







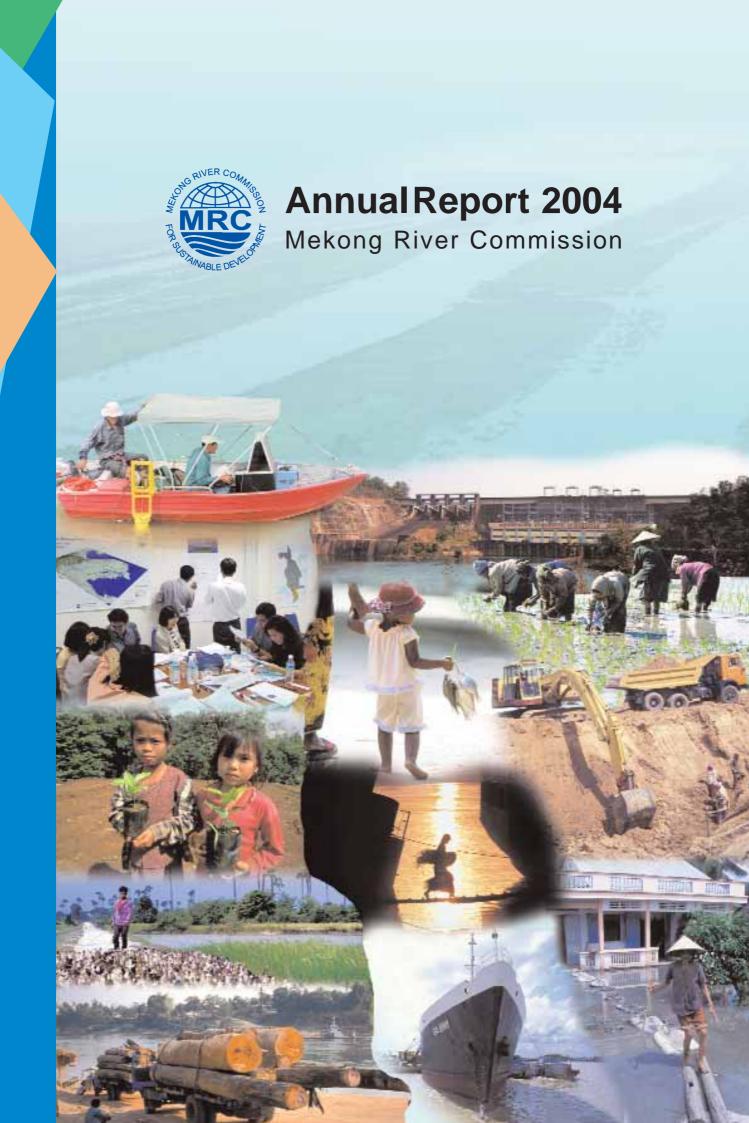


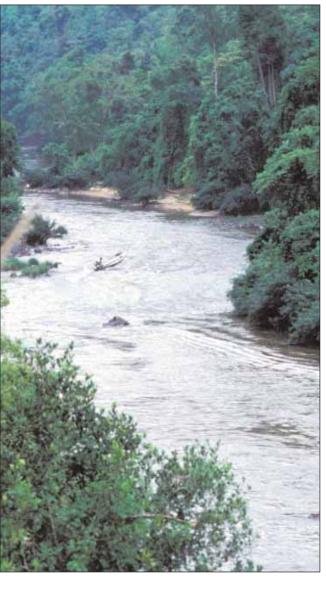
#### **Mekong River Commission**

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#### A **Vision** for the

#### Mekong River Basin

An economically prosperous, socially just and environmentally sound Mekong River Basin

#### A Vision for the Mekong River Commission

A world class, financially secure, international river basin organisation serving the Mekong countries to achieve the basin vision

#### The Mission of the Mekong River Commission

To promote and coordinate sustainable management and development of water and related resources for the countries' mutual benefit and the people's wellbeing by implementing strategic programmes and activities and providing scientific information and policy

#### Our goals for the Mekong River Basin

- Less povertyMore cooperation
- A balanced and peaceful development



c Mekong River Commission 2005

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#### The Mekong River Commission

The Mekong River Commission is an intergovernmental body created in 1995 by an agreement between the governments of Cambodia, Lao PDR, Thailand and Viet Nam.

The Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin came about as the four countries saw a common interest in jointly managing their shared water resources and developing the economic potential of the river. Signed on 5 April 1995, it set a new mandate for the organisation "to cooperate in all fields of sustainable development, utilisation, management and conservation of the water and related resources of the Mekong River Basin".

The agreement brought a change of identity for the organisation previously known as the Mekong Committee, which had been established in 1957 as the Committee for Coordination of Investigations of the Lower Mekong Basin - the Mekong Committee.

Since the 1995 Agreement, the Mekong River Commission (MRC) has launched a process to ensure "reasonable and equitable use" of the Mekong River System, through a participatory process with National Mekong Committees in each country to develop rules and procedures for water utilisation. The MRC is supporting a joint basinwide planning process with the four countries, called the Basin Development Plan, which is the basis of its Integrated Water Resources Development Programme. The MRC is also involved in fisheries management, promotion of safe navigation, irrigated agriculture, watershed management, environment monitoring, flood management and exploring hydropower options.

The two upper states of the Mekong River Basin, the People's Republic of China and the Union of Myanmar, are dialogue partners to the MRC.

#### Structure

The MRC consists of three permanent bodies: the Council, the Joint Committee (JC) and the Secretariat. The Council, comprising one member at Ministerial and Cabinet level from each MRC member country, convenes annually and has overall governance of the Mekong River Commission.

The JC, comprising also one member from each member country at Head of Department level or higher, convenes at least two times a year. This body functions as a board of management.

The Secretariat, which provides technical and administrative services to the JC and the Council, is under the direction of a Chief Executive Officer (CEO) appointed by the Council. The Secretariat is located in Vientiane, Lao PDR. The Assistant CEO is of the same nationality as the JC Chair and serves a one-year term.

The MRC is funded by contributions from the four member countries and from aid donors. Formal consultation with the donor community is carried out through an annual Donor Consultative Group meeting.

The National Mekong Committees coordinate MRC programmes at the national level and provide links between the MRC Secretariat and the national ministries and line agencies. The principal implementing agencies of the MRC programmes and projects are the line agencies of the riparian countries in the Lower Mekong Basin.



## Message from the Chairman of the Mekong River Commission Council



On behalf of the Mekong River Commission (MRC) I take pleasure in extending my best wishes and warmest greetings to all member countries, donors and partners.

The year 2004 saw some changes for the MRC. The Secretariat relocated from Phnom Penh, Cambodia to Vientiane, Lao PDR, we welcomed aboard our new CEO, Dr Olivier Cogels, and we approved the new orientation of the MRC to work towards Integrated Water Resources Management (IWRM). We feel IWRM will provide us with an integrated approach for addressing development needs in the areas of navigation, flood management, fisheries, irrigation, hydropower, watershed management, environment management and human and institutional capacity.

The new Secretariat swung into action with minimal disruption to work on the programmes thanks to the support of our donors, the help of the Cambodian and Lao Governments, and the provision of equipment through the Thai and Viet Nam National Mekong Committees. We are indebted to everyone who helped make this difficult task so much easier.

Lao PDR is proud to host the Secretariat and looks forward to building on the platform of growth and development achieved during its time in Phnom Penh. I would like to commend the MRC Secretariat for its contribution to the achievements of the MRC during the past year and I thank the Secretariat staff for all their technical and professional input.

We have some exciting plans for 2005. At the 11th MRC Council Meeting, held in Vientiane in December, members met and discussed the launch of the new Navigation Programme and the Flood Management and Mitigation Programme (FMMP), as well as the start of Phase II of both the Fisheries Programme and the Basin Development Plan.

I am pleased to report that the FMMP, now one of the MRC's core programmes, is funded and the Flood Management and Mitigation Centre will take up temporary residence in the former Secretariat building in Phnom Penh while a new purpose-built centre is constructed.

The Navigation Programme, which the MRC regards as a vital element of its strategy to make optimum use of the river while preserving the environment, will commence operation this year. This five-module programme is designed to enhance navigation of the river through the formulation of rules governing safety and cargo handling, while also dealing with difficult transboundary issues.

In its second phase the Basin Development Plan will take a new direction. Employing the principles of IWRM, it will build on the work of Phase I and commence identifying and implementing development projects and programmes in partnership with the international donor community and investment banks.

Partnerships are important to the MRC and in 2004 we have worked hard to maintain good relationships with our upstream neighbours. During meetings held in 2004 with our dialogue partners China and Myanmar we have enjoyed and open and productive discussion and made further steps forward to forging a deeper relationship with regard to shared water resources.

The Commission has delivered on what it set out to do in 2004, but without the support of the donor community the MRC's work would not be possible. Therefore I am pleased to announce that last year we welcomed increased support from many of our donors, as well as welcoming some previous donors back into the family. I would like to convey the MRC's great appreciation to the donor community, our programme partners, the National Mekong Committees and our line agencies for all their cooperation and we look forward to continuing our strong relationship in 2005.

