

**Government of Vietnam
Ministry of Natural Resources and Environment
Ministry of Agriculture and Rural Development**

**Asian Development Bank, Vietnam Resident Mission
Australian Agency for International Development (AusAID), Hanoi
Danish International Development Agency (Danida), Hanoi
Royal Netherlands Embassy, Hanoi**

Final Report

**Transition of Water Resource Management from
MARD to MONRE**

Joint Task Force

June 2003

Executive Summary and Recommendations

1 Government Decisions

Prime Minister's Decree 91/2002/ND-CP on Functions, Responsibility, Authority and Organizational Structure of the Ministry of Natural Resources and Environment, dated 11 November 2002, assigns accountabilities to the Ministry (MONRE) to take over responsibilities of state management of natural resources as well as other natural resources and environment. The Decree separates state water management functions under MONRE from public water services delivery which will be carried out by MARD and other ministries with water-related responsibilities. The Decree is included in Appendix B of this report.

Within MONRE the Department of Water Resource Management (DWRM) is being set up to carry out state management of water resources. Decision No. 600/2003/QB-BTNMT on the Functions, Responsibilities, Authority and Organizational Structure of the Department of Water Resources Management was approved on 8 May 2003. This Decision gives the position and overall function of the DWRM, its powers and responsibilities and institutional arrangements. Decision 600 is also included in Appendix B of this report.

These documents have given MONRE and DWRM an initial level of legal empowerment. However, further decisions and adoption of legal documents will be required to fully enable DWRM to meet its responsibilities as the lead state water resource management agency. A review of the Law on Water Resources (LWR) and related decrees is proposed later in this report.

2 Organizational Arrangements

The Task Force considered that the structure and establishment of DWRM needed to be based on the following objectives:

- Clear functional assignment
- Efficient and effective integration of functions, lean organization and out-sourcing
- Well defined accountabilities for delivery of functions
- Clear establishment guidelines
- Adequate resourcing – funds, staff and support systems

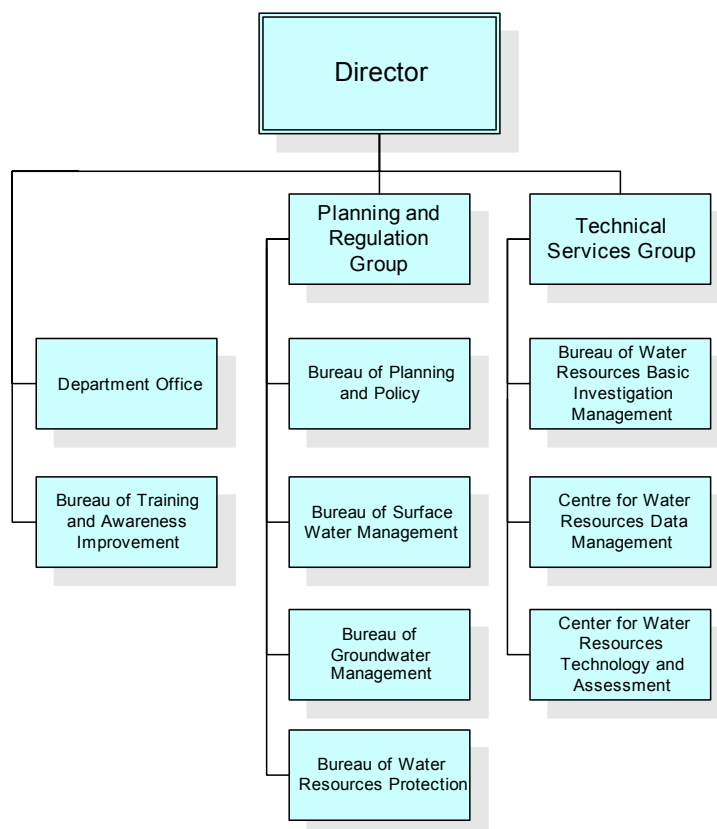
2.1 Functional Assignments

For DWRM to meet the Government's expectations, its organization structure has to be based around state water resource management responsibilities. Decision 600 on DWRM structure and functions provides the basis for the Department's organization structure. In accordance with the Decision, this report recommends that DWRM should be organized into five Bureaus, one Department Office, one Bureau of Training and Awareness Improvement, and two technical Centers. This organizational structure is appropriate since it organizes expertise into specific surface water, groundwater and water quality areas, yet addresses key water management activities in an integrated manner. The Department structure proposed in this report is shown in Figure 1.

2.2 Lean Organization

In modern resource management organizations flatter management structures with fewer levels of management have become the norm. In addition to the Department Office and the Bureau of Training and Awareness Improvement, it is recommended that the other units should be grouped into two groups: Planning and Regulation (including Bureau of Planning and Policy, Bureau of Surface Water Management, Bureau of Groundwater Management, and Bureau of Water Resources Protection) and Technical Services (Bureau of Water Resources Basic Investigation Management, and the Center for Water Resources Data Management and Center for Water Resources Technology and Assessment). This proposed organizational structure is shown in Figure 1.

Figure 1 DWRM Organization and Reporting Lines



Outsourcing It will be important for MONRE to decide how many experts will be required “in-house” and what expertise will be acquired by “out-sourcing” (contracts, delegation, etc). The Department should not employ experts in all multi-disciplinary fields but should ensure that it has the necessary internal skills to meet its core business requirements. It is recommended that a considerable amount of out-sourcing should be used at this time in order to access many of the technical skills and experience that will be required. DWRM will require budget to enable this out-sourcing to be implemented. This approach should be reviewed after 2 years to assess its effectiveness.

2.3 Responsibilities within DWRM

Adoption of this organizational structure will require assignment of “lead” responsibilities for each program. An assessment of roles has been undertaken and details are in the report. It is recommended that the mandatory (lead) accountability to deliver outputs according to agreed management plans

should be limited to the Bureaus, Department Office and Training and Awareness Bureau. The two Centers should not have mandatory accountabilities since their inputs will be provided under contract or through delegations from Bureaus. Table 1 shows recommended lead responsibilities for the recommended programs within each functional area.

A separate Bureau of Training and Awareness Improvement has been formed, reporting to the Director. Its functions will be different than those of the Department Office and the two are therefore separate. The Office of NWRC should be located in the Department Office. The Department Office is in a good position to coordinate inputs from all bureaus on behalf of the NWRC, as well as to coordinate with other agencies in and outside MONRE and internationally.

Establishment of the DWRM with the proposed structure and functional assignments involves a new approach to state management of water resources. Up to the present time this state management has been under MARD and therefore combined with irrigation, drainage and other water service delivery. It has not had a clear corporate management approach or the level of resources which are required. The formation of DWRM in MONRE gives the opportunity to reorganize and strengthen the state management of water resources.

Table 1 DWRM Lead Responsibilities

Lead Unit	Function / Program
Department Office	<i>Organizational Strengthening and Coordination</i> Administration, Corporate Management, Coordination and Cooperation
Bureau of Training and Awareness Improvement	<i>Organizational Strengthening and Coordination</i> Training and Awareness
Bureau of Planning and Policy	<i>Planning, Policy and Strategy Development</i> Development of Policies, Plans and Strategies on topics such as water resource assessment, information management, regulatory management, organizational strengthening and coordination
Bureau of Surface Water Management	<i>Water Resource Assessment, Allocation and Regulatory Management</i> Surface water, exploitation and utilization of water sources, and other natural resources
Bureau of Groundwater Management	<i>Water Resource Assessment, Allocation and Regulatory Management</i> Groundwater exploitation and utilization
Bureau of Resource Protection	<i>Water Resource Assessment, Allocation and Regulatory Management</i> Water quality and wastewater discharge
Bureau of Basic Investigation Management	<i>Water Resource Information Management</i> Water Resource data and information assembly and coordination

Job descriptions To ensure a correct mix of attributes and competencies within DWRM, it is essential that job or position descriptions should be prepared. These must contain details of qualifications, experience, water sector knowledge and the personal attributes relevant to the position. It is recommended that each officer should have a job specification.

2.4 Establishment Guidelines

Change Process A strategic approach is needed in the development and application of the change processes in establishing DWRM. Experience shows that the organizations which design the change

frame are successful. DWRM should develop and circulate a change management document. This document would inform managers, staff and many others about the process as well as the values and principles for establishing the Department. This type of document would help to coordinate leadership in the DWRM, a better understanding of where the Department is going and why, and a basis for building relationships with other agencies.

Joint Responsibility for Transfer of Staff and Other Resources

Transfer and Recruitment of Staff Guidelines for recruitment and transfer should be put in place as early as practical. An appropriate skill, gender and age mix (profile) among managers and staff should be ensured so that the Department can achieve necessary skills and experience but avoid a wave of general retirement in the near future. This may mean that a certain percentage of position should be reserved for younger staff who can make a longer commitment to careers in the Department.

MONRE should move quickly to appoint DWRM managers and some capable professional staff. This group would be responsible to carry out the initial planning and activation of the Department. This would also allow managers to develop an awareness of the major Department activities and to plan final staff needs before all recruitment is completed.

2.5 Resourcing

Funding It will be important for the Ministry of Finance to ensure that the necessary adjustments and approvals are given for establishing and activating the DWRM within MONRE. Full funding and equipment for state water management under MARD should be transferred to MONRE. Adequate budget should be provided to enable DWRM to “outsource” the expertise that it requires but does not establish internally.

Staff It is understood that up to 20 positions will be transferred from MARD to DWRM, out of an expected total Department staff of 50 to 60. These staff should be selected on the basis of competence and a range of skills across the functions which will be transferred from MARD to MONRE. Negotiations are underway between MARD and MONRE regarding the units and specific staff which will be transferred. Additional recruitments will be needed to bring staff numbers in DWRM up to the required level.

Support Systems Staff must also have adequate support tools. In Vietnam there are a number of areas where the tools are not available, while those available are not appropriate. Analyses of dependencies between planned activities will illustrate gaps in delivery capabilities. A preliminary dependency check has indicated that the following tools require immediate attention:

- a management system to administer the programs within the framework of a Corporate Plan;
- the availability and capabilities of computer models to allow planning and resource assessments and future allocations of water quotas;
- data management facilities, including surface water, groundwater and water quality databases; and
- water quality laboratory facilities and their location throughout Vietnam.

An audit of such tools is seen as a priority task. The outcomes will provide inputs to priority investments decisions to improve Vietnam's water resource management capabilities.

Support systems include assets and intellectual property associated with water resource management. This includes equipment, files, computer systems, maps and other resources. Transfer of this intellectual property will also have to be negotiated between MARD and MONRE.

3 Strengthening Coordination

3.1 Coordination within MONRE

A number of important linkages should be established between DWRM and other divisions and units within MONRE. The important MONRE agencies which DWRM should link with will likely include (but not be restricted to):

- the Integrated Coastal Zone Management unit under the Department of Environmental Protection,
- the water quality monitoring and standards activities under the Department of Environment
- water resource assessment with the Department of Hydrometeorology
- data management linkages with all technical departments and with the Information Center
- policy and legislation activities with the Department of Legislation
- coordination of licensing with the parallel environmental assessment and approvals process under the Department of Environmental Impact Assessment and Appraisal
- Training and Awareness activities with the natural resources magazine and newspaper.

3.2 External Coordination

Although MONRE must fill the role of an independent state management agency for natural resources and environment, it must also develop close working relationships with key resource-using agencies and with those which have expertise or information that MONRE will need. The report makes a number of recommendations regarding the relationship of DWRM with the following groups:

Provincial and Regional Organizations It is understood that Departments of Natural Resources and Environment (DoNREs) will be established at the provincial level. Their organizational design must meet the needs of MONRE, the Provincial Committees and their local constituencies. As a DoNRE would potentially have functions reflecting all the management areas of MONRE (land, water, environment, etc), it will be important to ensure that there is adequate participation of all the MONRE units and all the Provinces in designing these departments. A Task Force to assist in setting up the DoNREs is recommended.

The devolution of responsibilities from MONRE headquarters to regional offices in the central and southern regions should also be considered. International experience has shown that regionalization of water management functions is important to best meet the water constituency's needs. Regional offices would be the logical place in which to base the support for RBOs since these offices should be close to the basins for which they are responsible.

MARD and other major agencies – relationships will involve a mix of transfer of essential functions and skills, delegation or contracting of responsibilities, and joint activities. MONRE and DWRM should seek to build a cooperative and coordinated, rather than a competitive, relationship with partners. A Coordination Committee will be needed to guide the relationship between the two ministries and to resolve issues which arise.

A number of areas of important linkage or transfer of responsibilities from MARD to MONRE have to do with:

- integrated water resource and river basin planning. The degree to which a planning capability is built up in MONRE or whether the Institute of Water Resources Planning or part of it is transferred,
- natural disaster management. The degree of linkage with dike management under MARD, or alternatively with hydrometeorology and a broader and more integrated disaster management strategy should be determined,

NWRC – membership changes will be necessary to reflect the main supporting role of MONRE with NWRC. The Office of NWRC will be located in DWRM, primarily in the Department Office, with input from other bureaus. The NWRC should be re-activated as a key coordination and advisory body in the water sector.

River Basin Planning Management Organizations (RBOs) – the responsibility for supporting these organizations should be transferred from IWRP to DWRM, in parallel to the support which the Department will provide for NWRC. Some of the technical skills regarding integrated water resource planning should be provided by the Institute of Water Resource Planning under MARD (or its Sub-Institute in HCMC) or other institutes.

Vietnam National Mekong Committee – the GoV has decided that at present the chairmanship of VNMC will remain with the Minister of MARD. In the longer-run the chairmanship of VNMC should be moved to MONRE since both are primarily responsible for water resource management rather than public water service delivery.

Other Water Organizations – water user groups, NGOs, mass organizations and others involved in the water sector should also be included in the MONRE network. Appropriate steps will need to be determined regarding how to communicate with them and involve them in MONRE activities.

4 Legal Review

A list of the major legal documents regarding water resources, particularly the Law on Water Resources (LWR), is presented in this report. A review and amendment of these should be initiated very early to facilitate the transfer of state management functions to MONRE and making other necessary changes in the Law based on experience to date. The GoV and MONRE have an important opportunity to bring the LWR up-to-date with current developments inside and outside Vietnam, including a clearer focus on state water resource management in MONRE (and regulatory independence), better coordination with environmental legislation also under MONRE, devolution of responsibilities to lower levels of government, increasing privatization and support for the private sector through establishment of resource use rights, and many other principles.

This legal review and development process should be carried out by a Task Force consisting of specialists from DWRM and the Department of Legislation in MONRE, as well as MARD, Ministry of Justice and other ministries and agencies with knowledge of legal procedures, water resources and other relevant areas. MONRE should seek official (National Assembly) approval to review the LWR and the scope, timetable and other terms of reference of this review. The NWRC should also be fully involved in reviewing and advising on this process.

MONRE should also take the opportunity of a review of the LWR to advance the legal status and basis for integrated coastal zone management (ICZM). Integrated water resource management (IWRM) and ICZM are closely related and useful lessons and parallel or combined institutional arrangements could be transferred from one to the other. In addition to ICZM, MONRE should examine future coordination and cooperation roles of DWRM regarding other ministries and agencies. These may include emergency and natural disaster management, catchment management, flood prone land management, extractive industries, riparian zones and water resource demand management.

The review of the LWR will also give an opportunity to improve the coordination between water resource and other natural resource and environmental legislation, now also under MONRE. Better coordination in monitoring and standard setting, planning, and regulation and enforcement procedures is possible through this legal review.

5 Donor Considerations

5.1 Transfer of Donor-Assisted Projects

Twelve donor-funded projects or project components in MARD have been identified for possible transfer to MONRE. These projects focus on water resource capacity building, institutional development and the development of specific tools such as information systems. The recommended projects for transfer are:

1. ADB Capacity Building for Water Resources Management Project
 - a. **Subproject 1. National Coordination for Water Resources Management**
 - b. Subproject 3. Water Resource Management for the Dong Nai River Basin
2. ADB Second Red River Basin Sector Project
 - a. Component A1. Capacity Building for the Red River Basin Organization
 - b. Component A2. Public Awareness and Education Programs
 - c. Component A3. Pilot Water Licensing System
 - d. Component A4. Water Quality Monitoring Network
3. Vietnam – Australia Water Resources Management Assistance
 - a. **Component 1. Capacity Building in the National Water Resources Council**
 - b. **Component 2. National Framework for Water Resources Information**
 - c. Component 3. Development of a Coordination Mechanism for the Cuu Long Delta
4. Danida Water Sector Program Support
 - a. **Component 1.1 Support for Implementation of the Law on Water Resources**
 - b. Component 3.1 Water Resources Management, Srepok River Basin
 - c. Component 3.2 Water Resources Management, Ca River Basin

The projects indicated in bold type (1a, 2c, 3a and b, 4a) are expected to be particularly relevant for rapid assistance to DWRM to become established and produce important outputs within the period of the project. Some modification of the current project objectives may be needed, which will require negotiation between the respective donors and MONRE. MONRE, MARD and the various donors will need to revise the agreements under which these projects are carried out, including transfer of project assets, establishment of new management arrangements in MONRE and possible review of project objectives. The transfer or timing of transfer of some of the projects listed above will need to wait until the responsibility for RBOs is resolved between MARD and MONRE. Other projects may also be recommended for transfer if a significant part of the Institutes responsible for water resources planning and research are transferred from MARD to MONRE.

New Projects In the medium term or longer, new projects should be designed to address the priorities of DWRM. While the focus of support should be on establishing a strong and effective Department, there will also be ongoing support needs for NWRC, RBOs and provinces. Discussions should be started without delay in order to maintain the current momentum in forming and strengthening DWRM.

5.2 Donor – Government Coordination

MONRE has indicated that it intends to broaden the scope of its International Support Group (ISG) to cover natural resources as well as environment. The model and experience of the ISG and its sub-groups in MARD should be carefully examined. It is expected that the focus of MARD's ISG with respect to water will change to coordination of ODA in the areas of irrigation, drainage, flood control and rural water supply as well as policy dialogue on important related topics. The focus of MONRE's ISG will be on broader state management of water resources and related policies and strategies.

