

**INFORMATION EXCHANGE, NOTIFICATION AND
CONSULTATION: THE CASE OF THE MEKONG
FRAMEWORK AGREEMENT**

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Information Exchange, Notification and Consultation: The Case of the Mekong Framework Agreement

“Information and knowledge will be playing a leading role in the World economy of the future-the post industrial or advanced industrial society-comparable to that of traditional production factors in the past, such as steam or electricity.”¹

The Secretary General of the United Nations, Kofi Annan

Introduction

The Mekong River is important for the life of people and the environment of the region and beyond, as it is the mother of all rivers in South China and South East Asia. The river has provided an abundance of water for plant and animal species and its people for many thousands of years. The rich and diverse resources of the Mekong River Basin have sustained the growth of people there. Now, the new challenge for the Mekong countries is to manage the basin's precious resources in a wise and sustainable manner in response to the steady growth of population in the region.

The Mekong is one of the longest Rivers in the world and the longest in South East Asia, approximately 4,880km in length from its source in China throughout the Delta of Vietnam² with annual runoff of 475,000 million m³. The Mekong Basin covers total land area of 795,000 square kilometers, of which 600,000 km² forming the Lower Mekong Basin.³ More than 60 million people are living in the Lower Mekong Basin, and it is estimated to growth to 100 million people in the year 2025.⁴ Currently, 85% percent of the population in the Lower Basin are engaged in the agriculture sector,⁵ which demands very high amount of water use.

The four Lower Mekong riparian countries have been cooperating in the management of the Mekong for almost four decades.⁶ More recently, Cambodia, Laos, Thailand and Vietnam, have signed Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin in 1995.⁷ The aim of the Agreement is to cooperate in a constructive, mutual and beneficial manner toward the sustainable development, utilization, conservation and management of the Mekong

¹ UN/ECE Expert Meeting on the United Nations ICT Task Force Regional Network and the World Summit on the Information Society (WSIS), on 29th of April 2002,

² Mekong River Commission, Environment Program, June 2000 (p.41)

³ The Lower Mekong Basin covers geographic part of Laos, Cambodia, Thailand and Vietnam, and upper basin states include China and Myanmar.

⁴ (The Nation, Saturday, 16 February 2002), see:

http://www.mrcmekong.org/media/press_clips/ori_afp_1.htm

⁵ <http://www.mrcmekong.org/programme/program009.htm>

⁶ The statute on the Establishment of the Committee for the Coordination of Investigation of the Lower Mekong Basin, on 17 September 1957; the Joint Declaration of Principles for Utilisation of the Waters of the Lower Mekong Basin, 1975; and the Declaration concerning the Interim Committee for the Coordination of Investigations of the Lower Mekong Basin of 1978.

⁷ Mekong Agreement signed on 5 April 1995 at Chiang Rai, Thailand.

River Basin water and related resources.⁸ The Agreement takes a Basin-wide approach and does not just deal with the Mekong River: where many development processes will be planned under the Basin Development Plan (BDP).⁹

The Agreement sets the Mekong River Commission (MRC) as the functional mechanism to monitor the development process. The MRC is composed of the Council, the Joint Committee (JC), and Secretariat (MRCS). The Council is the highest-ranking body of the Mekong River Commission composed of one member from each member country at the Ministerial and Cabinet level. The Mekong Agreement entrusts the regulatory, policy and decision-making power to the Council with a view to developing detailed guidance for the implementation of the Mekong Agreement.¹⁰

The Joint Committee is composed of one member of each participating riparian State at head of Department level. Its tasks are to implement the policies and decisions of the Council, prepare the Basin Development Plan (BDP), programs/projects, and recommendation to submit to the Council for approval. One of these is to obtain, update and exchange information and data necessary to implement the Mekong Agreement. In addition, the JC also supervises the work of the Secretariat and other tasks relating to the implementation of the Mekong Agreement.¹¹

The Secretariat is the operational arm of the MRC, preparing and carrying out all programs/projects, decisions approved by the Council and assigned to it by the JC, including provision of technical services, financial administration and other task.¹²

As a neutral inter-governmental organisation, the MRC has a large responsibility and a challenging task to realise the objectives of the cooperation, which are:¹³

“to cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin including, but not limited to irrigation, hydro-power, navigation, flood control, fisheries, timber floating, recreation and tourism, in any manner to optimize the multiple-use and mutual benefits of all riparian and minimize the harmful effects that might result from natural occurrences and man-made activities.”

These objectives cover a very broad area of the cooperation and require a lot of effort on the part of the member countries to achieve this goal. It requires the establishment of a ‘common management’ system within the Mekong Basin that can oversee the activities and development in each member country and integrate these development processes into a harmonized development plan. The Basin concept covers a large geographical area but a different size portion of the territory of each member Country. Within each member country, implementing the common interest

⁸ See: the statement of the four signature States in the 1995 Mekong Agreement.

⁹ 1995 Mekong Agreement, Article 2: Projects, Programs and Planning (BDP is one of the core program of the MRC, which will cover broad scope of basin-wide development).

¹⁰ Article 18 of the Mekong Agreement: ‘Function of Council’

¹¹ Article 24: Functions of Joint Committee.

¹² Article 30: Functions of the Secretariat

¹³ 1995 Mekong Agreement, article 1, Area of Cooperation.

concept in the development of programmes/projects is a difficult issue as each member country also wishes to pursue its own development programs/projects.

The Mekong River Commission (MRC) has approved several programmes, including three Core Programmes, Support Programme, and Sector Programmes.¹⁴ The core programmes consist of the Basin Development Plan (BDP), the Water Utilisation Programme (WUP), and the Environment Programme (EP). The support programme is focusing specifically on the capacity building for the staff of the MRC and national administrative authorities relating to the implementation of the Mekong framework. The sector programmes consist of the Fisheries Programme, the Agriculture, Irrigation and Forestry Programme, the Water Resources and Hydrology Programme, the Navigation Programme, and the Tourism Programme.

This paper will focus on one core program, the WUP, specifically component (B), ‘Water Utilization Rule,’ dealing with two procedural rules, ‘*the Procedures for Information and Data Exchange*’,¹⁵ and the development of the ‘*Procedures for Notification, Prior Consultation and Specific Agreement*.’¹⁶

The first procedure was developed to implement the provision C, Article 24 of the 1995 Mekong Agreement, one of the main function of the Mekong River Commission Joint Committee (JC): “*to regularly obtain, update and exchange information and data necessary to implement this Agreement.*”

The second procedure is needed to implement Article 5 of the 1995 Mekong Agreement, “*Reasonable and Equitable Utilization*”, which calls for developing of the ‘*Preliminary procedure for notification, consultation, and agreement*’ on the proposed water uses.