Moreover, the year of 2005 is a golden year since MRC countries and the people of the Mekong River region met and celebrated the 10th anniversary of the MRC on 5 April 2005. This event provided a historic symbol of the close cooperation enjoyed by the four countries (Cambodia, Lao PDR, Thailand and Viet Nam) and their willingness to work together with a great Mekong Spirit.

H.E. Mr Somphong Mongkhonvilay

Chairman of the MRC Council for 2004/2005

## STRUCTURE OF THE MEKONG RIVER COMMISSION

#### Members of the MRC Council

Members at Ministerial and Cabinet level, responsible for policy and decision-making



H.E. Mr Lim Kean Hor

Minister of Water Resources and Meteorology

Member of the MRC Council for Cambodia



H.E. Mr Somphong Mongkhonvilay

Minister of the Prime Minister's Office

Member of the MRC Council for Lao PDR



H.E. Mr Suwit Khunkitti

Minister of Natural Resources and the Environment

Member of the MRC Council for Thailand



H.E. Dr Cao Duc Phat

Minister of Agriculture and Rural Development

Member of the MRC Council for Viet Nam

#### Members of the MRC Joint Committee

Members at Department Head level or higher, responsible for implementing policies and decisions



H.E. Mr Sin Niny

Vice-Chairman of Cambodia National Mekong Committee

Member of the MRC Joint Committee for Cambodia



H.E. Mr Sitaheng Rasphone

Vice-Minister of Agriculture and Forestry

Member of the MRC Joint Committee for Lao PDR



Mr Petipong Pungbun Na Ayudhya Permanent Secretary, Ministry of Natural Resources and the Environment

Member of the MRC Joint Committee for Thailand



Mr Nguyen Hong Toan

Secretary-General of Viet Nam National Mekong Committee

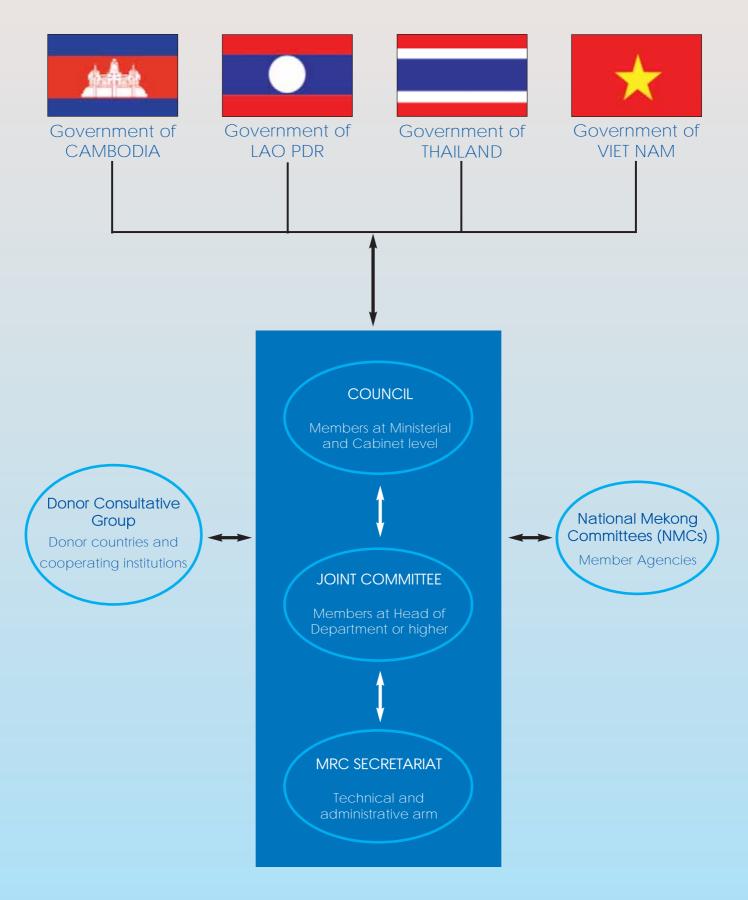
Member of the MRC Joint Committee for Viet Nam

#### MRC Secretariat Responsible for technical and administrative services



Dr Olivier Cogels Chief Executive Officer

## ORGANISATION OF THE MEKONG RIVER COMMISSION



## Progress Report 2004



## Water Utilisation Programme



The Water Utilisation Programme (WUP) aims to improve water management and ensure mutually beneficial water use in the Lower Mekong River Basin while maintaining the basin's ecological balance. The seven-year time frame for this programme (2000-2006) allows sufficient time for the member countries to develop basin-modelling capabilities, and to discuss and negotiate agreements on a set of procedures governing water use.

Three of these procedures (on data and information exchange and sharing; notification, prior consultation and agreement, and procedures for water use monitoring) have already been signed during the period 2000 to 2003.

The year 2004 saw the WUP team make good progress towards developing the technical basis for and drafting of a procedure on the maintenance of flows on the Mekong mainstream. The flow procedure requires the member states to cooperate in the maintenance of: acceptable

minimum monthly flows in the dry season; acceptable natural reverse flow of the Tonle Sap during the wet season; and to prevent peak flows greater than occur naturally.

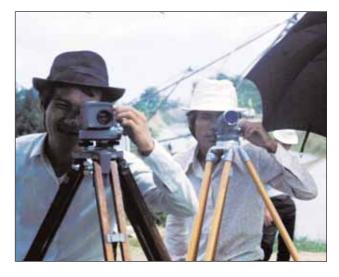
The technical basis for the flow procedure is being developed under the MRC's Integrated Basin Flow Management (IBFM) activities. Beginning in 2005, the IBFM activities will commence a programme of flow assessments based on evaluation of the environmental, social and economic beneficial uses of the river.

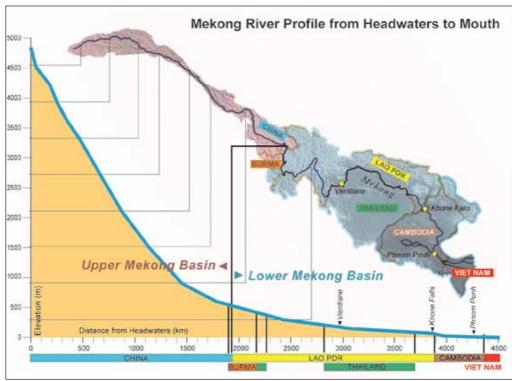
Among other achievements during 2004:

- Basin modelling tools known as the Decision Support Framework (DSF) were developed with UK Consultant Halcrow and completed in March 2004 and have been used extensively since then by the MRC Secretariat modelling team to provide technical support to the planning process of the MRC Basin Development Plan (BDP) and to support the hydrological analyses of the IBFM. This support will continue in Phase 2 of the BDP and Phase 2 of the IBFM in 2005.
- Five rounds of staff training for the MRC Secretariat and the National Mekong Committees in the application of the DSF software package were held throughout the year.
- The WUP-Fin modelling activities, funded by the Government of Finland, wound up their initial phase in May 2004 and commenced a new phase entitled "Hydrological, Environmental and Socio-Economic Modelling Tools for the

Lower Mekong Basin Impact Assessment". During this phase applications of the WUP-Fin modelling tools used in the Tonle Sap study will be expanded to other riparian countries as a supplementary part to the DSF in the basin modelling package.

● During 2004, in cooperation with the Environment Programme, WUP developed an approach to providing the technical basis for the Procedures for Water Quality Management (PWQM) in 2005. In 2004, the Joint Committee approved, in principle, the Integrated Water Quality Management approach.





### Basin Development Plan

The Basin Development Plan (BDP) aims at identifying, categorising and prioritising projects and programmes which will benefit the sustainable economic development of the basin. It aims to assist member countries in seeking assistance for these projects so they can implement them at basin level.

The BDP is gradually moving into its second phase through the formulation of a BDP Phase II document in close consultation with the member countries, the donor community and investment banks.

During 2004 the MRC's Basin Development planners put strong emphasis on consultation and public participation by stakeholders in the basin's "sub-areas" (or clusters of catchments). Forums held in Cambodia and Lao PDR involved international organisations, local NGOs, local communities and those involved in fisheries, forestry and agriculture. Their input helped produce outcomes to be used in national planning through the identification of key development issues for the future regarding needs, concerns, trends and risks relating to water issues.

Five sub-area transboundary meetings have been conducted successfully and a number of project proposals were identified.

Using different sources and information, the BDP team has developed options for an Integrated Water Resources Development Strategy which will promote a series of sustainable development interventions and investment opportunities for the Lower Mekong Basin. Priority projects identified respond to the needs of the poor in the river basin and ensure economic growth and development that is in harmony with the environment. (see story page 32).

#### Achievements for 2004 include:

- The production of the draft of an Integrated Water Resources Development Strategy for the Lower Mekong Basin Development Strategy; a BDP Planning Cycle guideline (with selection criteria) and a portfolio of potential projects which are now incorporated in a new BDP project database.
- Assessment of basinwide development scenarios, using the Decision Support Framework (a powerful mathematical tool). Subsequently the MRC Secretariat



tested a sequence of six scenarios. These scenarios lay the groundwork for the World Bank's own development of a Mekong Region Water Resources Assistance Strategy.

• The development of a number of analytical support tools like the Social Impact Assessment identification of social effects in the early phase of planning and the Strategic Environmental Assessment identification of potential environmental problems in the early planning phase.