It is also very important to note that as the Government and donor partners move to strengthen the performance of the water sector, a national water resource strategy, corporate plans for DWRM, NWRC, RBOs and others, and other clear performance targets need to be developed. Up to the present time these guiding documents with performance criteria have been lacking. As a result there has not been agreement over how to evaluate sector progress nor has there been a reasonably objective means of accountability for Government funding or planning for donor contributions. Development of a sector strategy and corporate plans will be a key output of DWRM over the next few years.

6 Action Plans: 2003 – 2004

Recommendation	Responsibility	Initiate in Year
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Internal Organization

1.	DWRM to adopt a Corporate Planning approach, incorporate program-based management	MONRE with donor assistance	2003
2.	DWRM to adopt recommended organizational structure: 5 bureaus, 2 centers and 2 offices organized into 3 functional groups	MONRE	2003
3.	Prepare and initiate implementation of a Change Management Strategy, including provision for: - job descriptions for all positions - recruitment strategy with guidelines to inform staff and staged timing of recruitments - use “outsourcing” policy for use of some external experts	DWRM	2003
4.	Carry out an audit or support systems for modelling, databases and water quality laboratories	DWRM with donor support	2004
5.	Establish a task force to prepare details for setting up DoNREs at provincial level	MONRE	2003
6.	Establish formal and informal coordination and cooperation mechanisms within MONRE	MONRE	2003
7.	Ministry of Finance to ensure adequate funds are transferred from MARD or otherwise provided to enable DWRM to undertake its full responsibilities.	Min of Finance, MONRE	2003
8.	Develop and initiate a work plan for DWRM units, focussing on priority outputs such as: - Review of LWR (see below) - National Water Sector Strategy - Training needs assessment and training and awareness strategy for DWRM, NWRC and others - Implementation of a water resources information management system - Development and pilot testing of surface and groundwater allocation licensing Identify and utilize support from key ongoing or new projects	MONRE, DWRM and donors	2003

External Coordination and Institutional Strengthening

9.	Establish formal and informal arrangements with MARD and other agencies	MONRE and DWRM	2003
10.	Transfer linkage with NWRC to MONRE, including Office of NWRC; activate NWRC	MONRE	2003
11.	Transfer a core water resources planning group from IWRP to DWRM; transfer accountability and support for RBOs to DWRM and fully activate existing RBOs	MONRE and MARD	2003
12.	Review VNMC linkage to MONRE. Chairmanship of VNMC should be transferred to MONRE in the future	MONRE and VNMC	after 2004
13.	Staged transfer of appropriate donor-funded projects; review scope, objectives, timing, etc to optimize assistance to MONRE in establishing an effective DWRM and producing priority outputs	MARD, MONRE, donors	2003
14.	Broaden scope of MONRE International Support Group, establish water resources sub-committee, coordinate with parallel groups under MARD	MONRE, MARD, donors	2003
15.	Prepare corporate plans, national water sector strategy, river basin plans to define sector performance targets; monitor and report progress	MONRE, MARD, NWRC	2004

Legislation

16.	Review Law on Water Resources and other important legislation - form Review Task Force (inter-ministry membership with international assistance) - prepare rationale and principles and seek necessary authorization - initiate review	MONRE, MARD, NWRC, approval from National Assembly, assistance from donors Task Force	2003 2004
17.	Initiate preparation of new, priority legal documents	Task Force, MONRE, NWRC	2004

7 Immediate Actions

MONRE, MARD and donors should work together to ensure the following immediate actions are carried out.

Immediate Actions

1. MONRE should continue to move ahead actively with establishment and activation of DWRM. This will include corporate planning, definition of unit and individual staff duties, recruitment of staff, provision of budget and physical resources, preparation of plans and strategies, as well as many other steps. This is expected to be the major area of activity over the next 6 months or longer.

2. MONRE and donor agencies should identify donor-funded project components which will be transferred quickly to MONRE which can provide technical support to assist DWRM on priority topics. These project components could include:
 - ADB “National Coordination for Water Resources Management” (TA3528-Subproject 1) – reorient support to DWRM organizational strengthening and preparation of key outputs such as initial steps toward a National Water Sector Strategy
 - AusAID “Capacity Building in the National Water Resources Council” (VWRMAP, Component 1) – reorient support to DWRM, assist in training needs assessment and preparation of a coordinated capacity building program
 - AusAID “National Framework for Water Resources Information” (VWRMAP, Component 2) – continue support for establishment of national water resources data and information system
 - Danida “Support for Implementation of the Law on Water Resources” (Water SPS, Component 1.1) – reorient support to DWRM organizational strengthening and preparation of water allocation licensing in conjunction with ADB “Pilot Water Licensing System” (Second Red River Sector Project, Component A3).
3. MONRE should form an Inter-ministry Task Force to initiate legal review, including i) Law on Water Resources, Decree 179/1999/ND-CP (Implementation of the Law on Water Resources), ii) Prime Minister’s Decision 67/2000/QD-TTg (National Water Resources Council) and iii) Minister’s Decisions 37, 38 and 39/2001/QB/BNN/TCCB (River Basin Planning Management Organizations). Arrange international assistance (legal and water resource management). Prepare rationale and principles for legislation review, seek NWRC comments and National Assembly approval.
4. DWRM should initiate work on priority outputs, including: i) National Water Resources Strategy, ii) development of training and capacity building for DWRM, iii) establishment and implementation of national water resources information management system, and iv) development and pilot testing of surface and groundwater licensing system in selected areas. MONRE should ensure that adequate staff and resources are provided to undertake these priority actions.

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Abbreviations

ADB	Asian Development Bank
AusAID	Australian Agency for International Development
Danida	Danish International Development Agency
DoNRE	Department of Natural Resources and Environment (provincial)
DWRM	Department of Water Resources Management, MONRE
GIS	Geographic information system
GoV	Government of Vietnam
HCMC	Ho Chi Minh City
ICZM	Integrated coastal zone management
ISG	International Support Group
IWRP	Institute of Water Resources Planning, MARD
IWRR	Institute of Water Resources Research, MARD
LWR	Law on Water Resources
MARD	Ministry of Agriculture and Rural Development
MONRE	Ministry of Natural Resources and Environment
NGO	Non-government organization
NWRC	National Water Resources Council
ODA	Official development assistance
ONWRC	Office of NWRC
PPC	Provincial People's Committee
RBO	River Basin Organization, or River Basin Planning Management Organization
RDE	Royal Danish Embassy
RNE	Royal Netherlands Embassy
TAG	Thematic Ad-hoc Group (under MARD ISG)
VNMC	Vietnam National Mekong Committee
VWRMAP	Vietnam-Australia Water Resources Management Assistance Project, AusAID
Water SPS	Water Sector Program Support Project, Danida

1 Introduction

1.1 Joint Task Force

In March 2003 a letter was sent by representatives of the Asian Development Bank (ADB), Australian Agency for International Development (AusAID), Danish International Development Agency (Danida) and the Royal Netherlands Embassy to the Vice Ministers of the Ministry of Natural Resources and Environment (MONRE) and the Ministry of Agriculture and Rural Development (MARD) offering coordinated advice to the ministries regarding (i) the transfer and establishment of water resource management functions in MONRE, (ii) coordination between MONRE and MARD, and (iii) improved coordination between support projects for longer term water sector strengthening. It was also pointed out that this offer of coordinated assistance comes at a time when the Government of Vietnam (GoV) is taking steps to reform the institutional structure in the water sector, build capacity and improve the delivery of water services by MARD and other agencies. The recommendation was made to form a small, joint-donor task force to consult with key stakeholders and present a report and recommendations to the two ministries to advise on the transfer of water resource management responsibilities and the establishment of an effective Department of Water Resources Management (DWRM) in MONRE.

MONRE and MARD indicated that they would welcome the proposed assistance. MONRE also indicated that internal work was well underway to establish the capacity for state management of water resources. Meetings had already been held with MARD to discuss the transition process and with officials in the Office of Government and the Ministry of the Interior regarding the scope of work for the DWRM. A draft Decision by the Minister of MONRE had been prepared on the functions, duties, powers and structure of DWRM and initial decisions had been made on the selection of officials for key positions and arrangements for office space for the department. Copies of the letters of agreement are included in Appendix A of this report.

In consultation with the two ministries and the four participating donor agencies, the following Task Force participants were selected:

- Dr. Nguyen Thai Lai, Deputy Director, DWRHWM, MARD and Deputy Director, Office of the National Water Resources Council
- Dr. Alfred Birch, Senior Water Resources Advisor, ADB TA3528, National Coordination for Water Resources Management
- Mr. Warren Martin, Water Resources Institutional Specialist
- Mr. Pham Van Tan, Assistant to Vice Minister, MONRE
- Mr. Nguyen Ty Nien, Institutional Specialist and former Director, Department of Flood Control and Dike Management, MARD
- Mr. Vu Tien Luc, Legal Specialist and Head, Inspection and Legislation Bureau, MARD

1.2 Deliverables

Draft terms of reference for the Task Force were circulated to the two ministries and four donor agencies and a number of comments were received. MONRE indicated a number of key questions on which it was interested to receive advice. These deliverables were:

- What should the DWRM do?
- What would be an appropriate structure for DWRM?
- What resources would be needed by DWRM to carry out its tasks, including staff (number and qualifications) and tools (physical and legal)?
- How would DWRM link with other groups (within MONRE, with other ministries and with water resource management organizations)?

- What would be a suitable work plan for the first three years of operation?
- What support is needed from MONRE, GoV and donors in these first three years of operation?

The outline of the present report and recommendations has been based on these questions.

1.3 Approach

The approach followed by the Task Force included discussions with a number of Vietnam experts and review of a number of documents, reports and Vietnam laws. The Task Force relied heavily on each team member's experience in reorganizations elsewhere. It was recognized at the outset that many Vietnam management practices differ from those in western countries. However, in the establishment of a new Department, Vietnam has a great opportunity to consider some of the techniques now being applied elsewhere and to adapt its management practices to them. Accordingly a number of the views of the team may be contrary to the Vietnam way but the decision to present them was deliberate.

2 Establishment of the Ministry of Natural Resources and Environment

2.1 Government Decisions

Rationale to Form Ministry The Ministry of Natural Resources and Environment was set up pursuant to Resolution No. 02/2002/QH11, dated 5 August 2002, of the 11th National Assembly of the Socialist Republic of Vietnam, prescribing the list of the Government's ministries and ministerial-level organizations. One of the main intentions of the Government in forming the Ministry was to bring together and strengthen the state management of natural resources and environment. State management is a fairly well-recognized set of responsibilities concerning stewardship, conservation and accountability for sustainable use. It is of great importance that the Government has taken this step to separate the responsibility for state management of water resources from the responsibility for exploitation and development. Effective regulation and accountability for management of resources in accordance with the Government's broad social, economic and environmental objectives cannot be combined with use of the resource by ministries and agencies which are responsible for public services.

Among the agencies which are being brought into the new ministry are the former General Departments responsible for land administration and hydrometeorology, the Groundwater Division of the Ministry of Industry, the National Environment Authority, and the parts of MARD responsible for state management of water resources. This combination of state management of natural resources and environment will provide a clearer focus and more effective implementation of the Government's objectives in these areas.

Because the formation of MONRE has reduced the fragmentation of state management functions and made a clearer separation between state management and public service delivery, difficult challenges in areas such as land administration, environmental protection and water resource management can be more successfully addressed. The multi-use management of water resource, in particular, can be improved since the resource will no longer be managed by the major user. Creation of MONRE may also bring more focus and support for improved water resource management.

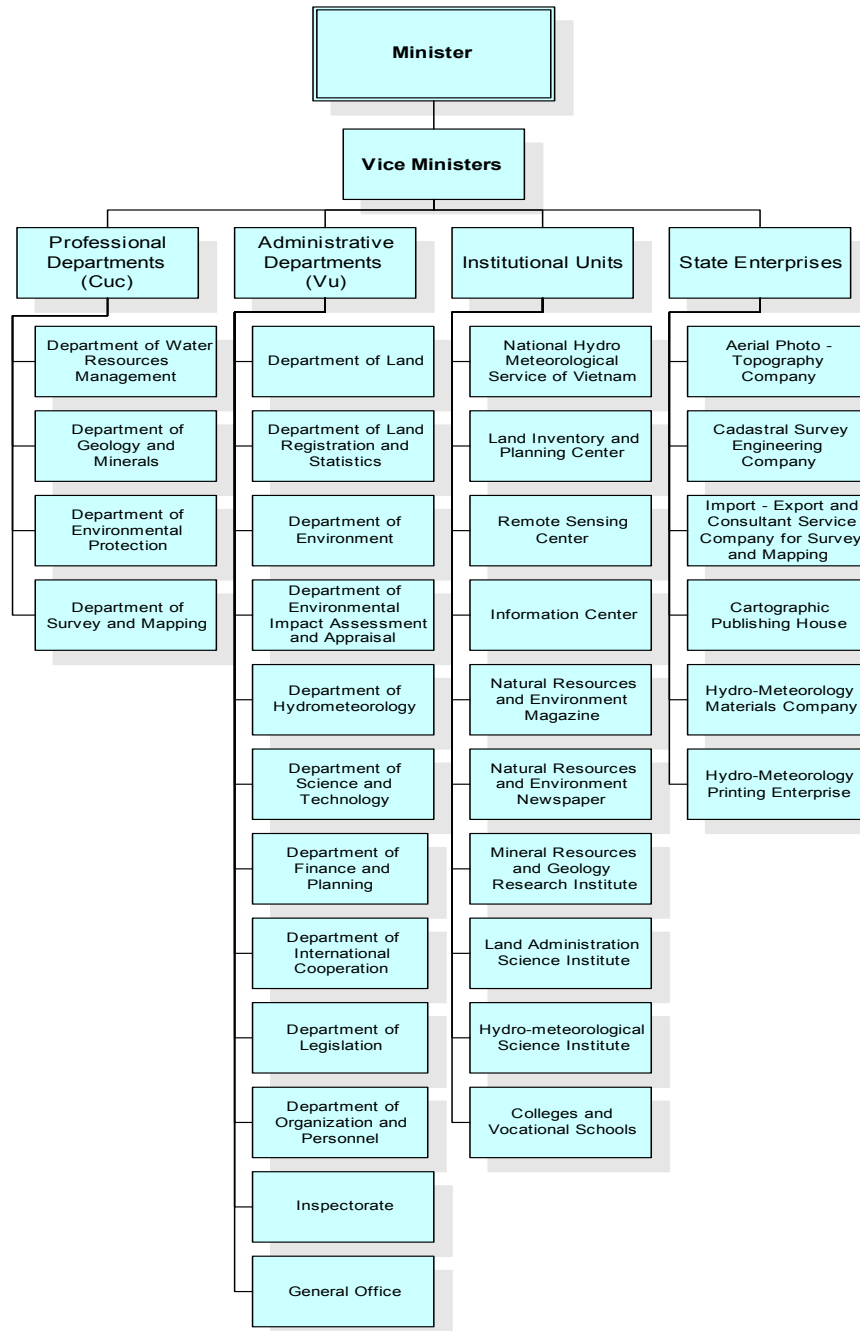
The challenge which will now be faced regarding water resource management will be to maintain independence and neutrality for MONRE, to build up its capacity and credibility, and to avoid competition and promote coordination between it and major water use ministries such as MARD.

Decree Prime Minister's Decree 91/2002/ND-CP on Functions, Responsibility, Authority and Organizational Structure of the Ministry of Natural Resources and Environment, dated 11 November

2002, assigns accountabilities to the Ministry (MONRE) to take over responsibilities of state management of natural resources as well as other natural resources and environment. The Decree separates state water management functions under MONRE from public water services delivery which will be carried out by MARD and other ministries with water-related responsibilities. The Decree is included in Appendix B of this report.

The structure of MONRE is shown in Figure 2.

Figure 2 Organizational Structure of the Ministry of Natural Resources and Environment



It is important to note that the DWRM has been set up as a professional or line department (Vietnamese: “Cuc”), rather than an administrative department (Vietnamese: “Vu”). Although it is normal for planning and policy-oriented agencies to be established as administrative (Vu) agencies, the Task Force has been assured that DWRM can, under its present (Cuc) form, carry out the range of state water management functions which are proposed here, including policy, planning and similar roles. This fundamental assumption for the Task Force is supported by the fact that the recent Decision of the Minister of MONRE on the establishment of DWRM gives the department a number of planning and policy functions, despite its nature as a professional (Cuc) department.

2.2 Functions of MONRE

Article 1 of Decree 91 states:

“The Ministry of Natural Resources and Environment is an organization of the Government, performing the function of State management over land, water and mineral resources, environment, hydro-meteorology, survey and mapping for the whole country; state management over public services and representing the owners of State capital portions of enterprises with State capital in the fields of land, water and mineral resources, environment, hydro-meteorology, survey and mapping in accordance with the provisions of law.”

MONRE is responsible for performing the tasks and powers defined in Government Decree 86/2002/ND-CP dated 5 November 2002 prescribing the functions, tasks powers and organizational structures of ministries, ministerial-level organizations. Article 2 of Decree 91 gives further elaboration of the tasks and authorities of MONRE. These include such things as: i) preparation of laws, ordinances and other legal documents, ii) development of strategies and plans, iii) information and education on laws and on natural resources and environment, iv) regulatory activities such as implementation of legal documents, plans and strategies and appraisal and supervision of investment projects, v) international cooperation and scientific research activities on natural resources and environment, and other administrative and supervisory responsibilities.

Article 2 also specifically mentions four responsibilities regarding water resource management:

- “i) To submit to the Government for prescribing the assignment and decentralization of the basic survey on water resources and the competence to issue and withdraw water resources permits; direct and inspect the post-approval implementation;
- ii) To generalize data, manage the results of basic survey, inventory and assessment of water resource and establish database on water resources;
- iii) To stipulate and direct the inspection on the implementation of measures for water resources protection; and
- iv) To be the standing member of the National Council for Water Resources.”

It would be expected the state water resource management responsibilities of MONRE would be interpreted in the context of Section 57 of the Law on Water Resources and Chapter IV of Decree 179/1999/ND-CP on the Implementation of the Law on Water Resources. Those documents give a further indication of the Government’s definition of state water resource management functions, including, in general terms, functions such as policy and legislation development, planning and strategy development, data and information management, water resource regulation, organizational development and capacity building, and information, education and consultation.

