National Oceanic and Atmospheric Administration
NSSMP	National Sewerage and Septage Management Plan
NWIN	National Water Information Network
NWQMF	National Water Quality Management Fund
NWQSR	National Water Quality Status Report
ODA	Official Development Assistance
OFW	Overseas Filipino Worker
POPs	Persistent Organic Pollutants
PC	Public Consultation
PCO	Pollution Control Officer
PCB	Polychlorinated Biphenyls

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PCM	Project Cycle Management
PD	Project Document
PDM	Project Design Matrix
PEENRA	Philippine Environmental Economics and Natural Resources Accounting
PEM	Philippine Environment Monitor
PEPP	Philippine Environmental Partnership Program
Php	Philippine Peso
PSEM	Policy Study on Effluent Management
MM	Man-month
MT	Metric Ton
MCM	Million Cubic Meters
RBCO	River Basin Control Office
R/D	Record of Discussion
RA	Republic Act
SEECCTA	Strengthening Environmental Enforcement and Compliance Capacity Technical Assistance Project
SMICZMP	Southern Mindanao Integrated Coastal Zone Management Project
SMR	Self-Monitoring Report
SpTP	Septage Treatment Plant
STP	Sewage Treatment Plant
S/W	Scope of Work
TAT	Technical Assistance Team
TDS	Total Dissolved Solids
TOR	Terms of Reference
TS	Technical Secretariat
TSS	Total Suspended Solids
TWG	Technical Working Group
USAEP	U.S. Asia Environmental Partnership
US\$	United States Dollars
WQ	Water Quality
WQM	Water Quality Management
WQMA	Water Quality Management Area
WQMS	Water Quality Management Section
WQSR	Water Quality Status Report

CHAPTER 1. PROJECT OUTLINE

1.1 BACKGROUND OF THE PROJECT

The desire to promote economic prosperity has led to the unsustainable exploitation of the environment in the Philippines where concerted efforts by relevant authorities are significantly constrained by limited funds for adequate sanitation, urban drainage, and proper solid waste management. This has resulted to degradation of surface as well as ground water quality and coastal aquatic environment costing around PhP67 billion (US\$1.3 billion) annually as adverse effects on public health, fisheries production, and tourism.¹

Despite 30 years of persistent efforts of the environmental authority in the country, effective and efficient intervention for improved water quality environment has yet to be realized due to prevalent institutional and organizational weaknesses including: lack of consistent legal framework; absence of long-term investment plan for environmental management; and lack of budget and staff to provide public services in water quality management. Although attempts were made in the period to control water pollution by classifying water bodies into five categories for freshwater and four for marine and enforcing effluent standards corresponding to the receiving water classification, water pollution issues were not effectively addressed due to said weaknesses along with increasing pollution loads which resulted from rapid population and economic growths.

A dramatic shift in water quality management policy took place in 2003, in which various schemes of incentive mechanisms were introduced into the set of policy instruments to maximize economic efficiency and effectiveness of pollution control actions. This was further consolidated by enacting the Clean Water Act (CWA: RA9275) in May 2004. The CWA sets forth provisions for designation of water quality management areas and non-attainment areas. Pertinent authorities in the designated areas are required to formulate and implement 10-year action plans to address water quality issues in their respective area. The CWA further mandated relevant departments of the government including the local government units (LGUs) to implement policies and actions toward improved water quality. Other instruments laid down in the CWA include: national and area water quality management funds, industry specific effluent standards, wastewater charge system and discharge permitting. Through the instruments, the CWA accelerates 1) the departure from command and control regulation to regulatory pluralism² and 2) the trends towards devolution and decentralization of environmental decision making to effectively address the geographically widespread water quality problems.

¹ Philippine ENVIRONMENT MONIOTR 2000, WB

² Unlike the case of an excessive reliance on single instrument, regulatory pluralism employs a much wider range of policy mechanisms including economic instruments, self-regulation, information-based strategies and voluntarism. This is because all instruments have strength and weaknesses, and because none are sufficiently flexible and resilient to be able to successfully address all environmental problems in all contexts.

Strengthening capacity of the Environmental Management Bureau, Department of Environment and Natural Resources (DENR-EMB) in performing the unprecedented tasks assigned to it by enactment of the CWA is an imminent need, which would be materialized by translating the provisions in the CWA into workable procedural and technical guidelines and providing hands-on training opportunities on the use of the guidelines by the EMB staff.

In this context, the Government of the Republic of the Philippines requested the Government of Japan to undertake a technical cooperation project to address capacity gaps in overall environmental management in 2002. The water quality issue, among others, was identified as the priority area for intervention in a project needs assessment in a JICA-funded preparatory study recognizing said issues. JICA subsequently conducted consecutive studies in the period from October 2004 to July 2005. In the midst of the first study, the final structure of the CWA and its Implementing Rules and Regulation (IRR) shaped up. On the second occasion of the preparatory study, the mission team discussed policy issues and mandates³ under the CWA and its IRR with the representative of EMB and convened a workshop with the staff of the sixteen (16) EMB regional offices. The discussion was concluded by eventually producing the Project Document that had identified 39 priority activities and four outputs to increase capabilities of the EMB Central and Regional Offices and signing the Minutes of Meeting (M/M) on the project between the parties on July 11, 2005. Following the M/M, JICA had a series of discussions through the JICA Philippine Office on project implementation with the Government of the Republic of the Philippines. As a result of the discussions, JICA and the Philippine authorities concerned agreed on 24 October 2005 that the Government of the Republic of the Philippines implement the Capacity Development Project on Water Quality Management, the Project, in cooperation with JICA.

1.2 OBJECTIVES AND OVERALL DESIGN OF THE PROJECT⁴

The purpose of the project is to strengthen the capabilities of the Central and Regional EMB offices to implement priority actions mandated to the DENR by the CWA and its Implementing Rules and Regulations. The said purposes are achieved through:

- Output 1: Establishing an Integrated policy framework for WQM based on the CWA supported by adequate procedural guidelines and training for EMB staff;
- Output 2: Strengthening capacity of EMB Central Office to lead and support the Regional Offices;
- Output 3: Strengthening capability of EMB Regional Offices to establish and support WQMAs and related institutions in 3 pilot regions; and
- Output 4: Strengthening overall capability of EMB Regional Offices in water quality management in 3 pilot regions.

³ A summary table of the Clean Water Act Mandates to DENR is attached to Annex A.

⁴ The revised Project Design Matrix is attached to Annex B.

The overall goal of the Project is: “Under initiatives of the WQMA Governing Boards, industries commercial entities, LGUs, and other public organizations take necessary actions for achieving the water quality goal established in the WQMA Action Plans”. The performance indicators are: 1) EMB Central Office and 3 pilot EMB ROs assisted by the Project are efficiently and effectively implementing their mandates under the Clean Water Act and its IRR; and 2) Capacity of the staff in charge of water quality management in non-pilot ROs is strengthened.