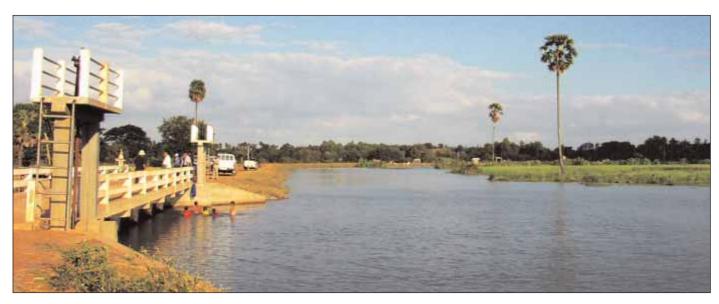
During 2004 the third and fourth modules of the BDP training programme under the Murray-Darling Basin Commission and the MRC Strategic Liaison Programme were conducted successfully. The third module concentrated on applied scenario-based planning using the DSF developed under the Water Utilisation Programme and the fourth module was a study tour of the four MRC member countries.

For the rest of Phase I the BDP will upgrade the Mekong Basin Geographic Information System (GIS) and general knowledge base to provide enhanced information of development needs and options for strategic planning and scenario development. Simulation of development scenarios is continuing to be a priority and will progress further to stabilise and improve the predictive capacity of the BDP.

Collaboration between the MRC Secretariat BDP team and the teams at the National Mekong Committees has tightened and will develop during Phase II. In stages the BDP team at MRCS (supported by the NMCs) is bringing together all elements of a Transboundary Planning Framework for the Lower Mekong Basin, as originally envisaged for Phase I of the project.

The production of a Planning Atlas for the Lower Mekong Basin (based on the MRC's GIS) is also in preparation and should be available in mid-2005.





### Environment Programme



The Environment Programme's goal is to assist the member countries to protect the environment and maintain the ecological balance of the basin while ensuring environmental and social sustainability of economic development undertaken within the region, particularly within the energy/water resource and transportation sectors.

It also supports the other core programmes with environmental data and tools for environmental planning and management. Assessment and monitoring of water quality and ecosystem health form an important part of the provision of data.

The Environment Programme began implementing a revised programme for 2004-2008 in January 2004.

During 2004 the Environment Programme conducted the second field survey for the basinwide water quality diagnostic study and a study on the status of the ecological health of the river, both of which will contribute to the Basin Report Card on Environmental Conditions due to be released in 2005.

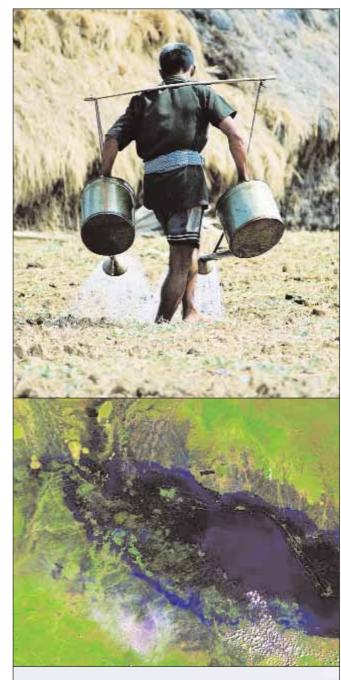


Other achievements in 2004 include:

- Commencement of work on the development of guidelines for a transboundary environmental assessment system. National experts are now reviewing national practices and regulations
- The preparation of a basinwide map and the assessment of values and functions of important wetland types continued throughout 2004 and will form a useful tool for the BDP planning process.
- The assessment of the use of AIRSAR remote sensing data for wetland mapping was completed and fieldwork to ground-truth Radarsat images for wetland mapping was initiated in late April and will be concluded in 2005. An assessment of people vulnerable to changes in aquatic resources was also started in the third quarter of 2004.
- Monitoring of water quality in the Sesan River began in June 2004 and will continue for 12 months and a study to review information on sediment transport will be linked to other work on sedimentation in the Tonle Sap.

Environmental Knowledge is an integral component of the Environment Programme. In the past 12 months the programme has supported the completion of a Species Management Plan for the Mekong dolphin, in conjunction with the World Conservation Society. Further work is now part of the Mekong Wetlands Biodiversity Programme.

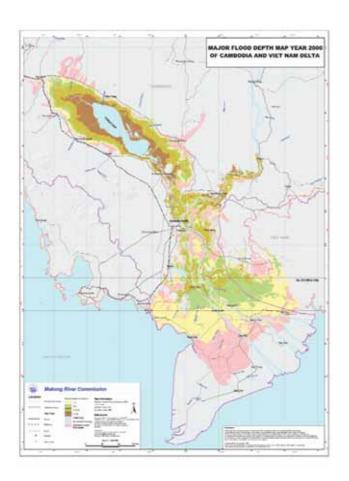
The Environment Programme has also signed a contract with Monash University in Melbourne, Australia to jointly fund a Cambodian PhD student to study the ecology of Tonle Sap Lake.







## Flood Management and Mitigation Programme



The Mekong River Commission's new core programme, the Flood Management and Mitigation Programme is now funded and ready to start operations.

Work on German-funded components four and five (Flood Emergency Management Strengthening and Land Management) began in September 2004.

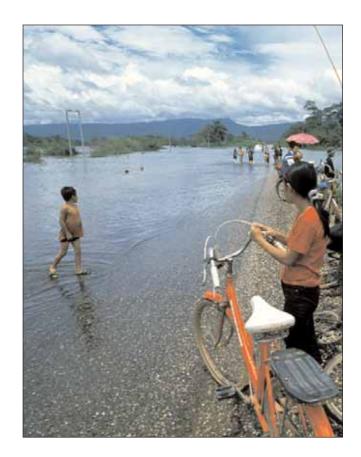
A new Regional Flood Management and Mitigation Centre will be built in Phnom Penh, Cambodia which will carry out flood monitoring, forecasting and dissemination services. The programme will also undertake policy discussions on land use planning and infrastructure development in relation to flood impacts; flood proofing measures; mediation services; analysis of risk and impacts, and strengthening of capacity to manage flood emergencies.

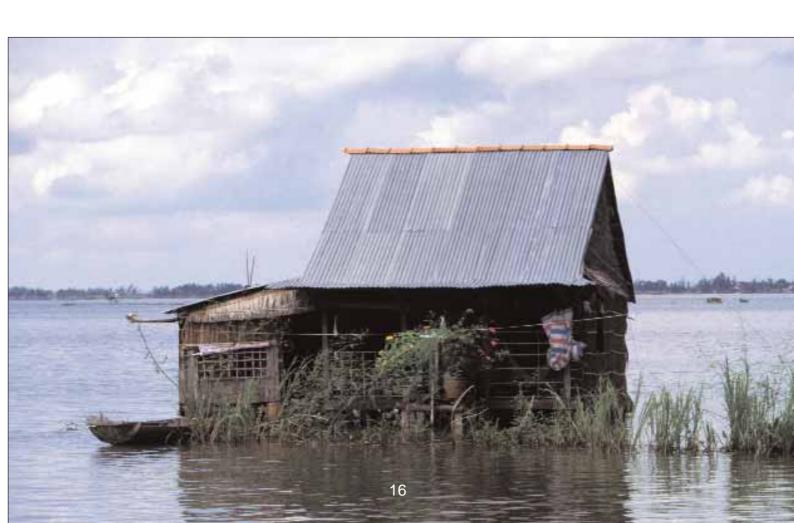
The Flood Centre has established a temporary headquarters in the former MRC Secretariat building in Phnom Penh. This centre will act as a liaison office to relay regional and community flood forecasts made by the team in Vientiane to the flood-prone communities as well as to relay the community feedback to Vientiane.

In 2004 the FMMP made good progress with its activities.

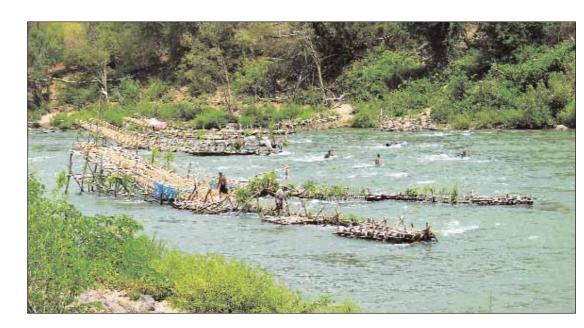
 With continued assistance from the US Office for Foreign Disaster Assistance, the Cambodian Red Cross, the American Red Cross and Action Against Hunger, the FMMP expanded its flood early warning system from six villages to 34 more villages in five flood-prone provinces of Cambodia. The Provision of Flood Early Warning to Flood Vulnerable Communities in the Lower Mekong River Basin project will now be expanded to Lao PDR.

- The 10-month project on Capacity Building for Preparedness Planning and Response Using Flood Information and Data, run by the Asian Disaster Preparedness Centre and supported by the European Commission for Humanitarian Aid Office (ECHO), was completed in June 2004.
- A Phase II proposal for 2005-2006 was submitted to ECHO for review.
- Two national training courses and one national seminar on the implementation of flood preparedness programmes at provincial and district levels were held during the year.
- Throughout the 2004 wet season the MRC Secretariat provided daily flood forecasts on its website www.mrcmekong.org. Water levels were updated every 24 hours and rainfall figures were updated every 12 hours.
- The Third Annual Flood Forum took place in Vientiane, Lao PDR from 7-8 April 2005.