An additional view of the responsibilities of MONRE and the transfer of water resource management activities from MARD will be gained when the Government issues a Decree on the revised responsibilities of MARD. At the present time this decree has not been issued.

3 Establishment of the Department of Water Resources Management

3.1 Minister's Decision

Within MONRE the Department of Water Resource Management (DWRM) is being set up to carry out state management of water resources. Decision No. 600/2003/QB-BTNMT by the Minister of MONRE on the Functions, Responsibilities, Authority and Organizational Structure of the Department of Water Resources Management was approved on 8 May 2003. This Decision gives the position and overall function of the DWRM, its powers and responsibilities and institutional arrangements. Decision 600 is included in Appendix B of this report.

3.2 Organizational Arrangements

The Task Force considered that the structure and establishment of DWRM needed to be based on the following objectives:

- Clear functional assignment
- Efficient and effective integration of functions and lean organization
- Well defined accountabilities for delivery of functions
- Clear establishment guidelines
- Adequate resourcing – funds, staff and support systems

These objectives are addressed in the following sections.

3.3 DWRM Functional Assignments

The Department of Water Resource Management has been set up to carry out state management of water resources. An initial task in setting up a new agency is to ensure its functions are correctly defined in accordance with the Department's legal mandate. The Task Force recommends adopting a set of functions that give a focus to policy, strategic planning, legislation issues, data and information management, water resource assessment and regulatory functions within an umbrella of organizational strengthening. The five functions recommended are:

Function 1	Policy and Strategy Development
Function 2	Water Resources Planning and Legislation
Function 3	Water Resources Assessment and Information Management
Function 4	Regulatory Management
Function 5	Organizational Strengthening and Coordination

The general approach is to transfer these functions from MARD to MONRE with some reshaping to meet priority needs. Because this is a somewhat experimental process and problems may emerge, it is recommended that within two years a formal review of the approved functions should be undertaken and, if necessary, the Minister of MONRE should issue an amending decision.

3.4 Lean Organization

Resource based organizations have been basically shaped around three models.

- **Option 1** Based on assignment of duties and functions into units to separately manage surface water, ground water and water quality. This provides synergy for specific expertise areas but does not provide for integration. Historically organizations were shaped under this option but recently it is less used.

- **Option 2** The organizational structure is managed under specific functional areas, (policy, planning, data management). This provides integration of activities in the functional areas but leads to some dispersal of expertise among the organization. Such dispersal is overcome by limiting the functional staff to managing its “core business” and by also including in the structure specific expertise groups to support the functional groups.
- **Option 3** Is a combination of Options 1 and 2. Many countries have adopted this approach since it has the advantage of maintaining core expertise in units where that expertise presence is essential yet recognizes the situation in which a functional base management unit is more appropriate.

For DWRM to meet GoV’s expectations, its organization structure has to be tailored around the state water management responsibilities. Decision 600 provides that foundation. It assembles DWRM’s duties and functions into six Bureaus, two technical support Centers, a Department Office to provide administrative and coordination support, and an Office of Training and Awareness Improvement. This structure is very appropriate at this time since blends a concentration of expertise into specific surface water, groundwater and water quality areas, yet addresses integration of key water management activities in an integrated manner.

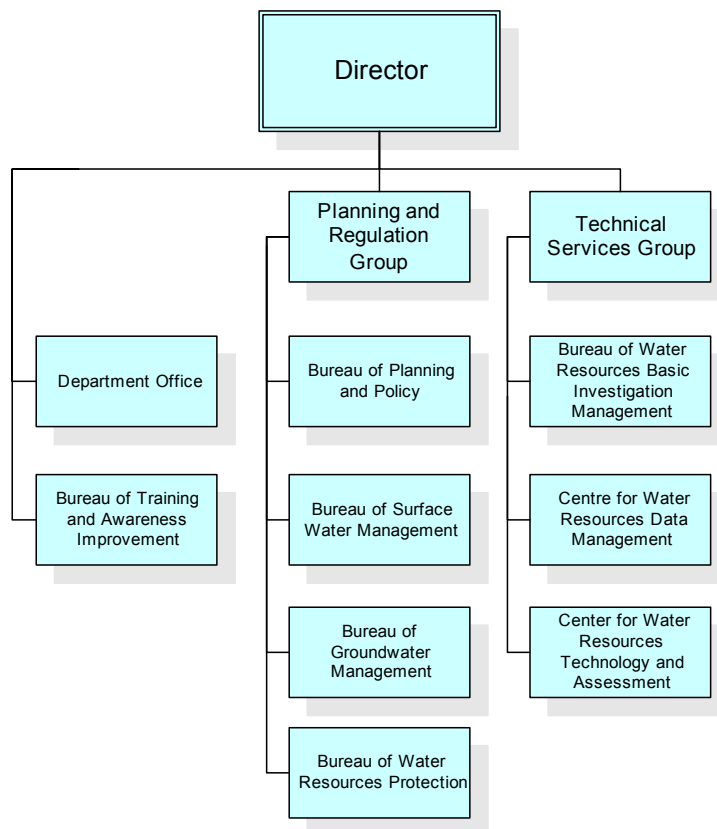
In modern resource management organizations flatter management structures with fewer levels of management have become the norm. In addition to the Department Office and the Bureau of Training and Awareness Improvement, it is recommended that the units should be grouped into two groups: Planning and Regulation (including Bureau of Planning and Policy, Bureau of Surface Water Management, Bureau of Groundwater Management, and Bureau of Water Resources Protection) and Technical Services (Bureau of Water Resources Basic Investigation Management, and the Center for Water Resources Data Management and Center for Water Resources Technology and Assessment). This proposed organizational structure is shown in Figure 3.

Corporate Support Decision 600 provides for both a Department Office and a Training and Awareness Bureau. The Department Office should provide administrative support for finance, human resources, asset management and coordination and services across the whole Department, from the executive through all Bureaus and the Centers. It is recommended the Corporate Office should report to the Director.

The Bureau of Training and Awareness Improvement should focus on program associated with trainings and awareness, both within MONRE and with many external agencies and water users. At the present time, there is considerable need for good internal and external communication strategies to keep staff and the DWRM’s constituency aware of the change management. The obvious priority of this work means that this Office needs to be staffed and activated soon. In many organizations these tasks are left to senior personnel with experience in water resources management, but the outcomes may be poor since officers are not trained or qualified. The Training and Awareness Improvement Bureau should have personnel specifically qualified in these areas. This Office should also report directly to the Director. It would have close links with the other communication units in MONRE.

Office of NWRC The organization of the Office of the NWRC should be reconsidered now that DWRM has been established. Recommendations were made when the ONWRC was located in MARD to create a separate and very capable Office to support the Council. This was necessary because the Department of Water Resources and Hydraulic Works Management was not set up to provide the kind of policy, strategy and coordination support which the Council needs. Since MONRE and DWRM are now established independent from major water-use sectors such as irrigation, it is no longer necessary to create a separate ONWRC nor is it advisable to duplicate the expertise which will be present elsewhere in DWRM. Also, because all the bureaus will serve the needs of the NWRC, it is recommended that the functions of the ONWRC should be located in the Departmental Office.

Figure 3 DWRM Organization and Reporting Lines



Grouping The grouping of the Planning and Policy Bureau and the Surface Water, Groundwater and Resource Protection Bureaus will be helpful in coordinating their work and in building expertise. A number of programs will cut across these units and easy cooperation between them will be important. Similarly, the grouping of the Bureau of Water Resources Basic Investigation Management with the two technical Centers into a Technical Services Group will help to improve coordination and internal strengthening. It is advisable to place both the Planning and Regulation Group and the Technical Services Group under a single Deputy Director as soon as possible.

Outsourcing The performance of DWRM will be dependent on the quality and timeliness of the delivery of its outputs. An assessment of the number and attributes required by DWRM staff has been made and is outlined in Appendix D. It will be important for MONRE to decide how many experts will be required “in-house” and what expertise will be acquired by “out-sourcing” (contracts, delegation, etc). The Department should not employ experts in all multi-disciplinary fields but should ensure that it has the necessary internal skills to meet its core business requirements and to specify and supervise work which is done by others on its behalf. It is recommended that a considerable amount of out-sourcing should be used at this time in order to access many of the technical skills and experience that will be required. DWRM will require budget to enable this out-sourcing to be implemented. This approach should be reviewed after 2 years to assess its effectiveness.

3.5 Responsibilities within DWRM

Unit Responsibilities Adoption of the organizational structure shown in Figure 3 will require assignment of “lead” responsibilities for the programs which DWRM will carry out. It is recommended that the lead responsibilities (or mandatory accountabilities) to deliver outputs, according to agreed management plans, should be given to the Bureaus, though not to the two technical Centers. Table 2 shows suggested lead responsibilities for each function with a description of the nature of the responsibility which is involved. The secondary or support roles have also been defined. These are shown in Appendix C. Further details are also given in Appendix E with respect to a

Table 2 Unit Lead Accountabilities at a Functional and Program Level

Lead Unit	Function / Nature of Responsibility
Bureau of Planning and Policy	<p>1. Policy and Strategy Development Lead responsibility for the development and implementation of the policies and strategies for programs relating to IWRM for strategic plans, legislation and water resource assessment; for Regulatory management and for organizational strengthening and coordination</p> <p>2. Water Resource Planning and Legislation Lead responsibility for the development and implementation of the policies and strategies for programs relating to IWRM for Strategies and plans-legislation and research; and for Corporate Management Planning</p>
Bureau of Surface Water Management	<p>3. Water Resource Assessment and Information Management Lead responsibility for Water Resources Assessment - Surface water</p> <p>4. Regulatory Management Lead responsibility for Rights Management – exploitation and utilization of water sources and other water related resources; Lead responsibility for regulation of major hydraulic works and dam safety</p>
Bureau of Groundwater Management	<p>3. Water Resource Assessment and Information Management Lead responsibility for Water Resources Assessment-Groundwater</p> <p>4. Regulatory Management Lead responsibility for Rights Management – Exploitation and Utilization of Water Sources</p>
Bureau of Resource Protection	<p>3. Water Resource Assessment and Information Management Lead responsibility for Water Resources Assessment-Water Quality</p> <p>4. Regulatory Management Lead responsibility for Rights Management – Waste Water Discharge</p>
Bureau of Basic Water Resources Investigation Management	<p>3. Water Resource Assessment and Information Management Lead responsibility for Water Resource Information – Data Assembly and Coordination</p>
Department Office	<p>5. Organizational Strengthening and Coordination Lead responsibility for administrative support for corporate management; administration; capacity building and organizational coordination and cooperation</p>

<p>Bureau of Training and Awareness Improvement</p>	<p>5. Organizational Strengthening and Coordination Lead responsibility for increasing awareness of water resources and water resource management within MONRE and among other ministries, agencies, provinces and water users; lead responsibility for assessing training needs and planning and implementing training programs</p>
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Details of lead roles will no doubt be shaped by a Vietnamese style and practical requirements. However, the Task Force would suggest that the Planning and Policy Bureau should not be divided into separate policy and planning groups, although some individuals will need to specialize in the various expertise areas. The approach being used in many jurisdictions is to have specific Task Teams formed to focus on the key priority activities. For instance if surface water licensing policy were seen as a priority task then a small group would be formed. The size of the group depends on the scope of the tasks. Regarding the priority areas under consideration in Vietnam at present the approach in the Bureau of Planning and Policy might be to form several teams to focus on regulatory policies working with Surface Water and Groundwater Bureaus, one on data management working with Bureau of Water Resources Basic Investigation Management, and one on river basin planning. A fourth group could be involved in assisting develop the audit of support systems.

Each Bureau will have assigned either lead or support accountabilities. Those Bureaus, which are assigned the lead accountability for specific programs will have a mandatory responsibility within DWRM to deliver those programs. As shown in Table 2, the Bureau of Planning and Policy will be held accountable for delivering all new policies and strategies, while each remaining Bureaus will be accountable to support the development of those policies and strategies, when approved, manage programs under the same policies and strategies.

Once the “Lead” accountabilities for each Bureau has been determined, the Department management must ensure that all other Bureaus have a clear indication as to the level of their support roles of the lead unit. In defining support roles, the principle should be that those Bureaus having the management roles as indicated above, **must assist** the Bureau of Planning and Policy in developing the policies - they do not have any discretion in providing that support.

Job Descriptions To ensure a correct mix of attributes and competencies exists within DWRM, it is essential that job or position descriptions should be prepared. These must contain details of qualifications, experience, water sector knowledge and the personal attributes relevant to the position. Illustrations of the attribute definition are indicted here. It is recommended that each officer should have a job specification. Sample job descriptions are presented in Appendix C.

Suggested attributes for Director and Deputy Directors include:

- **Qualifications** Appropriate university qualifications at graduate / post graduate level in water or other resource management area.
- **Demonstrated Experience** Leadership-technical and professional competency, public policy and planning, dispute resolution, management, proven performance –coordination-networking abilities.
- **Knowledge** Vietnam laws, Vietnam water sector, Vietnam governance arrangements, national policy directions, international water management trends.
- **Personal attributes / Skills** Negotiation, facilitation, communication, responsive, proactive, reasonably fluent in English, dedicated, energetic.

3.6 Establishment Guidelines

Change Process The leaders of DWRM must be proactive in formulating the instructions and management arrangements regarding how DWRM will work. As well as setting up a central group, the department leaders must also work to ensure the linkages with the provinces are designed in a

strategic way. All provinces will not have the same objectives and needs. The amount of time required to set up and properly manage this management approach should not be under-estimated.

Experience shows that organizations that design the framework for organizational change are the most successful. The first action is to distribute the agreed principles to staff and other relevant people and organizations. The result will be that the leader's behaviour and actions will be monitored by staff and others and thus they will have to deliver against those promises. By doing so a climate of belief, trust and commitment toward the leaders will result. This often trust and commitment often transfers to staff whose behaviour then follows their leaders' examples.

The importance of developing and maintaining a positive culture in any organization is important, but far more relevant when setting up a new organization. In an organization, which is formed through a separation such as is the case in transferring staff and functions from MARD to MONRE, a positive culture is one of the more valuable attributes. Culture can be allowed to develop passively, but experience shows such an approach favours retention of old and unproductive attitudes and behaviour for prolonged periods.

Change creates different reactions. Some find it painful, while others see it as an opportunity. Leaders must ensure that new and transferred staff recognize that the DWRM is a new organization, now divorced from MARD's service delivery roles. DWRM will be seeking a place within the government sector, to demonstrate to GoV that its decisions on separation were correct and that it will become a competent, effective and efficient arm of Government.

Recommended actions in setting up a well-designed change process include:

- Design the change management arrangements. Experience shows that the organizations that design the change frame are more successful.
- Attempt to define likely risk areas. Being prepared is better than being reactive.
- Get professional support. Advice from management experts and those with a strong understanding of local conditions and how to solve problems will be valuable.
- Use participatory approach with staff. Be open and encourage staff to assist in developing management protocols, output targets and ways of addressing key areas.
- Communicate well and frequently. Design communication messages for the recipients.
- Identify the Department's clients and get to know their expectations. DWRM must become aware early as to the views and expectations of the water sector constituency.
- Establish new networks quickly. Leaders have a responsibility to strengthen the involvement of interested parties. This will be particularly important with respect to provincial involvement. Personal contacts create better outcomes in a time of change, although they are more expensive and time consuming.
- Maintain past relationships. In a climate of new opportunities it will be essential that existing relationships are not discarded. However, fresh approaches should also be used.

Transfer and Recruitment of Staff It is understood that up to 20 positions will be transferred from MARD to DWRM, out of an expected total DWRM staff of 50 to 60. These staff should be selected on the basis of competence and a range of skills across the functions which will be transferred from MARD to MONRE. Negotiations are underway between MARD and MONRE regarding the units and specific staff which will be transferred. Additional recruitments will be needed to bring staff numbers in DWRM up to the required level. The eventual number of staff will depend on decisions regarding internal expertise and outsourcing. The approach recommended by the Task Force is to develop a lean organization with experts to deliver on core business and contracting or delegation of many of the more technical or local activities.

A strategic approach should be used in filling of staff positions. Achievement of the ultimate number of staff numbers should happen progressively – DWRM should seek to limit the initial number of staff

to about 30. The proposed Action Plan for the Department, recognizing that the staff will only be about 30 people, also assumes that DWRM will have an outsourcing policy in place to hire in experts. A sequencing of filling positions from the top down. Transfers and external recruitments must be staged, so that new managers can have involvement in selections. It is important in setting up a new Department that, in the initial 5 or so years, staff retention levels are high and that there is a good mix of age, skills and gender balance in the staff profile. The expert base must be multi-disciplinary to meet the range of state water resource management objectives.

The establishment of DWRM and the decision to set up DoNREs also may enable MONRE to strengthen the coordination between the central and provincial levels by specifying that, for example, up to 5 positions in DWRM will be filled on a rotational basis by personnel selected from the water units in the DoNREs. This would bring into the Department people with a good knowledge of practical, local issues and approaches. It would also help to strengthen the DoNREs when these staff return to their provinces.

Section 3.4 above discussed out-sourcing as a means of acquiring technical skills and information needed by DWRM to carry out its responsibilities. Although out-sourcing is recommended, it will not completely remove the need to transfer staff. To the extent that the water resource management functions recommended in this report are now being performed in MARD, they should be transferred to DWRM along with the associated staff, finances, equipment and information.

River basin and integrated water resource planning is one area in which DWRM will need a core of in-house expertise. Although the decision on transfer of functions and staff in this area will be reached through discussion between MARD and MONRE, it is recommended at least a small number of staff from the Institute of Water Resources Planning (IWRP) under MARD, along with equipment, budget and information, should be transferred to DWRM to establish help to set up the important water resource planning function which the Department will need to carry out. Additional technical assistance from IWRP can be provided to DWRM, as needed, through out-sourcing contracts or other means.

Funding It will be important for the Ministry of Finance to ensure that the necessary adjustments and approvals are given for establishing and activating the DWRM within MONRE. Full funding and equipment for state water management under MARD should be transferred to MONRE. Adequate budget should be provided to enable DWRM to “outsource” the expertise that it requires but does not establish internally.