These two procedure rules are essential for the success of many activities under the Mekong Framework Agreement and the development of other subsequent rules,¹⁷ *inter alia*, the water use monitoring rule, the rule for the maintenance of minimum flows, and water quality guidelines. These procedural rules, currently integrated under the WUP activities, will elaborate the provision of the Mekong Agreement and concretise the operational functions, and develop mechanisms providing for in the Mekong Agreement.

The Water Utilization Programs (WUP) is to help the establishment of permanent and functional programmes to support the management of water resources in the Mekong Basin. It was adopted in December 1999 and will last for 6 years.¹⁸ The Program will assist the MRC in setting mechanism and preparation of rules to facilitate the coordination of water basin management. The WUP Project Implementation Plan (PIP) is divided into three primary components.¹⁹ It consists of a

¹⁴ See: <http://www.mrcmekong.org/programme/program006.htm>

¹⁵ MRC: Procedures for Data and Information Exchange and Sharing adopted by the Council on 1 November 2001 at the eight meeting in Bangkok, Thailand

¹⁶ WUP Performance Indicators (Annex G)

¹⁷ See *id.*

¹⁸ The Mekong River Commission, the Project Implementation Plan (PIP), Water Utilisation Program Start-up Project, December 1999.

¹⁹ See the attached list (I) for detail programs to each component.

Basin Modeling Package and Knowledge Base (Component A), a development of rules for Water Utilization (Component B), an Institutional Strengthening of the MRC and National Mekong Committees (Component C).

Under the component A, '*Basin Modeling and Knowledge Base*,' the programs will support the necessary analytical tools and a comprehensive basin modeling package for the MRC, and will establish a functional shared information and knowledge management system.

Component B, '*Water Utilization Rules*,' supports the formulation of Rules for Water Utilization, building technical capacity in the MRCS and the riparian States.

Component C, '*Institutional Strengthening*,' is to strengthen the capacity of the MRC and National Mekong Committee (NMCs) and the line agencies to implement the rules, carry out the basin management, improve coordination functions, to supervise and monitor of the implementation of programmes/projects decided by MRC.

Starting with the WUP, the MRC will develop a "Basin Modeling Package and Knowledge Base", component (A) at the MRCS, then use the Basin Modeling Package Base to help formulate the "Rules for Water Utilization", component (B), and support the formulation and implementation of the "Basin Development Plan" (BDP)."

The information system, which will be developed at the MRCS with the support of these three components, will help to develop appropriate data and knowledge bases, and that will be shared and provide equal access to the MRC and the National Mekong Committee Secretariat (NMCS). The system is a prerequisite for the member countries to achieve reasonable and equitable water utilization, while maintaining the ecological integrity of the Basin.

I. Data, Information Exchange, Notification & Prior-Consultation in international Law

1. Concepts/Principles

The principles to which most authors refer regarding the cooperation among watercourse riparian states, in the area of water allocation, include the *equitable utilisation, and common management*,²⁰ *the obligation to not cause environmental harm to other riparian States.*'

1.1. The Equitable Utilisation

This principle is widely endorsed by number of agreements on sharing international watercourses. It balances the interests of the riparian watercourse states for the use of water and serves to protect the environment and the common interest within the basin. Commentator here considered that "*the theory rests on a foundation of equality of rights, or shared sovereignty, and is not to be confused with equal*

²⁰ Patricia Birnie and Alan Boyle, *International law & the Environment*, Second edition, (p. 301).

division. Instead, it will generally entail a balance of interests which accommodates the needs, and uses of each state by balancing the 'community interest' in the uses of watercourse."²¹ For instance, the Permanent Court of International Justice considered that the lower riparian has the right to freedom of navigation in water upstream state, and vice versa.²²

The theory enjoys substantial support in judicial decisions, state practices, and international codification.²³ It has been endorsed by many international and regional conventions, agreements, declaration, and guidelines, draft texts relating to international watercourses. The 1997 UN Convention on the Non-navigational uses of international watercourses adopts this principle in article 5 and defines the factors relevant to equitable and reasonable utilisation in article 6. Many publicists cite these factors.²⁴ They are: '(a) *geographic, hydrographic, hydrological, ecological, and other factors of natural character; (b) the social and economic needs of the watercourse states concerned; (c) the population dependent on the watercourse in each state; (d) the effects of the use or uses of the watercourse in one watercourse state on other watercourse states; (e) existing and potential uses of the international watercourses; (f) conservation, protection, development, and economy of use of the water resources of the watercourse and the costs of measures taken to that effect; (g) the availability of alternatives, of corresponding value, to a particular planned or existing use.*'²⁵

It seems that these factors are standard view in the development of equitable and reasonable utilisation of international watercourse today. Determining equitable and reasonable utilisation is, however, not limited to these factors. Considerations must be given to all interests, benefits and negative effects of the proposed use of the watercourse.²⁶

The Mekong Agreement endorses this principle in article 5. "Reasonable and Equitable Utilisation", and "*Freedom of Navigation*" along the Mekong.²⁷ For the European Region, the UN/ECE Convention on Transboundary Watercourses and Lakes (Helsinki, 1992) adopts this principle as a general provision in article 2. Also, the International Law Association (ILA) has developed the 'Rules on the Equitable and Sustainable Use in the management of waters', which contains this principle in article 7, and has a detailed provision on equitable and reasonable use in the Chapter III.²⁸

²¹ See *id.*

²² See: Birnie and Boyle, citation note 43: Territorial Jurisdiction of the In the River Oder Case, PCIJ, Ser. A, No. 23 (1929), also the Diversion of Water from the Meuse Case, PCIJ, Ser. A/B, No. 70 (1937).

²³ See *id.*: Recent Judgement of the International Court of Justice in Case concerning the Gabčíkovo-Nagymaros Project, September 25, 1997, and also the UN 1997 Water Convention support this principle.

²⁴ Birnie and Boyle, (p. 303), Alexandre Kiss and Dinah Shelton, International Environmental Law, Second Edition, (p. 401), and McCaffrey.

