

Mekong at the Crossroads

The Mekong region is undergoing rapid transitions, socially, economically, and environmentally. Economies are stabilizing after the political turbulence of the last several decades, and development pressures as well as ambitions are vast. Water is related to these social, economic, and environmental changes in many ways and in a very profound manner. This article summarizes the approach and major conclusions of the research project title “Integrated Water Resources Management (IWRM) on the Mekong River.” The concept of IWRM is elaborated in the setting of these major transitions, and the roles of academic research and education are highlighted.

BACKGROUND

Helsinki University of Technology implemented a research project in 2005–2007 on Integrated Water Resources Management (IWRM) in the Mekong River Basin. The project was supported by the Academy of Finland and Finnish Ministry for Foreign Affairs, and it was carried out in close connection with the Finnish-funded WUP-FIN Lower Mekong Modelling Project (1).

The objective was to scientifically investigate how the IWRM process in the Mekong Basin is institutionalized and implemented in practice. On the basis of this information, specific policy recommendations were prepared, improvements to IWRM were proposed, and the implications of using United Nations (UN) Millennium Development Goals (MDGs) as development targets for water policies were investigated. Of particular interest were the bottlenecks of IWRM and MDGs, both those that are within the water sector and those that relate to various, more general development tendencies.

What is IWRM?

During recent years, numerous events and documents in the water sector have endorsed Integrated Water Resources Management (IWRM) and a basinwide approach to river management. The Mekong River is a good example of an international river basin that involves multiple sectors and actors and thus needs integrated management (Fig. 1).

IWRM is based on the so-called 3E principle: waters should be used to provide *economic* well-being to the people, without compromising social *equity* and *environmental sustainability*. Waters should be managed in a basinwide context, with stakeholder participation and under the prevalence of good governance. Since the Dublin International Conference on Water and Environment of 1992, and the Bonn International Conference on Freshwater of 2001, an integrated approach to water has been promoted around the world.

This three-year project was carried out through the organization of annual workshops, which were planned carefully to constitute a logical continuous process and a mutual learning opportunity, and where the results of each workshop contributed to next one.

The focus of the first meeting was *IWRM in the Tonle Sap Lake, Cambodia*, and it was held at the Royal University of Phnom Penh in Cambodia in February 2005 (2). It was a

diagnostic workshop that assessed the current state of knowledge about the natural environment, societies, governance system, etc., relative to the policy frameworks in the region.

The second workshop took place at the National University of Laos in Vientiane, Lao People’s Democratic Republic in February 2006. The topic was *The Modern Myths of the Mekong*. Commonly believed myths of sustainable water-resources management were scrutinized and challenged by thorough scientific analysis (3). The workshop went inside the mindsets (myths) in thinking and looked at how too-simplistic concepts could be broken, and how discussion could be fueled and moved onward from simplistic “yes” and “no” kind of argumentation.

The third of the workshops elaborated on the theme *Mekong at the Crossroads*, as outlined here. The workshop was held in Chiang Mai, Thailand, in May 2007, and it was co-organized by Chiang Mai University’s Unit for Social and Environmental Research (USER) and M-POWER (4). The workshop gathered together 26 papers that were submitted to prime peer-reviewed journals, one of them being the *Ambio* Special Issue at hand.

The *Mekong at the Crossroads* workshop looked more to the action and to the choices of the future, as well as the different kind of challenges that can possibly hinder these choices.

MEKONG AT THE CROSSROADS

The aim of the *Mekong at the Crossroads* study was to analyze what kind of future routes are possible in the Mekong, and where they would lead. Of particular interest was the role of the academic community in the development context of the Mekong Basin. Presenters in the workshop were encouraged to include one or more axes of contrasting issues in their contribution, and to elaborate how these could be contrasted and confronted.

This overview concentrates on the major outcomes of the project in two overarching axes, namely, *i*) integrated water-resources management, and *ii*) the role of the academic community and academic projects in the development process.