Support Systems A Program-Management System should be used in the routine management of activities in DWRM. A Program Management System would be based on the outputs which the GoV is seeking. It would specify the “Functions” to be met and define outputs down to an “Activity” level within the framework of the DWRM Corporate Plan. The Task Force recommends 8 programs, although this number should be tailored to suit current issues and needs.

Staff must also have adequate technical support. At the current time Vietnam suffers from data scarcity and quality, data bases, models and laboratory facilities. Some of these are being advanced in donor projects but the solutions are often tied to investment capabilities in those areas. There are a number of areas where the tools are not available, while those available are not appropriate. Analyses of dependencies between planned activities will illustrate gaps in delivery capabilities. A preliminary dependency check has indicated that the following tools require immediate attention:

- a management system to administer the programs within the framework of a Corporate Plan;
- the availability and capabilities of computer models to allow planning and resource assessments and future allocations of water quotas;
- data management facilities, including surface water, groundwater and water quality databases; and
- water quality laboratory facilities and their location throughout Vietnam.

An audit of such tools is seen as a priority task. The outcomes will provide inputs to priority investments decisions to improve Vietnam's water resource management capabilities.

Training Training programs initiated when MARD carried the state water resource management functions should be reviewed momentum in that area should be retained. Any refocus will most likely have to be directed through the donors as many of the capacity building programs funds are sourced in donors' programs. It is recommended that a training needs assessment should be carried out once the initial recruitment of DWRM leaders and staff has been completed. Based on this training needs assessment, a new training plan should be prepared, approved by MONRE and recommended to donors for their support.

The DWRM personnel may require external support from international experts on the change management activities, including activation and capacity building of the Department. This will require further discussion between MONRE and donors. Timing will be important; if assistance is not forthcoming the recommendations of the Task Force regarding application of modern corporate planning and Project Management Systems will not be used. The opportunity for DWRM to "get it right" from the beginning should not be lost.

The Task Force also considers that in the change period it may be wise for DWRM and MONRE to seek a different form of donor support. One option might be to have nominated international experts available on a retainer basis to provide agreed levels of advise when sought by DWRM and approved by the donors at the local level. This could allow international experts to support a local advisory committee at key points. Another option may be to seek a "twinning program" with one or more parallel water resource management agencies in other countries. This could be very helpful to allow DWRM to call on expertise at a variety of levels to assist with specific, practical problems. This could also form part of a training program, in which DWRM staff could be placed on temporary assignment in the parallel agency for on-the-job training and experience. This could be a very valuable modality for acquiring skills for technical topics such as establishment of a water licensing system.

4 Action Plan

The efforts of DWRM's executives, managers and staff in 2003 and 2004 should be directed to change management activities, developing projects for 2004 and continuing any transferred projects. Details of the priority activities for 2003 are given in Table 3.

Appendix E gives details of the activities which may form the basis of a Annual Plans for 2004 - 2006. Those plans will contain activities likely to be carried forward from 2003 plus those with potential for initiation in 2004 and later. In that period some focus will be on change management but to a lesser degree than in 2003. A number of the activities have a policy focus while others are directed towards establishing the status of the technical support systems in Vietnam (models, databases and laboratories). These draft plans have not yet been discussed in detail with the DWRM managers but there has been consultation on activity requirements.

Table 3 2003 Priority Actions

Program	Activity
	Managing Change
Organizational	Shaping and Resourcing DWRM

Strengthening and Coordination	<ul style="list-style-type: none"> ▪ Establish organizational structure and define duties functions and objectives of DWRM's Units and in the Provinces and strengthen relationships ▪ Initiate consultations to resolve DWRM's role in other water-related activities such as disaster management, coastal zone management, flood prone land management, etc. ▪ Prepare and implement a change management strategy for establishment of DWRM, including the formation of DONREs in the provinces
	Review legal documents re strengthening of MONRE
	<ul style="list-style-type: none"> ▪ Prepare and submit amendments and new legal documents ▪ Staff transfer and recruitment management ▪ Review management arrangements for ONWRC ▪ Administer NWRC's business agendas ▪ Administer the financial, human resources, asset management and day to day operational activities of the DWRM
	Building for the Future
	<ul style="list-style-type: none"> ▪ Initiate a prioritization of training programs to meet DWRM's needs for personnel in DWRM, both at central and provincial DoNREs ▪ Prepare and implement a management approach for development of Corporate Planning ▪ Prepare a 2004 annual plan
	Increasing Awareness
	<ul style="list-style-type: none"> ▪ Prepare and implement a Training and Awareness Strategies regarding establishment of MONRE ▪ Promulgate details of the roles of DWRM to other agencies in MONRE, Provinces and others
Building Networks	
<ul style="list-style-type: none"> ▪ Establish and manage water sector Advisory Groups within the water sector for coordination ▪ Establish and implement management protocols between DWRM and VNMC 	
Water Resources Management	
IWRM – Strategies and Plans	<ul style="list-style-type: none"> ▪ Prioritize a policy development and planning schedule at a national and provincial level
Water Resources Information	<ul style="list-style-type: none"> ▪ Develop, implement and manage a National Metadata Directory and other Directories ▪ Manage data and information access and exchange management strategy ▪ Manage the custodian data and information management strategy ▪ Evaluate configuration needs, acquire, implement and manage a surface and groundwater database

5 Institutional Linkages

5.1 Coordination within MONRE

A number of the state management functions for natural resources and environment are similar and should be coordinated and strengthened across many of the Ministry's departments. These include coordination regarding such things as:

- improvement of the policy and strategy development process and skills,

- information management activities and approaches and avoidance of duplication, such as data collection various water resource parameters,
- planning activities, including overlapping areas such as land, water and environment,
- regulatory and inspection activities, particularly with respect to water abstraction and wastewater discharge,
- information, education and public consultation activities

Coordination within MONRE will involve such things as i) clear definition of the responsibilities of the various departments, institutes and agencies (including, where necessary, what each part is not responsible for), ii) coordination and communication among managers, particularly at the Vice Minister and Director level, and iii) joint working groups to address issues for which there is joint responsibility.

A number of important linkages should be established between DWRM and other divisions and units within MONRE. The important MONRE agencies which DWRM should link with will likely include (but not be restricted to):

- the Integrated Coastal Zone Management unit under the Department of Environmental Protection,
- the water quality monitoring and standards activities under the Department of Environment
- water resource assessment with the Department of Hydrometeorology
- data management linkages with all technical departments and with the Information Center
- policy and legislation activities with the Department of Legislation
- coordination of licensing with the parallel environmental assessment and approvals process under the Department of Environmental Impact Assessment and Appraisal
- Training and Awareness activities with the Department of Organization and Personnel and the natural resources magazine and newspaper.

The leaders of MONRE have the opportunity and responsibility, at this early stage of the ministry's formation, to create a culture of openness, communication and cooperation within the ministry. They should also make clear that state management of natural resources and environment is not fundamentally about power and control, but about guidance, coordination, service and facilitation for the social, economic and environmental development of the country.

5.2 Regional and Provincial Relations

MONRE has indicated that it intends to move quickly to establish Departments of Natural Resources and Environment (DONREs) at the provincial level and the Task Force supports this priority. This will involve coordination of land, water, environment and similar activities which currently exist at that level, and developing capacity for new functions which will be assigned to the provinces. As indicated above, activities such as regulation of water use and wastewater discharge should be supervised at the central level but, in most cases, should be delegated to provinces to implement and enforce. Water resource planning is also likely to be largely a river basin level activity with a large amount of input from provinces. Data collection, conflict resolution, public awareness and other water-related activities will also need to be carried out provincially.

Details of the relationship between MONRE and provinces will need to be further investigated and developed. It is recommended that a flexible approach should be taken to defining the structure and responsibilities of DONREs, based on local issues, priorities and capability. In most cases the DONRE should have a sub-department responsible for water resource management functions. This will be necessary since a good deal of the responsibilities and focus of the DONREs will be on land, minerals and environmental management. Water management should not be treated as a sub-issue under any of those functional areas. A considerable amount of capacity building will be required to build up the DONREs, and this should be recognized both in Government budgeting and in the

planning of donor assistance projects. A Task Force to assist in setting up the DoNREs is recommended.

The devolution of responsibilities from MONRE headquarters to regional offices in the central and southern regions should also be considered. International experience has shown that regionalization of water management functions is important to best meet the water constituency's needs. Regional offices would be the logical place in which to base the support for RBOs since these offices should be close to the basins for which they are responsible. The DONREs and district-level organizations may be seen as being capable of carrying out all local responsibilities for natural resource and environmental management. However, it may not be preferable to delegate some functions to three regions rather than 61 provinces. It would also be possible to define regions as groups of river basins, allowing them to match the geographical area of one or more river basin organization.

There is currently no provision for regional offices in the Law on Water Resources or its general implementing decree. Therefore steps may need to be taken in the legal review (see Section 6) before any regionalization of responsibilities can take place.

5.3 Coordination with MARD and Other Ministries

External relationships with other ministries and agencies will also be very important for MONRE. As mentioned already, MONRE carries the main responsibility for state management of natural resources and environment. As such, it should be independent, technically competent and respected. It should have adequate legal authority and adequate human and other resources to carry out its policy and strategy development, planning and regulatory responsibilities. In practice, MONRE will need to balance its role as an independent regulator with a more cooperative, coordinating and facilitating role. It should help to ensure that resources are developed and managed in a sustainable manner, in keeping with the Government's broad objectives, policies and laws.

To meet these objectives, MONRE will have to develop its relationships with MARD and other ministries and agencies responsible for public services on water in a flexible manner. These relationships may involve the following:

- **Transfer of responsibilities** As generally agreed already, the state management responsibilities for water resources will need to be transferred from MARD or other ministries to MONRE. These transfers should take place quickly, as soon as there is at least minimal capacity within MONRE. Experience within MARD has shown that the responsibility for many state water resource management activities can be built up after the responsibilities are officially assigned. As mentioned above, integrated river basin planning is an area in which transfers should take place from the Institute of Water Resources Planning to DWRM, although details will have to be worked out in discussion between MARD and MONRE.

Transfer of functions from MARD to MONRE should also include transfer of staff, budget, equipment and information. Budget transfer will involve consultation with the Ministry of Finance in order to quickly put in place the requirements for DWRM to begin to operate. The transfer of information will include original reports, maps, data and data storage equipment, software and other any other tools which are required for state water resource management. MARD has a responsibility to cooperate fully in this process.

- **Delegation** In some cases it may not be possible to transfer functions, staff and other resources quickly to MONRE. Although MONRE should take official responsibility for state management functions, it may be necessary for the implementation of these responsibilities to be delegated back to the agency now carrying them out, at least on a temporary basis.

Delegation will also be necessary to the provincial or lower level, including RBOs at the basin level. Some functions, such as issuing and inspection of small or medium scale water and

wastewater permits, should be carried out at the local level, although the ultimate responsibility will be maintained by MONRE and the ministry will be responsible to ensure that these activities are being satisfactorily performed.

- **Contracting** Although MONRE may be accountable for state water management functions, it may have to arrange for technical support from agencies that have the necessary expertise. Water resource planning at the a national or river basin level, for example, may be the responsibility of MONRE but may have to be performed by an agency such as the Institute of Water Resources Planning under MARD either on a temporary or permanent basis. MONRE will need adequate budget to pay for these services and adequate technical capability to design and supervise the work.
- **Agreements and Joint Ministry Circulars** In order to promote clear and effective working relationships with other ministries and agencies, MONRE should seek to develop a series of agreements or joint ministry circulars on important topics. Examples of topics for these agreements could be: integrated planning of river basins and major water resource projects (possibly with MPI, MARD and MOI / EVN), multi-purpose hydraulic works and dam safety (MOI / EVN and MARD), and international water resource management issues (MARD / Vietnam National Mekong Committee and Ministry of Foreign Affairs).
- **Joint activities** In a number of cases MONRE will need to work cooperatively with other ministries, agencies, provinces and water user groups. Policy and strategy development, for example, will require a broad range of input from various water-related sub-sectors such as irrigation, hydropower, water supply and environment. Working groups or joint task forces are likely to be necessary to arrange this work. Some experience has been gained already by MARD in arranging multi-agency input for policy and strategy development under the NWRC, and this experience should be carried forward by MONRE.

5.4 National Water Resources Council

The NWRC is a key water sector coordination and advisory agency which has been established under the LWR. Its legal mandate is to advise Government on i) policies and strategies, ii) river basin management and major project plans, iii) international water resource management issues, and iv) conflict resolution. MONRE's is responsible for accommodating or supporting the NWRC and the Minister of MONRE is responsible to be the Standing Member of the Council. It is therefore critical for MONRE to have a clear relationship with NWRC. The following should be the main aspects of this relationship:

- **Membership** The Minister of MONRE should be the Standing Member of the NWRC. The Vice Minister of MONRE responsible for water resources and the Director of DWRM should be members. These positions of key leaders from MONRE are an exact replacement of the same positions under MARD during the period that MARD was responsible for state water resource management and the support of the Council. These recommendations have already been made in writing from the Minister of MONRE to the Chairman of NWRC. (It should also be clarified that the Vice Minister of MARD should retain his position as a member of NWRC).
- **Office of NWRC** Under the Regulation on the Organization and Operation of the National Water Resources Council, attached to the Prime Minister's Decision No. 67/2000/QD-TTg dated 15 June 2000, the NWRC has an Office (ONWRC) located in MARD. The regulation stated that the water resource management organization in MARD would carry the responsibility for the ONWRC. These arrangements should be directly transferred to MONRE. As described in Section 4, the duties of the ONWRC can be satisfactorily carried out by DWRM according to its proposed structure and functions. Director of DWRM should

be the Director of ONWRC. A Deputy Director of DWRM should also be appointed as Deputy Director of ONWRC.

- Department Office will be officially the Office of NWRC and will directly support the Council (meeting arrangements, agendas, minutes, communication, etc). It will call on bureaus such as Planning and Policy to develop draft policies, strategies, legislation (including a National Water Resources Strategy), guide the water resources planning process (including Council review of plans).

In general it will be the responsibility of the Director of DWRM to assign responsibilities for NWRC support activities to appropriate bureaus within the department. The Director should also be responsible to coordinate inputs and involvement by other agencies in the support of NWRC through working groups or other consultation and ad hoc arrangements.

- **Working Relationship with NWRC** The DWRM should have a close working relationship with the NWRC since it will carry the primary responsibility to support the Council and coordinate inputs from other agencies. The important water resources policies, strategies and draft legislation should be forwarded to the Council for review and advice to Government. The Department should establish a good network of relationships with water-related agencies in MONRE and in other ministries and also at the provincial level so that it can facilitate Council work and communications in both formal and informal ways.

5.5 River Basin Planning Management Organizations

River basin planning management organizations are a new and very important part of the institutional reform of the water sector in Vietnam. Under the existing legislation they have the responsibility to develop integrated river basin plans (taking into account various sectoral water users and uses), coordinate ministry, agency and provincial water related activities, coordinate water resource assessment and monitoring, and advise the Government on the resolution of water-related disputes within the respective river basins. There is even greater potential for the role of river basin organizations if they are given the legal authority to be involved in such things as project approvals and monitoring to ensure that the integrated river basin plans which Government approves are effectively implemented. It is now important to fully activate the river basin organizations in the Red – Thai Binh, Dong Nai and Cuu Long basins.

At the present time the responsibility for support of river basin planning organizations (RBOs) is located in the Institute of Water Resources Planning (IWRP) in MARD. The Task Force recommends that this responsibility should be transferred to DWRM, in parallel with the Department's relationship with NWRC. The NWRC and RBOs are similar organizations and their support should be in an organization which is able (and will be strengthened) to carry out coordination, policy development and other similar state management activities which MONRE will be responsible for.

The IWRP is primarily a technical planning group which is being strengthened to enable it to serve water resource planning needs in MARD and elsewhere more effectively. It is very suitable for IWRP to provide planning assistance to DWRM, NWRC and RBOs under contract or other agreement. DWRM will need to have enough internal capability to design and supervise the planning work which it and the NWRC and RBOs need.

5.6 Vietnam National Mekong Committee

The Vietnam National Mekong Committee is a high level body which is responsible to assist the Prime Minister to direct and manage all cooperation activities with the Mekong River Commission and to advise the Government on policies regarding Mekong cooperation. The Chairman of VNMC is the Minister of MARD. Vice Chairmen represent the Ministry of Planning and Investment, the Ministry of Foreign Affairs and MARD. Other members of VNMC include representatives of

provinces in the Mekong Delta and the Central Highlands and representatives of the ministries responsible for science and technology, transportation, hydrometeorology, fisheries and industry. The Director General of the Secretariat of VNMC reports to the Minister of MARD. A range of ministries and provinces participate in the working groups and consultations set up by the VNMC Secretariat.

The Government has decided that the chairmanship of VNMC will remain with the Minister of MARD. This is a reasonable decision for the short or medium term, while MONRE and DWRM are becoming established and gaining experience in their state water resource management functions. However, in the long run the relationship which VNMC has with MARD should be transferred to MONRE since VNMC is primarily concerned with water resources management rather than public water services. A closer linkage with MONRE in the future will also facilitate coordination between VNMC and NWRC.

In the short term the Government should ensure that MONRE is well represented on VNMC.

5.7 Other Water Sector Groups

Water user groups, NGOs, mass organizations and others involved in the water sector should also be included in the MONRE network. Appropriate steps will need to be determined regarding how to communicate with them and involve them in MONRE activities. This network development and communication should be largely assigned to the Training and Awareness Bureau in the DWRM. A communications strategy should be developed to indicate how various targets groups will be reached.

6 Legal Review

One of the high priority tasks for MONRE and DWRM will be to review the Law on Water Resources (LWR) and recommend to the Government changes which will be necessary to put into effect the direction which has been expressed in Decree 91. A number of other legal documents should also be reviewed at the same time and new legal documents also need to be prepared in the future.