Although there were thirteen-nine (39) project activities identified for generating said outputs in the original Project Design Matrix, an activity for Policy Integration was additionally included in the Mid-term Evaluation bringing to 40 the total number of activities enumerated in the PDM. It was an overlooked activity at the project design stage so that it was additionally included as the 14th Activity under the Output 1. The Project Design Matrix is attached as Annex B of the report. Other details of the Project’s rationale and justification are presented in the Project Document.

1.3 GEOGRAPHICAL FOCUSES

As presented in the preceding section of the report, the Project was implemented with focuses on EMB Central Office as well as the Regional Offices in three pilot regions. JICA and the concerned authorities of the Government of the Philippines designated Regions III, VI and XII as the pilot regions⁵ of the Project as specified in the M/M attached to R/D signed on October 24, 2005. This decision to choose said areas was made so that each of the major island groups (Luzon, Visayas and Mindanao) had a pilot region represented, and so that the regions chosen provide representative settings for water quality management, i.e., the first pilot region (Region III) characterized by having highly urbanized cities wherein clean water and sanitation are paramount issues; a second region (Region VI) faced with water quality management issues that threaten eco-tourism and fisheries; and a third pilot region (Region XII) characterized by having substantial industrial activity (e.g., mining). Finally, the pilot regions were chosen with consideration on the commitment of the staff to perform the WQM activities that would be strengthened.

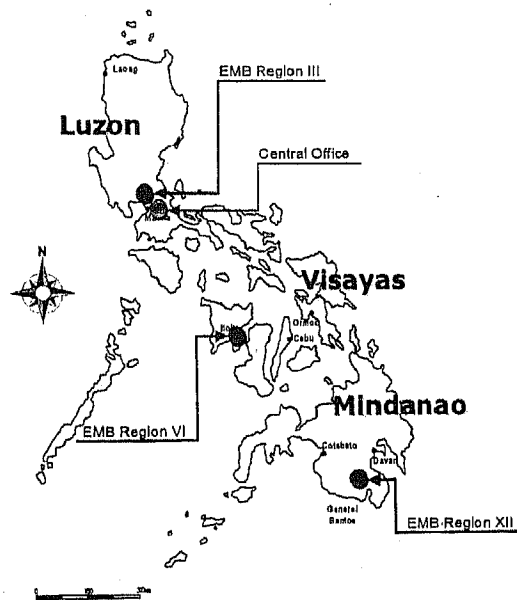


Figure 1.1 Geographical Focuses

⁵ The three pilot regions were recommended during a policy dialogue with EMB regional directors at the time that the Project Document was being prepared.

1.4 COUNTERPART AGENCY AND MAJOR BENEFICIARIES

The counterpart agency of the Project is the Environmental Management Bureau under the Department of Environment and Natural Resources. The direct beneficiaries of the Project are approximately 90 officers of EMB responsible for water quality management. The indirect beneficiaries are the population living in designated water quality management areas within the pilot regions. The Project is expected to generate positive impacts over the entire population of the country.

CHAPTER 2. APPROACH AND METHODOLOGY

2.1 INTRODUCTION

This chapter presents the approach and methodology of the Project. The key approach of the Project implementation included: 1) Capacity Development of the Central Office and 2) Capacity Development of the Regional Offices because their functions and services in water quality management significantly differ under the CWA. For the purpose of managing the Project, the methodology adopted in the Project included 1) Grouping of Project Activities, 2) Use of Local Consultants and 3) Designation of Focal Persons. Other significant dimensions of project management discussed in the chapter include: 1) Flexibility Principle in Project Implementation, 2) Partnership with DENR Executive Level and 3) Continued Commitment of Central Office to Manage and Lead, 4) Communication with a wide range of stakeholders. The chapter also presents the Project Implementation Organization.

2.2 APPROACH TO CAPACITY DEVELOPMENT

2.2.1 Emerging New Role of EMB under the CWA

Capacity Development is the primary purpose of the Project. The Project targeted and supported the capacity development process of the EMB Central and Regional Offices under the new paradigm created by the CWA to accelerate 1) the departure from command and control regulation to regulatory pluralism and 2) the trends towards devolution and decentralization of environmental decision making. As compared with the previous period wherein attempts were made to control the nation's water quality primarily through monitoring, assigning classification and enforcing effluent standards, the regulations under the CWA are characterized by plural governance mechanisms⁶ for regional water quality issues. They include various financing mechanisms for water quality management on the basis of polluter's pay principle, creation of regional bodies to leverage regional skills and expertise by networking the various government agencies related to water quality management and water users as well as academe and civic groups. The project initially focused on the capacity development of the Central Office particularly within the first two (2) years of the project. The focus subsequently geared toward the Regional offices on use of the policy framework, pertinent procedural guidelines and the manuals prepared and developed in the early period of the project.

⁶ "Plural governance mechanisms" is used as a synonym of "regulatory pluralism" in this context to indicate the environmental management system wherein a mix of regulatory instruments are complementary used. Refer to footnote 2.

2.2.2 Capacity development of the Central Office

The Central Office is tasked to formulate integrated policies in a more coordinated and harmonized manner that would help the gradual transition from command and control regulation to regulatory pluralism. The Project was designed to assist the Central Office in establishing an integrated policy framework for water quality management that was supported by adequate procedural guidelines and training for EMB staff. It was further designed to strengthen the capacity of the Central Office to lead and support the Regional Offices in using water quality model, operationalizing water quality and pollution source database, and publishing the national water quality status report.

Capacity Development of the EMB CO was materialized through various occasions such as Strategic Planning for project management, Task Planning and Designing, Execution, Monitoring and Controlling, and Project Review. This step-by-step procedure ensured confidence building and instilled fundamentals and essentials of water quality management fully complying with the CWA and IRR.

a) Strategic Planning for Project Management

At the initial stage of each Phase, strategic sessions were convened for planning, organizing, securing and managing resources to bring about the successful completion of project goals and objectives. This included, among others, grouping of project activities, as there were forty activities to produce 81 deliverables and accomplishments as summarized in the table in the attachment, all of which handle technically interrelated water quality issues at various extents. On the basis of the strategic planning sessions, forty activities and numerous sub-activities were narrowed down to a few packages of activities having common objectives and methodology. The arrangement enhanced manageability of the activities by the limited number of EMB personnel. The details of the activity grouping will be presented in the subsequent part of the report on project management.

b) Task Planning and Designing

On the basis of the grouping in the planning sessions, the EMB CO in cooperation with the JICA TAT determined the nature, scope and the deliverables, identified the tasks and subtasks needed to complete those deliverables, estimated the resource requirements for the activities, and time and cost for the activities of each package. The outputs of such preparatory discussion between EMB and the JICA TAT were translated into the Terms of References for services rendered by local consultants. It was the initial step in building consensus on the approach and methodology of producing the guidelines and policy documents and of implementing pilot activities in which discussions on views and opinions were reiterated to refine the scope and methodology incorporating the needs of EMB.