## Fisheries Programme



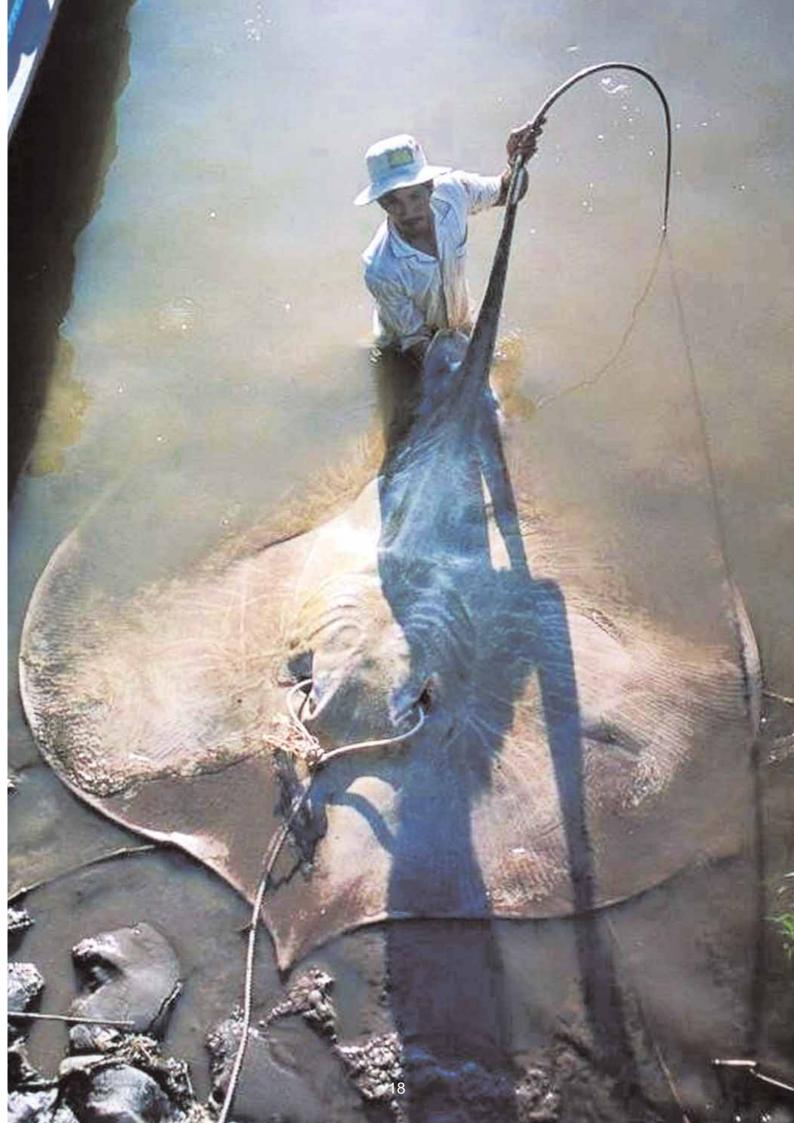
The Fisheries Programme aims to manage the productive Mekong fisheries so they can sustain their high yield and economic output well into the future.

The programme does research into capture fisheries, manages river and reservoir fisheries, promotes aquaculture of indigenous Mekong fish species and trains fisheries managers. It also disseminates a vast range of information to policy makers and planners in the four Lower Mekong countries, so stakeholders, riparian governments and the MRC can use it in development planning and management.

In 2004 the Fisheries Programme achieved some significant milestones.

- A three-year programme of capacity building in fisheries co-management was completed. This programme has now trained approximately 120 mid-to senior level management staff from line agencies and over 500 users from community groups across the four countries.
- Three basinwide studies were completed, covering catch monitoring, consumption and marketing. These







studies have provided useful direction as to how to best continue with monitoring trends in fisheries yields.

- In the communications field the programme produced a new CD-Rom entitled *Mekong Fisheries Information*, published a critically acclaimed book *Fishing Gears of the Cambodian Mekong*, produced two new technical reports and issues of *Catch and Culture* in both English and the four riparian languages.
- The Technical Advisory Body for Fisheries Management has commenced implementation of a threeyear work plan under a funding arrangement with Swedish International Development Assistance. This will provide a sharper focus for transboundary fisheries management initiatives.

The current phase of the Fisheries Programme ends in December 2005, but a funding commitment from the Danish Government aid agency Danida will enable a new five-year Phase II to commence in 2006, upon final approval by Danida. However, other donors will be required for the full implementation of the programme.



# Agriculture, Irrigation and Forestry Programme

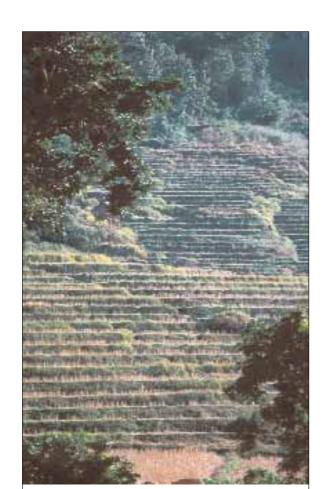
The work of the Agriculture, Irrigation and Forestry Programme's (AIFP) Watershed Component centres on ensuring that sound watershed management will maintain the functions of watersheds for the future. It also looks at how the management of these watersheds can interact positively with the development of tourism and recreation sectors, fisheries development, and flood management efforts.

Over the past year the Watershed Component has engaged in research on the best methods for monitoring land-use changes, which included the acquisition and analysis of geographic information system (GIS) and satellite images of the basin through cooperation with the Canadian Space Agency. Important baseline studies on watershed management, forestry and land use planning have also been completed.

National Working Groups on watershed management were established in each of the riparian countries and one pilot watershed was selected in each.

Other achievements in 2004 included:

- Organising a "Quality Management Circle" for MRC top management to develop and understand the needs for capacity building and managing changes for MRC networks in the field of watershed management. This also provided the participants with an understanding of the envisaged training concept and programme for staff and partners involved in watershed management activities which will take place over the next few years.
- Hosting of the First Policy Dialogue Meeting on Watershed Management in Vientiane with representatives from the four MRC member countries together with German International Cooperation agencies GTZ and INWENT and representatives from many international organisations and NGOs. This meeting provided a forum for the countries to discuss the status of their watershed management.
- The establishment of a library of watershed management related documents, which will later be



integrated into the MRC Document Management System.

- The establishment of research cooperation with German and US universities.
- A joint training programme for watershed management planners in the four countries.

As a sub-component of AIFP, the activities of the Programme to Develop the Multi-functionality of Paddy Fields over the Lower Mekong Basin to collect data on rice farming and water use for modelling some functions of paddy fields have been continued.

At the beginning of 2004 a series of national meetings and a field survey were conducted to establish the best practical methods to collect relevant data, and member countries started data collection by the first quarter. In May 2004 the countries made presentations of their working methods at the second regional workshop held in Udon Thani, Thailand.

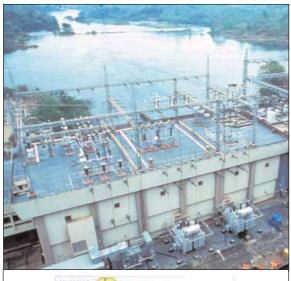
Later in the year the countries submitted the collected data on seasonal changes in rice planting areas at a district level and this was used to construct a temporary GIS dataset illustrating basinwide information on rice planting areas and growing periods. However, further input is required to complete other datasets, such as irrigation water use. Improvement of the rice farming dataset and paddy field map is ongoing.

On-farm experiments to check water balances and some related phenomena in paddy fields in selected spots will continue until the first quarter of 2005.

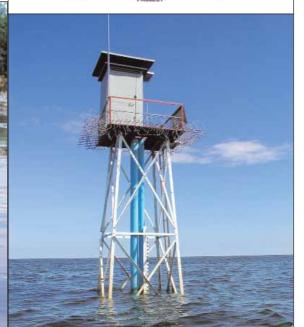




## Hydropower Programme







In December 2004, following the approval of the MRC Council at its 11th Meeting held in Vientiane, Lao PDR, the Water Resources Management Programme (WRMP) took on a new name to better reflect its direction and is now known as the Hydropower Programme.

The MRC has embarked on a Hydropower Development Strategy that should lead to a wider Hydropower Programme. The objectives are to identify the best options for sustainable hydropower development and to recommend criteria for prioritisation. Strengthening member countries' capacity for hydropower planning and development is a key objective.

The water resources and hydrology components of the former WRMP are now encompassed in the Technical Services Division where they will become part of an integrated information and decision-support programme.

Last year the former WRMP began its operations by completing a study into how the Tonle Sap floodplain stores and releases water from wet season to dry season and how to provide and store more accurate and up-to-date information for use by various government departments and other MRC projects. The study was able to quantify the multi-functional hydrologic role of the Tonle Sap Lake and vicinity during the flood and dry season of 2002 and 2003 and technical reports are now available.