This legal review and development should be carried out in accordance with the procedures stipulated in the law on promulgation of legal documents. The Task Force understands that the review of the Law on Water Resources will require National Assembly approval. In order for that approval to be granted, a clear rationale will need to be prepared. Rather than a limited review intended only to transfer the management of state water resource management functions to MONRE, the Task Force recommends that the Government should take advantage of the review to clarify a number of principles and bring the LWR up-to-date with current international best-practices. The issues which should be considered in the review include the following:

- Recognition of the principles involved in creating an independent resource and environmental management agency, such as regulatory independence and competitive neutrality;
- Coordination of water and other natural resource and environmental regulation, such as coordination of programs such as resource assessment and information management, planning, standard setting, regulation and inspection, and public awareness and consultation; and
- Recognition of current trends such as clarification of resource user rights and responsibilities, development of the private sector role and delegation of responsibilities

The Task Force has noted some opportunity for further clarification of the concepts of “state management” of both i) natural resources and ii) public services and state capital.

MONRE should also examine the current and future coordination and cooperation arrangements and roles of DWRM in other activities for which other Ministries and agencies have lead accountabilities.

(Examples include emergency management, natural disaster management, catchment management, flood prone land management, extractive industries, riparian zone, coastal zone, demand management activities}

The recommended list of legal documents for review and development is as follows:

Legislation To Be Reviewed

- Law on Water Resources, No. 8/1998/QH10, 20 May 1998
- Decree No. 179/1999/ND-CP, 30 December 1999, Stipulating the Implementation of the Law on Water Resources
- Decision of the Prime Minister on the Establishment of the National Water Resources Council, No. 67/2000/QD-TTg, 15 June 2000
- Regulation on the Organization and Operation of the National Water Resources Council, attached to Decision No. 67/2000/QD-TTg, 15 June 2000
- Decisions by the Minister of MARD on the Establishment of Planning Management Councils for the Cuu Long, Dong Nai and Red – Thai Binh River Basins, Nos. 37, 38 and 39/2001/QB/BNN/TCCB respectively

Legislation to be Developed

- Regulations on the operation of river basin planning management councils for Cuu Long, Dong Nai and Red – Thai Binh river basins
- Decree on administrative sanctions in the water resources field
- Decision on issuing, extending and withdrawing wastewater discharge permits
- Decision on issuing, extending and withdrawing surface water withdrawal licenses
- Decision on issuing licenses for survey and exploitation of groundwater

Other Legal Documents for Future Consideration

- Inter-ministry circular between MONRE and MOI on hydropower development planning
- Inter-ministry circular between MONRE and MARD on multi-purpose hydraulic works
- Regulation on dam safety
- Guidelines on improvement and updating of river basin and sub-basin planning on the basis of integrated exploitation and utilization of water resources
- Guidelines on priority river basins and their planning and management responsibilities
- Guidelines on disaster management
- Guidelines on exploitation and utilization of water resources of border rivers between Vietnam and China, Laos and Cambodia (as a basis for bilateral agreements)

Legal review and development, particularly the review of the LWR, should be assigned to an inter-ministry Task Force headed jointly by MONRE and MARD. This Task Force should consist of senior personnel with backgrounds in law, water resource management and general state management of resources and environment. The NWRC should also be fully involved in the legal review process, particularly in the development of rationale, principles and other key policy decision points.

7 International Assistance for Water Resource Management

7.1 Sectoral Approach

Many international donors are adopting a sectoral approach to water resources assistance. This represents a shift from short- and medium-term project-based activities to long-term program-based interventions at a number of levels in support of the water sector as a whole. To be effective this

sectoral approach will require the Government’s adoption of a water sector policy framework and strategy, identification of sectoral investment and capacity building priorities, and multi-donor commitment to sectoral budget support. In practice, assistance under a sectoral approach should adhere to a number of guidelines:

- Response to GoV priorities and achievement of policy objectives in a flexible manner – assistance should be directed to areas which are sectoral priorities in response to current and emerging needs
- Balance between capacity building and investment – overall strengthening of the water sector will require both capacity building for water resources management and investment to improve the delivery of public services in water-using sub-sectors. Some donors provide coordinated delivery of these two forms of assistance within their programs, while others achieve this balance by co-financing or other forms of partnership
- Other forms of balance and coordination – other considerations such as regional priorities, coordination between donors according to individual priorities and strengths, and balance between central and local support are also important.

At the present time Vietnam does not have a National Water Resources Strategy which would set out the Government’s priorities for water resource development and management and the priorities for international assistance. However, the National Water Resources Council has identified the need for a Strategy and should, itself, be the agency which leads its development. As preliminary steps toward the Strategy, a National Water Sector Profile is being prepared by ONWRC. The Profile will give a broad overview of the water sector and identify strengths and weaknesses. In addition, river basin profiles and identification of basin management needs are being carried out or planned in the Red – Thai Binh, Dong Nai and Cuu Long Delta. These will be important sources of information on priorities for Government and donor support.

7.2 Transfer of Water Sector Assistance Projects

A majority of the current water-related projects and funding under MARD are directed to investment priorities in irrigation, drainage, flood control and rural water supply and sanitation. However, there are also a number of projects with a more general water resource management focus and with capacity building objectives. It is recommended that the projects which focus primarily on water resource management and capacity building, should be transferred to MONRE. These projects or components recommended for transfer are shown in Table 4. Details of water-related projects in MARD are given in Appendix F.

Table 4. Projects for Transfer from MARD to MONRE

Project / Component	Objective	Examples of Related DWRM Activities	Recommendations and Comments
ADB Capacity Building for Water Resources Management Project			
Subproject 1. National Coordination for Water Resources Management	Support for NWRC and its Office, preparation of key documents for NWRC. Promotion of inter-ministry involvement and other stakeholder consultation. Promotion of IWRM awareness.	<ul style="list-style-type: none"> ▪ Policies and Strategies ▪ Corporate Planning 	Transfer this sub-project to MONRE. Functions of ONWRC will be taken over by appropriate units within DWRM
Subproject 3. Water Resource Management for	Support for the Dong Nai River Basin Planning Management Organization	<ul style="list-style-type: none"> ▪ Strategies and Plans ▪ Corporate 	Transfer to MONRE. DWRM should be responsible to support

the Dong Nai River Basin	(DNRBO) and preparation of key documents, planning tools and processes. Promotion of agency coordination and involvement of provinces and other basin-level stakeholders.	Planning	RBOs. Linkage with Dong Nai Environmental Committee should be strengthened.
ADB Second Red River Basin Sector Project			
Component A1. Capacity Building for the Red River Basin Organization	Support for the Red – Thai Binh River Basin Planning Management Organization (RRBO) and preparation of key documents, planning tools and processes. Promotion of agency coordination and involvement of provinces and other basin-level stakeholders.	<ul style="list-style-type: none"> ▪ Strategies and Plans ▪ Corporate Planning 	Transfer to MONRE. DWRM should be responsible for RBOs. Linkage with Cau River Basin Environmental Committee should be explored.
Component A2. Public Awareness and Education Programs	Public awareness and education programs for the Red – Thai Binh river basin	<ul style="list-style-type: none"> ▪ Education 	MARD, MONRE and ADB should determine objectives of this component (water resources or irrigation) and possible transfer to MONRE.
Component A3. Pilot Water Licensing System	Pilot water extraction and wastewater licensing in the Cau river basin.	<ul style="list-style-type: none"> ▪ Management of Water Rights 	Transfer to MONRE
Component A4. Water Quality Monitoring Network	Water quality monitoring in the Cau river basin and full Red – Thai Binh basin	<ul style="list-style-type: none"> ▪ Data Assembly and Coordination 	Transfer to MONRE
Vietnam – Australia Water Resources Management Assistance			
Component 1. Capacity Building in the National Water Resources Council	Training and awareness support for NWRC, its Office and other agencies assisting NWRC	<ul style="list-style-type: none"> ▪ Capacity Building – Training 	Transfer to MONRE. Focus on DWRM should be added.
Component 2. National Framework for Water Resources Information	Create a national water resources information management framework, including policy development and installation of IT equipment.	<ul style="list-style-type: none"> ▪ Policies and Strategies ▪ Data Assembly and Coordination 	Transfer to MONRE
Component 3. Development of a Coordination Mechanism for the Cuu Long Delta	Support for the Red – Thai Binh River Basin Planning Management Organization (RRBO) and preparation of key documents, planning tools and processes. Promotion of agency	<ul style="list-style-type: none"> ▪ Strategies and Plans ▪ Corporate Planning 	Transfer to MONRE. DWRM should be responsible for RBOs.

	coordination and involvement of provinces and other basin-level stakeholders.		
Danida Water Sector Program Support			
Component 1.1 Support for Implementation of the Law on Water Resources	Assist MARD to implement the Law on Water Resources, strengthen institutional framework, pilot testing of water resources licensing, and education and awareness.	<ul style="list-style-type: none"> ▪ Policies and Strategies ▪ Management of Water Rights ▪ Capacity Building – Training 	Transfer to MONRE. Balance of this project and future projects in this area should be focussed on support and other capacity building needs in MONRE.
- Component 3.1 Water Resources Management in the Srepok River Basin	Assist in establishing river basin organization, capacity building for RBO, preparation of basin plans, pilot implementation of	<ul style="list-style-type: none"> ▪ Strategies and Plans ▪ Corporate Planning 	Transfer to MONRE. DWRM should be responsible for RBOs.
- Component 3.2 Water Resources Management in the Ca River Basin	water resource management activities		

A few of these projects should be transferred quickly to MONRE and their terms of reference should be reviewed to ensure that, as much as possible, they provide timely support for the establishment and strengthening of DWRM. The projects which are recommended for immediate transfer are:

- ADB “National Coordination for Water Resources Management” (TA3528-Subproject 1) – reorient support to DWRM organizational strengthening and preparation of key outputs such as initial steps toward a National Water Sector Strategy
- AusAID “Capacity Building in the National Water Resources Council” (VWRMAP, Component 1) – reorient support to DWRM, assist in training needs assessment and preparation of a coordinated capacity building program
- AusAID “National Framework for Water Resources Information” (VWRMAP, Component 2) – continue support for establishment of national water resources data and information system
- Danida “Support for Implementation of the Law on Water Resources” (Water SPS, Component 1.1) – reorient support to DWRM organizational strengthening and preparation of water allocation licensing in conjunction with the upcoming ADB “Pilot Water Licensing System” (Second Red River Sector Project, Component A3).

Some projects listed in Table 4, such as Components A2, A3 and A4 of the ADB Second Red River Basin Sector Project have not started yet but would be expected to start under MONRE, rather than under MARD.

Agreement will need to be reached between MARD, MONRE and the respective donor agencies regarding the details of transfer, including i) establishing project management arrangements under MONRE, ii) ensuring that adequate counterpart staff are available, and iii) details of transfer of equipment and other assets. Project agreements between donors and Government will need to be redrafted and approved.

7.3 Donor Coordination

MONRE has indicated that it intends to fully activate the International Support Group which was set up under MOSTE for coordination of international assistance in the environmental sector. This ISG will also be expanded to cover land, water and minerals. Although details are not known at present, the MONRE ISG may be formulated along the lines of the MARD ISG and its “Thematic Ad-Hoc Groups” (TAGs), one of which focuses on water resources.

It is recommended that MONRE should proceed to activate and expand its ISG and to set up a sub-committee on water resources. The terms of reference for the equivalent bodies under MARD should be examined as possible models. MONRE and MARD and the donors which are involved in the water sector should discuss the coordination of these groups and their respective roles between MARD and MONRE.

It is recommended that the MARD TAG2 (committee on water resources) should focus on irrigation, drainage, flood control and possibly rural water supply, in line with the new direction for the ministry as a whole. Donors will be interested to have a coordination mechanism in this area to i) identify assistance priorities, ii) resolve project implementation issues, iii) dialogue with MARD on important policy issues such as financial sustainability, poverty reduction, etc, and iv) share information. MARD is currently reviewing the TOR of its ISG and TAGs, so this is a good opportunity to make this change of focus.

It is recommended that the MONRE ISG and water resource committee (which should be established under it) should focus on the broader water resource management issues which are in line with MONRE role. These issues will involve policy and strategy development, particularly with respect to broader, inter-ministry issues in the water sector. Institutional strengthening, identification of capacity building and awareness raising needs and new support projects in these areas will be of interests to MONRE and donor partners. Coordination between land, water and environmental aspects will also be important.

7.4 Future Capacity Building Needs

As indicated in Section 3.6, an emphasis on training will be needed to build up the capacity of DWRM to carry out its various functions. It is recommended that a training needs assessment (TNA) should be carried out once the initial recruitment of DWRM leaders and staff has been completed, and a training plan should be prepared, approved by MONRE and recommended to donors for their support. MONRE should discuss the possibility of adjusting or expanding the scope of the “Capacity Building in the National Water Resources Council” (VWRMAP, Component 1) to carry out this TNA and training plan development.

In addition to or as part of one or more of the existing capacity building projects, it is recommended that nominated international experts should be made available on a retainer basis to provide agreed levels of advise when sought by DWRM and approved by the donors at the local level. This could allow international experts to work with a local advisory committee at key points to support DWRM. Another option may be to seek a “twinning program” with one or more parallel water resource management agencies in other countries. This could be very helpful to allow DWRM to call on expertise at a variety of levels to assist with specific, practical problems. This could also form part of a training program, in which DWRM staff could be placed on temporary assignment in the parallel agency for on-the-job training and experience, providing useful support for acquiring skills for technical topics such as establishment of a water licensing system.

7.5 Assistance Strategy

The Government has taken steps to improve water resource management, including approval of the Law on Water Resources and some secondary legislation, official establishment of the National Water

Resources Council and some river basin planning management organizations, and the formation of MONRE. However overall progress has been slow and a great deal remains to be done to activate the reforms which have been started. Efforts should now be made to form strategies and plans such as :

- corporate plans for MONRE, DWRM, NWRC and RBOs
- a national water sector strategy and
- integrated river basin plans.

These strategies and plans should include specific targets (accomplishments, dates and assignment of responsibilities) which the Government supports. This will make it possible to work out more detailed work plans and resource requirements for the responsible agencies and for international assistance. Equally important, the endorsement of specific milestones in the sector will make it possible for performance to be objectively evaluated. Both Government and donors need these milestones to evaluate sector performance and, on that basis, to provide Government funding and donor assistance.

8 Recommendations

Table 5 gives a summary of the recommendations that have been presented in this report. It also indicates who should be responsible for each action and in which year the recommendation should be initiated.

Table 5 Summary of Recommendations

	Recommendation	Responsibility	Initiate in Year
Internal Organization			
1.	DWRM to adopt a Corporate Planning approach, incorporate program-based management	MONRE with donor assistance	2003
2.	DWRM to adopt recommended organizational structure: 5 bureaus, 2 centers and 2 offices organized into 3 functional groups	MONRE	2003
3.	Prepare and initiate implementation of a Change Management Strategy, including provision for: - job descriptions for all positions - recruitment strategy with guidelines to inform staff and staged timing of recruitments - use “outsourcing” policy for use of some external experts	DWRM DWRM DWRM	2003 2003 2003
4.	Carry out an audit or support systems for modelling, databases and water quality laboratories	DWRM with donor support	2004
5.	Establish a task force to prepare details for setting up DoNREs at provincial level	MONRE	2003
6.	Establish formal and informal coordination and cooperation mechanisms within MONRE	MONRE	2003
7.	Ministry of Finance to ensure adequate funds are transferred from MARD or otherwise provided to enable DWRM to undertake its full responsibilities.	Min of Finance, MONRE	2003
8.	Develop and initiate a work plan for DWRM units, focussing on priority outputs such as: - Review of LWR (see below) - National Water Sector Strategy - Training needs assessment and training and	MONRE, DWRM and donors	2003

	<p>awareness strategy for DWRM, NWRC and others</p> <ul style="list-style-type: none"> - Implementation of a water resources information management system - Development and pilot testing of surface and groundwater allocation licensing <p>Identify and utilize support from key ongoing or new projects</p>		
External Coordination and Institutional Strengthening			
9.	Establish formal and informal arrangements with MARD and other agencies	MONRE and DWRM	2003
10.	Transfer linkage with NWRC to MONRE, including Office of NWRC; activate NWRC	MONRE	2003
11.	Transfer a core water resources planning unit from IWRP to DWRM; transfer accountability and support for RBOs to DWRM and fully activate existing RBOs	MONRE and MARD	2003
12.	Review VNMC linkage to MONRE Chairmanship of VNMC should be transferred to MONRE	MONRE and VNMC	After 2004
13.	Staged transfer of appropriate donor-funded projects; review scope, objectives, timing, etc to optimize assistance to MONRE in establishing an effective DWRM and producing priority outputs	MARD, MONRE, donors	2003
14.	Broaden scope of MONRE International Support Group, establish water resources sub-committee, coordinate with parallel groups under MARD	MONRE, MARD, donors	2003
15.	Prepare corporate plans, national water sector strategy, river basin plans to define sector performance targets; monitor and report progress	MONRE, MARD, NWRC	2004
Legislation			
16.	<p>Review Law on Water Resources and other important legislation</p> <ul style="list-style-type: none"> - form Review Task Force (interministry membership with international assistance) - prepare rationale and principles and seek necessary authorization - initiate review 	<p>MONRE, MARD, NWRC, approval from National Assembly, assistance from donors</p> <p>Task Force, MONRE, NWRC</p>	<p>2003</p> <p>2004</p>
17.	Initiate preparation of new, priority legal documents	Task Force, MONRE, NWRC	2004

Appendix A

Letters of Agreement

letter from ADB

Letter from MONRE

Appendix B

Legal Documents:

Prime Minister's Decree 91/2002/ND-CP "Functions, Responsibilities, Authority and Organizational Structure of the Ministry of Natural Resources and Environment"

Decision of the Minister of Natural Resources and Environment No. 600/2003/QD-BTNMT "Functions, Responsibilities, Authority and Organizational Structure of the Water Resources Management Department"

Unofficial Translation

Government

Socialist Republic of Vietnam
Independence – Freedom - Happiness

Index No.
91/2002/ND-CP

Date: 11.11.2002

Government Decree

*Specifying the functions, responsibility, authority and the organizational structure of the
Ministry of Natural Resources and Environment*

The Government

- ◇ Pursuant to the Law of Government Organization dated 25.12.2001
- ◇ Pursuant to the Resolution No. 02/2002/HQ1 dated 05.8.2002 ratified by the National Assembly, Term XI, first meeting specifying the list of Ministries and ministerial level bodies under the Government.
- ◇ Pursuant to the Resolutions as a result of Government regular meeting in September 2002 No. Decree 11/2002/NQ-CP dated 4.10.2002.
- ◇ Pursuant to the Decree No. 86/2002/ND-CP dated 5.11.2002 by the government to specify the functions, responsibility and organizational structure of Ministries and ministerial level bodies.
- ◇ In reference to the proposal of the Minister of the Ministry of Natural Resources and Environment and the Minister of the Ministry of Domestic Affairs.