c) Execution, Monitoring and Management

Execution process involved coordinating people and resources, as well as integrating and performing the activities of the project with regular monitoring to observe project implementation so that potential problems could be identified in a timely manner and corrective action could be taken, when necessary, to manage the implementation of the project. The implementation generally underwent six (6) steps: 1) Convening Kick-off Meetings, 2) Developing Position Papers, 3) Convening Technical Working Group Meetings, 4) Convening Public Consultations, and 5) Convening Orientation and Workshops.

i) Convening Kick-off Meeting

Upon completion of contract with consulting firms, kick-off meetings were convened to build, again, the consensus with the consultants to avoid divergence from the original intention of the TOR. The meetings to build consensus took place at several occasions, not limitedly at the onset of each activity, whenever an issue was identified. Through such meetings, directions of guidelines development were consolidated.

ii) Developing Position Paper

Development of position papers was of particular importance at the initial stage of the project because there were various divergences in opinions between EMB and the JICA TAT at the initial stage of the project particularly in developing the guidelines for: 1) WQMA designation, 2) NAA designation, 3) establishing GES and ISES; and 4) Classification of Waterbodies. In such cases, the JICA TAT initially developed draft position papers that were further refined through discussion with the local consultants to accommodate local expertise and knowledge. Upon completion of the position papers on each issue, the papers were subsequently presented to the EMB to agree on each issue.

Upon building consensus among three parties, EMB, the JICA TAT and the local consultants, the position papers were translated into draft guidelines.

iii) Convening Technical Working Group Meetings

On the basis of draft guidelines, at least three TWG meetings were convened for each package of contracts. The draft guidelines were subjected to evaluation and critical analysis from different views. The discussion of the TWGs also constituted an essential element in developing feasible tools. In case consensus was not built, as seen in the case of Guidelines for Incentive in FY2007, additional TWG meetings were convened.

iv) Convening Public Consultations

Upon completion of the third TWG, the guidelines were further subjected to Public Consultations convened at three places representing Luzon, Visayas and Mindanao. In the public consultation, broader stakeholders including private sectors and academe participated in the discussion and contributed to improvement of the guidelines. Management of public consultations was also a key skill needed for producing good outputs. The staff of EMB assigned to each group exercised a vital role in managing public consultations.

Through such reiterated meetings, the JICA TAT witnessed that the sense of ownership has been gradually developed and thus key players in the meeting were transferred to EMB from the consultants.

v) Convening Orientation and Workshop

Opportunities to attend orientation and workshops were provided to the staff of EMB CO and ROs on all the key issues and outputs of the Projects usually at the end of each fiscal year to help them review the development process and expose them again to the new idea of pollution control and management under the CWA. Comments/recommendations during the orientation and workshops were incorporated to finalize the draft guidelines.

d) Project Review

Upon completion of activities in each year, a session was convened between EMB and the JICA TAT to review the activities and thus to identify issues and remedial measures. For instance, the designing and scheduling of the orientation workshops were subject to change to suit the needs of the regional offices.

2.2.3 Capacity Development of the Regional Offices

The Regional Offices are mandated to establish and support WQMA and related institutions to enable decentralized environmental decision making so as to effectively address the geographically widespread water quality problems. The Project was therefore designed to strengthen capability of EMB Regional Offices in establishing WQMA and related institutions in 3 pilot regions. The procedural guidelines and manuals developed under the Project were expected to guide actual designation of WQMA, creation of governing boards, technical secretariat, multi-sectoral groups, area fund management system, and reporting system. The Project was further designed to strengthen overall capability of EMB ROs in water quality management in the three pilot regions by developing, among others, database of point and non-point sources, collection and accounting of pollution charges, and reward/incentive system to facilitate the compliance of discharge permitting/charging system.

It was further emphasized that the Project's support should not be limited to the three pilot regions but also extend the assistance to non-pilot regions. Thus the number of the direct target of the Project's support expanded over approximately 90 officers of the EMB responsible for water quality management.

Capacity Development of EMB ROs generally followed the procedures adopted for the central office with some variations. It included:

- 1) Strategic planning for project management,
- 2) Task planning and designing,
- 3) Execution, monitoring and controlling and
- 4) Project Review.

The execution, monitoring and controlling included:

- 1) Convening Kick-off Meeting with CO and subsequently with ROs;
- 2) Developing proposals on the key issues that were all included in the action planning process;
- 3) Convening Governing Board Meetings wherein all the technical and administrative issues were discussed;
- 4) Stakeholder meetings, when necessary; and
- 5) Finalizing proposals.

However, unlike the case of the Central Office, the capacity development of the ROs was more prominently characterized by the approach of On-the-Job Training (OJT) that was a well-established and well-used intervention designed to enhance individual skills and capabilities. OJT was particularly applied in pilot testing of the guidelines that were prepared during Phase I of the Project. The advantages of OJT included: 1) training was to be performed for real in the workplace; 2) trainees would have immediate feedback; and 3) learning was immediately relevant to the work of the section. One of the critical issues in adopting OJT was that important decisions in preparing Action Plans and preparing other instruments would be made by the managerial staff of EMB ROs. Mid-class officers and entry-level officers who are the future leaders would not be given sufficient opportunity to involve in decision-making. Therefore, participation of mid-class and entry-level officers to the orientation and workshops was judged essential to train them as future leaders in water quality management. They were compelled to make decisions in the case studies of various water quality management instruments.

a) Pilot tests

Some of the guidelines and manuals were subjected to pilot testing mainly during Phase II. The pilot tests of the guidelines were seen as the occasion where OJT was used for capacity development of the ROs particularly those in the pilot regions. The guidelines and manuals that were tested at the pilot regional offices were as follows:

1. Procedural Manual for Designation of Water Quality Management Area
2. Procedural Guidelines for Designation of Non-Attainment Areas
3. Procedural Manual on Classification/Reclassification of Surface Fresh Waters, Coastal and Marine Waters
4. Procedural Guidelines for Water Quality Management Area Action Planning and LGU Compliance Scheme
5. Reference Manual on Water Quality Management Area Action Planning and LGU Compliance Scheme
6. Guidelines for Area Cooperation Arrangement for Water Quality Monitoring
7. Procedural Guidelines for prioritization of polluters for compliance inspection
8. Operation Manual of Compliance Inspection

The findings of the pilot tests at the three regional offices were reflected in the revised versions of the guidelines. The officers at the pilot regions gained indispensable experiences for proper water quality management from the pilot testing.

b) Orientation and Workshop

Opportunities to attend orientation and workshops were provided to the staff of EMB CO and all the regional offices, but not limited to the Pilot Regions, usually at the end of each fiscal year to ensure that they become familiar with the issues and guidelines, expose them to various case studies and obtain key feedbacks from them on the proposed guidelines based on the experiences of each regional office. Mutual visit of the pilot regions were also incorporated to give them opportunity to witness the reality and other development process.

In Phase I, Orientation and Workshop was conducted in the pilot regions to enable participation of the staff of nearby EMB Non-Pilot Regions. However the staff of some regional offices could not attend the orientation and workshops. The reasons behind this included: 1) poor inter-regional transportation service in remote areas; 2) limited budget for the travel expenses for the Project at non-pilot regional offices; 3) over burden to multitasked staff of ROs for participating in several orientation and workshops in a short period. Recognizing that all the regions are connected to Manila by direct flights and the start of releasing budget is usually in February, the Orientation and Workshop in Phase II was divided into 2 or 3 batches and convened in Manila usually in February accordingly.

