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**Transboundary River Management in the Mekong River Basin:
Key Issues and Lessons for Western U.S. Water Management**

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Notes for a panel presentation
at the conference on

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Lessons from Around the World”

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Abstract: The Mekong River Commission (MRC) is responsible for coordinated water resources planning in Southeast Asia's lower Mekong River basin. The commission's origins date back to the establishment of the original Mekong Committee in 1957. The roles and activities of the MRC and its predecessors have focused on data gathering and scientific investigations of basin hydrology and, to a lesser degree, ecosystems and human and legal aspects of water management.

The historical approaches to Mekong River basin management have contributed to scientific understanding of the basin's physical and ecological systems, and to cooperation among the lower basin riparian nations. This paper explores the legal and organizational structures that have promoted cooperative lower Mekong River development, and how they have affected international cooperation and the river ecosystem. In doing so, it draws lessons that may be relevant to water management organizations and programs in the western United States.

I. Mekong River Basin

- A. Hydrology, Climate, and Water Development
- B. Agriculture and Economies

II. The Mekong River Commission and its Predecessor Organizations

- A. Mekong Committee: 1957-1977
- B. Interim Mekong Committee: 1978-1995
- C. Mekong River Commission: 1995-present

III. The Contemporary Planning Context: Legal Framework, International Relations, and Management Strategies

- A. 1995 Legal Agreement
- B. Upper Mekong development
- C. Environment, Population, and Development

IV. Transferring Lessons from the Mekong to the Western United States

Interpretations of lessons to be transferred must be drawn with appreciation for differences between the U.S. and the Mekong. Nonetheless, a history of interaction between the U.S. and the Mekong region that provides some familiarity between key planning organizations and could assist in the transfer of ideas, technologies, and lessons (Jacobs, 1999 and 2000).

- Bureau of Reclamation (1956) and Corps of Engineers' early involvement
- U.S. funding to Mekong Committee and U.S.-sponsored dams in Thailand
- Original Mekong Committee was seen by some as a TVA for SE Asia

A. Mekong Legal Issues

The Mekong River Commission was founded as part of the “Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin” (1995 Legal Agreement).

1975 Joint Declaration. Article X of the Joint Declaration required unanimous consent for mainstem projects. This requirement for unanimity helped promote a basinwide perspective on Mekong River management. The lack of formal partitioning discouraged riparians from viewing the Mekong River largely from national perspectives and from moving towards fragmented river management.

The 1995 Legal Agreement allows for the possibility of diversions—including inter-basin diversions—from the mainstem during different parts of the year (with more flexibility for diversions during the wet season of June-October). 1995 Legal Agreement allows for diversions, but does not quantify limits, but rather requires international notifications and consultations in connection with diversions

The 1995 agreement was driven by pressures for additional Mekong-related water development—especially from Thailand.

The 1995 legal framework better reflects contemporary conditions and desires than the '75 agreement, and recognizes the importance of natural hydrologic variability and environmental services. There is no apportionment of flows between nations, which reflects the ecological importance of hydrologic variability and allows greater flexibility in river management.

*****Lesson***

The lack of Mekong River apportionment between riparians has contributed to cooperative, basinwide planning perspectives. 1995 Legal Agreement allowed for some diversions, but not quantified apportionments, thereby retaining the importance of basinwide management.

B. Mekong Organizational Issues

Mekong Committee and MRC have focused on science-based inquiry into the basin’s physical and biological features, smaller-scale water and related land/agriculture management schemes (salinity control structures; small irrigation plots; seed multiplication; fisheries projects), and nonstructural management programs (e.g., flood forecasting and warning). This was accomplished by design (e.g., White et al., 1962) as well as limitations imposed by war and conflict.

Delays in dam construction have allowed the MRC to apply advances in water management knowledge to its current programme—which features a move away from project execution.

The MRC's 2001 Work Programme (MRC, 2001) represents important shifts in the approach to basinwide management, as it has moved from a past emphasis on *project-oriented* focus to a *program-oriented* focus. The MRC is moving from an emphasis on project construction to monitoring and better management of existing resources of the Mekong River and its tributaries. Several MRC initiatives focus on ecosystem services and social science dimensions of water management.