Now Issues the Decree

Article 1. Positions and functions

The Ministry of Natural Resources and Environment is a government body to exercise the state function of management over the land, water resources, minerals, environment, meteorology, hydrology, measuring and mapping in the national scope; exercise the governance over the public services and represent the owner of state capital in enterprises using state budgets relating to natural resources of land, water, minerals, environment, meteorology, hydrology, measuring and mapping in accordance with legal regulations.

Article 2. Tasks and authorities

The Ministry of Natural Resources and Environment is in charge of implementing the tasks and authorities specified in Decree No. 86/2002/ND-CP of the Government dated 05 November 2002 on functions, tasks, authorities and organization structure of the ministries, ministerial level bodies, and the following specific tasks and authorities:

1. Submit law, ordinance projects and other legal normative documents on land, water, mineral resources and environment, hydrometeorology, survey, and topography to the Government;

2. Submit development strategy, planning, long-term, 5 – year and annual plans on land, water, mineral resources and environment, hydrometeorology, survey, topography and other important constructions of the ministry itself to the Government;
3. Issue legal normative documents, standards, regulations, processes, economic-technical norms in its areas of management on land, water, mineral resources and environment, hydrometeorology, survey, and topography;
4. Organize and direct the implementation of the approved legal normative documents, strategies, planning, plans and the professional standards, regulations, processes, economic-technical norms; disseminate, propagandize, educate on the laws and information on land, water, mineral resources and environment, hydrometeorology, survey, and topography;
5. On land resources:
 - a) Formulate and submit the nationwide land-use plans and planning to the Government for consideration and to the National Assembly for approval.
 - b) Access land-use plans and planning of the provinces and centrally-governed cities and those for security and defence of the Ministry of Defence and Ministry of Public Security to submit to the Government for approval;
 - c) Submit the land allocation or restoration decisions, that are under the Government competent jurisdiction, to the Government for approval.
 - d) Direct the implementation of the survey, investigation, assessment, measurement, classification of land and set up cadastral topography; provide guidelines and analyze land statistical and inventory data, and to set up and manage the cadastral documents;
 - e) Uniformly manage the allocation, lease, restoration of land, the transfer of land-use rights, the changes of land-use purposes, and register and issue land-use right certificates.
 - f) Guide the provincial, centrally-governed city people’s committees in issuing land-use right certificates according to the regulations of the laws;
 - g) Inspect the provincial, centrally-governed city people’s committees in determining land price according to the land price frame and principles and approaches regulated by the Government in determining prices of different types of land.
6. On water resources
 - a) Submit to the Government for approval of the assignment and devolvement in implementing the basic surveys and the authority to license, revoke of the issued licenses on water resources; and direct and supervise the implementation thereof upon approval;
 - b) Summarize the data, manage the results of the basic surveys, inventory, assess water resources and establish database on water resources;
 - c) Regulate, direct and supervise the implementation of the measures used for the protection of water resources;
 - d) Accommodate the National Council on Water Resources.
7. On mineral resources
 - a) Submit the assignment and devolvement in implementing the basic geological surveys on mineral resources; set up the national geology topography to the Government for approval; regulate and announce areas where the mineral activities are prohibited or temporarily prohibited, restricted or subject for tendering; direct and supervise the implementation thereof upon approval;
 - b) Submit the regulation on authority to license, extend and restore licenses for conducting mineral activities and the procedures thereof and for permitting the returning license for conducting mineral activities, the transferring and leaving the estate the rights to conduct mineral activities, register the mineral activities to the Government for approval;
 - c) Identify the areas where there are minerals that have not yet been explored; circle areas where there are toxic minerals; appraise and approve within the assigned jurisdiction

- reports and proposals on basic surveys on mineral resources, investigate, prospect in mineral activities;
 - d) Regulate, direct and supervise the implementation of measures for the protection of mineral resources;
 - e) Analyze data, manage the results of basic geology surveys on mineral resources, investigate, prospect mineral resources; calculate, inventory and assess the quality and quantity of mineral resources; maintain, manage the materials, samples and state secrets of data and information on geology and mineral resources;
 - f) Accommodate the Standing State Council on mineral resources reserve evaluation.
8. On environment
- a) Direct and supervise the implementation of the regulations and measures for the protection of the environment, the programs and projects on the prevention of, combat, and overcoming the degradation and pollution, environmental break-down as assigned by the Government;
 - b) Uniformly manage the national environmental monitoring system; summarize and treat the environmental monitored data and regularly assess the environment, forecast the environmental changes;
 - c) Appraise environmental-impact assessment reports of the projects and business, production units; regulate environmental standards and uniformly manage the licensing, revoking the environmental standards-satisfied certificates according to the regulations of the laws;
 - d) Mobilize the donor resources, receive the investment capital from the State to support programs, projects, activities, and tasks to protect the environment and manage the utilization of Vietnam Environmental Protection Fund.
9. On hydrometeorology
- a) Direct and organize the implementation of the basic surveys on hydrometeorology; collect and assess elements and materials on hydrometeorology; treat and supply the information, materials and hydrometeorology forecasts;
 - b) Appraise the hydrometeorology technical standards with respect to the infrastructure construction, rehabilitation, upgrading, expanding projects on hydrometeorology constructions or works; organize the registration, license and revoke of licenses for operation of the hydrometeorology works according to the regulations of the laws.
10. On survey and topography
- a) Uniformly manage the survey and topography activities; manage the basic survey and topography, the map on national border and administrative territories; manage the place-names system on map, national reference system, national survey original data system, nationwide local survey units system, professional and basic aerial system; issue and revoke licenses for the operation of the survey and topography activities according to the regulations of the laws;
 - b) Establish, adjust, publish and distribute types of basic topographical maps, base maps, administrative maps, manage the supply of information, materials and State secrets on the information and materials system on survey and topography.
11. Appraise and supervise the implementation of investment projects on land, water, mineral resources and environment, hydrometeorology, survey, and topography according to the regulations of the laws;
12. Carry out the international cooperation in the areas of land, water, mineral resources and environment, hydrometeorology, survey, and topography according to the regulations of the laws;

13. Organize and direct the implementation of the scientific research plans and the application of advanced scientific and technological achievements in the areas of land, water, mineral resources and environment, hydrometeorology, survey, and topography;
14. Decide specific policies and measures and direct the implementation of operation mechanism of the organizations providing public services in the areas of land, water, mineral resources and environment, hydrometeorology, survey, and topography; manage and direct the operation of the professional affiliates belonging to the Ministry;
15. Implement specific tasks, authorities as of the ownership representative with respect to the part of the State capital in enterprises under the management of the Ministry according to the regulations of the laws in the areas of land, water, mineral resources and environment, hydrometeorology, survey, and topography;
16. To carry out the State management on the activities of the social associations and non-governmental organizations in the areas of land, water, mineral resources and environment, hydrometeorology, survey, and topography according to the regulations of the laws;
17. Inspect, supervise, settle of claims and denouncements, combat corruption and bureaucracy and treat infringements of the laws on land, water, mineral resources and environment, hydrometeorology, survey, and topography within its assigned authorities;
18. Decide and direct the implementation of the administrative reform program of the Ministry according to the objectives and contents of the State Administrative Reform Program approved by the prime Minister;
19. Manage the organizational structure and staff; direct the implementation of the salary system and other beneficiaries on favourable treatments, reward and punishment with respect to its staff, cadres, officials; educate and train on professional skills and knowledge with respect to its staff, cadres, officials in the areas of land, water, mineral resources and environment, hydrometeorology, survey, and topography;
20. Manage the finance, and assigned properties and organize the implementation of the allocated budget according to the regulations of the laws.

Article 3. Organizational structure of the Ministry

a) Institutions designed to support the Minister in executing the state management function:

1. Department of Land
2. Department of Land Registration and Inventory
3. Department of Environment
4. Environment Impact Assessment and Appraisal
5. Department of Meteorology & Hydrology
6. Department of Science and Technology
7. Department of Planning- Financing
8. Department of International Cooperation
9. Department of Legislation
10. Department of Personnel Organization
11. Bureau of Water Resources Management
12. Bureau of Geology and Minerals of Vietnam
13. Bureau of Environment Protection
14. Bureau of Measuring and Mapping
15. Inspection
16. Administration Office

b. Other professional organizations under the Ministry

1. National Center of Meteorology & Hydrology
2. Center of Land Survey and Planning
3. Center of Remote Sensing
4. Center of Information
5. Natural Resources & Environment Journal
6. Natural Resources & Environment Newspaper

The Minister of Natural Resources & Environment Ministry shall take initiative and coordination with the Minister of Ministry of Domestic Affairs to arrange the options for organizational set-up for the following institutes: Institute of Geology and Minerals of Vietnam, the Institute of Science of Cadastre, the Institute of Science of Meteorology and Hydrology and the existing training schools that belonging to General Bureau of Cadastre, General Bureau of Meteorology and Hydrology to submit to the Prime Minister for decision .

Article 4. Term of execution

This decree is valid for execution since the date of signing.

The Decree No. 34/CP dated 23.4.1994 issued by the Government on functions, responsibilities and authorized powers of the mechanism of General Bureau of Cadastre, and Decree No. 62/CP dated 11.7.1994 issued by the Government on functions, responsibilities and authorized powers of the mechanism of General Bureau of Meteorology and Hydrology and other previous regulations that are contradictable to this Decree, shall be abolished.

Article 5. Execution duty

The minister of Ministry of Natural Resources and Environment, Ministers, the Heads of Ministerial Equivalent Organizations, the Heads of Governmental Offices and the Chairmen of People Committees of provinces and centrally-governed cities have a duty to execute this Decree.

On behalf of the Government
The Prime Minister

(Signed and stamped)

Phan Van Khai

Unofficial Translation

**Ministry of Natural Resources
& Environment**

Socialist Republic of Vietnam
Independent - Freedom – Happiness

No: 600 /2003/QD-BTNMT

Hanoi, 8 May 2003

Decision of Minister of Ministry of Natural Resources & Environment

*on functions, responsibilities, power and organization structure of Water Resources
Management Department.*

Minister of Ministry of Natural Resources & Environment

Pursuant to Government's Decree No 91/2002/ND-CP dated November 11, 2002 defining on functions, responsibilities, power and organization structure of Ministry of Natural Resources & Environment.

Considering proposals of Director of Department of Personnel Organization, Director of Water Resources Management Department.

DECIDES:

Article 1: Position and function

Water Resources Management Department is an agency of Ministry of Natural Resources & Environment, which have the function to assist Minister in implementing state management on water resources including rain water, surface water, groundwater, sea water in river basins, in land and sea territory of the Socialist Republic of Vietnam.

Article 2: Powers and Responsibilities

1. Develop legal documents, policies, strategy, planning, long-term, 5-year, annual plans, programs, objectives on water resources protection, exploitation, utilization and development; monitor and check the implementation after being approved by the authorized agency;

2. Develop and submit the minister process and norm, standard, technical-economic norms on water resources management as assigned by MONRE. Steer and check the implementation after being approved by the Minister.
3. Submit to Minister to define assignment and arrangement for basic investigation on water resources; arrange and monitor the implementation after being approved by the authorized agency;
4. Develop and submit (to Minister) for approval measures to protect against water sources deterioration and pollution, measures for rehabilitation of water resources in river basins, reservoirs, aquifers to ensure the reasonability, safety and sustainability in exploitation, utilization of water resources; Monitor and check the implementation after being approved by the Minister.
5. Coordinate with related agencies within MONRE, other ministries, agencies and provinces in the protection against adverse effects caused by water.
6. Compile data, manage basic investigation results, water resources inventory and assessment; develop national water resources database and system for information exchange as assigned by MONRE.
7. Submit to Minister to define authority and procedures to grant, extend, withdraw and turn back licenses on survey, exploration, exploitation and use of water resources, and waste water discharge permits; arrange, steer and monitor the implementation after being approved.
8. Appraise projects and works on areas of water resources basic investigation, planning, plans and projects specialized on integrated water resources protection, exploitation, utilization and development as assigned by MONRE; monitor the implementation after being approved;
9. Submit the Minister to define specific orientations, measures and operational mechanism for public service agencies on water resources; steer and monitor the implementation as assigned by MONRE;
10. Steer and guide on expertise and techniques on water resources management for water resources state management agencies at provincial and lower levels;
11. Conduct international cooperation in water resources areas as assigned by MONRE;
12. Implement programs, projects and researches; apply advanced science and technologies; train and improve skills on water resources management as assigned by MONRE.

13. Conduct public awareness improvement, propaganda and dissemination of Law on water resources; answer organizations and individuals on water resources policies and legislation as assigned by MONRE;
14. Keep relations with associations, non-government organizations; monitor and report to Minister on activities of associations and NGOs in water resources areas;
15. Conduct the functions of Office of National Water Resources Council;
16. Check and coordinate with Ministry's Inspections to inspect and deal with claims and disputes on water resources as assigned by MONRE;
17. Manage and effectively use financial sources and other property assigned by the State; conduct the responsibilities to manage financial and accounting of agencies under the Department according to current regulations;
18. Manage and organize personnel, labor, property; conduct training and expertise improvement for staff as assigned;
19. Make inventory and periodical and irregular reports on the implementation of assigned tasks;
20. Conduct other tasks as assigned by the Minister.

Article 3: Institutional arrangement

- a. A director and vice directors are leaders of the Department of Water Resources Management. The director is responsible to MONRE Minister on assigned tasks; on the setting up of functions, concrete missions for units under the management of the Department, on regulations for the Department's operation, and handle Department's activities;

Vice Directors are responsible to the Director on assigned tasks.

- b. Assisting units:
 1. Office;
 2. Bureau of Planning and Policy;
 3. Bureau of Water Resources Survey Management
 4. Bureau of Surface Water Management;
 5. Bureau of Groundwater Management;
 6. Bureau of Water Resources Protection;

7. Bureau of Training and Awareness Improvement
- c. Non-productive agencies under the Department:
 1. Center for Water Resources Technology and Assessment;
 2. Center for Water Resources Data management;
- d. Department of Water Resources Management, Centers under the Department have their own stamps, and have the right to open accounts pursuant to current regulations.

Article 4: Effectiveness and implementation.

This decision will come into effect 15 days after published on Official Gazette.

Director of Personnel Organization Department, Director of Water Resources Management Department, heads of other agencies under MONRE have responsibility to implement this decision.

**Minister
Ministry of Natural Resources
and Environment**

Mai Ai Truc

Appendix C

Functions And Responsibilities Of Units Under the Department Of Water Resources Management Proposed By MONRE

Task Force Recommendation of Lead Accountabilities for Proposed Department of Water Resources Management Functions

Sample Job Descriptions

Table 6 FUNCTIONS AND RESPONSIBILITIES OF UNITS UNDER THE DEPARTMENT OF WATER RESOURCES MANAGEMENT PROPOSED BY MONRE

<p>Department Office</p> <ol style="list-style-type: none"> 1. Compile and develop plan for Department's operation, regulate the operation according to approved plan 2. Conduct international cooperation, external collaboration, science and technology 3. Conduct administration work; manage personnel, finance and accounting manage possession of the Department 4. Develop regulations, regulate specialized activities of the Department 5. Coordinate with MONRE's Office in propagating the Law on WR keep relationship with NGOs; report Minister on activities of NGOs 6. Make periodical and irregular reports on Department's activities 7. Coordinate and facilitate the implementation of projects
<p>Bureau of Planning and Policy</p> <ol style="list-style-type: none"> 1. Develop legal documents, policies, strategy, planning, long-term, 5-year, annual plans, programs, objectives on water resources; submit to Minister and organize to implement after being approved.. 2. Participate in the development of National water resources strategy 3. Develop and submit the minister process and norm, standard, technical-economic norms on water resources management 4. Monitor, manage and coordinate planning activities of related agencies under MONRE 5. Organize the development of river basin planning 6. Manage and coordinate to develop master plan, specialized plans of the ministries, agencies and provinces; monitor the implementation 7. Assist NWRC activities 8. Assist RBOs activities; advise and assist in the management of river basins and administrative areas 9. Coordinate in the monitoring the operation and management of multi-purpose hydraulic works and monitor flood control and protection against adverse effects caused by water. 10. Guide and steer planning development and management 11. Implement projects, programs, conduct researches and international cooperation on water resources as assigned by the Department
<p>Bureau Of Water Resources Basic Investigation Management</p> <ol style="list-style-type: none"> 1. Monitor and inspect the implementation of assigned tasks of basic investigation, license for water resources investigation, survey and assessment. 2. Monitor, manage and coordinate activities on basic investigation of related agencies in MONRE; 3. Manage and coordinate activities on water resources investigation in ministries, agencies; monitor and check the implementation 4. Appraise projects and constructions on water resources basic investigation 5. Coordinate to develop legal documents on water resources 6. Coordinate to monitor the management and operation of works for integrated water resources exploitation and utilization 7. Coordinate to monitor and check the protection against adverse effects caused by water 8. Guide and steer the professional management on water resources investigation 9. Implement projects, programs, researches and international cooperation on water resources as assigned by the Department