In other achievements during 2004:

- The programme took the first steps to establish the Mekong Hydrological Cycle Observing System (Mekong-HYCOS), which will improve river monitoring, and flood forecasting capacity.
- The Appropriate Hydrological Network Project (AHNIP) will end in 2006 and has been focusing on sustainability through national training programmes. The data centres are commissioned and ready for local staff to move in.
- Equipment for the two hydrological stations at Yunjinghong and Man'An in Yunnan, China was delivered and a data centre was established in Kunming. The MRC has received daily data from China through the telemetry system for the 2004 flood forecasting activity. This is a concrete and effective form of participation by China in the MRC's Flood Management and Mitigation Programme.

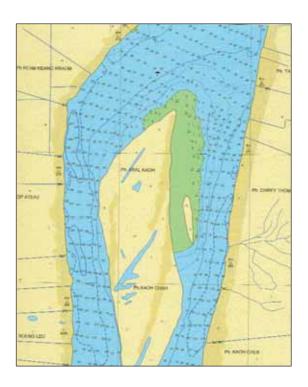
## Navigation Programme

The Navigation Programme aims to balance the demand for expanded use of the river with environmental needs through the new MRC Navigation Strategy.

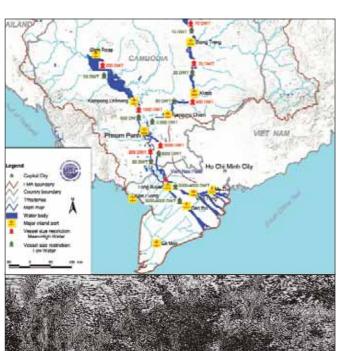
The new programme is now in the first stages of implementing its five components: Socio-economic Analysis and Regional Waterborne Transport Planning; Legal Framework for Cross Border Navigation; Traffic Safety and Environmental Sustainability; Information, Promotion and Coordination; and Institutional Development.

The actual implementation of the programme will commence in September 2005, following the preparation phase, which started in July 2004.

Most of the work during 2004 has been involved with









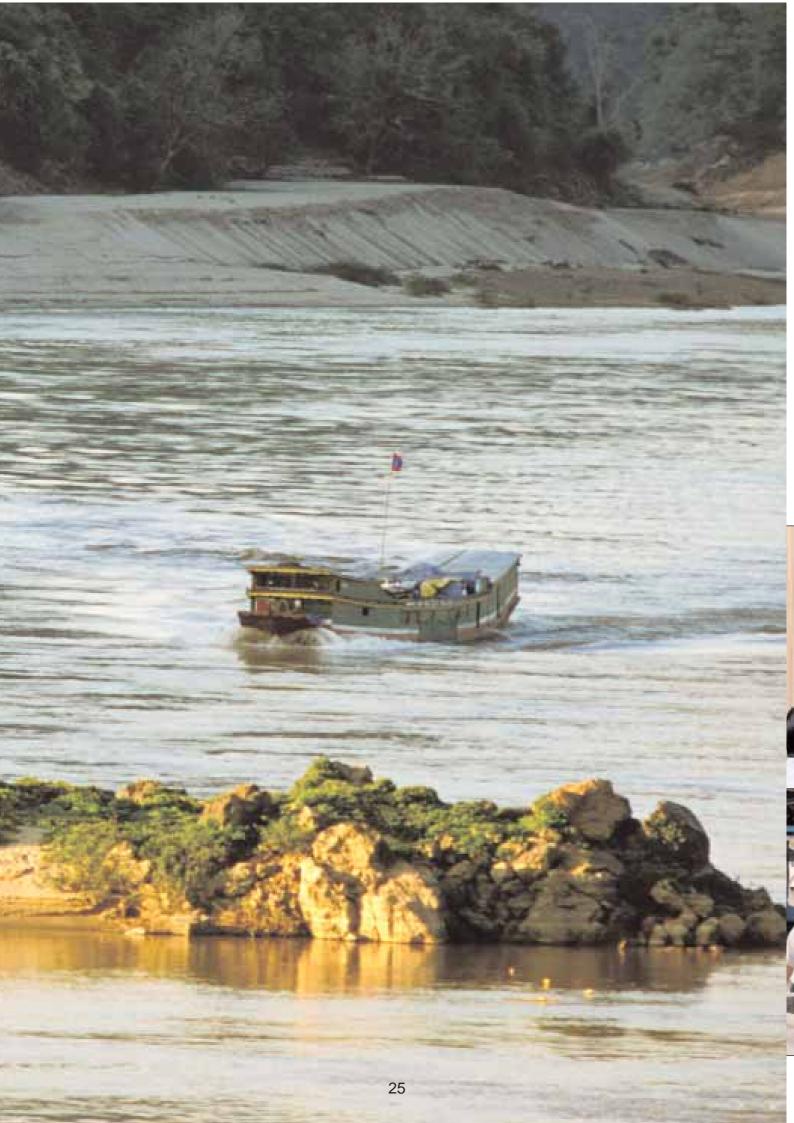
setting up the logistics of the programme and identifying financial partners.

Discussions with the Asian Development Bank and the World Bank on funding of components 1,2 and 4 progressed well. Discussions with potential donors from Belgium, France and Finland have been positive and talks with the EU are planned. Coordination also took place with JICA on transport projects in the Lower Mekong Basin.

A partnership-building mission to Europe in April 2004 resulted in close connections with other river and navigation commissions such as the Rhine and Danube Commissions for Navigation, Inland Navigation Europe, the European Commission, the International Maritime Organisation, the Permanent International Association for Navigation Conferences and maritime academies. These talks continued throughout 2004.

Other achievements included:

- The completion of an institutional strengthening and capacity building project for navigation in Cambodia.
- The production of a full hydrographic atlas of the Lower Mekong Basin in GIS and PDF formats. These charts, which also include the Bassac and Tonle Sap, have been digitised according to the International Hydrographic Office (S-57) standard and will make the updating of all data concerning the river very easy.
- The implementation of the final steps for the start up of the Design of the Master Plan for Waterborne Transport on the Mekong River System in Cambodia.
- Increased cooperation with China and Myanmar through the Navigation Affairs Bureau in Yunnan.
- Incorporation of the navigation strategy and programme into the Basin Development Plan.



## Integrated Capacity Building Programme

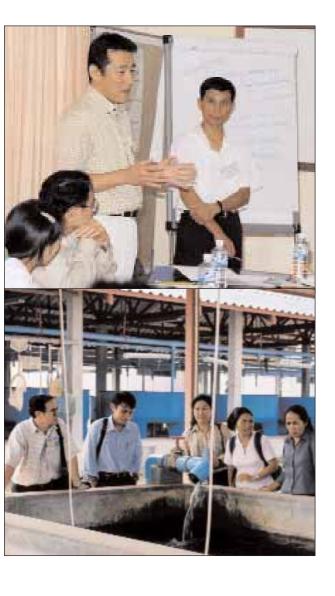
The MRC's Integrated Capacity Building Programme (ICB) is progressing well toward meeting its goal of raising the level of skill in the region through a systematic and modular training programme.

The ICB Programme was developed to ensure the availability of sufficient expertise in river basin management, to broaden the pool of expertise within the region, and to raise the level of competence among staff of MRC and Line Agencies in the riparian countries. The programme encompasses a Junior Riparian Professional (JRP) Programme and its ongoing training of local Lao support staff, both on-the-job and through external training courses.

The JRP programme provides an opportunity for young professionals to acquire hands-on experience on international river basin management.

#### In 2004:

- Three new JRPs from Cambodia, Lao PDR and Viet Nam joined the Secretariat, as the third batch in the programme. All JRPs attended the in-house training programme on MRC Strategic Planning and Management and the MRC Logical Framework, conducted in Vientiane in September 2004.
- The JRPs from all three batches also undertook a regional study tour visiting National Mekong Committees and also different development projects and institutions. They met with local people to discuss various topics concerning developmental aspects at village level.
- The training programme for Lao support staff under the MRC HQ Relocation staff training project continued. The programme was implemented at the beginning of 2004 and will last to June 2005. This programme, which involves approximately 50 support staff members, has been funded by the UNDP and executed through the Lao National Mekong Committee.
  - The recently completed AusAID-funded MRC-



Murray Darling Basin Commission (MDBC) Strategic Liaison Programme, boosted capacity building within both the MRC Secretariat, and the National Mekong Committees. An advanced hydrological modelling training course was delivered to support the early stages of the MRC's Water Utilisation Programme. Participants on this course now form the core of the MRC Modelling Team.

• The MDBC also delivered a Basin Planning Training Programme to the MRC to develop the skills and understanding of the basin development planners of tomorrow. The training took the form of four modules, including a study tour through the four member countries. MDBC funds have also been used to promote and expand the MRC's public participation policy internally and at national levels.

Improved information and communication services have supported all MRC programmes throughout the year. The MRC's communications function continued to promote the work of the MRC and disseminate information about its programmes and research through its ongoing production of newsletters and technical and development reports. It expanded the content of the website, engaged in regular liaison with the media, programme partners and stakeholders and met corporate information needs for visual displays and event management.

In 2005 the Integrated Capacity Building Programme will launch a new Gender Mainstreaming Project.



