

Sustainability the Focus of MRC Hydropower Programme

Over 200 representatives of organisations with an interest in hydropower development in the Lower Mekong Basin gathered in Vientiane in September for the Regional Multi-Stakeholder Consultation on the MRC Hydropower Programme. Designed by the MRC Secretariat to gather input from a wide range of expert sources and concerned groups, the meeting's constructive and open dialogue has given the Hydropower Programme a head start in its mission of enabling a regional and integrated approach to hydropower development.

Opened by Lao National Mekong Committee Director-General Chanthavong Saignasith on September 25, on behalf of Council Member Mme Khempeng Pholsena, the Consultation provided a forum on hydropower issues for governmental agencies, private sector companies and financing agencies, NGOs, international organisations and the donor agencies that support the MRC as development partners. Hydropower industry experts from the region and outside Asia also made presentations to the meeting. These included a status report from China on dams being built in the Upper Mekong Basin.

Mr Chanthavong said he hoped the Consultation would come to be regarded as a landmark event in cooperation between Lower Mekong countries. "It is clear", he said, "that we all recognise the importance of data sharing and joint planning in the sensitive matter of hydropower development. This technology offers great rewards, but at the same time can carry much risk. Cooperation, therefore, is essential to optimising our chances of creating a sustainable hydropower industry that can bring the benefits of power and water control while minimising disturbance to our natural environment and traditional way of life".

MRC Secretariat CEO Jeremy Bird called on participants to focus on a basin-wide approach to decision making on hydropower. Mr Bird emphasised



Fishermen at a dam spillway in Cambodia.

Photo: MRC/Jim Holmes

that all the development needs of the Mekong - everything from navigation of the river to flood management, fisheries, irrigation, environmental management, and tourism - must be considered when decisions on hydropower are made. He acknowledged the importance of increased participation in this process and committed the MRC Secretariat to providing the basinwide information that will enable the Mekong countries to decide on future developments.

According to Mr Bird, with hydropower development now being private rather than public-sector driven, early identification of key planning criteria is required to ensure social and environmental concerns are addressed in a coordinated manner, while risks and responsibilities are identified within a basinwide framework. As part of this process, the MRC will undertake a strategic environmental assessment of proposed mainstream dams and promote dialogue on key issues with developers, line agencies and other stakeholders.

As shown by the Basin Development Plan Programme's presentation to the meeting, the MRC has already begun modelling the flow changes that various proposed dams could cause in the Me-

kong River. In addition, the Fisheries Programme presented a summary of the results of the expert group meeting held on the barrier effect of dams on fish migration a few days before the hydropower consultation (see page 6). These programmes, and the Secretariat's Environment Programme, will continue to feed scenario and planning data into the Hydropower Programme.

The Chief Operating Officer of the World Bank Group's Multilateral Investment Guarantee Agency, James

Continued page 2

INSIDE

- August flooding and the MRC reaction
- Sustainable water management ideas shared
- Navigation not so dangerous as first believed
- Renewed Cooperation with China
- River art celebrates 10 years of Thies Riverprize

Regional Stakeholder.....

From page 1

P. Bond, stressed the role of the MRC in bringing all these elements together. “Sustainable hydropower developments in the Mekong Basin will not be possible unless there is an institution that can liaise and coordinate between the varying interests of all the countries” said Mr Bond.

He added that the MRC could improve how impact assessments are conducted, lead the way on cumulative impact assessments, provide policy advice to the various countries, keep a regional perspective, disseminate information, share best practices, engage stakeholders, ensure transparency of processes, and develop capacity.

The first two days of the meeting featured presentations on a wide range of issues (see box). These came from a range of stakeholder sectors, including national electricity enterprises from MRC member states, environmental

advocacy groups, developers, and National Mekong Committees.

On the morning of September 27, a working session was held on the draft Hydropower Programme document, before around 60 participants travelled to south to the Lao province of Khammouane province, to visit the Theun Hinboun hydropower project. Presentations from the Consultation are available on the MRC website, and full proceedings will soon be uploaded: <http://www.mrcmekong.org/programmes/Hydropower/stakeholder-consult-ppt.htm>.



