

A united plan for the Mekong

Two of the world's greatest wetland areas along South-East Asia's majestic Mekong River are under threat from new, external forces barely understood by the traditional cultures of the region. The IUCN, the World Conservation Union, has recently launched an ambitious cross-border program aimed at both staving-off the fastest growing pressures, and ushering in a new era of sustainable livelihoods.

Richard Mogg reports.

From a source about 5500 m above sea level in the Himalayan snows of Tibet, the Mekong flows 2161 km through China's southern provinces of Qinghai and Yunnan. Known here as the Lancang, the Upper Mekong is turbulent in the cataracts and gorges of the rugged southern mountains. From there, the river flows a further 2719 km through Myanmar (formerly Burma), Laos, Thailand, Cambodia and Vietnam, where it pours out, in high volume, into the South China Sea.

One of the world's great river systems, the Mekong ranks as the 12th longest, and 8th highest, with an annual discharge of approximately 475 000 million cubic metres – it has a massive drainage area of around 795 000 square kilometres across six countries.

In the Lower Mekong Basin, Cambodia's Tonle Sap (the Great Lake) and the verdant rice agriculture of Vietnam's vast southern Mekong Delta, support a rich biodiversity attributed to the high rise

and fall of flows between wet and dry seasons – up to 10–12 m – in the main stream and the many tributaries. Lakes, swamps, marshes and backwaters support a huge diversity of flora and fauna.

With at least 1300 species of fish identified so far, the abundance of the Lower Mekong is surpassed only by that of those mighty waterways the Amazon and the Congo.

Many species, however, are now under dire pressure from changes to their riverine habitat, pollution, over-fishing and the illegal yet huge and profitable international trade in the more exotic flora and fauna. The Mekong's unique Irrawaddy Dolphin, Giant Catfish and Siamese Crocodile are all becoming rare, as are the region's remarkable birds, such as the Giant Ibis and the Sarus Crane.

In fact, the Mekong's entire hydrological regime is being affected. The integral fisheries of Tonle Sap and the agricultural swathes of the Mekong Delta are facing a

The Mekong at the stretch where it borders Thailand, Myanmar (Burma) and Laos. This region has long been the major point of all kinds of trades including that of opium.

Dmitri Ivanov/istockphoto

critical shortage of water and the distortion of historical river flow cycles – effects that are already impacting ecological and social viability.

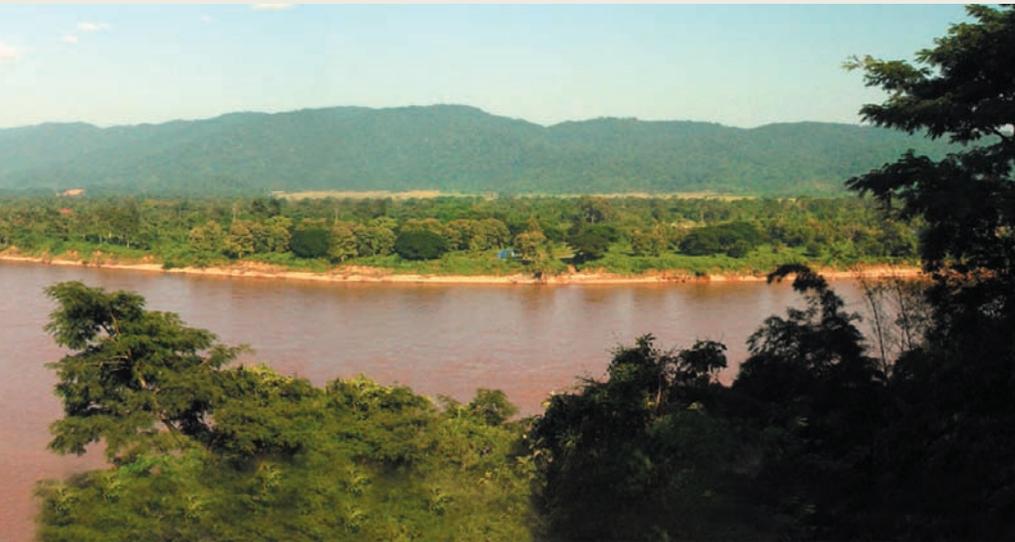
Upstream development effects

The water shortage problems appear to be due, in large part, to the development of a huge hydropower cascade upstream in China's southernmost mainland province, Yunnan, which is monopolising flow. Huaneng Power International, China's largest energy generator, has been given most of the hydropower development rights on the Mekong and Yangtze.