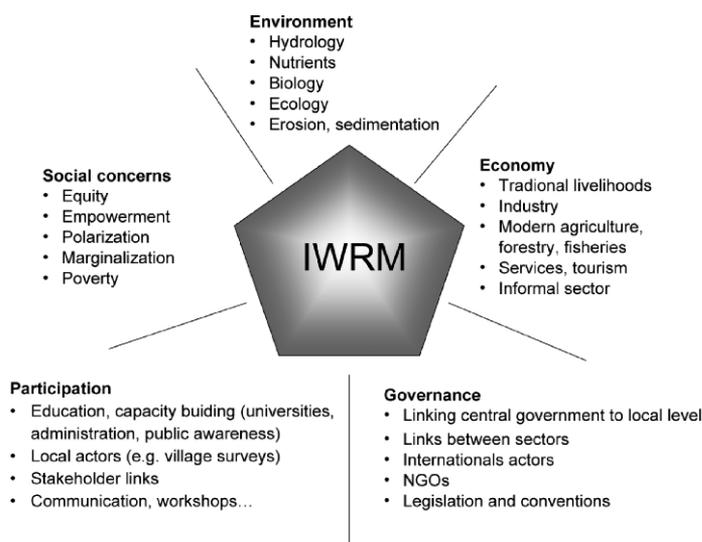


Figure 1. Facets of integrated water-resources management (IWRM) in the context of the Mekong River Basin.

The workshop was divided into four themes following the integrated water-resources management definition: *i*) development, *ii*) nature, *iii*) living from nature, and *iv*) policies and politics.

These themes were elaborated in the context of the following determinants:

As the Mekong travels from the Tibetan highlands through peninsular Indochina, it crosses a culturally and environmentally very diverse and rich region. The region is home to dozens of ethnic groups living in six countries. On its way from the high mountains to the Mekong Delta, the river crosses numerous climatic and ecological zones. This diversity and wealth provide a potential for both conflicts and cooperation, as the different countries have different kinds of plans and needs in relation to the river and its resources.

Presently, the Mekong region is at a crossroads in many respects. Urbanization is very rapid and massive, and the contrasts between urban and rural areas are soaring, as are the contrasts between the urban upper and middle class and the growing slum population, as well as the rural large-scale landholders and the landless.

Development needs call for economic growth with investments in large-scale infrastructure and export industries, and at the same time for social justice and environmental sustainability. The latter is subjected to growing threats and challenges due to intensifying agriculture, growth of industries and urban areas, resource-stressed water, forestry, and energy sectors, and ineffective environmental policies.

All these dimensions constitute a multidimensional entity in which the region's political and economical systems must operate without comprehensive roadmaps and in a highly dynamic setting. At the same time, plans for development projects for the Mekong and its tributaries—including main stem dams—are mushrooming in practically all riparian countries.

The governance systems are dominated by state actors, and implementation of international policies with a regional perspective faces continuous challenges. Equally, many critics point out that local voices are not sufficiently heard in decision-making processes, which suffer from being obscure, nondemocratic, and nontransparent.

The entire concept of development is perennially a topic of profound disagreements. The region has seen the penetration of various and highly diverging ideologies that have perturbed the region's recent history in dramatic ways. Today, the governments tend to promote economic growth policies that lean on large-scale projects undertaken at the state level. There exist worries of the overwhelming dominance of national interests in policy making, as well as a lack of true local-level involvement in these development plans.

Overall, the actions operate on scales that would necessitate more regional cooperation as well as social and environmental sensitivity at all scales, ranging from local communities to the dimension of the entire Mekong River.

RECOMMENDATIONS: IWRM

On the basis of the experience gained within the project, it has become obvious that IWRM is a far more strategic issue than is often recognized. One example is the Mekong River Commission's (MRC) ongoing Basin Development Plan process, which is the third of its kind in their history. The first two, one in the 1960s and the other in the 1980s, were never implemented. This was due to various reasons, not only because of the wars, but because both shared the typical problem of such plans: they were not really rooted to the societies and cultures of the riparian countries.

River basins are the cradles of the mankind, and each basin has its own ages-old and recent history, a potpourri of cultural, ethnic, political, and other factors with specific institutional arrangements and governance characteristics operating locally, nationally, and internationally. These all influence the implementation of IWRM. The water sector should build its own efforts on these realities and not pretend to be the organization around.

Inclusiveness and Broadness

Without common recognition and ownership of the IWRM concepts at the local level, in local governance, at the government level, and in the international setting, IWRM remains a theoretical concept without much sound scientific background from real-life development projects and without much sustainable impact on the environment, society, and economy. If these water issues can be set in the broad, cross-cutting framework of other development issues, this would provide a way to go toward a better future through successful freshwater management.

Combat Fragmentation

The water sector is usually seen as too disconnected from other sectors. The water sector itself is a multidimensional mosaic of activities that have no clear disciplinary boundaries. For example, energy, agriculture, environment, and health sectors are parts of the water sector, but they are also sectors in their own right, and parts of other sectors. We should try to bring these all together, but recognize too that many other sectors suffer from similar integration challenges—and, in some of them, water is an important component.