Zhong Haixiang of China's Sinhydro Co. gives a private investor's perspective on the MRC Hydropower Programme. Photo: MRC/Vincent Gautier

Input from the Consultation will help drive the programme forward as it conducts further research work and examines ways of enhancing the sustainability of energy development strategies. 🌊

• Presentations - Regional Multi-Stakeholder Consultation on the MRC Hydropower Programme

Hydropower development in the Mekong Basin – regional opportunities and shared responsibilities	Mr Chanthavong Saignasith, Director General, LNMC
A development bank's perspective on sustainability	Mr James P. Bond, Multilateral Investment Guarantee Agency, World Bank Group
Global precedents in trans-boundary conservation: Lessons for the Mekong region?	Mr Stuart Chapman, WWF Greater Mekong Programme
Sustainability assessment – an industry approach	Mr Jean-Michel Devernay, International Hydropower Association
Hydropower in the context of basin wide water resources planning	Mr Jeremy Bird, CEO, MRCS
Modelling of flow changes in the Mekong mainstream for a range of development scenarios – preliminary results	Ms. Hang Pham Thi Thanh, BDP Coordinator, MRCS
Examining the barrier effects of mainstream dams to fish migration in the Mekong, and taking an integrated perspective to the design of mitigation measures	Dr Patrick Dugan, WorldFish Centre, Facilitator of Fishery Expert Group Meeting at MRC
Experiences from the “Procedures for Notification, Prior Consultation and Agreement”	Dr George Radosevich, Legal Advisor on the 1995 Agreement
Hydropower development in Cambodia	Mr Tung Sereyvuth, Ministry of Industry, Energy and Mines, Cambodia
Lao PDR – powering progress	Mr Viraphonh Viravong, Ministry of Energy and Mines, Lao PDR
Thailand – regional partner in hydropower development	Mr Suthep Liumsirjarern, Ministry of Energy, Thailand
Viet Nam – meeting rapid demand growth	Mr Vu Van Thai, Ministry of Industry and Trade, Viet Nam
Hydropower development on the Lancang	Mr Peng Cheng, China Hydropower and Water Resources Planning and Design General Institute
Influence of regional power market in the GMS region on hydropower development in the Mekong basin	Mr Yongping Zhai, Asian Development Bank
Adaptive management of the Columbia River System	Dr Bolyvong Tanovan, and Mr Robert Davidson, US Army Corps of Engineers North-western Division
WWF's partnership in the Yangtze Forum, PR China	Dr Ma Chaode, WWF China
Hydropower and navigation development on the Rhône river – impacts and environmental management	Mr Vincent Piron, Compagnie Nationale du Rhône
Benefit sharing from hydropower projects in Viet Nam	Ms Hoang Ha Quynh Giao, Ministry of Industry and Trade, Viet Nam
A model initiative: Addressing social and environmental concerns in the context of hydro development in the Mekong Basin	Mr Bun Chantrea, NGO Forum of Cambodia
Striving for excellence or race to the bottom	Mr Carl Middleton, International Rivers
Strategic environmental assessment of hydropower development in the Vu Gia-Thu Bon River Basin, Viet Nam	Mr Pham Anh Dzung, Ministry of Natural Resources and Environment, Viet Nam
Hydropower development - Perspective of a developer	Mr Robert Kay, GMS Power, Lao PDR
Opinions on MRC's Hydropower Programme	Mr Zhong Haixiang, Sinohydro Ltd, China
Perspective of a consultant	Mr Peerawat Premchun, Team Consultants, Thailand

High flood season hits north of LMB

Destructive flooding affected areas of the basin from July to September this year. This article compiles press coverage of the floods, while the story below it gives the MRC analysis.

The 2008 flood season caused damage in various parts of the Lower Mekong Basin (LMB), with the Lao PDR and northern Thailand most affected by record river levels during August.