²⁵ See article 6 of the 1997 UN Water Convention.

²⁶ Birnie and Boyle (p. 303)

²⁷ Mekong Agreement, article 9: Freedom of Navigation.

²⁸ See: the revised International Law Association rules on equitable and Sustainable Use in the management of the water, March 2002, in <http://www.ila-hq.org/html/layout_committee.htm>

Along with the factors specified in article 6 of the 1997 UN-Convention above, this principle is particularly important for the cooperation in data, information exchange and notification. By endorsing this principle, watercourse states are required to exchange certain data and information needed to monitor water uses and to enable decision leading to reasonable and equitable utilisation. Without these factors, the watercourse states would not know the factual situation in each country, and thus would not be able to make proper plans and decisions regarding equitable use of water between all riparian countries. The Mekong Agreement, in its article 5 (Reasonable and Equitable Utilisation) requires the development of procedural rule for notification, prior consultation and specific agreement discussed below.

1.2. Common management

This principle is needed *'to develop mechanism for effective integrated management of watercourse basins to secure the equitable utilisation and development.'*²⁹ The world trend regarding integrated management and development of an international basin is to cover not only water allocation, but also other areas of community interest, *inter alia*, environmental protection, and harmonisation of domestic and international rules in monitoring and control of the international watercourse. Thus, the creation of international institutions for the collaboration of the riparian states in formulating and implementing policies for the development and use of a watercourse are needed.

The principle of common management does not mean that all areas of an international basin must be managed by a centralised institution. It depends on the scope of responsibilities of such institution. The Mekong Agreement attempts to implement this principle: the Mekong River Commission has mandate to manage all fields of development as described in the objective. Comparing to the International Commission on the Protection of the Rhine (ICPR) created under the convention carries out its tasks relying to a great extent on the Contracting Parties and monitoring through working group.³⁰ Closer to the Mekong Agreement is the Danube River Protection Convention. This convention, however, provides a much more detailed provision respect of the data, information exchange. The International Commission for the Protection of Danube River may adopt decisions and recommendations to implement the Convention that become binding to parties.³¹

1.3. The Obligation not to cause environmental harm to other riparian States:

Two other relevant rules for the protection of the environment and to prevent harm to other riparian states require states to inform and consult with each other, include 'no-harm rule' and 'duty to inform.'³²

The no-harm rule requires that *"state not to cause transboundary harm to other states from any operation in its territory, where the appropriate measures to prevent such harm, including assessment of potential effects of the activities need*

²⁹ Birnie and Boyle, (p.304)

³⁰ J.P. Wieriks, Prerequisites for the effective Basin management, the Case of the River Rhine, in the international Conference on Management of Transboundary Waters in Europe, 22-25 September 1997, Mrzezyno, Poland, (p. 130).

³¹ ANNEX IV of the Danube Convention, 1994.

³² Sergio Marchisio, Sustainable Management and Rational Use of Water resources, Rome 1999.

*to be undertaken, when that state has reasonable believed that such activity may cause significant harm to other state(s).*³³

The other obligation is the ‘duty to inform and co-operate’, which imposes on states the duty to inform each other of their intentions when planning new or expanded activities, and if needed to agree to enter into negotiations. These obligations require States to cooperate with each other in preventing harmful effect to the environment. These two duties are particularly important when developing of rules and procedures such as the ‘Procedure for Notification, Prior consultation and Agreement’ the Mekong Agreement 1995. Several other procedures are planned in the Mekong framework.

(1) No-harm rule

The ‘No-harm’ rule and principle of ‘equitable utilisation’ are considered as general international law, based on national and international judicial practice. It provides that *“the State may not inflict important, significant, substantial or appreciate damage to or on the territory of another State, nor negligently allow persons on its territory or otherwise under its control to cause such harm.”*³⁴ Article 7 of the UN 1997 Water Convention codifies this rule, providing that *“Watercourse states shall, in utilising an international watercourse in their territories, take all appropriate measures to prevent the cause of significant harm to other watercourse States.”* Experts conclude that this rule becomes one of the most basic obligations in all of international Law.³⁵ International decisions have applied this rule. In analogy to transboundary watercourse, the tribunal in the case of ‘*Trail Smelter Case,*’ arbitration between the US and Canada, involving in transboundary air pollution,³⁶ considered that: *“No state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or to properties or persons therein, when the case is of serious consequence and the injury is established by clear and covering evidence.”*³⁷

The Mekong Agreement applies this rule in article 7: ‘*Prevention and cessation of harmful effects.*’ It requires the member states to make every effort to avoid, minimise and mitigate harmful effects to the environment, water quality and quantity, the aquatic eco-system conditions, and ecological balance of the river system. Early exchange of information on the use of water as well as setting alarm system would minimise or prevent harmful effects to other riparian states fall under this obligation. Article 7 of the Mekong Agreement implies that the member states have the obligation not to cause substantial damage to one or more riparian states from the activities of their territories, and if the affected state(s) notifies that harm has been caused, the state at the origin of the harm shall cease the alleged cause immediately.

The expert views is that ‘*no-harm rule*’ is, however, ‘*not an absolute obligation – international law simply does not prohibit all transboundary harm.*’³⁸ The reasonable

³³ Alexandre Kiss and Dinah Shelton, (P.263).

³⁴ Sergio Marchisio, Sustainable Management and Rational Use of Water resources, Rome 1999 (p. 108).

³⁵ Mc.CAFFREY, (p. 346).

³⁶ Text of Awards of 16 April 1939 and 11 March 1941, 3 UN Rep. Int’l Arbitration Awards.

³⁷ See id, p.1965.

³⁸ Birnie and Boyle, (p.308).

and equitable utilisation may have priority over obligation to prevent harm depending on the harmful effects caused, *inter alia*, whether an act causes ‘*significant or substantial damage*’ to other riparian states or not. This argument prevents the downstream states to object to any developments in the territories of upstream states.

