



MEKONG BRIEF

NUMBER 6

September 2007

Unpacking the Mekong Water Resources Assistance Strategy

- **The Mekong Water Resource Assistance Strategy (MWRAS) provides guidelines for the management and utilisation of water resources in the Mekong River Basin**
- **MWRAS was developed by the World Bank and Asian Development Bank.**
- **Attempts have been made to bring on board other stakeholders including international non-governmental organisations.**
- **MWRAS identifies three transboundary zones for evaluating the potential outcomes from development projects on the Mekong River basin**
- **Modelling has been used to model the potential cumulative hydrological environmental impacts of development projects planned for the Mekong River**
- **Criticisms of the MWRAS document include: the scope and assumptions of development scenario modelling; inadequate consideration of river ecology beyond hydrology; use of the document's basin-wide model to justify specific development projects; the lack of meaningful inclusion of all stakeholders in its development; and the non-involvement of China**

The Mekong Water Resources Assistance Strategy (MWRAS)¹ is a strategy developed by the World Bank (WB) in conjunction with the Asian Development Bank (ADB), for implementation in the Mekong River Basin. MWRAS aims to provide guidelines for the management and utilisation of the Mekong River Basin's water resources, ensuring that the principles of 'balanced development' are incorporated into water resources projects. MWRAS justifies the pursuit of development opportunities within the Mekong Basin through the use of simulated development scenarios, which demonstrate the potential impacts of projects such as dam construction on the river.

Through MWRAS the WB and ADB affirm their belief that poverty alleviation can be achieved by developing the Mekong Basin's water resources through large development projects such as hydropower stations and dams. The Banks claim that development can be achieved with acceptable environmental and social consequences. Using the MWRAS framework based on Integrated Water Resources Management (IWRM), the Banks intend to avoid repeating mistakes of the past. This Mekong Brief identifies a number of concerns associated with the development and direction of the MWRAS document.

Features of the MWRAS document

Transboundary Zones

MWRAS identifies three locations suitable for the proposed development activities:

- 1) The sub-basins of the Sesan-Srepok shared by Cambodia and Viet Nam, and the adjacent sub-basin of the Sekong shared by Lao PDR and Cambodia.
- 2) The border section of the Mekong basin shared by Thailand and Lao PDR.
- 3) The flood, navigation, agriculture and wetland nexus in the delta shared by Viet Nam and Cambodia.

Proposed Activities

Proposed activities under MWRAS are based around large-scale water diversions aimed at realising water resource potential in economic terms. Although it is difficult to determine the exact scale and priority of activities in the MWRAS document, hydropower remains the central pillar to the proposals. Several hydropower schemes, irrigation and dredging activities are proposed for the three transboundary zones. The scale of these projects is unclear as the MWRAS document lays out a number of different scenarios based on different development intensities ranging from current baseline conditions to significant damming projects in each Mekong country.

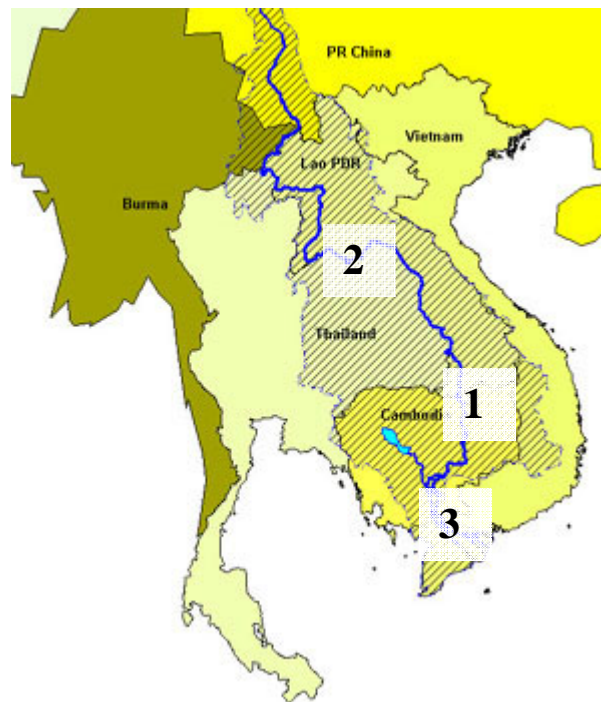


Fig. 1 Map of the Mekong River Basin with Transboundary Zones

The MWRAS document uses current levels of electricity and generation and water consumption, as well as current population trends to justify the need for large-scale hydropower projects. Justification for the specific location of activities within the transboundary zones are based on seven criteria:

1. Economically and financially attractive
2. Can deliver multiple benefits while protecting key social and environmental values
3. Easy identification of trade offs
4. Create the environment to develop stronger governance institutions
5. Aggregate financing capabilities
6. Have potential to build regional trust
7. Broadly endorsed by all stakeholders, NGO's and civil society.²

Hydrological Modelling

The hydrological model on which the MWRAS is based uses six different development scenarios. These scenarios range from water usage and depletion in 2000, to a situation where all proposed dams were accepted. There were four indicators used for the modeling:

- 1) Mainstream flow indicators (changes in flow),
- 2) Great Lake and floodplain indicators (changes in flood duration and inundation which was then used to calculate fish feeding opportunities),
- 3) Delta indicators (salinity intrusion) and Irrigation indicators (irrigable area) and,
- 4) Hydropower generated (total electricity produced over 16 year modeling period).

¹ The MWRAS had been metamorphosed into the Mekong Water Resources Partnership Program (MWARP).

² World Bank & Asian Development Bank, (2006), *WB/ADB Joint Working Paper On Future Directions For Water Resources Management In The Mekong River Basin Mekong Water Resources Assistance Strategy (MWRAS)*, June, p. 33

This study was primarily done by the Mekong River commission's Water Utilisation Project (WUP) but also with assistance from the Environment Program, Fisheries Program, Basin Development Program and the Finland Government through WUP-FIN.³ It was overseen by an international expert panel, chaired by a former CEO of the Murray Darling Basin Commission. The study used a modelling technique called ISIS (hydrological and hydrodynamic simulation model) developed by the Halcrow firm.

MWRAS Stakeholders

World Bank (WB) and Asian Development Bank (ADB)

The WB and ADB collaborated on MWRAS to create a framework that can be applied to future development projects in the Mekong Region. The WB has been the main player. While the Banks argue that they have a role in promoting good water governance in the region, some commentators have argued that MWRAS has instead been developed as a strategic tool used to create investment opportunities for the Banks.⁴

Mekong River Commission (MRC)

While MWRAS is mentioned in the *MRC 2006 Annual Report* and is adopted in MRC's *Strategic Plan 2006-2010*, it still remains unclear how significant the MWRAS framework will be in projects undertaken by MRC.

MWRAS also appears to be somewhat critical of MRC's institutional ability to respond to development demands of its member nations, and seems to use this as a justification for its own involvement in the region. MRC's adoption of MWRAS appears to reflect the emergence of a new developmentalist orientation for the MRC in recent years.⁵

Civil society and local communities

The MWRAS document indicates that it is heavily reliant on stakeholder consultation due to the limited institutional experience of the World Bank and ADB with IWRM. It also places importance on the inclusion of all stakeholders to shape the priorities of MWRAS. Not all civil society groups accept that there has been meaningful involvement in the early stages of MWRAS development.

Concerns relating to MWRAS

Underlying false assumptions

Underpinning the justification for MWRAS is the assertion that the Mekong is "at an early stage of development and, at the overall scale of the basin, can

accommodate considerable further development"⁶ Progressing from this standpoint, the specific activities and approaches advocated are justified by their prior success. "The hydropower sector is already in full motion and is accelerating development, spurred on by high oil prices and buoyed by the progress on Nam Theun 2"⁷. To imply that previous hydropower projects in the Mekong have been a "success" is a controversial assertion considering their recent history. As with previous large scale development projects advocated by both the ADB and WB, a specific set of values based on a singular faith in economic growth and a belief in the 'trickle down effect' provides the foundation for justification of MWRAS.

Environmental concerns

The MWRAS document gives hydrological rather than environmental justification for its proposed activities. The following points indicate a number of concerns in relation to the environment:

- The MWRAS document makes repeated mentions of sustainability, yet there is no evidence that environmental concerns were integrated from the onset of decision making.
- Large scale hydrological impacts on the mainstream are the focus of the document. More localized small scale impacts, that will have both short and long term consequences upon local communities and tributary rivers, are almost entirely ignored.
- The scientific justifications underpinning the MWRAS are based almost entirely on a limited set of hydrological models and therefore its conclusions are stretched well beyond what there is evidence for.
- There is a bias in the assessment of current environmental problems, whereby resource depletion and degradation are attributed largely to local factors rather than large infrastructure.
- The criteria for site selection for MWRAS projects are vague, difficult to measure and poorly defined; as "have[ing] the potential to build regional trust" and "offer[ing] integrated packages that can deliver multiple benefits..." These criteria are especially problematic when dealing with highly controversial projects.