Lao Foreign Minister Thongloun Sisoulith described the flood as the worst ever to hit the country, saying it had affected more than 200,000 people. According to the Lao government, over 43,600 ha of agricultural land was damaged, and about 17,400 houses flooded. Damage to infrastructure such as schools, roads, and water supply and sanitation systems was widespread, with road repairs needed because of the floods estimated at about 293 billion kip (US\$34.5m).

According to the United Nations, \$2m was needed in both food security and agricultural recovery sectors in Laos. UN Resident Coordinator, Sonam Yangchen Rana, said poor families would be impoverished further by the loss of rice paddy, food stocks and other assets.

According to a statement from the Thai Interior Ministry in August, the flood was the worst in 100 years, claiming six lives, and causing damage estimated at 223 million baht (\$66.5m). Initial estimates suggest 92,000 households and 200,000 ha of agricultural land were directly affected, but flash floods and inundations along tributaries will have



The Mekong River reached record levels as it flooded parts of Vientiane in August.


Photo: MRC/Stan Fradelizi

raised these figures substantially during September. Events in the late monsoon season particularly affected the provinces of Nakhon Ratchasima, where about 20,000 families were affected and 22.7 billion baht (\$670m) worth of damage done, plus Kalasin, Maha Sarakham, and Roi Et. Thousands of people suffered from waterborne diseases in the aftermath of the floods, which also plunged farmers into financial crisis.

Even as September drew to an end, the situation was far from normal across much of the upper area of the LMB. Wetlands, catchment areas and dams across the region were close to full capacity, meaning that storms such as Hagupit and Mekkhala triggered more flooding. The Lam Phra Ploeng dam in Nakhon Ratchasima was at 96% of its capacity at the end of the month. A woman in Oudomxay province, northern Laos, was killed when Typhoon

Hagupit moved inland from Viet Nam on September 26. Floodwater from the Nam Kor hit a wall and caused it to collapse on top of her.

In contrast, more southern areas experienced normal amounts of water during the flood season or even drought. Floods were recorded in Preah Vihear province of Cambodia in mid-September, but across much of Cambodia late rainfall delayed rice planting until mid-September. People in the Red River Basin in the north of Viet Nam suffered terrible loss of life and property caused by Tropical Storm Kammuri in August, and were also affected by the storms of September. In the Mekong Delta though, the rainy season has so far been regarded as typical of a normal year, with flooding occurring on a limited scale.

This article draws from stories published in the *Vientiane Times*, *Bangkok Post*, and *Cambodia Daily*, among other sources. 

MRC analysis released in wake of 2008 floods

In the aftermath of damage caused by floods along the Mekong mainstream in August 2008, it was reported in various regional media that the MRC had failed to warn villagers in Thailand and Laos of the floods, and that the floods were aggravated by releases from hydropower dams on the river in China. The MRC was also criticised in some quarters for failing to obtain information from China about releases from these dams.

In response the MRC conducted a swift analysis of the Secretariat's performance before and during the flooding and developed an action plan to address shortcomings. At the beginning of September the *Flood Situation Report August 2008* was published to give an overview of



The MRC predicted the flood level in Vientiane to within 20 cm of its actual peak in mid-August.

Photo: MRC/Stan Fradelizi

events (see *Information Products*, back page). The report shows that runoff for the floods in question was almost

entirely generated in the area between Jinghong, in Yunnan province, and

[Continued page 4](#)

From page 3

Luang Prabang, and so the most critical floods occurred in upstream reaches.

The August 2008 event was the first episode for which the Regional Flood Centre provided forecasting services. On the whole results were encouraging, and the Centre's forecasts were generally accurate. For example, the prediction for August 10 correctly indicated the flood level in Vientiane would be exceeded. Furthermore, the maximum flood level in Vientiane was forecast on August 13 to within 20 cm of the level recorded two days later.

Analysis of available storage behind the three operational dams on the Mekong in Yunnan revealed it to be insignificant compared to runoff volumes during the flood. Releases from these dams would

have played no significant role in the conditions, which were the result of natural meteorological and hydrological circumstances. Hydrometric data supplied by China under the 2002 data exchange agreement with the MRC proved important, providing a solid starting point for flood routing on the mainstream. This information can be made even more useful by review and improvement of the forecasting model.