(2) Duty to inform and co-operate

The international watercourse states have the duty to cooperate for the protection of the transboundary environment. Where states are entitled to prior notice, consultation, and negotiation if the proposed use of shared resources may cause serious injury to their rights and interests.³⁹ This rule imposes on any watercourse state, which plans a new or expanded use of the water resources, an obligation to provide the other watercourse states with information if there is a risk of “appreciable adverse effects”.⁴⁰ In the event of disagreement, they have the obligations to seek a solution through *bona fide* (in good faith) negotiation. This duty has been supported in the 1997 UN Watercourses Convention, by many other international codifications, case laws, and by experts in environmental law. Regarding judiciary decisions, the tribunal in the ‘*Lake Lanoux case*’⁴¹ considered that “*under the rules of good faith, the upstream state has an obligation to take into consideration the various interests concerned, to seek to give them every satisfaction compatible with the pursuit of its own interests and to show that it has in this matter, a real desire to reconcile the interest of other riparian with its own.*”⁴² Many modern publicists cited this award in support of the view that riparian states have an obligation to cooperate and consult with one another, also in the case where the activity at stake is entirely within their territories.

2. The European example: UN/ECE Framework, and experiences of the Rhine and Danube Rivers Convention

2.1 Convention on the Protection and Use of Transboundary Watercourses and International lakes, 1992

For European Countries, data, information sharing and notification concerning environmental matters are significant in various watercourse conventions and agreements. Within the UN/ECE watercourse framework a wide range of data and information are required for exchange among countries, and open for public access. The UN/ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992)⁴³ and its Protocol on Water and Health (London 1999)⁴⁴ require that the parties exchange data and information between riparian states, and ensure the public access to the information. Particularly, the protocol on Water and Health requires the parties to create public awareness and

³⁹ See *id.*, (p.319)

⁴⁰ Sergio Marchisio, *Sustainable Management and Rational Use of water resources*, Rome 1999, (p. 109).

⁴¹ *Lake Lanoux arbitration*, award of 16 Nov. 1957, ILR p. 101, at pp. 128, 129-130 (par. 11 and 13) (1961).

⁴² See: McCaffrey, *the Law of International Watercourses, Non-Navigational Uses* published in 2001, and also Birnie and Boyle.

⁴³ The Convention entered into force on 6 October 1996 (see: http://www.unece.org/env/water/status/lega_wc.htm)

⁴⁴ See: http://www.unece.org/env/water/status/lega_wh.htm

develop information system for public access and for exchange of information among parties.⁴⁵

The relevant articles of the 1992 UN/ECE Water Convention require the parties to exchange data and information in several instances. General provision include article 5, which requires for exchanging of the result of research and development, experiences that the parties gained during the course of implementation of the convention; article 6 provides that parties widely exchange of information on issues covered by the Convention; and article 8 specifies what information should be protected. It also requires the parties that by entering into bilateral or multilateral watercourse agreements, in respect to the monitoring data and information, the parties to such agreement, further specifies in article 9, shall cooperate in the following ways:

- to collect, compile and evaluate of data in order to identify pollution sources likely to cause transboundary impact;
- to draw up inventories and exchange information on the pollution sources;
- to establish warning and alarm procedures; to serve as a forum for the exchange of information on existing and planned uses of water and related installations that are likely to cause transboundary impact;
- to promote co-operation and exchange of information on the best available technology.

Specific provision for the exchange of information between riparian parties, entails in article 13, in conjunction with article 9 of this convention, the parties shall exchange data and information on:

- *Environmental conditions of transboundary waters;*
- *Experience gained in the application and operation of best available technology and results of research and development;*
- *Emission and monitoring data;*
- *Measures taken and planned to be taken to prevent, control and reduce transboundary impact;*
- *Permits or regulations for wastewater discharges issued by the competent authority or appropriate body...*”

This article requires the contracting parties to exchange ‘reasonably available data’ possess by the parties. For non-available data and information that are requested, the requested riparian parties shall endeavor to comply with the request upon payment by requesting party of reasonable charge.

In addition to regular exchange of data and information, the parties to the convention, by entering into bilateral or multilateral agreements shall at their meeting exchange information regarding experience gained in concluding and implementing such bilateral or multilateral regarding the protection of transboundary waters.

Other conventions concluded under the UN/ECE framework agreement dealing with Exchange of environmental data and information provide particularly in the 1991 UN/ECE Convention on the Environmental Impact Assessment,⁴⁶ and the 1998

⁴⁵ In the area of information management and sharing, the Protocol requires member parties to widely open the information for public access (articles 5 para. i, 6 para.2 (n); 7 para.2, 3; 10), and exchange, notify to each other (articles 7 para.3, 4, 5; 8 para.1 (a); 12 (e, f, g); 13 para.1 (a), (d); 16 para.1 (b), (d), (g).

UN/ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters or Aarhus Convention.⁴⁷ The Convention on Environmental Impact Assessment provides many details rules for and on environmental impact assessment to be carry out in transboundary situation including information to be exchanged among the parties.

The Aarhus Convention is not directly dealt with the exchange of data and information between States, but it provides systematic framework for public access to data and information on environment hold by the contracting parties.⁴⁸ Respect to technical question arising from the UN/ECE framework, the UN/ECE Task Force on Monitoring & Assessment created under the framework, issues and reviews regularly guidelines on monitoring and assessment of the transboundary rivers.⁴⁹ It helps to implement the Convention by providing details criteria, especially the information requirement described in chapter 3, and data management described in chapter 6 of the guideline.⁵⁰

Regarding consultation, the convention also specifies in article 10, which requires the Riparian Parties to consult on the basis of '*reciprocity, good faith and good neighborliness*', when there is any party requests for consultation. The consultation shall be conducted though the joint body developed under the framework of convention.

The UN/ECE watercourse convention develops a broad framework for the parties for concluding their watercourse agreements in the region. It also provides detail guidelines for practical implementation of the convention and particularly for the maintaining of data and information required for the monitoring and management of water uses. In this connection, the UN/ECE has developed several conventions encouraging the parties to exchange environmental data and information with another and promote public participation in decision-making in environmental matter.

2.2 The Rhine River Convention, 1999

The new Rhine Convention⁵¹ is one of the watercourse agreements in the European region developed under the framework of the UN/ECE 1992 on the Protection and Use of Transboundary Water Courses and International Lakes above. The Scope of the Rhine Convention, specified in article 2, focuses on the main Rhine River, the Ground Water interacting with the Rhine, the aquatic and terrestrial ecosystems interacting with the Rhine, the Rhine catchment area. It also covers the Rhine catchment area as far as the pollution from that area adversely affects the Rhine, and the Rhine catchment area, if it is of importance for the prevention of

⁴⁶ Convention on environmental impact assessment in transboundary context, adopted at Espoo (Finland) on 25 February 1991.