There is growing anxiety that the major alterations to the Mekong's upstream geophysical configuration – on the main stream in China, and on tributaries in Laos and Thailand – will have far-reaching effects by altering the natural flow regime, the seasonal ebb and flow to which the region is timed.

John Dore, currently IUCN's Coordinator for Asia, Water and Nature Initiative (WANI), Regional Wetlands and Water Resources Programme, Bangkok, led a previous study¹ of Yunnan hydropower expansion on the Salween, Mekong and Yangtze rivers that first drew attention to the major worries about alterations to the natural regime of rivers.

Discussing the hydropower plants, Dore suggests that, 'With Huaneng controlling them all, there should be scope to negotiate



the final reservoir to be managed in a way which minimises downstream impacts. Having said that, no matter which way you look at it, the flow regime and the ecology are being substantially altered.'

Distorted flow cycles will impact on local ecosystems, as well as traditional fisheries, riverbank gardens and farms. The river-tied traditional life will likely change fundamentally, being insufficiently offset by any of the promised new benefits that may accrue from developments.

The river's natural flow between Myanmar and Laos has already been altered by the dredging and blasting of rocky shoals in 2003, to improve commercial navigation between China and Thailand. River-born commerce is booming due to a new free trade agreement between the two countries. A three-phase project to remove the shoals and reefs will enable bigger commercial vessels of up to 500 tons to navigate the river between China and Thailand, via Myanmar and Laos. The consequent changes in flow may disturb the spawning habitat of the Lower Mekong's legendary Giant Catfish and other aquatic species unique to the river.

Another encroaching pressure comes from the international foreign tourism sector, which regards the Mekong region as a huge, hardly touched, investment attraction. Luxury hotels need bitumen roads, power and telecommunications, all of which also have a tendency to destabilise, or even eradicate, the age-old customs and practices of the remote tribal communities who have co-existed with the river system for centuries.

Many of the Mekong's wetlands and

watersheds are trans-border, which complicates assessment and management of linked ecosystems. The main concern, though, is that reduced water levels and distorted cycles may damage traditional fisheries and agriculture. The Tonle Sap fisheries are a major plank of Cambodia's agro-economy, while rice for both home and export markets from the Mekong Delta is one of Vietnam's. The Tonle Sap's peculiar natural water cycle is closely tied to the spawning habits of its prolific fish stock.

Although there is ongoing assessment of causes of change pressures, it is clear that these influences of water management and irrigation schemes, the emerging climate-change effects – such as the melting of the Himalayan ice cap, the powerful economic

forces coming into play through major investment in infrastructure, extractive industries, and foreign tourism, will increase their cumulative impact on the Mekong. With such impending challenges, however, a considerable opportunity has emerged for addressing poverty and promoting sustainable livelihoods through the wise management of wetland resources.

International attention and initiatives

The growing plight of the Mekong Wetland areas, however, has not escaped the attention of the world's conservation authorities. At its Congress in November 2004 in Bangkok, the World Conservation Union (IUCN), in collaboration with the Global Environment Facility (GEF), the United Nations Development Programme (UNDP) and the Mekong River Commission (MRC), publicised a new initiative, the *Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme* (MWBP). This US\$30 million scheme, officially launched the previous July in Vientiane, the capital of Laos, aims to target conservation and biodiversity problems in the Lower Mekong economies of Cambodia, Laos, Thailand and Vietnam.

Welcoming the immediate impetus of the Programme, Richard Friend, IUCN's Vientiane-based Mekong WBP programme manager, said, 'The rich biodiversity of the wetlands of the Mekong River Basin are fundamental to the livelihoods of millions of people. Any degradation of these wetlands, particularly of fisheries, will have devastating implications.'