Various lessons to be learnt were identified. These include the need for developing 'learning algorithms' within the forecasting model to refine and dampen predictions as an event evolves. The August event also revealed gaps in the MRC's data gathering and a poor understanding of the flood hydrology of the major Lao tributaries north of Luang Prabang. To address this, the hydrologi-

cal component of the overall model will need some recalibration.

As part of proposed improvements at least three-hourly updates of water levels from the Appropriate Hydrological Improvement Project and Hydrological Cycle Observation System stations are recommended. Other specific measures will be confirmed following systematic review of the performance of the flood forecasting technology in the Mekong Basin, both hydrologically and statistically.

The Flood Mitigation and Management Programme is also assessing the institutional arrangements for disseminating MRC forecasts and early warnings, in terms of their usefulness for counterpart agencies, distribution channels and comprehensive coverage of recipients. ~

Sharing research and field experience on sustainable water management

Consideration of the consequential effects of water use on the whole river basin is required if sustainable solutions are to be found for the economic and environmental challenges occurring in the Mekong basin due to population growth. That was one of the key messages to emerge at the Third International Symposium on Sustainable Development in the Mekong River Basin, held in Khon Kaen in September.

Representatives from Japan, the MRC Member Countries, and the Secretariat met to follow up on the progress and results of studies by Japan Science and Technology (JST) in the basin. This scientific cooperation is based on field experience, research data and professional views on topics including modelling and monitoring of the water environment in the Mekong Basin, sustainable irrigation, agriculture, and fisheries, waste water, and socio-economic development analysis. Symposium participants shared progress and results through presentations from a broad spectrum of research institutions including the Institute of Technology Centre of Cambodia, the Lao Department of Irrigation, Khon Kaen and Vonchanvalikul Universities in Thailand, and Viet Nam's Southern Institute of Water Resource Research.

The JST-funded Core Research for Evolutional Science and Technology (CREST) research project has instigated



Water quality testing is being conducted by various research organisations across the basin. Photo: MRC

pioneering research in the Mekong Basin, much of which was shared at the Symposium. Discussions focused on the socio-economic and environmental ramifications of agricultural developments, on water quality testing and hydrological modelling. MRC Agriculture, Irrigation and Forestry Programme (AIFP) representative Fongsamouth Phengphaengsy called on participants to share primary data, so that the various organisations present could compare, discuss, and enrich their own databases. Also participating from the MRC were the Basin Development Plan and Environment Programmes.

JST, an independent administrative agency established to promote progress in science, conducts research in

various parts of the world, but mainly in Asia. The Mekong region is one of its pilot sites, and the focus of work by the CREST research project. Cooperation between the MRC Secretariat and CREST supplies information to MRC project implementation and provides data for comparison and integration within a range of MRC activities.

The meeting in Khon Kaen was the last planned CREST symposium, but provided AIFP with a good opportunity to extend networking with regional and Japanese organisations, with a view to future cooperation. Full proceedings of the meeting have already been published by JST in conjunction with the Royal Irrigation Department of Thailand. ~

Mekong navigation not so dangerous as first believed



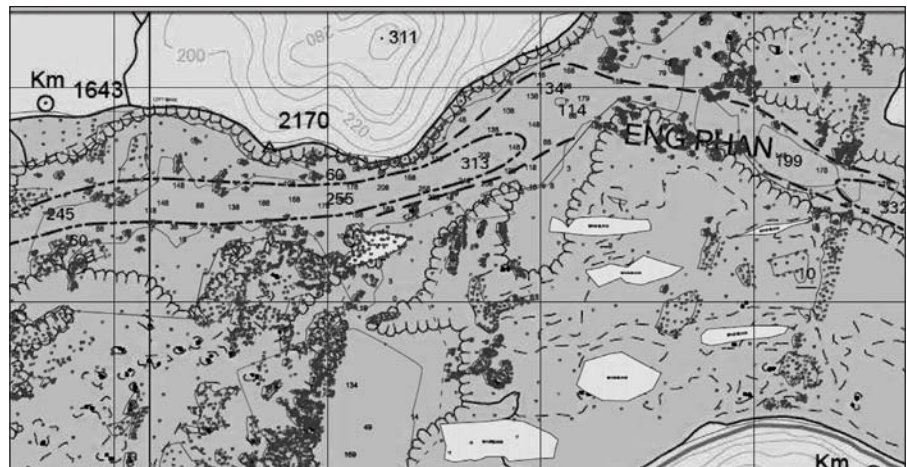
Typical danger area on the Upper Mekong in Laos.