2.2.4 Focal Persons at the Core of Capacity Development

EMB directors designated focal persons at the Central Office and the Regional Offices in the pilot regions for Phases I and II. The focal persons were seen as the target group of the capacity development so that they were always readily accessible to project information, participated in various

meetings such as those for strategic planning, task planning and designing, tripartite⁷, TWG and Public Consultation meetings. Their roles in the meetings were not only participation but also vital ones to pronounce official position of EMB on the proposed water quality management approach. They were, sometimes, compelled to bear the brunt of opposition.

Designation of focal persons accordingly had two notable attributes to capacity development: 1) the focal persons were compelled to behave proactively in the internal meetings in the Project to prepare for TWG meetings and Public Consultations; and 2) the focal persons enhanced their specialization by being assigned with a particular area of water quality management.

As summarized in the subsequent part of the report, designation of focal persons underwent modification throughout the project to respond to 1) recommendation by the mid-term evaluation team, 2) DENR's policy and 3) project needs as seen at the onset of Phase II.

a) Focal Persons designated in Phase I

During the first year in Phase I of the Project, the staff of PMO was assigned to each group activity. As for grouping of the activities, the readers of the report are advised to refer to the section on Strategic Planning and Grouping.

Table 2.1 Focal Persons Assigned to Each Group in Fiscal Year 2006⁸

Group	Main Contents	Assigned Staff of PMO	
		Primary	Secondary
1	Integrated Water Quality Management Framework	M. N. Rivera, Jr.	N. B. Francisco
2	Water Quality Management Areas and Non-attainment Areas and WQMA Action Planning	L. A. Acorda-Cuevas	V. T. Cabading
3	Market-Based Instruments and Wastewater Charge	N. E. Mendoza	M. V. A. Navaluna
4	Water Classification, Effluent Standards, Pollution Source Categorization, and Monitoring	L. A. Acorda-Cuevas	V. T. Cabading
5	Database and Information System, Scientific Modeling	H. T. Narisma M. N. Rivera, Jr.	S. R. Barlis E. L. Malano
6	Public Information and Advocacy	E. R. Basug	V. T. Cabading
7	Fund Management	M. V. A. Navaluna	S. R. Barlis
8	Training and Program Management Support	M. N. Rivera, Jr.	L. A. Acorda-Cuevas

⁷ Tripartite meetings were the meetings attended by the EMB focal persons, the JICA TAT and local consultants, wherein important decisions were made and consensus was build among the three parties. For instance, position papers were consolidated through tripartite meetings to come up with a consensus on water quality management approaches. Tripartite meetings were convened when necessary, but they were invariably convened at least one week before stakeholder meetings, TWGs or Public Consultation meetings.

⁸ Readers of the report are reminded that the report adopts Japan's Fiscal Calendar. (FY: April to March)

*CAPACITY DEVELOPMENT PROJECT ON WATER QUALITY MANAGEMENT
Project Completion Report*

Group	Main Contents	Assigned Staff of PMO	
		Primary	Secondary
9	Laboratory Equipment	E. S. Deocadiz	L. A. Acorda-Cuevas

As recommended in the 4th Joint Coordinating Committee Meeting in Phase I, the following EMB personnel were designated as focal persons on 26 February 2007 through a Memorandum issued by EMB Director Ely Anthony R. Ouano:

1. Leza A. Acorda-Cuevas - Lead Focal Person
2. Sonia R. Barlis - Focal Person
3. Consolacion P. Crisostomo - Focal Person

On 16 April 2007, EMB Special Order No. 84 was issued by Director Ouano, designating the above EMB personnel as EMB Focal Persons for the DENR River Basin Control Office (RBCO). Said SO was issued to facilitate coordination and technical assistance to RBCO in relation to water quality management matters. The following were the assigned EMB staff in FY 2007, the 2nd year of Phase I.

Table 2.2 Focal Persons assigned to Each Group in Fiscal Year 2007

Group	Component/Activities	Primary Assigned Staff	Secondary Assigned Staff
2	Designation of WQMA and Identification of NAA	Leza A. Acorda-Cuevas	Marcelino N. Rivera, Jr.
3	Guidelines on Incentives and Rewards; MBI	Consolacion P. Crisostomo	Nicanor E. Mendoza and Michico Venus A. Navaluna
4.1	Revision of Water Quality Monitoring Manual	Leza A. Acorda-Cuevas	Vilma T. Cabading
4.2	Revision of Water Quality Guidelines and Development of General Effluent Standards	Leza A. Acorda-Cuevas	Marcelino N. Rivera, Jr. and Vilma T. Cabading
5	Development of Database and Information System and Water Quality Modeling	Herbert T. Narisma Marcelino N. Rivera, Jr.	Sonia R. Barlis
N.A	Integration of Policies on Water Quality Management	Marcelino N. Rivera, Jr.	Leza A. Acorda-Cuevas

As instructed under same Department Special Order, the Regional Directors of the pilot EMB Regional Offices actively participated in the implementation of project activities. An Operations Steering Group consisting of concerned Regional Directors was formed to provide operational directions in the implementation of the Project at the regional level.

b) Focal persons in Phase II⁹

From the commencement of Phase II, creation of an effective and efficient management structure for the Project became a critical issue tasked to the CO, as the shift of project focus necessitated changes of the structure within EMB. The issuance of a Special Order¹⁰ to designate three focal persons, in retrospect, had resulted in concentration of information and workload to a few individuals in the EMB Central Office. To address the issue, the Mid-term Evaluation Team recommended realignment of the manpower at the CO level.

Other aspects having vital importance in designing the overall management structure of EMB in Phase II are:

1. Activities at ROs such as Action Plan Formulation virtually go in parallel with those at the CO for development of guidelines and effluent standards;
2. Staff availability under incremental workload arising from other foreign assisted projects,
3. Staff at ROs are multitasked and staff availability is also in short; and
4. Non-pilot regions also must be liaised throughout the project period to ensure strengthening of Non-Pilot Regions' capacity.

Bearing the above in mind, the JICA TAT recommended the CO to:

- ✓ Designate focal persons at the CO for management of WQMA Action Plan with at least one person for each Pilot Region;
- ✓ Enable involvement of other staff at the CO for managing overall project implementation;
- ✓ Designate Focal Persons at Pilot Regional Office; and
- ✓ Designate Focal Persons at Non-Pilot Regions.

Figure 2.1 and 2.2 presents the Organizational Structure for Managing the Project within EMB during Phase II.

⁹ The duties of the staff is summarized in the Annex C.