# Corporate highlights



H.E. Mr Bounnhang Vorachith, Prime Minister of the Lao PDR, declares the new building open.



## Opening of a new headquarters

In June 2004 the Mekong River Commission Secretariat completed its transfer to its new headquarters in Vientiane, Lao PDR, which was provided by the Government of Lao PDR

The move took place over a month, with staff beginning to pack up their Phnom Penh offices from mid-May and the move into the building starting from June 21. On July 1 the doors opened to the public.

The building was officially inaugurated on 27 August by H.E. Mr Bounnhang Vorachith, Prime Minister of the Lao PDR, in the presence of

government representatives from Cambodia, Lao PDR, Thailand and Viet Nam, as well as Vientiane-based dignitaries and representatives from the international diplomatic, donor and NGO communities.

In order to minimise the impact of the relocation on the MRC's ongong programme implementation support staff undertook on-the-job training in Phnom Penh (alongside their Cambodian counterparts), prior to the move. In addition a number of Cambodian support staff moved to Lao PDR for a period of up to one year to help train the second batch of new support staff in order to minimise the impact of a staff changeover.

The MRCS has continued to hire more local, regional and international professional and support staff, and aims to bring the full employee level up to around 120.

## Welcome to a new Chief Executive Officer



Dr Cogels addresses donors at the informal donor meeting held in Vientiane in August 2004.

On 9 August 2004, Dr Olivier Cogels took up his role as Chief Executive Officer of the Mekong River Commission.

Dr Cogels is a Belgian citizen. He holds an MSc in Land and Water Engineering and a PhD in Hydrodynamics and Water Resources from the Catholic University of Louvain. He also did a post-doctorate at the University of California, Davis. After an academic career at the University of Louvain, he gained extensive experience in development programmes and institutions, working with such bodies as the European Commission, the World Bank, the United Nations and with bilateral agencies.

Before accepting this new position he had worked with the Food and Agriculture Organisation of the United Nations (FAO) in Rome since 2002, where he managed the International Programme for Technology and Research in Irrigation and Drainage (IPTRID).

Dr Cogels says his vision for the MRC is for it to become the key actor in alleviating poverty and increasing economic wellbeing in the Mekong Basin, in order to meet the Millennium Goals of the United Nations. He emphasises the

> Right: China's representative Mr Zhang Wanhai at the 9th Dialogue Meeting.

need for a holistic vision of Integrated Water Resources Management and Development at basin scale, harnessing (in a sustainable way) the river's huge economic potential for navigation, energy production, agriculture, fisheries and tourism.

The new CEO sees the role of the MRC as an investment facilitator, encouraging regional cooperation through the delivery of accurate and reliable decision-support information to planners and policy-makers so they can help member countries implement balanced and sustainable development strategies at basin scale. However, this development must be with due regard for the environment,

The MRC provides a platform for dialogue and negotiation. It offers an ideal institutional basis for joint planning and coordinated implementation of an Integrated Water Resources Development and Management Programme, closely linked with (and as a complement to) other development programmes in the region.

One of Dr Cogels' principal objectives is to continue to stimulate concrete cooperation with MRC's dialogue partners China and Myanmar, based on a constructive and pragmatic approach through joint activities within the framework of the MRC's Mekong Basin Development Plan Programme. "Increasing our cooperation, step-bystep, on the basis of trust and the search for mutual benefits is the most important thing," he says.

## Dialogue Partners open to discussion

The low river conditions experienced in the 2004 dry season prompted much comment in the



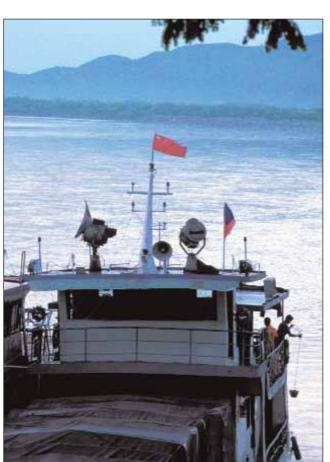
media regarding the impact of developments in upstream countries

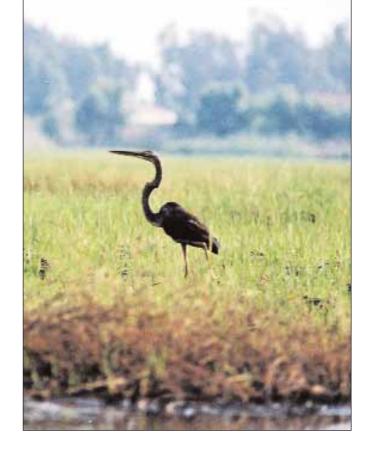
In response to this, MRC scientists compiled a Technical Study on Rainfall and Discharge in the Lower Mekong Basin.

After analysis of river flows and height data, combined with rainfall data from the basin, the report concluded the drought was caused by unusually low rainfall throughout the basin both in the wet season and the dry season, and not by any dam construction taking place in upstream countries.

Speaking at the 9th Dialogue meeting between MRC members and dialogue partners China and Myanmar, held on 28 August in Vientiane, Lao PDR, China highlighted the need to promote the sustainable use of water resources as well as the development of regional economies. The dialogue meeting showed that both the MRC and its dialogue partners attached great importance to this issue.

The subject of the two existing dams and the building of two other dams on the Lancang (Mekong) was openly discussed in a constructive way, with the intention to work on appropriate mitigation measures in order to minimise the potential impacts, namely river fluctuations.





## MRC joins fight to preserve Mekong wetlands

In July 2004 the MRC joined with UNDP and IUCN (the World Conservation Union) to launch the Mekong Wetlands Biodiversity and Sustainable Use Programme (MWBP).

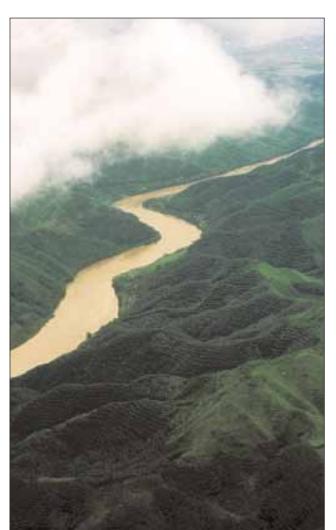
The MWBP is a five-year (2004-2009), \$30 million initiative working in the four Lower Mekong countries - Cambodia, Lao PDR, Thailand, and Vietnam. While it is jointly managed, the programme will run in parallel and be closely coordinated with MRC structures and decision-making processes.

The programme will work at three levels. At the regional level, the basinwide policy framework and economic environment will be developed to be more supportive of wetland biodiversity conservation and sustainable use through working with ministers and developing wetland policy guidelines. The institutional capacity to implement these policies will be strengthened. This regional approach will be made possible through the project's strong partnership with the MRC.

Encouraging a multi-sector approach, through building capacity, and increasing public involvement will enhance planning processes at the national level, The programme will work with the national institutions responsible for wetland and Ramsar issues in each country, as well as the four National Mekong Committees.

At the local level, integrated planning and equitable community-based natural resource management will be implemented at four demonstration sites: Stoeng Treng Ramsar Site, Cambodia; Attapeu Province, Lao PDR; the Lower Songkhram Basin, Thailand; and the Plain of Reeds, in Viet Nam. Each site represents one of the four key wetland ecosystems representative of the Lower Mekong Basin as a whole.

In the demonstration sites, the programme will help to identify the values of the freshwater ecosystem, and work with local people to develop improved management systems and alternative livelihood options. Training will be provided and information will be disseminated as part of targeted awareness campaigns. Technical assistance will also be provided to support the implementation of the Ramsar Convention on Wetlands at the national and site level.



#### Challenge Programme moves ahead

The MRC is the coordinator for the The CGIAR Challenge Programme for Water and Food (CPWF) in the Mekong Basin.

The CPWF, which was launched in 2003, aims to increase food production in agriculture, while at the same time increasing water productivity, so more food can be grown with less water. Much of the emphasis in the CPWF is on the partnerships it has created between research institutions in the Mekong countries, and advanced research institutions, such as those within the CGIAR.

The CPWF has selected eight projects in the Mekong River Basin from the 50 submissions shortlisted for funding under the CPWF last year.

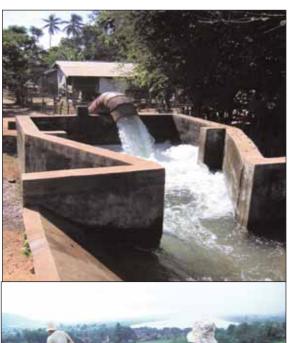
The projects cover a range of fields of research including minimising the impact of salt-affected areas, development of new strains of rice, improving aquaculture and governance. They seek to meet some of the bigger water resource issues facing the Mekong Basin in the coming years.

An additional contribution to the MRC's involvement in the Challenge Programme is the production of a new publication called *Mekong Research*, which will summarise research findings and outputs from the region.

#### New Document Management System

Last year saw the start of construction of the MRC Document Management System (DMS) already under development by Hatfield Consultants under the MRC-IS Portal project, in close coordination with the Technical Support Division. This should be operational by June 2005. Documents on the DMS will include MRC project/programme reports, outputs, occasional papers, technical and research papers and other publications.