Photo: MRC/Jacques Dezeure

Results are emerging from the MRC's condition survey of dangerous areas for navigation along the Mekong River between Luang Prabang and Pakse (*Mekong News* 2, 2008). While the survey has identified a greater aggregate length of hazardous river stretches than had been anticipated, it seems that the overall degree of difficulty these stretches pose for boats is not as severe as was previously believed.

Reconnaissance missions over the entire 1,150 km of the river between Luang Prabang and Pakse were conducted between March and April this year. By the end of August, a description of navigation conditions was ready and hazards had been identified, enabling the Navigation Programme to produce a new 1:20,000 scale topo-hydrographic atlas covering the dangerous areas.

Early in the survey process it became clear that a pre-selected list of dangerous areas, prepared through desk study and interviews with local pilots, did



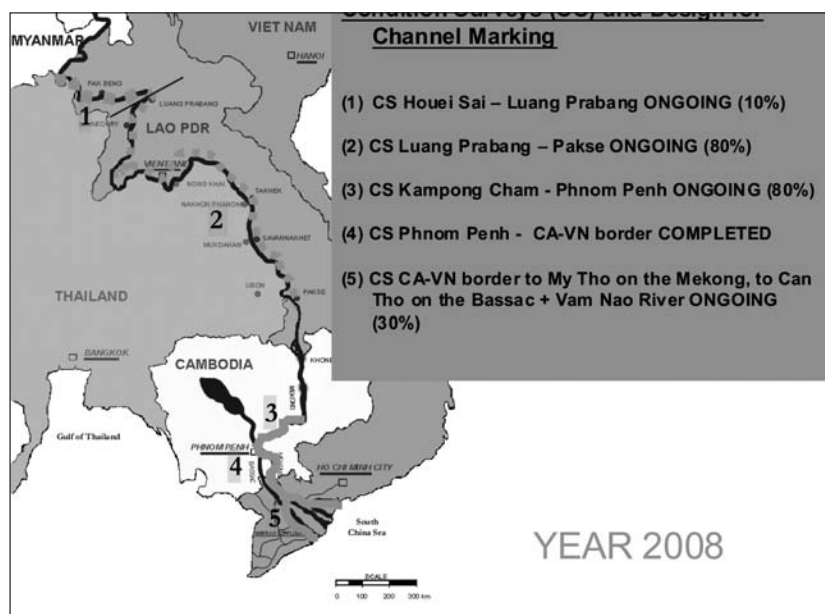
The survey produces detailed mapping of the river, which can then be used to design safety marker systems.

not accurately reflect the real situation on the river. With no standard system of waterway classification instituted before along the Mekong in this area, the authorities of different provinces had used varying criteria to determine which areas were considered dangerous for navigation. In some areas the survey team found better nautical accessibility than was indicated on existing charts,

while elsewhere the extent of the dangerous area had been underestimated, or in some locations not marked at all.

The newly compiled list of dangerous areas includes about 48,000 m of lateral river section compared to the 36,000 m pre-selected in the desk study. A first ranking of the pre-selected dangerous areas downstream from Don Sa Island in the Lao PDR revealed that navigation channel problems in this area were less significant than had been expected. It was therefore decided this group of dangerous areas could be considered a 'navigational aids problem'. This means that those stretches of river can be made safe through a carefully designed channel markers system, which is faster and less expensive than carrying out very detailed hydrographic surveys.