The organization has remained small; annual budgets (although erratic; contributions in the mid-1960s were >\$100 million/year in 1965 dollars!) have recently been in the \$10-15 million/year range (2000 total expenditures: \$14 million).

This path to basinwide planning and cooperation has fostered organizational resilience within the MRC: they have survived through wars, losses of members, erratic funding levels. The lack of mainstem dams has helped the MRC keep their options open and has helped promote environmental integrity. The 2001 MRC Work Programme does not mention mainstem dams. As an example of the shift in emphasis, the MRC's Flood Management and Mitigation (FMM) program seeks nonstructural means to reducing flood-related deaths and damages. The lack of mainstem dams has also resulted in the Mekong River maintaining a high degree of ecological health and ecological resilience, allowing it to maintain its important roles in supporting basin economies and households.

****Lessons**

The small scale of development and lack of big projects has allowed the MRC to keep its development options open. The value of this is reflected today in its 2001 Work Programme, as big dams on the Mekong would limit such a degree of operational and organizational flexibility.

Problems and disruptions faced by the Mekong and Interim Mekong committees helped the organization learn how to cope with surprises and change. The MRC, and the river system itself, are thus both relatively resilient.

The historical science-based programs have helped the MRC learn more about the basin's physical and ecological systems. The value of preserving environmental services is reflected in the 2001 Work Programme.

C. Mekong International Relations

The Mekong River serves as an example where an international river has helped unite, rather than divide, riparian nations. Lower Mekong riparians have felt there

was more to be gained through cooperation than each nation going it alone on Mekong development. The prospect of donor aid has been an important incentive toward cooperation on lower Mekong management issues.

The lack of dams on the Mekong also meant there were no stakeholder groups or nations protesting changes to dam operations. Proposed changes to dam operations schemes in Thailand have erupted in conflict.

Long history of cooperation among lower basin riparians—which has been tested on many occasion—provides a foundation for future cooperation.

A key international aspect in the basin today is upstream development in China. The Chinese are finishing a second Mekong mainstem dam and have plans for six more. Operations of those dams could affect dry season flows in the lower basin.

****Lesson**

Cooperation between rivals on river management issues is possible. Science-based programs appear to be useful in promoting cooperation. Future construction of big upstream dams may result in international tensions, as there may be disagreements between upstream and downstream nations regarding optimal operations of dams and the river system. Such upstream-downstream tensions would pose a severe challenge to the history of cooperative Mekong River management.

V. Summary

A. Mekong River Basin

Careful, science-based planning from the outset, including external advice (Corps of Engineers; Bureau of Reclamation; 1962 White Report), has helped establish and promote a scientific perspective on Mekong River development issues.

No compact partitioning the waters has contributed to system-wide management focus by riparians. There has been value—both geopolitical and ecological—in not having a strict apportionment framework.

The promise of external funding has been an important incentive driving interbasin cooperation.

Support and credibility lent by United Nations has been an important historical impetus for international cooperation.

The lack of mainstem development has helped promote international cooperation.

Smaller-scale development/no mainstem dams; no large disruptions to hydrologic cycle; no stakeholders vying to retain benefits flowing from dam operations; no large hydro system that requires reoperations which often ultimately lead to conflict. This has also given the MRC an opportunity to apply lessons learned from water management in the Mekong and elsewhere to its 2001 Work Programme.

B. Mekong—Western U.S Comparisons

MRC shift from project to programme is similar to the Bureau of Reclamation's 1987 shift from water development to water management. Western U.S. and Mekong River basin could each benefit by sharing experiences regarding shifting priorities in river management.

The Bureau of Reclamation's lengthier experience with large dam operations, and its efforts in adaptive management, would help inform the MRC's work programme, which is aiming to be more flexible and adaptive to changing conditions across the basin.

The MRC's experience in conflict resolution and collaborative science programs could help inform discussions regarding interstate/interbasin dialogue in the western United States. The experience of the Bureau of Reclamation and others in the western U.S. in changing dam operations and helping resolve differences between stakeholders could help inform possible future upstream-downstream tensions in the Mekong.

Scientific comparisons and human resources exchanges would be mutually beneficial for both the MRC and the Bureau of Reclamation.

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