## BDP moves toward concrete actions





The Mekong River Commission's Basin Development Plan project (BDP) is the backbone of the MRC Development Programme. It is now gearing up to move into its second phase and, for the team, this will mean transforming all the hard planning work done so far into concrete results.

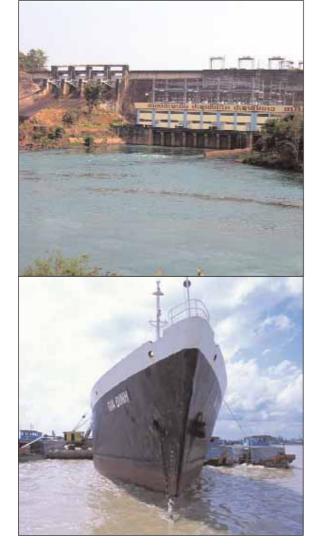
The BDP's aim has always been to create an environment for investment and sustainable development by formulating a basinwide strategy for development. Indeed under the 1995 Agreement it was agreed the BDP would be the general planning tool for the Joint Committee of the MRC to use as a blueprint "to identify, categorise and prioritise the projects and programmes to be implemented at basin level".

During its first phase the BDP team has been conducting dialogues between governments and their line agencies at all levels to ascertain what type of development would be of maximum benefit to the basin. In this phase BDP developed some powerful planning tools, as well as a strategy for identifying where these development needs lay.

A list of priority projects was developed and the BDP is now examining their feasibility. Some are joint projects involving different countries and some are national projects within a single country. Using planning processes and tools it has gathered all this knowledge and has collated a list of projects that can bring about shared growth in the Lower Mekong Basin.

The team's next challenge is the practical implementation phase of these projects. In short, the MRC will be actively identifying water-related development opportunities for its member nations that can be implemented at a basin level.

This point in its development has always been the real goal of the BDP. As the team points out there is no point planning for the sake of planning. It is important for the MRC to make a positive impact on reality and to be an active participant in the development of the basin.



The BDP's Integrated Water Resources Development Strategy will promote a series of sustainable development interventions and investment opportunities for the Lower Mekong Basin. It will identify the development needs, find the projects that meet those needs and then it will seek the necessary assistance to make the projects happen.

The team has created a database of these identified projects and, now, the Joint Committee will define priorities.

Projects that have been identified include those that will:

- Develop navigation potential
- Develop ways to minimise flood damage
- Develop improved irrigation techniques
- Develop the fisheries
- Develop clean energy sources
- Ensure watershed protection

The MRC sees itself as being in an ideal position to act as a facilitator of the development and investment process in the water sector. It is also keen to work hand in hand with other regional development agencies and explore the opportunities offered by such initiatives as the Greater Mekong Sub-Region (GMS) promoted by the Asian Development Bank.

However these new developments will be of no longterm benefit to anyone if their sustainability and impacts are not well researched prior to instigation. The ability to predict possible situations is one of the best ways of making a considered evaluation of a project and that is where the BDP team has strength.

Powerful simulation tools like the Decision Support Framework enable the team to analyse development scenarios that can take into account a range of variables and then be used in decision-making. Over the coming years the team plans to improve such tools, and, more importantly, it will share them with the member states, and other partners working in the river basin.

If member countries are to take a pro-active role in developing their own resources they will need new skills and one of the BDP team's priorities is to improve the institutional capacity in integrated water resource management and development within the nations.

This will help create a network of river basin organisations, which will then be able to manage the catchment areas of the Mekong River Basin. True basinwide managers in the countries will be able to ensure damage does not occur, that the environment is protected and that economic benefits are equally shared among the population.

The MRC will be a chief participant dealing with such water-related issues as hydropower, irrigation, fisheries, navigation watershed management and water quality on a holistic level.

# Shared lessons help promote inland fisheries

Inter-country cooperation is the cornerstone of the Mekong Agreement, but before such cooperation can have practical applications it is important for those making decisions to see what's going on in the field. It is not always easy to make a high level decision on regional issues when based in a city and often the expertise needed is not even available in the same country.

It was with these issues in mind, that a delegation of senior fisheries experts and scientists from the Department of Fisheries in Thailand, headed by Director General Dr Sitdhi Boonyaratpalin, went to learn first-hand how their counterparts in Cambodia were managing their very productive inland fisheries.

The January 2005 trip, which was organised and funded by the MRC Fisheries Programme, was hosted by the Inland Fisheries and Research Development Institute (IFReDI) of Cambodia and provided the Thai group with their first, close-up look at the inland fisheries of Cambodia, the basin's most prolific fish producing area.

The inland fishery in Cambodia is conservatively

estimated at more than 400,000 tonnes per year, with catches of other aquatic animals totalling at least 60,000 tonnes and it is among the largest and most significant inland fisheries in the world.

The idea was to absorb some lessons from the success of these inland fisheries and transpose them to the inland fisheries of North East Thailand in order to boost their productivity.

The Cambodian delegation, led by Mr Nao Thuok Director General of the Cambodian Department of Fisheries, took the visitors to the dai fisheries in Phnom Penh and to the lot fisheries on the Great Lake

The dais (or bagnets) are unique to Cambodia and are a particularly effective way of fishing. The nets are suspended in one location to filter the current (in a similar way to trawl nets). Each net is about 25 metres wide and about 120 metres long, extending a few metres to the bed of the river. Several nets are set across the river in a row. At present there are approximately 64 nets in 14 rows.



High-level representatives from the Thai and Cambodian Departments of Fisheries shared their knowledge on the field trip.

The lot fisheries are home to commercial scale fishing on the Tonle Sap Great Lake and can only be fished between October and May. Recently some of these lots have been transferred to community fisheries and the Department of Fisheries is promoting their management under a new Community Fisheries Development Office.

The volume of fish being caught by the two fisheries has been particularly high this season and the Thai visitors were amazed at how productive the fisheries were.

But there was another motive behind the visit. Many members of both the Cambodian and Thai teams were also members of the Technical Advisory Body for Fishery Management and one of the objectives of the study tour was to raise awareness of the TAB's role and work and to institute some joint management ventures.

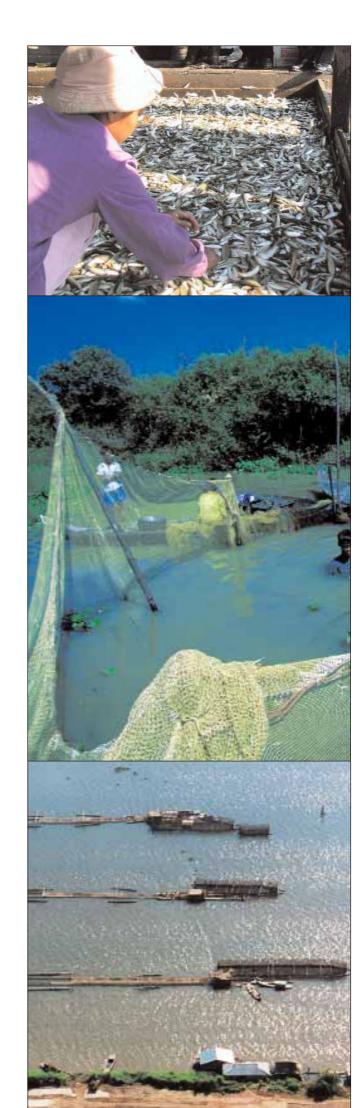
The TAB (which was founded in 2000) is now finding a more prominent role as a regional player and is, arguably, the only body anywhere in the world that has been specifically set up to provide inputs into regional river fisheries management and development.

It operates under the umbrella of the Mekong Agreement and draws membership from fisheries agencies and National Mekong Committees. It is also open to civil society organisations, such as the Regional Network for Promotion of Gender in Fisheries. This makes it more flexible and nearer to where management and development in fact take place.

Given that water and fish are shared in the Lower Mekong Basin, one of the roles the TAB is beginning to adopt is one of developing and strengthening governance of transboundary aquatic resources and dealing with transboundary issues. These include:

- The importance of migratory fish stocks, their management and conservation;
- The impact of unsustainable fishing, exploitation of fish in critical habitats at critical life stages, environmental disturbances and loss of genetic diversity;
- Local management techniques, such as breeding indigenous species; and,
- Principles of governance such as participation, rights and gender equality.

The MRC, as well as Danish and Swedish donors, provide administrative and financial support to the TAB.



# Managing the Mekong

The Mekong River Basin will change rapidly over the next few decades and by 2025 the population is tipped to rise to between 80 and 100 million.

The basin is still in its early stages of development and there is still a high level of poverty. More development is needed if there is to be widescale alleviation of poverty and an increase in the economic welfare of the growing population. This growth is likely to occur in areas such as industry, agriculture, infrastructure and tourism.

However, potential impacts of this development must be carefully monitored and managed if the millions of people who rely on the river for their food and water are to be protected.

For this reason the Mekong River Commission's Environment Programme is developing a River Health Strategy in order to monitor the health of the river and ensure that development does not cause

unacceptable deterioration in the region.

This River Health Strategy is intended to provide a framework for managing the Mekong. Within the framework the governments of the four member countries will be able to work in partnership to make decisions on the management of rivers in the lower Mekong basin. The strategy is also intended to encourage integration of activities within countries, and within the MRC Secretariat.