According to Navigation Programme coordinator Phirun Hiek, survey work is not possible when the river is at peak flow and hazards are hidden by the water. Survey will therefore continue along a 12,000-m stretch between Keng Ta Kho and Hin Han Don Sa at the end of 2008, when the low water season starts. 🌊



Renewed Cooperation with China Headlines at JC and Dialogue Meetings

The signing of a five-year extension to a data sharing agreement between the MRC and China marked the culmination of three days of high-level meetings in Vientiane at the end of August. The 28th Meeting of the MRC Joint Committee ran from August 27-28 and was followed by the annual Dialogue Meeting, held with Dialogue Partners China and Myanmar.

The August 2008 floods were high on the agenda at the Joint Committee Meeting. Dr Saksit Tridech, Permanent Secretary to Thailand's Ministry of Natural Resources and Environment, and Joint Committee Chairman for 2008/2009, told participants that the MRC had reacted quickly and effectively in warning national agencies of the flooding in the Lao PDR and Thailand, and that the events had prompted much public discussion. Also prominent in discussions was the Regional Multi-Stakeholder Consultation on the MRC Hydropower Programme.

In parallel to the Dialogue Meeting, China's Ministry of Water Resources and the MRC Member States renewed an existing agreement to share data on flood season water flows in the Lancang-Mekong River. Since 2002 China has provided daily water level and rainfall data during the flood season (15



Man'an hydrological station in Yunnan. Information on water levels from two stations on the Lancang-Mekong will continue to be provided to the MRC during flood seasons. Photo: MRC

June-15 October) from two hydrological stations at Yunjinghong and Man'an. This information has improved the quality of forecasting for the Mekong River and thereby plays an important role in reducing losses caused by floods in the Lower Mekong Basin.

In addition to the agreement on hydrological data, it was also agreed that the MRC and China should work together to ensure that all plans for hydropower development in the basin take river transport into consideration. The Yunnan Administration of Navigational Affairs Bureau and the MRC Navigation Programme have been discussing possible condition surveys on dangerous

stretches of the river between Houayxay and Luang Prabang in the Lao PDR. Detailed charting and aids to navigation are needed in this area, which is part of the important tourist route along the river between Chiang Rai and Luang Prabang.

China also presented technical information on the capacity of existing and planned hydropower projects on the Lancang-Mekong in Yunnan, including the outcome of general research into the downstream impacts of the Chinese dams. To further cooperation between China and the MRC, arrangements were made for a visit to Beijing by senior staff from the Secretariat in October. 🌊

Fish experts and mainstream dams

The potential effect on fisheries should hydropower dams be built on the mainstream of the Mekong River was discussed by international experts in Vientiane in September. The new MRC Hydropower Programme and the Fisheries Programme convened an Expert Group Meeting on 'dams as barriers to fish migration in the Mekong mainstream, and possibilities for mitigation' to feed international expertise into the Regional Multi-Stakeholder Consultation on the MRC Hydropower Programme, held a few days later.

Seventeen fisheries scientists and hydropower engineers brought together worldwide and regional expertise in

fish biology and ecology, and in the design and operation of hydro dams to support fisheries. Participants were informed that up to 2.5 million tonnes of fish are caught in the Lower Mekong Basin each year, worth an estimated US\$2-3 billion at point of first sale.

Supported by the Mekong's large flood pulse, many fish migrate upstream to breed, after which their eggs and larvae are carried down to floodplains where they feed and grow. Fish also migrate to feed. According to the experts, dams can be a barrier to these migrations, but the specific effect varies considerably depending on species and on the type of measures introduced to facilitate

their passage. The most severe impacts would be on long-distance migrants, the 'white-fish' species, which move up the river to breed. It is estimated that 70% of the total fish catch in the Mekong basin is dependent on these long-distance migrants. More locally-



White-fish, such as cyprinids and most catfish, are most likely to be affected by Mekong dams as their life cycles involve long-distance migrations.

resident 'black-fish' are much less affected by barriers, but these species may not be able to compensate fully for the production and value of white fish lost as a result of reduced migration routes.