⁴⁷ The conventions on access to information, public participation in decision-making and access to justice in environmental matters, done at Aarhus, Denmark, on 25 June 1998.

⁴⁸ The Aarhus Convention: an implementation guide, United Nations, 2000.

⁴⁹ See: UN/ECE Task Force, Guideline on monitoring and assessment of transboundary rivers, work programme 1997-2000, march 2000.

⁵⁰ See id.

⁵¹ Governments of the Federal Republic of Germany, the French republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the Swiss Confederation, EU, done at Bern, April 12th, 1999.

floods and defence along the Rhine. The management approaches focus particularly on water quality, maintenance of navigability, protection of ecosystem of the Rhine, and flood prevention. Comparing to the ‘Mekong Basin Approach’, it does not cover the whole Basin development.

The International Commission on the Protection of the Rhine (ICPR), which consists of the delegations of the Contracting parties, prepares resolution for adoption to the Ministerial Conference in charge of the Rhine.⁵² The Commission may not impose any obligation on contracting parties, but makes recommendations, proposed programmes, measures, and prepares monitoring programmes, and annual report.

The Commission plays more a co-ordination role. It operates through the secretariat and permanent working groups,⁵³ in charge of water quality, ecology and emissions. The implementation of programmes, measures and decisions of the commission rests upon the national capacity of the contracting parties. The contracting parties, however, have to report regularly to the Commission on following matters:⁵⁴

- (a) *on legislative, regulatory or other measures taken with a view to implementing the rules of the Convention and the decisions of the Commission;*
- (b) *on the results of the measures implemented according to sub-paragraph (a) above; and*
- (c) *on problems arising due to the implementation of measures according to (a).*

The obligation to make regular reports to the commission allows the commission to evaluate the condition of the Rhine and the implementation of the convention of each party. It also supports the commission to make recommendations, proposals and decision for development programmes/projects.

Sharing data and information among the contracting parties of the Rhine Convention, is not a big issue like in many other basins. It is because of the high level of trust in each other and the accuracy of data and information maintained and collected in each contracting party. The Commission may gather from contracting parties the data and information relevant to the water monitoring programmes that working groups carry out. Annual reports and the evaluations of the implementation on monitoring programmes of the Commission are regularly prepared and published.

Including in the commission report respecting to data, information exchange and notification on planned measures, special study under the Rhine Convention are required under article 5(1) and (6), as an obligation of the Contracting parties:

Article 5(1) requires that: *“the parties reinforce their co-operation and mutual inform one another in particular of the measures carried out on their territories aimed to protecting the Rhine”*; and

Article 5(6) requires that *“they immediately inform the commission and those contracting parties liable to be affected by eventual incidents or accidents or by flooding to be expected according to the Rhine basin warning and alarm model co-ordinated by the Commission.”*

⁵² The Rules of procedures and financial regulations of the ICPR, 3rd July 2001, Luxembourg, (1.4)

⁵³ <http://www.iksr.de/hw/icpr/5uk.htm>

⁵⁴ Article 11(3) of the Convention on the Protection of the Rhine.

In addition to the Rhine Convention, the contracting parties are also required to implement many other legal instruments and international conventions,⁵⁵ and for these contracting parties that are members of European Union,⁵⁶ must observe the latest EU Water framework Directive 2000/60/EC. The directive provides detail definitions, guidance on river management to the member countries for the transformation into their national structures and implementation. It specifically requires the member countries to bring their national legislation regarding the management and monitoring of rivers in conformity latest at the end of the year 2003.⁵⁷

The achievement in protecting of the Rhine is not only resulted from the advanced development of all members parties, but the success in improving water quality, flood control and others during these days have been contributed by strong commitments of all parties. Processes of implementing of international conventions and promotion of public awareness on the environmental protection have been demonstrated at national level of each member parties. A central monitoring body, like Secretariat of the Commission with approximately 8 permanent working staff is a relatively small compare to many other international basins, including Mekong River Commission Secretariat. It plays more the role in co-ordinating and facilitating the works to be performed by the contracting parties rather than undertaking the operation itself.

2.3 The Danube Convention, 1994

Eleven of the Danube Riparian States and the European Union signed the Convention on Co-operation for the Protection and Sustainable Use of the River Danube, on 29 June 1994, Sofia.⁵⁸ The Convention also refers its development to the UN/ECE framework Convention in the preamble. The cooperation aims at achieving sustainable and equitable water management in the Danube Basin. In its objective, the parties strive at the goal for conservation, improvement and the rational use of surface and ground waters in the catchment area, to control the hazards originating from accidents involving substances hazardous to water, floods and ice-hazards, and for contributing to reducing the pollution loads of the Black Sea from sources in the catchment area.⁵⁹ At basic ground, the convention requires the parties to take appropriate legal, administrative and technical measures to at least maintain and improve the current environment and water quality conditions of the Danube River and of the waters in its catchment area.

The Danube Convention provides detail rules for the exchange of data, information and notification in the Convention itself.⁶⁰ As general requirement for the

⁵⁵ For examples: the Convention of December 3, 1976 on the Protection of the Rhine against Pollution by Chlorides; the declaration of September 25, 1991 of the heads of delegation of the Governments party to the Convention on the International Commission for the Protection of the Rhine against Pollution; the additional Protocol of September 25, 1991 on the Convention of December 3, 1976 on the Protection of the Rhine against Pollution by Chlorides (as prescribed in Protocol of signature in the Annex to the Rhine 1999 convention).

⁵⁶ Except Swiss Confederation, all parties are Members of the EU.

⁵⁷ Article 24 of the EU Water Directive 2000/60/EC.

⁵⁸ <http://www.rec.org/DanubePCU/drpc.html>

⁵⁹ Art. 2. (1) of the Danube Convention.

⁶⁰ See: article 10 (Obligations of reporting), article 11 (Consultations), article 12 (Exchange of information), article 13 (Protection of information supplied), article 14 (Information to the Public), and

cooperation, respecting to data, information sharing and notification of planned measures, it specifies in article 4: (Forms of the Cooperation). The parties shall cooperate in consultations, joint activities, exchange of information, legal regulations and on measures in the field of water management, and other forms for the exchange of information and experiences. The obligation of the parties is also extent to the cooperation and harmonisation with the joint monitoring and assessment activities, and providing necessary and sufficient data for such joint activities.