A river family inspects a catch. Millions of people living along the Mekong's vast Delta region rely on its fisheries. Mekong Wetlands Biodiversity Programme/ Peter-John Meynall

P r o g r e s s



Evening fishing on the Mekong River, Laos.

Sarah Wood

According to the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), some 250 million people inhabit a land area of approximately 2.3 million square kilometres² in the six-country Mekong Region. Their combined gross domestic product (GDP) is forecast to grow to US\$863 billion by 2010. The average per capita GDP is currently only US\$2700 per annum, but there are wide variations. According to World Bank research, at least 49 per cent of people in Cambodia live on less than the equivalent of one dollar a day.

The stated goal of the MWBP is to develop conservation and sustainable use of the Mekong wetland's traditional biodiversity, and alleviate poverty, through capacity strengthening at regional, national and local levels. Priority is being given to identifying the causes of wetland degradation, and to developing sustainable solutions, through carefully conceived



The Mekong's Giant Catfish (*Pangasianodon gigas*) is critically endangered. Known as *Pla Buek* in Thai, it is the largest scaleless freshwater fish in the world, weighing as much as 300 kg and measuring up to 3 m (10 feet) in length. Mekong Wetlands Biodiversity Programme/Zeb Hogan.

planning, policymaking, information, management and human resources.

Two major cross-border phases

The five-year programme is divided into two successive phases, beginning with the US\$30 million Phase 'A' (2004–2006), designed for 'Creating the Enabling Environment'. A monitoring and evaluation system is being developed to reveal both outcome and impact of the first phase, as well as to internally monitor adaptive management.

Concept and Global Environment Facility funding for Phase 'B' will depend on the outcome and achievements of Phase 'A'. The regional level of development, coordinated by the MRC, will target the policy-making ministerial level of government in

the Lower Mekong economies. Cross-border cooperation is perceived to be an essential element of coordinated regional wetland conservation in the Mekong basin. Although not all regional work is being coordinated by the MRC, its structures are being used as a means of drawing attention to guidelines for wetland management.

Wetland conservation management and sustainable development progress, in multi-sector terms, through coordinating the work of national Mekong committees in the four participating countries. Local level participation, however, is being focused by special wetland demonstration projects in each of the four participating countries: Stoeng Treng (Cambodia), Attapeu Province (Laos), Lower Songkhram Basin (Thailand), and Plain of Reeds (Vietnam). Each demonstration site is assigned to focus on a specific range of wetland ecosystem found in the Lower Mekong basin.

Richard Friend explains: 'Demonstration sites are places of wetland importance where we can illustrate wetland issues and concerns and work to develop wetland management capacities both among provincial officials and local communities. It will also address the issues of wetland livelihoods and poverty.'

With the majority of their peoples still living and working outside the urban areas, wetland areas in the Lower Mekong countries are crucial to sustenance for the poor and underprivileged.

While Thailand is classified as a middle-income country with a per capita annual GDP equivalent to US\$2200, Cambodia, Laos and Vietnam remain classified as low-income rural economies based on natural resources, with GDPs in the range US\$280–360 per capita (although this is a steadily changing factor for fast developing Vietnam).

Encouraging government commitment

The objectives of the IUCN–UNDP–MRC five-year programme are to bolster inter-governmental institutions such as the MRC, in terms of day-to-day operations and management of wetlands. Contributions will be managed by the Regional Wetlands Coordination Forum and coordinated with multilateral agencies such as the World Bank and the ADB. Improved collaboration and communication between upper and Lower Mekong countries are considered to be essential.

Effective functioning is crucial for government ministries, agencies and committees (governmental as well as



The Mekong's rich waters support integral rice-growing plains in Vietnam and Cambodia.

Mekong Wetlands Biodiversity Programme/Peter-John Meynall

non-governmental) dealing with catchments, streams, wetlands and Ramsar sites. But it should be noted that the World Bank and the ADB, as formidable multilateral financial institutions, both wear two hats in development of the Mekong Region. On the one hand they are duty bound to support large projects; on the other, funds and practical help are deployed to foster a commitment to social and environmental responsibility.