The impact of a dam on overall fish production is also dependent on its location, design and operating regime. Those built on the mainstream will have more impact on the fisheries resources than dams built on tributaries, while those located in the middle and lower basin will have greater effect on fish production than dams in the upper basin.

The experts concluded that while fish ladders and passes have been designed in various river systems across the world to let migrating fish move upstream, such measures would need major modification. Moreover, there is currently little evidence to suggest that existing fish passage technologies would be effective. Fish ladders work for salmon, which are very powerful swimmers, but no other freshwater fishes in the world have equal swimming



Black-fish like the climbing perch do not leave floodplains and wetlands and are likely to be less affected by dam construction.

ability. For non-salmonid fishes, like those in the Mekong, ladders could only help fish pass barriers with a maximum height of 6-10 metres, lower than the estimated height of proposed Mekong dams. The experts suggested that further consideration is required to identify options that can meet this challenge.



The possibility of enhancing aquaculture and reservoir fisheries to compensate for the barrier effect of hydropower dams was one of the topics discussed at the Expert Meeting. Photo: MRC

Depending on their design, dams create reservoirs, which have potential for fish production. However, the ecological conditions in reservoirs differ greatly from those in undammed rivers. Where natural fish production is generally highest - in large rivers and on low-land floodplains - it is often difficult to compensate for losses caused by dams. Estimates from dams in south and south-east Asia indicate that reservoir productivity levels are generally low.


The MRC is working on a number of initiatives to improve capacity in this area. The group felt that while it may be possible to obtain higher yields through stocking and aquaculture enhancements, these could be costly and may not compensate fully for the loss of the river fishery. Another major challenge is how to ensure the benefits of reservoir fisheries can be shared by those who currently use the wild capture fishery.

If dams are built, various measures can be incorporated into the design to lessen their effect on fish migration. For fish moving downstream, the choice of turbines can greatly enhance survival rates, as can installation of

well designed bypass structures and spillways. However, specific management measures are needed for each dam: solutions cannot simply be copied from existing designs, but should be redeveloped from proven concepts and adapted to local conditions and species.

Where management solutions have been successfully integrated into dam design, they have required that dams be operated to manage fish migration as first priority for the parts of the year. It is also important that measures to accommodate fish migration are integrated into dam design from the outset, as retrofitting facilities is far more costly.

The MRC is working with government agencies and will facilitate dialogue with private developers to ensure the issues surrounding fish migration are incorporated into an integrated approach to water resource planning for the Mekong River.

The Fisheries Programme is currently synthesising a full report on the discussions, and will publish the results in a variety of formats before the end of 2008. 

UPCOMING EVENTS

Joint 15th Meeting of the MRC Council and 13th Meeting of the Donor Consultative Group
6-8 November, Vientiane, Lao PDR

International Conference on "Mekong Mainstream Dams: People's Voices across Borders"
12-13 November, Chulalongkorn University, Bangkok, Thailand

Regional Consultation on the MRC/GTZ Watershed Management Project
18-19 November, Vientiane, Lao PDR
Contact: menniken@mrcmekong.org

Regional Forum on MRC Stakeholder Policy
25-26 November, Vientiane, Lao PDR

Regional Forum on the MRC Climate Change and Adaptation Initiative
27-28 November 2008, Bangkok, Thailand
Contact: sanna@mrcmekong.org

MRC Fisheries Programme 9th Technical Symposium on Mekong Fisheries
19-20 November, Stem Reap, Cambodia
Contact: manothone@mrcmekong.org

International Symposium on "Resolving the Water-Energy Nexus"
26-28 November, Paris, France
Contact: valerie-anne.kodjovi@developpement-durable.gouv.fr

Mekong News is published quarterly by the Mekong River Commission Secretariat in Vientiane, Lao PDR. Please send comments, queries and ideas to the Communications Officer, Phone: (856-21) 263 263 ext. 4703 Fax: (856-21) 263 264 Email: media@mrcmekong.org

River art celebrates ten years of Thies Riverprize

To celebrate the tenth anniversary of the Thies Riverprize, the MRC contributed to a symbolic mural composed of 16 individual canvases commissioned by the International River Foundation (IRF). The canvases were created by winners of the Australian national and the international riverprize from 1999-2007, with two blank canvases reserved for the winners of the 2008 prize. The mural was unveiled at September's International River Symposium in Brisbane, Australia.