<p>Bureau of Surface Water Management</p> <ol style="list-style-type: none"> 1. Manage all activities on surface water (rain, evaporation, humidity, flow, reservoirs, multi-purpose hydraulic works system, sea water, etc.) including water resources assessment, water source, activities on water resources exploitation, utilization (both quality and quantity) of ministries, agencies and provinces; 2. Manage the regulation and allocation of surface water; 3. Monitor and advise on the coordination with ministries and agencies which manage and operate big reservoirs, multi purpose hydraulic works systems; 4. Monitor and advise on the coordination with ministries and agencies to protect against adverse effects caused by water; 5. Issue licenses and manage licensing on surface water survey, exploitation and utilization; 6. Coordinate to develop legal documents on water resources 7. Guide and steer the professional management on surface water 8. Implement projects, programs, conduct researches and international cooperation on water resources as assigned by the Department.
<p>Bureau of Groundwater Management</p> <ol style="list-style-type: none"> 1. Manage all activities on ground water (groundwater, aquifer, karst, multi-purpose groundwater works systems, etc.) including reserve assessment, activities on exploitation and utilization (both quality and quantity) of ministries, agencies and provinces; 2. Manage the regulation and allocation of groundwater 3. Issue licenses and manage licensing on groundwater survey, exploitation and utilization 4. Coordinate to develop legal documents on water resources; 5. Guide and steer the professional management on groundwater 6. Implement projects, programs, conduct researches and international cooperation on water resources as assigned by the Department.
<p>Bureau of Water Resources Protection</p> <ol style="list-style-type: none"> 1. Regulate, steer and monitor the implementation of protection measures against water resources deterioration, drainage and pollution, the rehabilitation of water resources in river basins and water bodies; to ensure the safety and sustainability in exploitation and utilization of water resources; 2. Manage construction and non-construction measures on protection against water resources deterioration and drainage both in quality and quantity 3. Manage construction and non-construction measures on protection against water resources deterioration and drainage both in quality and quantity 4. Manage waste water discharge into water source 5. Monitor and manage the implementation of measures for water resources protection and minimize disadvantage effects of the exploitation and utilization to water environment 6. Ensure water resources safety and protect water resources development potentials coordinate to develop legal documents on water resources 7. Guide and steer the professional tasks on water resources protection 8. Implement projects, programs, conduct researches and international cooperation on water resources as assigned by the Department
<p>Center for Water Resources Technology and Assessment</p> <p>The Center is to provide services on requests of organizations and individuals within and outside MONRE</p> <ol style="list-style-type: none"> 1. Assess impact, feasibility, strengths and weaknesses of legal documents on water resources implemented; propose projects for development and amendment of legal documents; 2. Assess the condition of river basin planning, water resources development master plans; participate in the development, accomplishment of river basin planning, water resources development master plans 3. Coordinate with related agencies under MONRE, other ministries, agencies and provinces in

<p>monitoring, inventory and assessment of water resources;</p> <ol style="list-style-type: none"> 4. Apply measures, models and technology for the management of water resources, river basins and administrative areas 5. Technical advice in the management and operation of multi purpose hydraulic works, protection against adverse effects caused by water 6. Develop scientific basis for drafting legal documents, processes, standards and norms on water resources 7. Evaluate water resources, potential and exploited water source (both quality and quantity); 8. Evaluate regulation for water resources variation, impact of socio-economic development, climate and environment change on water resources and other adverse effects caused by water 9. Participate in training consulting and capacity building on water resources for individuals and organizations on request 10. Implement projects programs and other tasks as assigned by the department
Center for Water Resources Data Management
<p>The Center will compile, develop and exploit data bases on water resources to support the Department's management tasks and on the request of individuals and organizations</p> <ol style="list-style-type: none"> 1. Manage the compile and development of water resources data in ministries, agencies and provinces; 2. Develop water resources information system in MONRE, giving guidance on the development of water resources databank in river basins and provinces 3. Develop system for the exchange, compiling and exploitation of water resources information (both quality and quantity);

Table 7 Assignment of Lead Roles for Proposed Functional Areas

Program	Primary Lead	Primary Support	Secondary Advisory	Contract Services
Policy And Strategy Development				
Water Resource Strategic Planning and Legislation	Bureau of Planning and Policy		All Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Water Resource Assessment and Information Management	Bureau of Planning and Policy	Bureau of Basic Investigation Management	All Other Technical Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Regulatory Management	Bureau of Planning and Policy	Bureau of Surface Water Management Bureau of Groundwater Management Bureau of Water Resources Protection	All Other Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Organizational Strengthening and Coordination	Bureau of Planning and Policy	Department Office	All Other Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Water Resource Strategic Planning and Legislation				
IWRM-Strategies and Plans	Bureau of Planning and Policy		All Technical Units	Centre for Water Resources Technology and Assessment

Corporate Management- Corporate Planning	Bureau of Planning and Policy	All Units		
IWRM -Legislation	Bureau of Planning and Policy		All Units	
IWRM-Research	Bureau of Planning and Policy		All Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Water Resource Assessment and Information Management				
Water Resources Information Management	Bureau of Basic Investigation Management		All Other Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Water Resources Assessment	Bureau of Surface Water Management Bureau of Groundwater Management	Bureau of Planning and Policy	All Other Technical Units	Centre for Water Resources Technology and Assessment
Regulatory Management				
Rights Management - Exploitation and Utilization of Water Sources	Bureau of Surface Water Management Bureau of Groundwater Management	Bureau of Water Resources Protection	All Other Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Rights Management – Waste Water Discharge	Bureau of Water Resources Protection	Bureau of Surface Water Management Bureau of Groundwater Management	All Other Units	Centre for Water Resources Technology And Assessment Centre for Water Resources Data Management
Regulation of Major Hydraulic Works, Dam Safety	Bureau of Surface Water Management	All Other Technical Units	Office	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Organizational Strengthening and Coordination				
Corporate Management- Administration	Department Office	All Units		
Corporate Management - Capacity Building	Department Office	All Units		
Organizational Coordination and Cooperation	Department Office	Bureau of Planning and Policy	All Other Technical Units	Centre for Water Resources Technology and Assessment Centre for Water Resources Data Management
Training and Awareness	Training and Awareness Improvement Bureau	All Other Units		

Table 8 Sample Job Descriptions

Ministry of Natural Resources and Environment		<i>Comments</i>
Department of Water Resources Management		
Position Details		
<ul style="list-style-type: none"> • Location • Bureau • Title • Seniority Level • Primary Role 	<p>Hanoi</p> <p>Planning and Policy</p> <p>Planning and Policy Officer</p> <p>Level 4 under the Head of the Bureau</p> <p>To assist the Head of the Bureau develop policies and strategies and plans for a range of water resource management.</p>	<i>Included to provide management outline of position</i>
Attributes and Competencies		
• Qualification	University Degree at a minimum of graduate level at a recognized University in a professional field relating to water resources management or in a related field	<i>Minimum must be stated not maximum</i>
• Demonstrated Experience	Three years minimum experience undertaking development of policy or undertaking planning within an organization involved in water resources or other natural resource management or in one involved in establishing policy or strategic planning	<i>Basic level of experience must be included</i>
• Knowledge	Understanding but not necessarily expert knowledge of WRL in Viet Nam; the hydrologic behaviour parameter of the Red River Basin	<i>Statement depends on position level in Bureau</i>
• Personal Attributes	Able to work in a team; Displays initiative; lateral thinker; Good report writing; Capable of working with minimum oversight	<i>List the important characteristics wanted</i>
Scope of Tasks		
1	To assist in implementing , monitoring and reviewing the Pilot Licensing scheme in the Red River Basin;	<i>List the KEY tasks , not all and at the upper level of responsibility.</i> <i>Get the “action” verbs right-here it is ‘Assist”</i>
2	To assist in the review of the national licensing policy framework for exploitation and utilization of surface water;	
3	To assist in the running of workshops in explaining the outcomes of the framework review and the policy applications to the Viet Nam water sector.	

Ministry of Natural Resources and Environment		<i>Comment</i>
Department of Water Resources Management		
Position Details		
<ul style="list-style-type: none"> • Location • Bureau • Title • Seniority Level • Primary role 	<p>Hanoi Planning and Policy Head Planning and Policy Bureau Level 3 Manager To assist the Deputy Director “(Title)” develop policies and strategies and plans for a range of water resource management</p>	<i>Included to provide management outline of position</i>
Attributes and Competencies		
<ul style="list-style-type: none"> • Qualification • Demonstrated Experience • Knowledge • Personal Attributes 	<p>University Degree at a minimum of graduate level at a recognized University in a professional field relating to water resources management or in a related field</p> <p>Ten years minimum experience undertaking development of policy or undertaking planning within an organization involved in water resources or other natural resource management or in one involved in establishing policy or strategic planning. Leadership and management- Technical and professional competency in public policy and planning. Good performance record -Dispute Resolution-Management –Coordination-Networking Abilities</p> <p>Expert knowledge of WRL in Viet Nam; the hydrologic behaviour parameter of surface and groundwater sources in Viet Nam; IWRM; Viet Nam Laws-Viet Nam Water Sector-Viet Nam Governance Arrangements-National Policy Directions-International Water Management Trends An understanding of governance arrangements-in Viet Nam; of national policy directions and international water management trends</p> <p>Team leadership; Displays initiative; Lateral thinker; Proactive. Strategic outlook Negotiation-Facilitation-Communication-Responsive- Fluent English-Dedicated-Energetic</p>	<p><i>Minimum must be stated not maximum</i> <i>Basic level of experience must be included</i></p> <p><i>Statement depends on position level in Bureau</i></p> <p><i>List the important characteristics wanted</i></p>
Scope of Tasks		
<ol style="list-style-type: none"> 1 To manage and administer the Bureau of Planning and Policy. 2 To provide professional advice and reports to the Deputy Director in a timely manner and of high quality. 3 To represent the Ministry and the department on committees, task forces etc relating to water resource management 4 To assist the deputy Director ensure the level of coordination across the DWRM in water resources policy and planning activities is high 		<p><i>List the KEY tasks , not all and at the upper level of responsibility.</i></p> <p><i>Get the “action” verbs right-here it is ‘Assist’</i></p>

Appendix D

Unit Staffing Levels and Attributes

Table 9 Estimated Staffing Levels, 2003 - 04

DWRM UNIT /Level	POSITIONS	No.	COMMENT
EXECUTIVE GROUP			
Director's Office Deputy Directors	Director	1	
	Executive Assistant	1	Located in the Admin Office
	Admin Assist (Driver)	1	
	Planning and Regulation	1	
	Technical Services	1	
Total Executive Group		5	
PLANNING AND REGULATION GROUP			
Bureau Planning and Policy	Head	1	Manager
	Professional & Technical	2	Mix of qualified, multi-discipline professionals / technical staff
	Support staff	0	General Bureau admin assistance
Bureau of Surface Water Management	Head	1	Manager
	Professional & Technical	2	
Bureau of Groundwater Management	Head	1	Manager
	Professional & Technical	2	Groundwater and regulatory expertise
Bureau of Resource Protection	Head	1	Manager
	Professional & Technical	2	
Total for Planning and Regulation Group		12	
TECHNICAL SERVICES			
Bureau of Basic Water Resources Investigation Management	Head	1	Manager
	Professional & Technical	3	
Center of Technology and Assessment	Head	1	
	Professional & Technical	2	
Center of Data Management	Head	1	
	Professional & Technical	3	
Total for Technical Service Group		11	
CORPORATE SUPPORT GROUP			
Corporate Office	Head	1	Manager
	Administrative	1	
Training and Awareness Improvement	Head	1	
	Professional & Technical	1	
Total for Corporate Support Group		4	
Total DWRM		32	

Table 10 Estimated Staffing Levels in 2 to 3 Years

DWRM UNIT /Level	POSITIONS	No	COMMENT
Executive Group			
Director's Office Deputy Directors	Director	1	
	Executive Assistant	1	Located in the Admin Office
	Admin Assist (Driver)	1	
	Planning and Regulation	1	
	Technical Services	1	
Planning and Regulation Group			
Bureau Planning and Policy	Head	1	Manager
	Professional & Technical	9	Mix of qualified, multi-discipline professionals / technical staff
	Support staff	1	General Bureau admin assistance
Bureau of Surface Water Management	Head	1	Manager
	Professional & Technical	4	Surface water hydrology
Bureau of Groundwater Management	Head	1	Manager
	Professional & Technical	4	Groundwater and regulatory expertise
Bureau of Resource Protection	Head	1	Manager
	Professional & Technical	4	Database and data management
Total for Planning and Regulation Group		26	
Technical Services			
Bureau of Basic Water Resources Investigation Management	Head	1	Manager
	Professional & Technical	6	
Center of Technology and Assessment	Head	1	Manager
	Professional & Technical	6	
Center of Data Management	Head	1	Manager
	Professional & Technical	6	
Total for Technical Services Group		21	
Corporate Support Group			
Corporate Office	Head	1	Manager
	Administrative	3	
Training and Awareness Improvement	Head	1	Manager
	Professional & Technical	2	Experience in communication
Total for Corporate Support Group		7	
Total DWRM		59	

Table 11 Unit Attributes

Bureau of Planning and Policy	
Multidisciplinary team with a mix of water professionals (hydrology, hydrogeology, water environment, water quality, data management) and policy areas (social, economic, etc) Preferable if water professionals are experienced in water management (IWRM) but policy personnel should be drawn from other fields. Capacity building in policy development will be essential.	
Professional Focus and Experience	<ul style="list-style-type: none"> ▪ Planning and policies for surface and groundwater management (requires mix of personnel with varying experience levels and exposure. Officers with actual operational experience are useful to bring realism. IWRM planning experience is also valuable. ▪ Need to ensure central policies align with provincial needs. Coordination and experience with provinces in other areas is desirable. ▪ Development of organizational as well as IWRM policies. Need some experience in administrative and corporate planning (if available) ▪ Experience in model interpretation will be important ▪ Experience in teams is valuable
Knowledge	<ul style="list-style-type: none"> ▪ Understanding at various levels of Vietnam laws on natural resources, Vietnam’s water sources and their importance and governance arrangements in institutional management. How Vietnam applies IWRM priorities. Trends in IWRM and national policy directions and linkages to IWRM activities
Personal Attributes	<ul style="list-style-type: none"> ▪ Computer competency ▪ Works well in teams ▪ Reasonable or fluent English ▪ Strategic outlook ▪ Self-driven and motivated ▪ Ambitious
Bureau of Basic Investigation Management (BBIM) and Center for Water Resources Data Management (CWRDM)	
Initially it should be recognized that the Bureau is not the “doer” in water management – that role would be delegated by BBIM to CWRDM. Nevertheless, BBIM retains the mandatory responsibility for assigning the priorities and direction to the work which is undertaken. CWRDM with their expertise would determine how to do its tasks and assist BBIM in planning.	
BBIM Professional Focus	<ul style="list-style-type: none"> ▪ Direction in establishing the norms and standards (setting quality control and overall policy directions in water resource data management in DWRM). Experience in actual data management operations is essential. ▪ Be the “coordinator” in the proposed Custodian Model arrangements under consideration in Vietnam. Coordination experience is valuable.
CWRDM Professional Focus	<ul style="list-style-type: none"> ▪ Undertake the actual data management operational roles for DWRM programs. This requires focus on the database systems, information technology, metadata management. Experience in modern data management priorities, systems and hardware for both text and spatial data sets is essential. ▪ Both BBIM and CWRDM need project management and contract management experience.
BBIM Knowledge	<ul style="list-style-type: none"> ▪ Current arrangements applying in Vietnam regarding data management and trends ▪ Understanding of the value of data and data user’s needs ▪ Modern trends in water resources data management (for example, “e-Government)
CWRDM Knowledge	<ul style="list-style-type: none"> ▪ Trends in data management practices, systems, hardware ▪ Data systems availability in Vietnam ▪ Good awareness of information technology applications in other fields and applicability potential

	<ul style="list-style-type: none"> ▪ Customers needs for water resources data and extent of customer base
BBIM Personal Attributes	<ul style="list-style-type: none"> ▪ Must have skill to bring people together, good coordination and negotiation skills ▪ Ability to communicate (spoken and written) ▪ Proactive and responsive
CWRDM Personal Attributes	<ul style="list-style-type: none"> ▪ Attention to detail ▪ Good skills in integration of component parts in programs (assemble, compile, archive, distributive actions involved) ▪ High computer competency ▪ Technical rather than management orientation
Bureau of Surface Water Management, Bureau of Groundwater Management, Bureau of Resource Protection	
All three bureaus will have similar responsibilities, so overall the staff attributes have a degree of similarity. Their roles are in assessment, allocation and regulatory management of water sources.	
Professional Focus and Experience	<ul style="list-style-type: none"> ▪ Backgrounds in hydrology, hydrogeology, water quality and water-related environmental science is essential. These units will with the Centers be more “expert based” than the BBIM and BP&P. ▪ River basin planning and IWRM backgrounds would be valuable. An important aspect of professional focus is experience in interpretation of modelling outcomes of river systems (not flood hydrology). These units will require good capability to be able to design computer outputs (not the model itself) required to meet their needs for assessment and allocation purposes. This is a skill not well developed in Vietnam or other countries as it is experience-based (therefore a key capacity building need in Vietnam) ▪ As Vietnam has limited regulatory provisions, experience would be an attribute which will be difficult to obtain. The attribute will therefore need to be in knowledge areas.
Knowledge	<ul style="list-style-type: none"> ▪ Vietnam law in natural resource management with a focus on water essential ▪ Understanding of Vietnam water sources, scope, behaviour and problems ▪ Awareness of the need for integration of assessments, allocation and regulation at the basin level ▪ Some awareness of the institutional coordination requirements peculiar to Vietnam.
Personal Attributes	<ul style="list-style-type: none"> ▪ Persistent and patient approach ▪ Good communication with provinces, water users and others ▪ Reasonable English fluency since much of the new arrangements for regulations will be established on a new regulatory framework
Center for Water Resources Technology and Assessment	
This is a technical service unit under the same basic management approach as the CWRDM. It will have responsibility for the significant modelling work. The models which will be used cover surface water, groundwater and water quality. While much of Vietnam’s future needs will focus on integration of surface water and groundwater exploitation and protection, it will be important initially to get the “individual” models up and running before attempting greater sophistication. The Center should not have mandatory responsibility for assessments, allocation, etc. It provides the technical inputs (model results) and interpretation for the bureaus responsible for surface water, groundwater and resource protection.	
Professional Focus and Experience	<ul style="list-style-type: none"> ▪ Provision of high level professional advice on the modelling approach to be used, having regard to guidelines established by the surface, groundwater and resource protection bureaus as to the outcomes being sought ▪ Modelling of new systems to enable acceptable (staged) assessments of water availability and security levels for use options ▪ Advise al bureaus on trends in IWRM and meet the requirements specified in Decision 600. This advice must first be sought by the bureaus
Knowledge	<ul style="list-style-type: none"> ▪ Full range of IWRM issues now and emerging in Vietnam