¹⁰ A memorandum was issued on designation of Focal Persons for the JICA-EMB Capacity Development Project on Water Quality Management, February 26, 2007

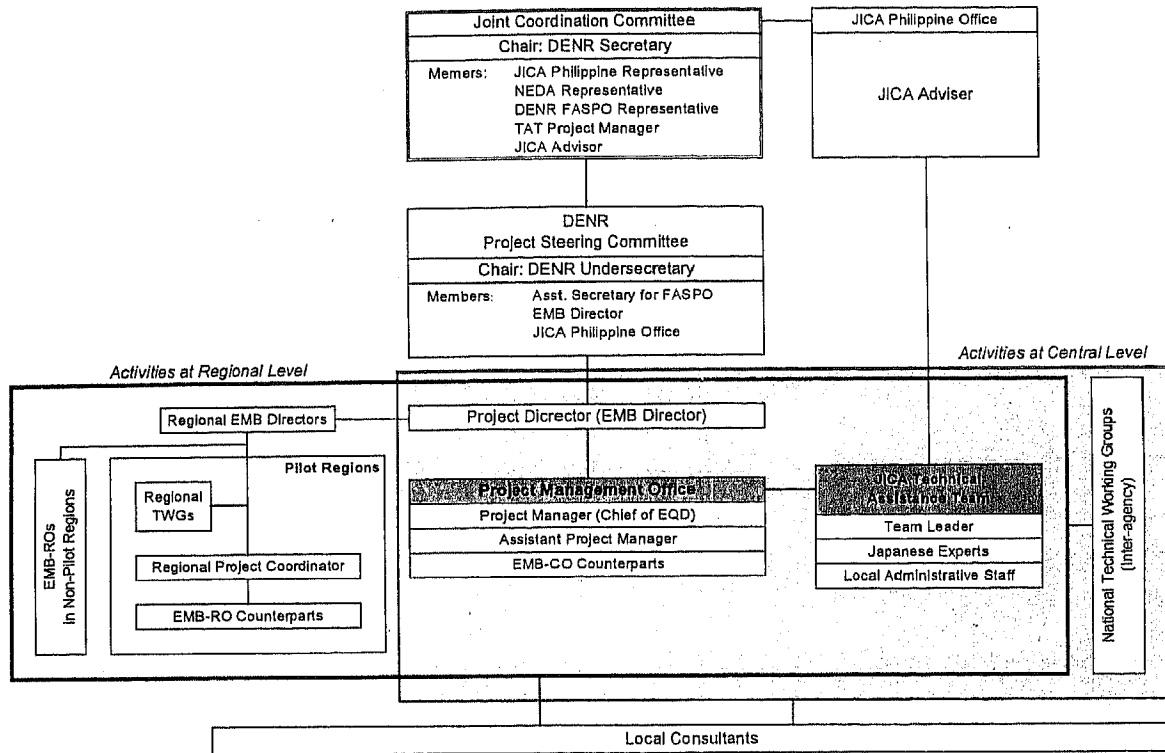


Figure 2.1 Project Implementation Organization

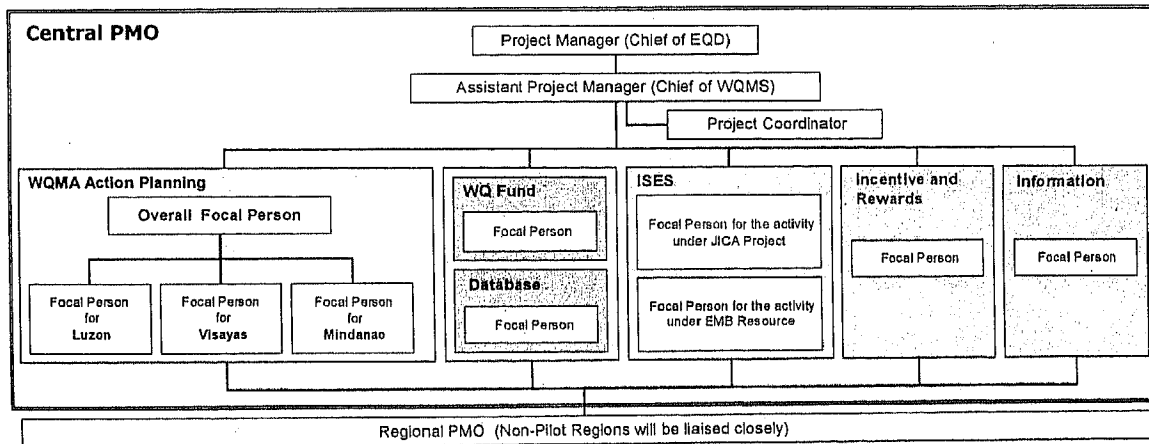


Figure 2.2 Organizational Structure of the Project Management Office at the EMB CO

2.3 METHODOLOGY OF PROJECT MANAGEMENT

2.3.1 Strategic Planning and Grouping

As briefly presented in the previous section of the report, strategic planning for project management was the very initial step of the project activity. The major element of the planning process was the grouping of activities because there were a total of 40 activities to generate the intended project outputs as identified in the Project Document.

With full recognition of the nature of the activities, implication over the project objectives and an interrelationship among them, the activities were categorized into groups to enhance manageability of the activities by the limited number of EMB personnel. However, the readers of the report are reminded that the project framework remained output-oriented which were stated in terms of capacity building results for the EMB CO and ROs. Monitoring of the activity groups was therefore rendered in relation to the capacity building outputs expected from the project.

The grouping narrowed down the forty (40) activities and numerous sub-activities into a few packages of activities, or groups, having common objectives and methodology. In Phase I of the Project, grouping was done to have nine (9) major groups as summarized in the table below.

During Phase I, a total of 17 priority activities were completed. As a result, 23 activities remained in the project portfolio. They were subsequently categorized into 6 groups¹¹ to facilitate project management by pooling the activities that have related expertise requirements in Phase II. The grouping in Phase II was done broadly for the Central Office and Regional Offices. The activities pertaining to WQMA Action Planning and WQM Implementation were rendered in close collaboration with the Regional Offices while the rest were performed in cooperation with the Central Office.

Table 2.3 Overview of Activity Grouping

		Major Issue	Major Objectives
Grouping in Phase I	1	Integrated Water Quality Management Framework	To create enabling environment for regional intervention through interagency coordination.
	2	Water Quality Management Areas, Non-attainment Areas and WQMA Action Planning	To realize targeted pollution control intervention at the lowest appropriate level
	3	Market-Based Instruments and Wastewater Charge System	To present and propose sound technical and economic basis needed for full-fledged field application of the MBI
	4	Water Classification, Effluent Standards, Pollution Source Categorization, and Monitoring	To review DAO 34 and DAO 35. Command and Control is invariably used in combination with MBI under the CWA
	5	Database and Information System and Scientific Modeling	To increase efficiency of EMB ROs' day-to-day operation
	6	Public Information and Advocacy	To create basis for adequate and timely information provision.
	7	Fund Management	To operate and manage the new funding facility.
	8	Training and Program Management Support	To disseminate the guidelines to the EMB staff
	9	Laboratory Equipment	To remove physical constraints for WQ monitoring

¹¹ The term "Pillar" was used in the Inception Report and Progress Reports in Phase II. However, the report adopts "Group" to ensure consistency with the reports prepared during Phase I.