Left, all 16 canvases commissioned for the tenth anniversary of the Thies Riverprize. The MRC contribution, created by Phannavanh Anoulack, is on the right.

A river flows symbolically through each canvas, representing the journey of each of the prize winners, and the Riverprize itself over the last ten years. The MRC received the prize on behalf of the Lower Mekong countries in 2002. According to the IRF, winners have built bridges across political borders and ideological divides, such as with the Alexander River shared by Israel and Palestine. Some have been ground-breaking in terms of policy and implementation, such as with the Murray Wetlands Working Group

in Australia. Others have forged strong transnational collaborations, as with the Mekong and the Danube Rivers, and have overcome cultural and language barriers.

The MRC canvas was created by ICCS Graphic Designer Phannavanh Anoulack to represent socio-economic developments occurring in the Lower Mekong Basin, and the spirit of cooperation between the four MRC member states. The image shows areas of development that the MRC advises its

members on, including agriculture, and irrigation, fisheries, hydropower, navigation, and watershed management.

The 2008 Australian National Thies Riverprize was awarded to Lake Macquarie in New South Wales, and the International Thies Riverprize went to St Johns River in Florida, USA. All past prizewinners are further featured in River Journeys, a coffee table book on river restoration journeys worldwide. The book is available at www.riverfoundation.org.au.

INFORMATION PRODUCTS



Flood situation report, August 2008 (Technical Paper No. 21)

Written, reviewed and released immediately after the event, this short technical report (20 pages) summarises the main-stream Mekong floods that hit the Lao PDR and Thailand in August 2008. The report analyses the water levels recorded in the aftermath of Tropical Storm Kammuri, drawing the conclusion that the floods were caused by a combination of the storm and heavy rainfall during the early part of the monsoon season.

September 2008. Hard copy: US\$5.00 plus postage.

Free download: http://www.mrcmekong.org/free_download/research.htm#tech

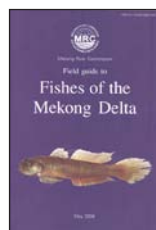


6th Annual Mekong Flood Forum - Proceedings

Held in Phnom Penh in May, the sixth AMFF adopted the theme *integrated approaches and applicable systems for medium-term flood forecasting and early warning*. This CD presents full versions of all the papers presented at the forum.

August 2008. CD: \$5.00 plus postage.

Free download: http://www.mrcmekong.org/free_download/proceedings.htm



Field Guide to Fishes of the Mekong Delta

The product of extensive research on the many arms of the Mekong Delta in Viet Nam, this book describes and illustrates over 360 fishes, highlighting the distinctions between similar fish.

September 2008. Hard copy: US\$15.00 plus postage.

Free download: To be announced

HOW TO ORDER

All products can be ordered from the MRC Secretariat's Documentation Centre.
Postage costs apply. Mekong region government agencies may write to the MRC to obtain free copies.
Check the MRC website for a full list of products. Credit card sales are accepted through the website, www.mrcmekong.org.
Some products are available as free downloads.

CONTACT

Documentation Centre
Mekong River Commission Secretariat
P.O. Box 6101, 184 Fa Ngoum Road, Unit 18, Ban Sithane Neua,
Sikhottabong District, Vientiane 01000, Lao PDR
Open: Mon-Fri, 8.30 am-12.00 pm, 1.30 pm - 4.30 pm
Tel: (856 21) 263 263 ext: 1041 Fax: (856 21) 263 264
Email: doc.centre@mrcmekong.org Website: www.mrcmekong.org

For access to the latest reports and research on development issues, visit www.mekonginfo.org