Specific provision for the exchange of data and information is regulated under article 12. The article requires the contracting parties to exchange following reasonably available data:

- (a) The general conditions of the riverine environment within the catchment area of the Danube River;
- (b) Experiences gained in the application and operation of best available technique and research result and development;
2. emission and monitoring data;
3. Measures taken and planned and planned to be taken to prevent, control and reduce transboundary impacts;
4. Regulations for waste water discharges;
5. Accidents involving substances hazardous to water.

The parties to the convention are not only required to exchange data and information with another, but have also obligation to prepare report on the progress of implementation of the Convention. Issues to be covered in the report are all matters relating to the convention, including information on planned activities, the existence, conclusion, amendment or withdrawal of bilateral and multilateral agreements, domestic laws, regulating the protection of the Danube River and water within its catchment area.

In addition to regular exchange of information, the contracting parties may request other parties concerned to enter into consultations on planned measures, which are likely to cause transboundary impacts, as described in article 11.

The Mechanism for the cooperation in emergency situation is by installation of warning and alarm system and joint communication, which require each member contracting party to develop in their territories. The parties shall also inform each other of the competent authorities or point of contact and immediately inform each other, particularly, downstream riparian, of any identification a sudden increase of hazardous substances or note on disaster in the Danube River or water within its catchment area.⁶¹

The detail provisions in the Danube River Convention, de facto, restrict power of the Commission established under article 18 to further regulate. The Commission may make decision strictly to implement the Convention by elaborating proposals and recommendations to the contracting parties for the effective implementation of the Convention. For instance, regulating on the exchange of data and information, the Commission does not need to develop additional procedural rule, but all the details

article 15 including exchange (Research and Development), article 16 (Communication, warning and alarm systems, emergency plans), and Annexes.

⁶¹ Article 16 of the Danube convention.

are contained in the Convention. It may develop non-binding guideline from time to time to further elaborate and provide detail guideline for the effective implementation. It is not the case of the Mekong River Commission, discussed below. This aspect would be important for the Mekong member Countries, in particular the Mother Agreement was signed by the higher level of authorities than the members of the Commission; these would bring more political attention for the implementation of the Mekong Agreement. Also processes of development and adoption are different; and even the Mother Agreement is aiming at longer status while the procedure rules could be frequently changed. As the result, the member countries may have difficult in adaptation and implementing on the often-changed rules or policies, and the original intention may be loosed.

I. Data and Information Exchange, Notification and Prior Consultation under the Mekong Framework Agreement

1. Procedures for Data and Information Exchange and Sharing

1.1. Development process

As stated above, the Mekong Agreement 1995 does not contain detail provisions on the exchange of data and information among member Countries. It gives the authority to the Council to regulate this matter. In order to provide detail provision in the matter, the Council adopts the ‘Procedures for Data and Information Exchange and Sharing.’⁶² Prior to the 1995 Mekong Agreement, certain data and information related to the Mekong basin were collected and maintained by each riparian State, but were not officially exchanged among them. Now, the procedure will guide the member States to share data and information with another necessary to implement the Mekong Agreement. It requires that the member States cooperate in sharing data and information in a constructive and mutually beneficial to ensure the sustainable development of the Mekong Basin.

In the development process, the member countries raised number of issues. Among them, are issues on ability and equality to share data and information, the limitations of national legislations, the Intellectual Property protection, the ownership of data and information, outside access to information, the cost for collecting data and information, the standard formats, quality of data to be shared, and mutual trust. In addition to these concerns, with the tight schedule to develop such inter States rules,⁶³ it may lead to the gap that would cause to future problem for effective implementation of the rules. For instance, the member countries may not have sufficient time to consider particular terms, concepts/principles that are important for the cooperation in international watercourse, which may be failed to insert or by mistaken inserted undesirable terms into the procedure.

The Mekong Agreement and the procedure for data and information sharing and exchange require member states to exchange data and information ‘*necessary*’ to

⁶² The Procedures for Data and Information Exchange and Sharing adopted by the Council on 01 November 2001 at its Eighth Meeting in Bangkok, Thailand.

⁶³ See: WUP-PIP-Annex G: The procedure start beginning of the year and it has to be completed before July each year. The negotiation process of Technical Drafting Group (TDG) holds 4 to 5 times, with 3-4 days for each meeting, and at the meeting the TDG start to write first draft.

implement the Mekong Agreement.⁶⁴ It however, has not defined what constitutes the ‘*necessary*’ data and information. The member countries may regularly exchange data and information base on modalities and delivery schedule prepared by MRCS that the Joint Committee can duly perform its duty according to the Mekong Agreement. In the procedure for data, information exchange and sharing, it lists twelve major group of information, which is discussed later below.

The objective of Mekong Agreement covers broad area of development, and in order to maintain certain levels of water quantity and quality and protection of the environment, it may require substantial volumes of much more complex information to establish baselines, such as flora and fauna studies, fisheries studies, estuaries and so on-generally got by way of complex investigative studies. The data and information to be exchanged must serve the objective of the Agreement. The twelve listed groups of data and information in the procedure may or may not ‘*necessary*’ serve all development objectives in the Agreement. Thus, function of each data and information and its purposes may need to be clarified. This needs to be clear for every member country in order to avoid future breach of obligation under the agreement or to limit any challenging to share ‘*unnecessary*’ data, information to save time and resources.

1.2. Principle of sharing data and information

Through the procedure, the member countries have agreed first time to share data and information with the view that these will serve the cooperation in the development of the Mekong Basin. The member countries now are viewing feasible way to implement the new procedure. Each country may not deal only with legal aspect required under the procedure, but also technical difficulties in order to perform its obligation. By developing this procedure, it provides a test of cooperation for the member countries.

Because, it is first time the four member States will jointly take action in this matter, therefore, some concerns on the readiness to perform their tasks could occur. Taking a look at the principle of sharing data and information set forth in the procedure, it attempts to provide a balance between national interests and common development objective among member countries. It also focuses on capacity and availability of the member countries to share data and information in the general principles.

The procedure inserted four main general principles in section 3. The first principle, sharing data and information must be subject to the limitation of national legislations in each country and under Intellectual property protection, commercial and national confidentiality. Second, sharing data and information must base on efficient, equitable, reciprocal and cost effective manner. Third, the data and information to be maintained by MRCS should be relevant, timely, accuracy, and established in usable format for the MRC and its member countries. Fourth, additional and unavailable data and information needed to facilitate the MRC activities should be collected at lowest feasible cost in timely and equitable manner.