	<ul style="list-style-type: none">▪ Similar to Bureau of Planning and Policy
Personal Attributes	<ul style="list-style-type: none">▪ Commercial ethic▪ Responsive▪ Proactive▪ Reasonable fluency in English▪ Computer competency

Appendix E

2003 – 2006 Draft Action Plan for DWRM

Table 12 Draft Action Plan, 2003 - 2006

Program	Activity	Tasks	2003	2004	2005	2006
Function 1. Policy and Strategy Development						
Water Resource Strategic Planning and Legislation	Policies and Strategies	1. Develop and implement management and process application guidelines for standards and norms for surface water resource management, with emphasis on IWRM and organizational management		■		
		2. Develop policy framework for the National Water Resource Strategy		■	■	
		3. Participate in the development of a framework for a Water Pricing Policy for exploitation and use of surface and groundwater			■	■
Water Resource Assessment and Information Management	Water Resource Status	4. Develop and implement a framework for assessment of the status and sustainability of water resource sources and for an audit of water exploitation and utilization of surface and groundwater			■	■
	Data Assembly and Coordination	5. Develop and implement a water resource data and information strategy		■	■	■
Regulatory Management	Rights Management of Water	6. Develop and implement a water rights management strategy for exploitation and utilization of water sources		■	■	
		7. Develop a proposal for the coordinated management of major hydraulic works, protection works, urban water supply works and hydroelectric works to be managed in the future under the water rights management strategy			■	
		8. Develop and implement a water rights management strategy for waste water discharge		■	■	
		9. Evaluate the prospects of applying a water rights management approach across other water and natural resource management areas in which access and use rights are applied				■
Organizational Strengthening and Coordination	Corporate Management	10. Prepare and implement a management approach for development of corporate planning	■	■		
		11. Prepare and implement a change management strategy for establishment of the DWRM, including formation of DONREs in the provinces	■			

		12. Design and introduce a performance management strategy				
		13. Prepare and implement a strategy for coordinating provincial management of the DONREs				
		14. Prepare and implement a communication and education strategy for establishment of MONRE and IWRM				
Function 2. Water Resources Planning and Legislation						
IWRM	Strategies and Plans	15. Prioritize a policy development and planning schedule at a national and provincial level				
		16. Undertake, review and coordinate IWRM planning within assigned responsibilities, including Annual Plan for DWRM for 2005				
	Legislation	17. Review legal documents on strengthening of MONRE, review principles behind the laws				
		18. Prepare and submit amendments and new legal documents				
		19. Resolve coordination and cooperation arrangements and roles of DWRM in emergency management, natural disaster management, catchment management, flood prone land management, extractive industries, riparian zone, coastal zone, demand management				
		20. Review international trends in water law and applications				
Research	21. Prioritize DWRM's programs and advise and coordinate priority research programs for water resources management					
Corporate Management	Corporate Planning	22. Initiate and assist in development of Corporate Plans for 2005 – 07 for DWRM, NWRC, and RBOs				
Function 3. Water Resource Assessment and Information Management						
Water Resource Information Management	Data Assembly and Coordination	23. Develop, implement and manage a national metadata directory and other directories and data and information management strategies				
		24. Evaluate configuration needs, acquire, implement and manage surface and groundwater databases				
	Water Resources Status	25. Coordinate and prioritize activities involved in assessments of the status and sustainability of surface and groundwater sources				

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	Support Systems	26. Audit the adequacy of the river basin models and groundwater models and modeling capacity and any decision support systems and water quality labs				
Function 4. Regulatory Management						
Rights Management of Water Sources	Exploitation and Utilization Licensing	27. Manage the licensing functions of the exploitation and utilization of surface and groundwater sources				
		28. Develop, implement and manage a data base for regulatory management needs				
		29. Evaluate the primary allocations for exploitation, utilization and riverine ecological health on a valley basis				
	Water Licensing	30. Manage the licensing functions of Vietnam's waste water discharge				
	Dam Safety	31. Develop, implement and manage a program of inspection, licensing and enforcement on dam safety in Vietnam				
Function 5. Organizational Strengthening and Coordination						
Corporate Management	Administration	32. Administer the financial, human resources and assets of DWRM on a day to day basis				
		33. Establish organizational structure and define duties, functions and objectives of DWRM units and in the provinces and strengthen relationships				
		34. Staff transfer and recruitment management				
	Capacity Building, Training	35. Prioritize training programs to meet DWRM needs for personnel at both central and provincial levels				
		36. Undertake prioritized training programs				
		37. Establish a training data base within DWRM				
Organizational Coordination and Cooperation	International Coordination and Cooperation	38. Establish and implement management protocols between DWRM and VNMC				
		39. Manage international cooperation associated with state water resource management activities				

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		40. Overview and advise on trends in international water resource management policies and strategies				
		41. Administer NWRC's business agendas				
		42. Establish and manage water sector advisory groups within the water sector for coordination				
		43. Resolve coordination and cooperation arrangements and roles of DWRM in emergency management, natural disaster management, catchment management, extractive industries, riparian zone, coastal zone, demand management activities				
Awareness Improvement	Awareness	44. Promulgate the Law on Water Resources and the role of DWRM within the Department, other agencies in MONRE, provinces and others				
		45. Prepare a broad awareness strategy for water resources and IWRM, including identification of target groups, information needs, delivery modes, identification of partner agencies, and allocation of awareness activities among those agencies				

Appendix F

Current and Planned Water Projects Under MARD

Table 13 Current and Planned Water Projects Under MARD

Projects / Subprojects	Objective	Status	Dates	Executing Agency	Finance
ADB					
Capacity Building for Water Resources Management Project					
Subproj 1. National Coordination for Water Resources Management	Strengthening and support for NWRC and its Office, preparation of key documents	Ongoing	6/2001 – 12/2004	MARD / DWRHWM	ADB 800,000 (G) Netherlands 800,000 (G)
Subproj 2. Water Resources Investment Strategy for the Central Region	Preparation of water resource investment strategy for the Central Region	Completed	6/2001 – 1/2002	MARD / IWRP	ADB 422,000 (G) Netherlands 178,000 (G)
Subproj 3. Water Resource Management for the Dong Nai River Basin	Strengthening and support for river basin planning organization for Dong Nai river basin	Ongoing	12/2002 – 3/2004	MARD / SIWRP	ADB 578,000 (G) Netherlands 1,022,000 (G)
Second Red River Basin Sector Project					
Component A1. Capacity Building for the Red River Basin Organization	Capacity building for river basin planning organization for the Red – Thai Binh river basin	Approved, not yet mobilized	6/2003 - 12/2007	MARD / IWRP	Netherlands 9,495,900 (G)
Component A2. Public Awareness and Education Programs	Public awareness and education programs for the Red – Thai Binh river basin	Approved, not yet mobilized	2/2004 - 12/2007	MARD / DWRHWM	
Component A3. Pilot Water Licensing System	Pilot water extraction and wastewater licensing in the Cau river basin	Approved, not yet mobilized	3/2005 - 12/2007	MARD / DWRHWM	
Component A4. Water Quality Monitoring Network	Water quality monitoring in the Cau river basin and full Red – Thai Binh basin	Approved, not yet mobilized	3/2004 - 12/2007	MARD / DWRHWM	
Component B. Water Service Investment	Infrastructure improvements, rural development support and research studies for irrigation, drainage, watershed protection, and flood protection.	Ongoing	5/2002 – 6/2008	MARD / CPO	ADB 70,000,000 (L) AFD 30,000,000 (L) Netherlands 1,050,000 (G)
Rural Infrastructure Sector Project	Improve basic infrastructure in the rural areas to remove constraints to agricultural and off-farm production, and generally improve standards of living	Ongoing	4/1998 – 12/2004	MARD / CPMU	ADB 105,000,000 AFD 15,000,000
Phuoc Hoa Water	Develop water resources of Saigon and Vam Co Dong rivers	Pipeline	2003 - 2009	MARD / CPO	ADB 90,000,000 (L)

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Projects / Subprojects	Objective	Status	Dates	Executing Agency	Finance
Resources Project	for multiple purposes in HCMC and surrounding areas				AFD 34,000,000 (L)
Central Region Water Resources Project	Irrigation, drainage and flood control in the central region.	Pipeline	PPTA: 2003 – 2004 Loan: 2004 - 2009	MARD / IWRP MARD / CPO	PPTA: ADB 400,000 (G), Netherlands 400,000 (G)
AFD					
Safe Water Project in Tien Giang Province		Pipeline			15,000,000 (L)
AusAID					
Vietnam – Australia Water Resources Management Assistance					
Component 1. Capacity Building in the National Water Resources Council	Strengthening and support for NWRC and its Office, training and awareness	Ongoing	10/2001 – 9/2004	MARD / DWRHWM	Approx 5,400,000 (G) (\$9 million Aus)
Component 2. National Framework for Water Resources Information	Create a national water resources information management framework	Ongoing		MARD / DWRHWM	
Component 3. Development of a Coordination Mechanism for the Cuu Long Delta	Strengthening and support for river basin planning organization for the Cuu Long river basin	Ongoing		MARD / SIWRP	
North Vam Nao Flood Control Project	Demonstrate a coordinated water management model that will effectively manage environmental and social change resulting from water control in North Vam Nao Island	Ongoing	12/2001-6/2007	An Giang Province/DARD	A\$ 37.91 million (Australia contribution A\$ 19.5 million)
Cuu Long Delta Rural Water Supply and Sanitation Project	Improve community based planning, management, participation and maintenance of rural water supply and sanitation facilities/ Maximise health and socio-economic impacts of new and existing rural water supply and sanitation facilities/Develop the capacity and ability of institutions/organisations responsible for delivering RWSS services/ Develop and implement appropriate and sustainable water supply and sanitation services for poor and rural communities/villages and district towns	Ongoing	12/2001-12/2006	Bac Lieu, Ben Tre, Kien Giang, Long An and Vinh Long/ Center for Water Supply and Sanitation of respective provinces	A\$ 39.3 million (Australian contribution A\$24.9 million)
Three Delta Towns Water Supply and Sanitation Project	Improve water supply and sanitation facilities and services with a focus on the poor and disadvantaged/Strengthen the capabilities of the provincial agencies in the planning, implementation and operation of these services.	Ongoing	11/2001-6/2008	Kien Giang, Bac Lieu and Dong Thap/Water Supply Companies of respective provinces	A\$ 69 million GOA: A\$ 48.7 mln (G); GOV: A\$20.3 mln
Natural Disaster	To realise implementation of appropriate and effective	Ongoing	2/2003 –	Quang Ngai PPC/DARD	GOA: A\$12.255 mln

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Projects / Subprojects	Objective	Status	Dates	Executing Agency	Finance
Mitigation Initiative	management and infrastructure solutions for disaster mitigation and strengthen community-based disaster management in Quang Ngai Province.		11/2005		(G); GOV: A\$2.904 mln
Danida					
Water Resources Sector Programme Support					
Component 1.1 Support for Implementation of the Law on Water Resources	Assist MARD to implement the Law on Water Resources and institutional framework	Ongoing	1/2001 – 1/2006	MARD / DWRHWM	2,020,000 (G) (DKK16,200,000)
Component 1.2 Support for Implementation of the National Rural Water Supply and Sanitation Strategy	Develop capacity of CERWASS to implement the Rural Water Supply and Sanitation Strategy	Ongoing	12/2000 – 12/2005	MARD / CERWASS	1,615,500 (G) (DKK 12,900,000)
Component 1.3 Support for Capacity Building at the Water Resources University	Assist WRU to educate students on rural water resource management and service delivery	Ongoing	9/2001 – 9/2007	MARD / Water Resources University	3,125,000 (G) (DKK 25,000,000)
Component 1.4 Support for Capacity Building of Water Sector Institutes	Support water institutes to improve services government agencies and private sector.	Ongoing	9/2001 – 9/2007	MARD / IWRP, SIWRP & IWRR	4,375,000 (G) (DKK 35,000,000)
Components 2.1- 2.3 Rural Water Supply in Dak Lak, Ha Tinh and Nghe An	Support administrative structure for RWSS, information / education / communication and other support	Ongoing	1/2001 – 7/2007	DARD / CERWASS in 3 provinces	14,375,000 (G) (DKK 115,000,000)
Component 3.1 Water Resources Management in the Srepok River Basin Component 3.2 Water Resources Management in the Ca River Basin	Assist in establishing river basin organization, capacity building for RBO, preparation of basin plans, pilot implementation of water resource management activities	Approved, not yet mobilized	2003 - 2007	Dac Lac Province / DARD Nghe An and Ha Tinh Provinces / DARDs	Srepok: 1,875,000 (G) (DKK 15,000,000) Ca: 1,875,000 (G) (DKK 15,000,000)
Components 4.1 – 4.6 Urban Water Supply and Sanitation in Buon Ma Thuot, Da Lat and Ha Long	Support rehabilitation and expansion of urban water supply and sanitation systems	Ongoing	1997 - 2006	PPCs and CPCs in Ha Long, Da Lat and Buon MARD Thuot	
JBIC					
Phan Ri – Phan Tiet Irrigation Project	Irrigation and drainage facilities for poverty alleviation and enhancement of income level	Ongoing	2001 - 2007	MARD and DARD of Binh Thuan province	56,300,300 (L)
Ta Trach Reservoir Project	Multi-purpose reservoir for flood control, domestic and industrial water supply and irrigation	Pipeline		MARD	120,000,000 (L) (not yet approved)
JICA					

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Projects / Subprojects	Objective	Status	Dates	Executing Agency	Finance
Study on Nation-Wide Water Resource Development and Management	Formulate management plans for nation-wide water resource development and management in 14 river basins; feasibility study for Huong and Kone river basins	Ongoing	2001 – 2003	MARD / IWRP	
Groundwater Development in Rural Northern Provinces	Improved water services and upgrade living standards	Ongoing	2002 – 2005	MARD / CERWASS	7,225,000 (G)
Study on the Establishment of a Flood Information Database for Quang Nam Province	Study for the establishment of GIS-based information data base for flood control	Application	2003 – 2005	MARD	
Kago Mat Protection of River Banks and Dikes from Erosion	Protection of river banks by using Kago mat for flood control and effective use of water resources	Application	2004 - 2006	MARD	11,000,000 (G)
Improvement of Dong Mo - Phu Sa Irrigation System	Study of the irrigation system and environment for support of agriculture and sustainable development of rural area	Application	2001 – 2002	MARD	
Groundwater Development in Three Central Provinces	Improved water service condition and upgrade living standards	Application	2003 – 2005	MARD / CERWASS	12,000,000 (G)
Upgradation of the Drainage System in Han Quang – Bac Ninh	Alleviate poverty and raise living standards for local people	Application	2001 – 2002	MARD / Bac Ninh PC	15,000,000 (G)
Improvement of Small Scale Dike System in Dong Thap Muoi, Cuu Long Delta	Increase farmers' income and improve living conditions	Application	2001 – 2002	MARD / SIWRP	8,000,000 (G)
Capacity Building for Water Resources Research Institute	Strengthening research ability	Application	2001 – 2005	MARD / IWRP	
Netherlands					
Vietnam Integrated Coastal Zone Management Project	Facilitate integrated planning, development, management of coastal zone in Vietnam	Ongoing	12/2000 – 8/2003	MONRE / NEA	Euro 2,822,000 (G)
Upgrading Hanoi Water Resources University	Development of curriculum, human resources and institutions for coastal engineering specialization	Ongoing	4/2001 – 4/2005	MARD / Hanoi Water Resources University	2,672,000 (G)
Natural Disaster Mitigation Partnership for Central Vietnam (forms part of UNDP)	Secure funds for priority natural disaster mitigation projects. Share information on NDM activities.	Ongoing	4/2002 – 4/2003	MARD / Dept of Flood Control and Dike Management	148,750 (G)

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Projects / Subprojects	Objective	Status	Dates	Executing Agency	Finance
Capacity Building for Disaster Mitigation project)					
UNICEF					
Rural Water Supply and Sanitation 2001 - 2005	Provide technologically appropriate water supply and sanitation facilities with the capacity to provide 15,000 – 20,000 rural dwellers with access to clean water and sanitation (Thanh Hoa and Khanh Hoa provinces)	Ongoing	1/1/2001 – 31/12/2005	MARD / CERWASS	17,957,000 (G)
UNDP					
Capacity Building for Disaster Mitigation in Vietnam	Building a Natural Disaster Mitigation Partnership in central Vietnam with later expansion to other areas. NDM Partnership will help to strengthen policy dialogue, information sharing and coordination of resource allocation	Ongoing	4/2002 – 12/2005	MARD / Dept of Flood Control and Dike Management	UNDP 1,400,000 (G) Netherlands 125,000 (G) Luxemburg 450,000 (G)
Disaster Mitigation Unit	Disaster mitigation and management information in Vietnam, development of a Second National Strategy and Action Plan and disaster preparedness training. US assistance will help to develop new technology and pilot programs.	Ongoing	1998 – 12/2004	MARD / Dept of Flood Control and Dike Management	UNDP 1,300,000 (G) USAID 2,400,000 (G)
World Bank					
Irrigation Rehabilitation Project	Restore and establish sustainable irrigation service in the central region and Ho Chi Minh City	Ongoing	9/1995 – 6/2003	MARD / CPO	100,000,000 (L)
Mekong Delta Water Resources Project	Increase agricultural production, reduce rural poverty, facilitate sustainable water resources development and management and improve living conditions in the Mekong Delta	Ongoing	10/1999 – 6/2005	MARD / CPO	101,800,000 (L)
Technical Assistance for Natural Disaster Mitigation	Enhance capacity to save lives and to protect economic assets in the event of natural disasters	Ongoing	9/2002 – 9/2004	MARD	750,400 (G)
Vietnam Water Resources Assistance Project	Assist in the preparation of a project to develop an efficient cross-sector water resources management system	Ongoing	6/2001 – 2/2004	MARD / CPO	950,000 (G)