Hydrological modelling limitations

The modelling does not consider ecological processes which are important for accessing the overall "health" and productivity of the river. In the modeling scenarios no consideration is given to sediment flows, fish migration, nutrient availability or other ecological indicators relevant to impact.

Hydrographs from the modelling are drawn to convey a picture of minimal difference between high and low development scenarios. What this picture fails to show

³ Water Utilisation Project conducted by the Finnish Government

⁴ International Rivers Network, (2006), *Mekong Under Threat New Strategy Promotes Dams And Diversions*, International Rivers Network, Nov.

⁵ Mekong News, 2007, "MRC Secretariat CEO completes term of office", July-September, p.3.

⁶ World Bank & Asian Development Bank, *ibid.*, p. 35

⁷ *Ibid.*

are the potential ecological impacts of a changed flow at different times to the norm.

A misleading aspect of the data is that only graphs from areas of maximum flow, such as Nong Khai and Kratie are used. Therefore, it is necessary that areas further up the mainstream and on tributaries are also measured as changes in the hydrograph will be more pronounced.

Evaluations on the success on the modelling process undertaken by the WUP team indicate a number of problems and areas requiring more focus, such as the need for further investigation of the Tonle Sap floodplains and bed rock areas of Khone falls. However, the MWRAS makes no mention of these concerns. The WUP team also warns against the use of the modelling as a definitive guide to different development scenarios, which is acknowledged in the WB and ADB in the MWRAS, yet modelling forms the basis of the whole strategy.

One of the major criticisms of using the hydrological model is that the research supporting it is incomplete, with only two of the three phases having been finished. Although the MWRAS document is still only in draft form, it is misleading and inaccurate to draw the conclusions and suggestions it does based on the analysis it carries out.

Inadequate stakeholder involvement

While the MWRAS document states that civil society involvement was an integral part of the project, to date it would appear that the inclusion of civil society in the MWRAS development process has been fairly limited. Civil society representatives have only been included in four of the fourteen consultation workshops, one of which consisted of solely civil society participants.⁸ Concerns have been raised by those in attendance at the various workshops about the agenda and focus of the workshops, and participants have been skeptical regarding the extent to which their input would influence MWRAS.⁹ As yet, many participants have seen no evidence that recommendations made during the workshops have been incorporated into the strategy.

Exclusion of China

The non-involvement of China from MWRAS is also a concern given China's significant influence as an upstream riparian government currently embarking on large projects with potential for significant impacts on the river. The MWRAS document dismisses this as unimportant on the basis that "the Mekong is much less of a national concern to China"¹⁰. Yet, the document acknowledges that water use changes in Yunnan Province would affect the Lower Mekong Basin countries. The inclusion of China is necessary if

MWRAS is to provide a practical framework and realistic simulation for development projects in the Mekong basin.

What is the future of MWRAS?

MWRAS plays an important part of the WB and ADB's future plans for the Mekong region. It has been transformed into the WB and ADB Joint Mekong Water Resources Partnership Program (MWARP), which has become a framework for its investment projects and has also been incorporated in the WB's Draft Regional Support Strategy for the GMS.

The pending integration of MWRAS into Mekong River development projects may serve as an opportunity to reconcile the past antagonism between development and environmental concerns. As the pressure on the environment intensifies, the need for a clear strategy that integrates environmental considerations with development pressure, without undermining ecological processes, is heightened. The extent to which MWRAS is able to acknowledge and redress its current limitations as raised in this brief will be critical for it achieving the objectives stated in the document, i.e. development alleviating poverty without undermining ecological systems.

AMRC's Mekong Brief Series

This Brief is the seventh in a series of information sheets to be produced by the Australian Mekong Resource Centre (AMRC), University of Sydney, for students, teachers and others with an interest in the Mekong Region.

The AMRC was established in 1997 to promote research, discussion and debate on development and environmental issues in the Mekong Region. The AMRC is a focal point for information, dialogue and activities in support of an equitable and sustainable development path for the Mekong Region.

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⁸ Alaerts, G., 2007, pers. comm., 25 July via e-mail

⁹ Bank Information Center, (2007), *The Greater Mekong Subregion and MDBs: basic facts and updates*, www.bicusa.org/en/Article.2122.aspx

¹⁰ World Bank & Asian Development Bank, (2006), p. 10