The reality in most large river basins involves coordination of the functions of different actions and institutions and increasing mutual cooperation, instead of a centralized, all-mighty agency. In the Mekong region, IWRM could be best used as a tool for sustainable development and as a framework for the cooperation between different institutions.

Water Projects Still Require Too Much Hardware

A typical criticism of water professionals is their approach to water-resources management, which is often considered to be too hardware-oriented. This means that the resources and their development are often the starting point, but too seldom are the institutional and human-capacity dimensions properly reflected. The "people out there" are amazingly frequently ignored and forgotten. Governance, institutions, human skills, and education are typical bottlenecks of implementation of IWRM, and they are often inadequately addressed. As a dynamic concept, IWRM takes time to evolve. If the dissemination of a demanding concept is too swift, too widespread, too open, and operated on too large a scale, the implementation will definitely face problems. One institutional cornerstone of the implementation of IWRM is national legislation—a scarcely elaborated theme in the Mekong discourse.

It is also important to recognize that in most of the developing regions of the world, IWRM requires massive international efforts because of the transboundary character of the problems, accompanied by complicated and difficult political settings.

Institutional and Governance Challenges

It would seem problematic to establish a strong, basinwide institution to coordinate water issues when there are serious challenges also with national-level institutional cooperation in

all of the Mekong countries. Many national institutions still lack democratic participation mechanisms, an issue that gets even more worrying as the countries experience increasing social stratification. Also, the rivalries between the institutions may effectively hinder cooperation and coordination. Moreover, the requirement of IWRM to simultaneously coordinate all water-related sectors seems to be rather ideological than practically feasible.

An integrated approach would mean close cooperation and coordination among the various institutions and stakeholders and the creation of a common view for the river management. In the case of the Mekong River, however, the different institutions appear to work rather separately, and their planning processes remain often nonparticipatory. Consequently, development of platforms for open dialogue and engagement that are not dominated by the most powerful actors would be an important step forward.

Transparency of Policy Processes: A Major Problem

In the Mekong Basin, the institutional setup is a complicated mix of various international, national, governmental, nongovernmental, and many other agencies and other stakeholders. At the same time, the role of the private sector has increased rapidly, particularly in the construction of water infrastructure, such as hydropower dams.

The stakes and ambitions within a river basin do not originate alone from the basin itself. A single agency does not have the privilege to ignore other agencies and stakeholders. This is the case with the MRC, Association of Southeast Asian Nations, Greater Mekong Subregion Program, and other organizations, not to mention national-level actors. None of the institutions has the undisputable leading role within the water sector. The major problem is the transparency of the policy processes within the complicated interplay of the various actors.

RECOMMENDATIONS: ACADEMIC COMMUNITY

The discussions and investigations that emerged within the workshops clearly showed the importance of academic research and education in the current context of the Mekong.

Shortcomings in Communication and Data Collection

A culture of open communication and information exchange is still very much lacking in the region. Dominance of state-level actors in information management and control is pronounced, and both local and regional dimensions are underdeveloped. Data collection activities suffer from the same problems. Innovation and problem-sensitivity are lacking, and long-term monitoring of the basin is by far insufficient for sound scientific impact analysis studies, which are badly needed given the large and profound changes taking place in the basin.

One indication of the situation is the fact that despite major international efforts that have lasted over seven years, a clear basinwide impact assessment protocol has not yet seen daylight. Even the selection of impact assessment models is often loaded with politics.

Need for Truly Interdisciplinary Research

Successful planning and management of water resources in the Mekong Basin require an interdisciplinary approach that combines methods and information from various different fields and is thus able to better address the diverse contexts that water management has to deal with.

Due to the region's governance challenges and multiple level of water governance, a greater understanding of the region's sociopolitical structures in relation to water management is particularly important. Social and political analysis can, for example, help to define how the benefits, costs, and risks of different projects are actually allocated between different social groups.

Overall, the problem with many water projects seems to be that they are based on rationales that are detached from local realities and therefore produce often unintended results. Solving this problem would require better understanding of the local institutions and sociopolitical structures and a greater connection between different disciplines.

Importance of Academic Network

In this setting, an independent and quality-conscious academic network is crucial. Currently, discussion and even decision-making seem surprisingly often be dominated by "gray literature." Consequently, there is a burning shortage of high-quality, peer-reviewed information that meets international quality standards and is published openly.

The academics have a grand potential for linking the government actors, the international community, nongovernmental organizations (NGOs), and the public in the Mekong region, such as has happened in many other parts of the world.