River health is a term used to describe the ecological condition of a river and it includes a range of physical and biological components that, together, make up the river's ecosystem.

The River Health Strategy will focus on five main elements which require management if river health is to be maintained. Monitoring procedures are already operating for several of these elements and a newly established monitoring activity is addressing the



overall ecological health of the river. These elements are:

#### Managing the harvest

If too many individuals of any species are removed from the river the species numbers will decline and the species will eventually disappear from the stream. While fish make up the biggest catch from the river, the people of the Mekong also rely on eating snakes, crocodiles, turtles, frogs, insects, riverweed, snails, mussels and more.

In addition to those species that are gathered intentionally, there may be species that are caught unintentionally and killed as by-catch. For example dolphins are no longer killed, but are occasionally trapped in fishing nets and then die. If one species gets wiped out or reduced significantly this can have impacts on the abundance of other species that may have been the food, or competitors with the harvested species.

#### Managing habitat quality

Fish require quite a complex habitat, not just clean water. Different species require water of suitable depth, and appropriate bottom material and appropriate shelter. They may also need to move to different types of habitats at different times of their life cycles -for example fish moving from deep to shallow waters to spawn, or from the channel to the floodplain to feed; so barriers may disrupt the habitat.

#### Managing Flow Pattern

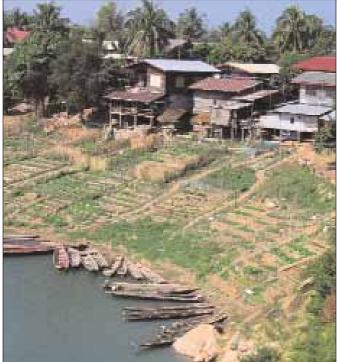
The flow pattern of a river plays a key role in regulating the life cycles of the creatures in the river. Many aquatic insects and some fish lay their eggs during the low flow season when eggs are less likely to be washed away. Other fish and aquatic insects reproduce during the high flows when habitat is more abundant. A change in flow for many species seems to trigger migration behaviour. Changes in flow characteristics of the river can interfere with these cues, or reduce breeding success of riverine species.

#### Managing Water quality

This is the fourth key factor directly impacting the aquatic biota. As water quality deteriorates the number of species that can survive and thrive in a water body decreases. Water quality can be quite difficult to assess, partly because it is often variable in time. Dissolved oxygen is often appreciably lower at night -especially in rivers with high densities of algae. Also toxins and pollutants, such as industrial waste, are also often present in a stream only intermittently, or unexpectedly.







#### Managing the condition of the catchment

This is indirect, but crucial. The catchment condition influences the amount, timing and quality of the water flowing in to the river. Catchments with large areas of bare soil will contribute to river sedimentation. Intensive agriculture, poorly managed, can lead to excessive nutrients and pesticides contaminating the river. Urban catchments have higher flood peaks and lower base flows because much of the rainfall runs off the paved surfaces directly into the river rather than passing through the soil.

The Environment Programme is developing tools and management programmes to allow the four member countries to cooperate in managing and monitoring all five components.

There are several tool sets required. One is a set of identification keys to allow important components of the all the plant and animal life (the biota) of a region to be identified.

A key to the invertebrates has been completed and is in the final editing process and the programme plans to produce keys to other components of the biota over the next few years. These keys will encourage more research into the classification of basin species and ecology.

The MRC also plans to develop a measuring tool that can be used to quantify river health. At present it has data on the five biological components, but needs to gather more data on chemical changes such as those influenced by nutrients or toxic substances.

Based on biological indicators, the river's health is considered fairly good. The programme's goal now is to combine its biological data with the results of the chemical water quality monitoring programme and a diagnostic study that collected data on toxic materials such as pesticides, metals and persistent organic compounds to develop a basin report card.

This card will be widely distributed and easily updated. It can also form the basis for reports which can address a broad range of basin issues, including land use, fisheries and river health.

## Finance and Administration

Following on from the past two financial years, the MRC has continued its stringent budgeting rules and maintained a surplus in the operating expenses budget. This vigorous financial control will be maintained throughout 2005.

The year 2004 was an exceptionally busy one in terms of operations as the Secretariat relocated from Phnom Penh, Cambodia to Vientiane, Lao PDR. This brought with it some additional expenses but, due to welcome assistance from our member countries' governments, this did not take a toll on our end of year result.

The relocation was very successful, on schedule and within budget. It had minimal impact on the operation of the Secretariat and the MRC's programmes.

Since the move to Lao PDR, the MRC has engaged in a busy recruitment schedule - hiring around 55 new staff members. These included the Lao administrative staff (to replace the Cambodians who relocated from Phnom Penh) together with new riparian and international employees.

The Lao staff have participated both in on-the-job training with their counterparts from Cambodia, and in external training, which has been funded by UNDP working in conjunction with the Lao National Mekong Committee.

Throughout the year the Secretariat provided administration support to all the MRC programmes and ensured they performed to their best capacity.



Lao staff take part in on-the-job training in Vientiane.

## Donor Cooperation in 2004

In 2004 Donor cooperation was healthy as many current donors and some new ones showed their strong support for the objectives of the MRC.

The MRC is delighted to see that the donors are substantially increasing their contributions, a fact it sees as a demonstration of the confidence the international donor community has in the work of the MRC. Funding agreements amounting to US\$ 26,492,801 were concluded with Australia, IWMI/CGIAR, Denmark, Finland, Germany, Japan, New Zealand, Sweden, the Netherlands and the UK.

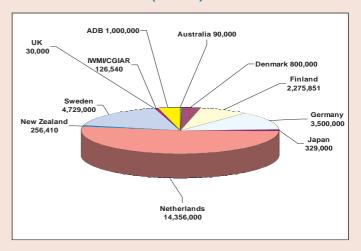
Donors formally indicated their multi-year pledging and commitment of support in an amount of US\$25.5 million (as at year end 2004). Pledges of support were made to the Flood Management and Mitigation Programme; the Water Utilisation Programme, the Environment Programme, the Fisheries Programme, Navigation Programme and the Basin Development Plan.

Continued support was also forthcoming from the Government of Japan in the form of its provision of three technical experts working within the Basin Development Plan, the Agriculture, Irrigation and Forestry Programme and the Water Resources Management Programme.

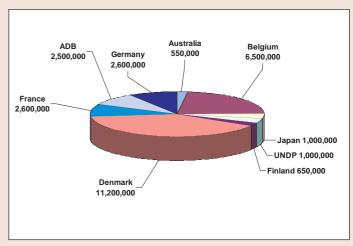
The MRC has also established cooperation and coordination with the Mississippi River Basin Alliance and the University of Minnesota and the Swedish Environment Institute's Sustainable Mekong Research Network (Sumernet) as one of 12 founding members.

In the past donors have contributed significantly to the development of the MRC's capacity and knowledge base. More and more, donors are participating in MRC's Development Programme based on increased regional cooperation and aiming at meeting the Millenium Goals of the Basin.

#### Funding Agreements concluded in 2004 (in US\$)



#### Pledges and Commitment of Support (in US\$)



#### New Funding Agreements in 2004

Donor	Amount US\$
Australia	90,000
Denmark	800,000
Finland	2,275,851
Germany	3,500,000
Japan	329,000
Netherlands	14,356,000
New Zealand	256,410
Sweden	4,729,000
UK	30,000
IWMI/CGIAR	126,540
Total	26,492,801

#### Firm Pledging Received in 2004

Donor	Amount US\$
Australia	550,000
Belgium	5,000,000
Japan	1,000,000
UNDP	1,000,000
ADB	1,000,000
Finland	650,000
Denmark	11,200,000
France	2,600,000
ADB	2,500,000
Total	25,500,000

## Income and Expenditure in 2004

2004	2003
USD	USD
Contributions	
Donors 12,897,394	10,232,904
Riparian governments 1,006,586	941,359
Revenue 13,903,980	11,174,263
Interest 5,293	8,580
Miscellaneous 21,014	13,936
26,307	22,516
Total Income 13,930,287	11,196,779
Expenditure	
Project expenditure	
Personnel services 4,706,284	5,278,623
Sub-contracts 429,291	256,483
Training 944,343	1,002,231
Equipment 493,199	468,958
Miscellaneous expenses 383,427	453, 254
Water Utilisation Project 1,915,798	2,321,371
8,872,342	9,780,920
Relocation project	
Secretariat relocation expenditure 551,678	33,338
Administrative expenditure	
Staff salary and fees 702,053	929,515
Common staff costs 392,080	391,311
Travel 3,420	3,639
Contractual services 60,826	100,143
General operating expenses 168,343	183,615
Supplies 31,431	26,111
Furniture and equipment 18,634	39,601
MRC meeting expenses 157,243	129,244
Support to National Mekong Committees and programmes 52,487	64,856
WUP management support 168,997	154,159
1,755,514	2,022,194
Total Expenditure 11,179,534	11,836,452
Foreign exchange (loss)/gain (7,756)	1,330
Movement in Fund Balances 2,742,997	(638,343)
Fund Balances as at 1 January 4,404,447	5,042,790
Fund Balances as at 31 December 7,147,444	4,404,447