		Major Issue	Major Objectives
Grouping in Phase II	1	WQMA Action Planning	To increase capacity of ROs in preparing WQMA Action Plans and undertaking actions to operationalize the WQMA GBs.
	2	WQM Implementation	To enhanced capacity of ROs in implementing water quality management by developing Pollution Source Prioritization and Compliance Inspections, classification of Inland and Coastal/Marine Water Bodies among others.
	3	Command and Control tools	To increase capacity of CO by consolidating and exercising command and control regulations.
	4	Market Based Instruments	To increase capacity of CO in using policy on market-based instruments
	5	Information Dissemination	To enhance capacity of CO and ROs in undertaking public information campaign.
	6	Ensuring Sustainability	To ensure sustainability of the project by providing training on Guidelines and Procedures, coordinating with Regional Offices, generating additional support from other funding agencies

2.3.2 Task Planning and Mobilization of Local Consultants

On the basis of the grouping in the planning sessions, EMB CO in cooperation with the JICA TAT translated the priority activities into the Terms of References for services rendered by local consultants. The table below (Table 2.4) presents the list of the TORs developed under the Project for each group activity. On the basis of the TORs, the JICA TAT solicited bidders, procured and entered into contracts with respective service providers in Phase II while such procurement arrangement was performed through the JICA Philippines Office in Phase I. A total of 459.1 man-months of local consultants¹² were mobilized throughout Phase I and II. The arrangement was made to leverage the past experience and knowledge on local policy, institutional and management systems. It maximized the project benefit through enhanced capacity of EMB and concomitant capacity development of local consultants who are also key players in delivering good public services in the country.

2.3.3 Schedule Management

Project milestones, for instance kick-off meetings, Technical Working Group meetings and Public Consultations, were used to determine whether or not the project is on schedule by presenting them on a common format over the course of the Project. It was also used to inform major events of the Project to the Focal Persons of CO, all ROs including Non-Pilot Regions, and local consultants so as to ensure coordination among them. It was not static management tool, but it was flexibly modified in one way or another in order to accommodate one or more schedule events. This was because a particular event was running behind schedule or in other cases because a succeeding event's timing had to be changed.

¹² Annex D summarizes the contracts, consultants, contract period and total M/M.

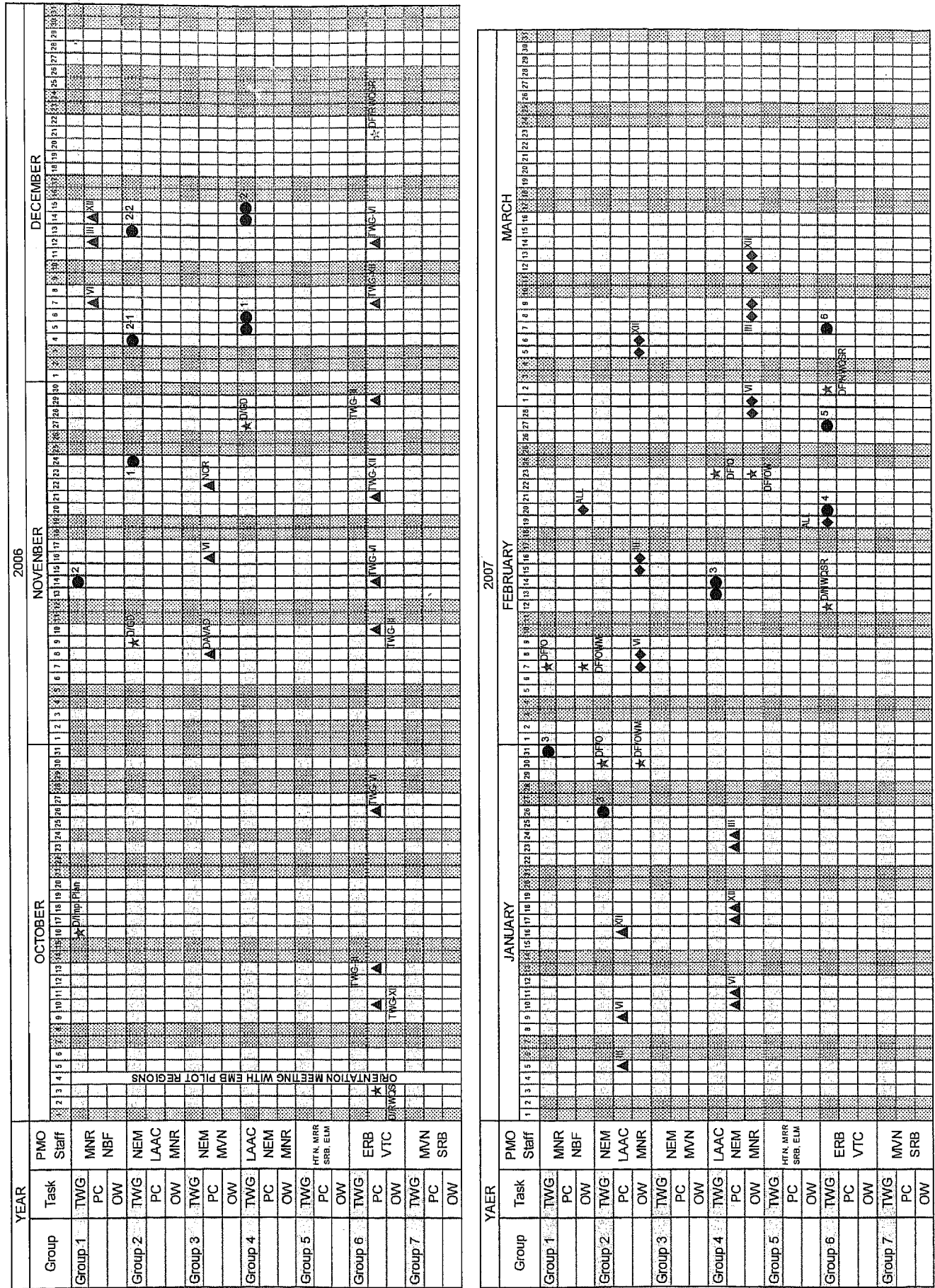
The changes of the schedule, however, followed the general rules:

- 1) At least Focal Persons and a Japanese Long-term Expert are able to attend the meetings; and
- 2) A preparatory tripartite meeting is convened at least one week before major events wherein significant decisions are made.