The first principle describes as follow:

⁶⁴ Article 24(C.) of the Mekong Agreement.

“Subject to the Laws and regulations in their respective countries, in particular concerning the national defense or security, and commercial-in-confidence and copy right protection, exchange, on a regular basis, data and information and that are necessary to implement the Mekong Agreement;”

This first principle limits each member country from exchange data and information, because of the restriction under the national legislation, Copyright protection, commercial confidence and information vital to national security. This principle has also been endorsed by numbers of international watercourse laws. For instances, the Convention on Cooperation for the protection of sustainable use of the Danube River,⁶⁵ in article 13: *‘Protection of information,’* is comparable to this principle. The UN/ECE Convention on the Protection and Use of Transboundary Watercourse and International Lakes, Helsinki 1992, in article 8: *‘Protection of information,’* limits the sharing information not to national Laws and international applicable laws. The UN Convention on the Law of the Non-navigational uses of international watercourse, 1997, provides in article 31: *‘Data and information vital to national defense or security,’* also limits the obligation of states to share such information.

In addition to the data and information required in the procedure, the cooperation may also need a flow of information on national legislation, planned measure undertaken to ensure the implementation of the procedure, in order to create more transparency in this matter. At the moment, not all member countries have defined these limitations in their national legislation.

Second and third principles providing in section 3, require the exchange of data and information requested by MRCS to maintain in MRC-Information System (MRC-IS) should be based on efficient, equitable, reciprocal and cost effective manner; and the information should be relevant, timely and accurate and usable format. These will be discussed more in detail below. The requirement is valid for data and information to be stored in the system at MRCS.

The last principle deal with additional and unavailable minimum necessary data and information to facilitate the MRC programs/projects and activities determined by JC. It will be collected through a cost sharing at the lowest feasible cost. This principle applies when the MRC decided to develop program/project or activities that require certain data and information, which are not exist at that time, the collection of such information will be shared among member countries as arranged by JC. For the cost sharing it, however, limits to a requesting state for the case, a member country requests unavailable data and information that are not serving to implement programs/projects or activities of the MRC from other members, that country will bear the cost for collection.⁶⁶

1.3. Types of data and information

⁶⁵ Convention on Cooperation for the Protection and Sustainable Use of the Danube River, at Sofia on 29 June 1994.

⁶⁶ Section 4, in the last paragraph.

The member States have the obligation to provide twelve categories of data and information provided in the procedures, section 4 (b).⁶⁷ Until now, many efforts have been made to build water and environmental related knowledge base in the MRCS, including building up inventories, conducting surveys and data collection, monitoring networks, GIS and mapping. Under the WUP activities, the MRCS has now installed seven databases, such as:⁶⁸

- Meteorological and hydrological database;
- Water resources database;
- Groundwater database;
- Water quality database;
- Social and economic database;
- Forestry database;
- Wetland database;

These databases have not been completely developed with full data and information. It requires member countries to support and contribute certain data and information into these databases. The MRCS has identified these required data and information as following:⁶⁹

- Catchment Features: (The geographical and forest cover data are collected by MRCS Watershed classification project. Additional data could be collected from recent remote sensing sources);
- Meteorology: (These data are mainly stored in the meteorological agencies of the riparian countries. The MRCS database consists mainly of precipitation data);
- Hydrology: (Data are stored in the MRCS database. Riparian countries maintain their own hydrological monitoring programs and databases. The Mekong basin hydrological network is now expanded to 360 stations);
- Water quality: (There are 106 supporting network stations. Some Data have been stored in the MRCS. However, the integration of hydrological monitoring network is still lacking; the tributaries in Laos and Cambodia are not covered);
- Social and economic: (Some information for Laos, Thailand and Vietnam from 1970-1989 has been collected from various development proposals within the Mekong Basin. MRCS has up an internal social and economic working group to collect needed information);
- Present and Future Water Use: (Data on past or current water uses in the Basin are not readily available and would need to be collected under the WUP project);
- Groundwater: (the groundwater has been monitored by the MRCS, and data has been stored in the MRCS's database. Some riparian countries have more recent monitoring data);
- Hydrographic: (It is available from the Hydrographic Atlas Project);
- Fishery: (Considerable fisheries data has been collected in the MRCS);

⁶⁷ Major types of information include: topography, natural resources, agriculture, navigation and transport, flood management and mitigation, infrastructure, urbanisation/industrialisation, environment/ecology, administrative boundaries, socio-economy, and tourism.

⁶⁸ WUP- PIP-Annex A, A.1.2 under the review all existing Data

⁶⁹ See id.

- Wetlands: (Part of this information has been stored into the MRCS database, where each member country has also undertaken surveys of its wetlands).

To develop complete database, the MRCS now is preparing a list and schedule of primary data and information for the member countries to provide to the MRCS-IS.⁷⁰ These primary data and information will be exchange in according to the time schedule and meet criteria set forth in the procedure.

1.4. Form, standard and format of data and information

Certain level regarding the collecting data and information have been made in each riparian state, but may be in different system, standards and format. In the practical exchange and sharing, especially, in the digital world, they require certain system to be able to communicate. It is necessary that the member-states design information system including the selection and preparation of the required software, design of data structures, hardware and communications arrangements, and the development for procedures for the data development and maintenance. The database systems of the MRCS is required to be compatible and integrated with other planned and on-going MRC activities, including the proposed "Integrated GIS and Statistical Databases for natural Resources Management" project.⁷¹

Regarding this development, during the process developing of procedure, experts group discussion and negotiation have beforehand raised questions on development of uniform standard and format to facilitate the exchange of data and information. Up to now, each member country has different standard and format or there are no standard at all, but it has to comply with the requirement of the data exchange procedure, respecting standard and format of data collection to be determined by MRCS. The MRCS technical staffs selves agreed that a uniform standard and format is needed to make it easier for exchange data and information and converting to the MRCS-IS knowledge base. For certain data and information that can be centrally collected through the MRC development projects may not be any problem. But many data and information needs, such as land use, point source of pollution, small-scale use of water or development plan are collected and available at local level carrying out mostly by local authorities. These data and information would be difficult to collect, and if, it may not in adequate format and standard. Such data and information are requested for the exchange, but may not meet standard and format required by MRCS. The forms of management of data and information developed in MRC-IS are also existing in all member countries, but only in different level of development. Current forms of data management at MRCS-IS include:⁷²

- Paper records;
- Electronic databank (computer server);
- CD-ROM, Floppy discs or similar media;
- E-mailed files/ documents;
- Internet.