Cross-border cooperation is perceived by the MWBP programme managers to be an essential element of the coordinated regional wetland conservation in the Mekong Basin. Although work is shared between the managing organisations, MRC structures are being used as a means of drawing attention to guidelines for wetland management. The MWBP programme will also target structures within national governments, civil society, grassroots bodies and the NGO (non-governmental organisation) sector.

During the July-December 2004 inception phase of the MWBP, appropriate baseline indicators and information were developed in Vientiane. The IUCN, MRC and UNDP, each represented by a Vientiane-based programme manager, will target ministerial policymaking in the four Lower Mekong economies: Cambodia, Laos, Thailand and Vietnam.

Public participation in wetland conservation management and sustainable development will be enabled by the operation of national Programme Steering Committees, separate from National Mekong committees and their secretariats.

Local level participation in the MWBP programme is being focused by the special wetland demonstration projects in each of the four participating countries. To maintain independence and exert some influence, the MWBP programme is not being coordinated with the World Bank, the Asian Development Bank (ADB), or other such multilateral agencies.

Counteracting powerful forces

In an era of growing development it will not be an easy transition to viable and sustainable wetlands management in the Lower Mekong. Besides the intrusive effects of official pan-Mekong rapid infrastructure development, the forces of reason will have



Saurus cranes take off from reedy marsh area on the Mekong Delta. The world's tallest flying bird, an adult male may stand up to six feet tall. Saurus cranes are the only resident breeding cranes in India and South-East Asia. They are now suffering a rapid population decline due to the loss and degradation of wetland habitat.

Mekong Wetlands Biodiversity Programme/ Peter-John Meynall

to come to terms with powerful vested interests dependent on maintaining the *status quo*. Thailand has been almost entirely stripped of its forest cover by illegal logging. The proposed Mekong Region highway network will make logging even easier in the pristine forests of the Laos and Cambodia. The committed and secretive international trade in the wildlife will also be difficult to deal with. IUCN will be implementing and coordinating other integral efforts, such as wetland biodiversity plans, species conservation action plans for flagship species, work on invasive species, and the trade in wetland species. Richard Friend points out that 'At the national level, much of the work coordinated by the National Wetland Programme offices will focus on national wetland policies and action plans, awareness-raising, and support to the implementation of the Ramsar Convention.'

In mid-December 2004, high government officers of the six-nation Mekong Region met in Vientiane to set the formula for a regional 'Biodiversity Conservation Corridor'. But conservation proponents tend to regard the Corridor proposal as a 'red herring' to divert attention from planned massive development of infrastructure. The overwhelming interest of the high-level meeting, it is widely felt, was to plan investment in infrastructure to the tune of US\$15 billion over the next five years. This slated international infrastructure planning, and the juxtaposed MWBP, will throw up a chal-

lenging dialogue over the next few years.

At issue are the questions of governance and the role of civil societies in increasing Mekong regionalism. As John Dore points out, 'In the era of contemporary globalisation – after the Asia crisis – there are powerful inter-related forces driving freer trade, infrastructure installation and new uses for the Mekong River.'³ Enhanced regional governance is essential for there to be a satisfactory level sustainable development in such an ecologically diverse region. He affirms, 'This is critical ... the overall standard of regional governance currently falls short of what could reasonably be expected by the peoples of the region.'

Achieving a satisfactory balance between development and conservation in the Mekong Region promises to be a long, complex and difficult task. Whatever happens, the people of the Lower Mekong must now face rapid, probably cathartic change, to their livelihoods and lifestyle. So far conservation of wetland ecosystems has tended to be overlooked in favour of more short-term strategies. Vibrant wetlands support the lives of some 55 million people in the Lower Mekong Basin. The five-year MWBP programme therefore makes sense, not just in terms of sustainable biodiversity and the conservation, but also for viable economic and social policy.

More information:

The Mekong Wetlands Biodiversity Programme: www.mekongwetlands.org
The Mekong River Commission: www.mrcmekong.org

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2. *Greater Mekong Subregion Business Handbook*. (2002). United Nations Economic and Social Commission for Asia and the Pacific.

3. Dore, J (2003). The governance of increasing Mekong regionalism. In: *Social Challenges for the Mekong Region*. Mingsarn Kaosa-ard & J. Dore (Eds). White Lotus, Bangkok.