Table 2.4 TORs for the Activities

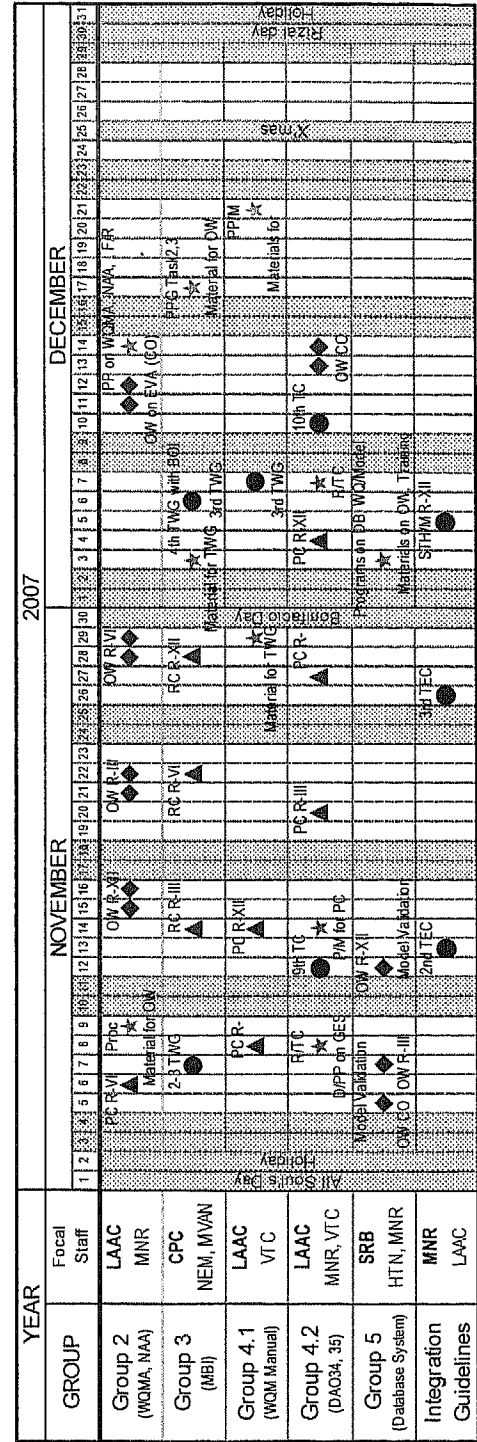
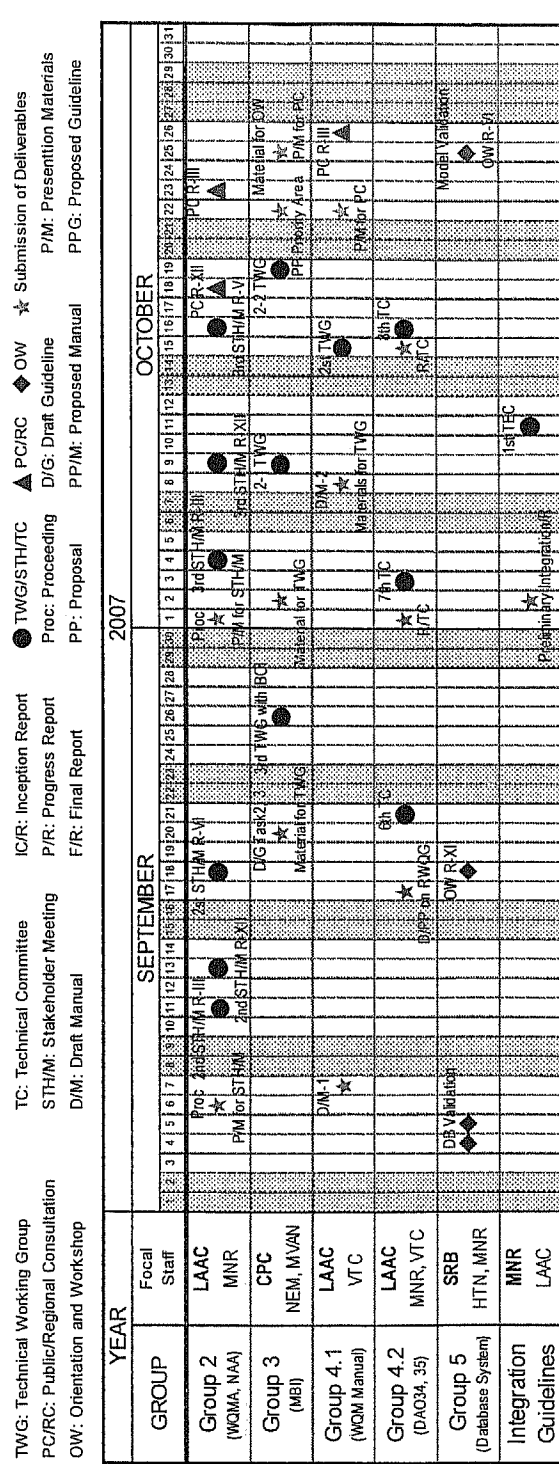
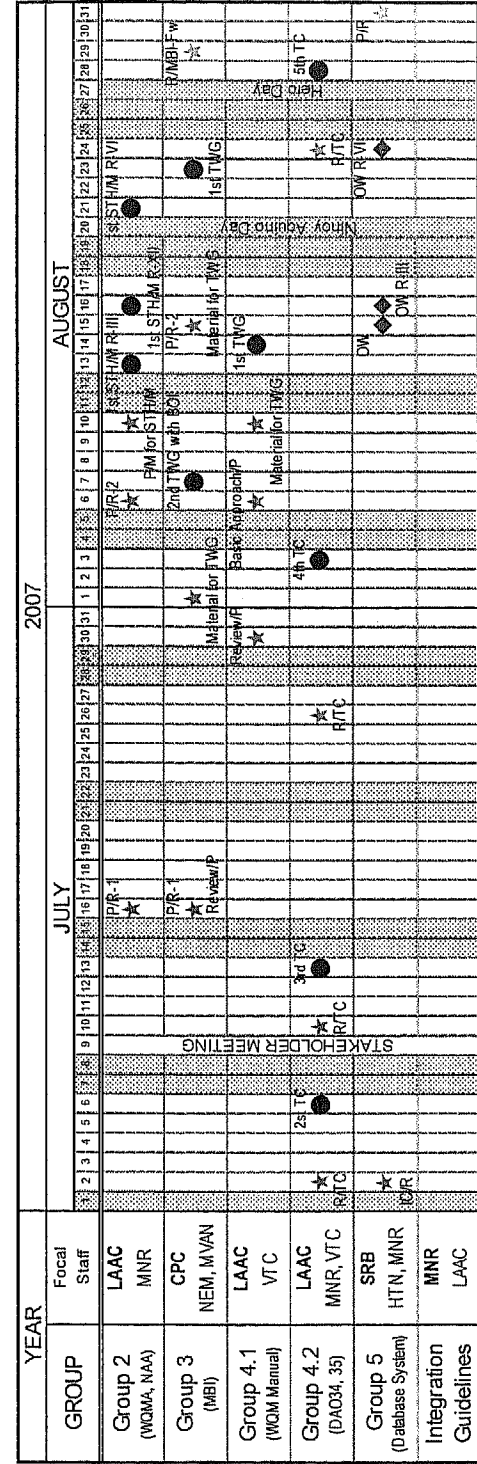
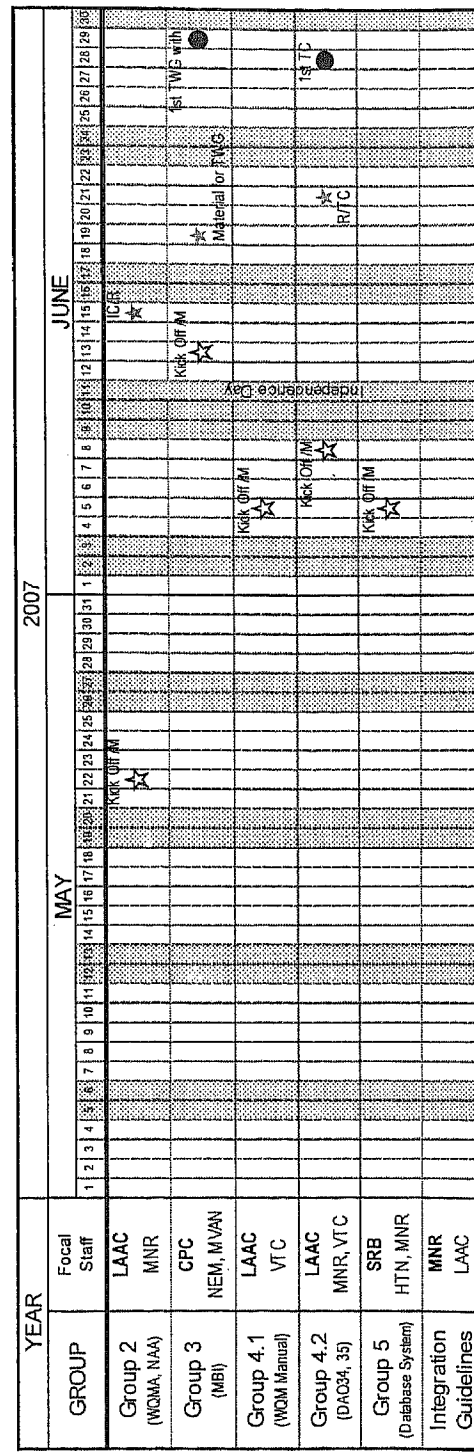
Major Issue		TORs for	
Grouping in Phase I	1	Integrated Water Quality Management Framework	1. The formulation of Integrated Water Quality Management Framework
	2	Water Quality Management Areas, Non-attainment Areas and WQMA Action Planning	2. The development of Procedural Guidelines for Designation of Water Quality Management Areas, Attainment and Non-Attainment Areas, and WQMA Action Planning 3. Designation of Water Quality Management Areas, Identification of Non-Attainment and Attainment Areas
	3	Market-Based Instruments and Wastewater Charge System	4. Market-based instruments and Wastewater Charge System (public consultation meeting for wastewater charge system) 5. Market-based instruments (series 2)
	4	Water Classification, Effluent Standards, Pollution Source Categorization, and Monitoring	6. Managing Ambient Water Quality, Developing Procedural Guidelines for Categorization, Effluent Standards and Regulatory Compliance Enforcement 7. Revising water quality monitoring manual 8. Finalization of revised Water Quality Guidelines and Development of Effluent Standards.
	5	Database and Information System and Scientific Modeling	9. Database development 10. Database development (Phase 2 of Group 5)
	6	Public Information and Advocacy	11. Regional and national water quality status reports for public information and advocacy
	7	Fund Management	N.A.
	8	Training and Program Management Support	12. Integration of guidelines on Water Quality Management
	9	Laboratory Equipment	N.A.
Grouping in Phase II	1	WQMA Action Planning	13. Preparation of WQMA Action Plan for three Pilot Regions- WQMA action planning (year 1) 14. Preparation of WQMA Action Plan for three pilot regions WQMA action planning (year 2) - 15. Area cooperation arrangement, Pollution source prioritization and inspection and public information in the three Water Quality Management Areas
	2	WQM Implementation	16. Operationalization of water quality management fund 17. Revision of guidelines for PCO accreditation and Compliance Inspection Manual 18. Finalization of discharge permitting and wastewater charge system and harmonization 19. Classification of waterbody 20. Enhanced use of database/information system 21. Enhancement of proposed water quality management fund guidelines
	3	Command and Control tools	22. Development of Industry- Specific Effluent Standards 23. Development of Industry- specific effluent standards (Year 2) 24. Validation of methods for AVFO and PO
	4	Market Based Instruments	25. Water quality management implementation 26. Finalization of discharge permitting and wastewater charge system and harmonization 27. Philippines effluent management strategy policy review
	5	Information Dissemination	It was integrated into the 15 th item above.
	6	Ensuring Sustainability	N.A.