Need to Improve Academic Approaches

How can academics meet these demands and fulfill this potential?

A typical challenge for academics is effective communication with policy-makers and the wide public. These challenges are even more pronounced in the Mekong region than, for instance, in Europe due to the young culture of open societies. Chiefly, language barriers are notable; for example, most regional-scale information is published only in English or other non-native language.

Scientists need to better disseminate the message to decision makers and the public. The scientific community must therefore develop its skills in digesting complex matters to understandable messages without compromising the quality of their results. At the same time, the academics should be advocates of high research ethics and refrain from promotion of predefined, single-agenda type items in their scientific contributions.

Another typical challenge to scientists is that they remain in and even reinforce the disciplinary borders in which they grew during their university education. Most real-life problems need crossing of these fractions and borders, which is definitely not easy. In our workshop series, we made an attempt to bring together a rich diversity of academics in order to enhance multi- and interdisciplinarity.

The scientific community may have a major role in developing new standards and practices for the production, dissemination, and use of technical and scientific information and knowledge. Standards, both ethical and duality-related, matter. High-quality information products are very scarce and should be emphasized.

Why Are Academics Not on Official Development Assistance Agendas?

The academic community forms the backbone of long-term capacity building in any country. The quality of education of the coming experts in the government, administration, private business, NGOs, and elsewhere relies very much on the investment in academic institutions, above all universities.

Table 1. Travel analogy for the various components of the water sector and water governance.

Travel analogy	Water sector correspondence	Priority areas identified
<i>Route</i> <i>Traveler</i>	Desired development direction Actor	Security (water, food, energy, ecosystems, etc.), adaptability, welfare Society, stakeholders, administration, individuals, households, traditional communities, corporations
<i>Equipment</i>	Policy tools and approaches	Technology, governance, capacity building, leadership, management, organization, communication, coordination, awareness
<i>Rules</i>	Water institutions	Institutional development, ethical and moral codes, laws, customary laws, commitments, human rights, participation
<i>Weather</i>	Externalities	Globalization, climate change, demography (migrations, urbanization, aging), diseases, health, political changes

Universities are, however, strikingly absent from the agendas of most of the donor community. This should be reconsidered.

BEYOND CROSSROADS

The analogy of crossroads allows some further elaboration. If we compare the water sector's actors to voyagers through time, a direction, or route, must be found to take. This analogy has five components: the *route* to take after each choice situation, the *traveler*, the *equipment*, which must be practical and useful and protect the *traveler* in variable and unpredictable conditions, the *rules* that must be followed and that may also change depending on the destination, and finally the *weather*, which can be foreseen with certain precision only some days in advance, but of course the seasonality is known. Table 1 summarizes the priority areas that were identified in the workshops and their function in the travel analogy. Perhaps this analogy will help to structure and understand the task of water-resources management in conditions such as those that prevail now in the Mekong River Basin.

Notes and References

1. WUP-FIN was a complementary project to the Mekong River Commission Water Utilization Programme. It is funded by the Development Cooperation Department, Ministry for Foreign Affairs, Finland. It was active from June 2002 to October 2007. WUP-FIN is an acronym in which the first part comes from the Water Utilization Programme and FIN comes from Finland.
2. 2007. Integrated water resources management on the Tonle Sap Lake, Cambodia. *Int. J. Water Resour. Dev.* 22, Special Issue, 395–519.
3. A book was prepared on the basis of the workshop papers: Kummu, M., Varis, O. and Keskinen, M. 2008. *Modern Myths of the Mekong—A Critical Review of Water and Development Concepts, Principles and Policies*. Water and Development Publications, Helsinki University of Technology, Finland, 187 pp.
4. M-POWER (Mekong Program on Water Environment and Resilience) aims to help democratize water governance and support sustainable livelihoods in the Mekong region through action research. Activities are undertaken throughout mainland Southeast Asia, including major river basins such as the Irrawaddy, Salween, Chao Phraya, Mekong, and Red, as well as other smaller basins.
5. Acknowledgments: We thank Mira Käkönen, Ulla Heinonen, Jussi Nikula, Katri Mehtonen, Pertti Vakkilainen and Muhammad Mizanur Rahaman. Crucial contributions

also came from Juha Sarkkula, Dirk Lamberts, and Lu Xixi, from M-POWER and USER staff, as well as from workshop participants. Special thanks to Alexandra Pres from German Capacity Building International for valuable contribution in formulating the travel analogy at the end of this article. This work has received funding from the Academy of Finland Project 211010.

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