Table 2.5 Calendar of Events Fiscal Year 2006



TWG: Technical Working Group
PC: Public Consultation
OW: Orientation and Workshop
TWG in Metro Manila
PC in Region
OW in Region
* Draft Output
D/GD: Draft Guideline
DF/OWM: Draft Final OW Materials
DF/O: Draft Final Output
D/RWQSR: Draft Regional WQ Status Report
D/NNWQSR: Draft National WQ Status Report

Table 2.6 Calendar of Events Fiscal Year 2007



TC: Technical Committee
 PC/R/C: Public/Regional Consultation
 OW: Orientation and Workshop
 ICR: Inception Report
 P/R: Progress Report
 F/R: Final Report
 ST/M: Stakeholder Meeting
 D/M: Draft Manual
 TWG/SHT/C:
 Proc: Proceeding
 PP: Proposal
 P/M: Presentation Materials
 PPG: Proposed Guideline
 Submission of Deliverables

TC: Technical Committee
 PC/R/C: Public/Regional Consultation
 OW: Orientation and Workshop
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 D/M: Draft Manual
 TWG/SHT/C:
 Proc: Proceeding
 PP: Proposal
 P/M: Presentation Materials
 PPG: Proposed Guideline
 Submission of Deliverables

Table 2.8 Calendar of Events Fiscal Year 2009

YEAR	2009																														
	MAY							JUNE							JULY							AUGUST									
2009	Focal Staff	[Calendar grid for Focal Staff]																													
	Japanese Expert	[Calendar grid for Japanese Expert]																													
	Action Plan	[Calendar grid for Action Plan]																													
	WQM Implementation	[Calendar grid for WQM Implementation]																													
	Command and Control	[Calendar grid for Command and Control]																													
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- Governing Board Meeting
- Public Consultation
- ◆ Technical Committee Meeting
- ◆ Joint Coordination Committee/Project Steering
- ◆ Report Deadline
- ◆ Bipartite or Tripartite Meeting/Committee Meeting
- ◆ Assessment of Capacity Development
- ◆ Assessment of Equipment delivered
- ◆ Presentation and Discussion on TOR

Table 2.9 Calendar of Events Fiscal Year 2010

YEAR	2010																																																																																																																																																																																									
	MAY							JUNE							JULY							AUGUST							SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER							2011																																																																																																																																	
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- ◆ Joint Coordination Committee/Project Steering Committee Meeting
- Internal Meeting ▲ Orientation and Workshop
- Governing Board Meeting
- LGU Meeting
- Technical Meeting