⁷⁰ See Attachment (II): List of data and information prepared by the MRCS to the member countries in the preparation of Procedure for data and information Exchange.

⁷¹ The detail activities are described in the Project description of the WUP-PIP-Annex A

⁷² MRC Guideline on Custodianship and Management of the MRC-IS, distributed to member countries on 31 January 2002.

Other international basin authorities now publish variety of data and information periodically, daily, or even real-time, data, and make them available on the Web page data on Internet tolls.⁷³ An international leading example is the integrated Community Mapping and Information Support System (ICMISS) developed in NSW-ICMISS uniquely combines:⁷⁴

- Integrated publishing of distributed data;
- Support for text, images & databases as well as GIS data;
- Freely available data server software;
- Fully extensible architecture, and minimal system requirements.

For this purpose, the National Mekong Committee as the focal point of the cooperation will close co-ordinate work with the local authorities to develop its country into equal level of standard and to integrate the national data system with the MRCS-Information System.

1.5. The relationship to third party in sharing data and information

MRCS and NMCs may want to keep some information not to allow third party access, but for consultation/reference/inspection by the MRC and NMC staff only. But some data and information of the Mekong Basin may not be restricted for member countries. The Mekong Basin covers many environmental aspects that require the integration with global environmental management. In this respect, it also requires a flow of data and information country to country, region to region and at international level.⁷⁵

Under the procedure for data and information sharing an exchange, it does not provide any provision relating to the sharing data and information with third party. In the section 2: 'Objectives,' sharing data and information aims to exchange '*among the four MRC member countries.*' The purpose of setting this objective is to limit the third party free access to the information maintained by MRCS-IS, and only four member countries are entitled to get free access to MRC database. It is questionable on what basis or rules would the third party or donor apply when working, and exchanging data and information with MRC. Although, the procedure for data and information sharing is specific rule of the MRC to deal with the data and information sharing relating to the Mekong Basin; it, however, does not discuss on issue of third party relation respecting sharing data and information. The procedure seems clearly limit to the 'four member countries' only.

⁷³ Examples of Danube, Rhine River Web pages (<http://www.rec.org/DanubePCU/>; <http://www.iksr.de/>).

⁷⁴ Brian Haisman, MDBC Experts to the MRC Workshop on Data and Information Management and Exchange (Technical 1.2), An overview of Water Related Data Requirements for Integrated River Basin management, August 2000.

⁷⁵ For examples: The Rhine River Convention provided in article 14 (Co-operation with other states, other organisations and external experts), it opens for comments and exchange of data and information with other states and other organisations. Also the Danube Convention River Convention provides similar provision in article 14 (Information to the public), that any nature or legal person may request information concerning the state or the quality of the riverine environment in the Danube Basin with payment of reasonable charges.

The Mekong Agreement entrusts the MRC to enter agreement with third party.⁷⁶ For example, the Council recently signed an historical data sharing agreement with China,⁷⁷ an upstream State and non-member of the Mekong 1995 Agreement. In this case, the procedure would still not be applicable, because of the objective clause, which requires sharing data and information among the ‘*four member countries.*’ At the moment, all existing member countries and the Mekong Agreement, welcome other two non-members, China and Myanmar to join Mekong Agreement. It is assumed that the signed agreement to share data and information with china, it would treat the same ground as the sharing data and information among the four member countries. The sharing data with China must met these principles, objectives, standard, format, and other criteria set forth in the procedure for sharing data and information currently applicable to the four member countries. Other third parties may apply this non-membership status through an agreement with MRC to get access to MRCS-Data base. If this modality is continuing to apply in the future, the procedure may not need to say to apply for ‘*four member countries.*’

1.6. Implementation mechanism to the procedure for data and information exchange

The procedure set a mechanism for the flow of data and information by developing a central database in the MRCS-Information system (MRCS-IS). Currently, the Information System Design and Implementation Team (ISDIT) within the MRCS is preparing “*Guideline on Custodianship and Management of the MRC Information System (MRC-IS)*” to follow up action of data collection and exchange among the member countries.⁷⁸ It will define the responsibilities of users, information flow from NMCs to MRCS. The MRC also through its capacity building programs supports training to the NMCs staff in management and development of database at national level to facilitate the integration with the MRCS database.

The existing modalities for exchange information in general includes conference, workshops and seminars, country report, consultation and peer-review. These can be continuing modalities while new networks between MRCS, NMCs and the various national Line agencies are need to be developed. Internet, E-mail or Intranet system, alarm-warning systems that link the MRCS and NMCs would be the most useful and fastest tool to exchange data and information.

At the moment, it is still a difficult task for the line agencies in some member countries to develop its own database, because of lacking resources to adapt to the requirement of new standard. It was discussed during the course of consultation where the new standard could affect to the line agencies in some member countries only. The more advanced member countries may not require much change in this development because their line agencies may already meet this standard, and the new standard will have the same trend. In this view, therefore, the procedure could not treat all member countries at the same ground for its implementation.

⁷⁶ Mekong Agreement, Article 11...MRC...entering into agreements and obligation with the donor or international community.

⁷⁷ See: <http://www.mrcmekong.org/media/press2002/press007.htm>

⁷⁸ MRC Guidelines on Custodianship and Management of the MRC-IS/ISDIT: progress made during meeting 28-29 January 2002.

1.7. The joint survey or fact-finding mission

Although the Mekong agreement and the procedure have not specified to have joint survey or fact-finding mission, it may need to be established from time to time to conduct survey or fact-finding would contribute to duly implementation of the Mekong Agreement and procedure by each country. Particularly, if there are any disputes on some issues related to development project, water extraction or other activities that may affect water quantity and quality. On the request of MRC, the member States may give specific powers that the Commission may carry out surveys, investigations or studies for a variety of specified water management purposes, and need to inform the Council of the adequacy of environmental monitoring.

In summary to this part, in order to fulfil their obligations in sharing data and information, the countries will need to comply with certain requirements of the procedure. First, the information shared must not be prohibited by national laws, or under intellectual protection. Second the available data information to be shared must necessarily serve to implement the programmes/projects, activities covered under the Mekong Agreement. Third these data and information must be available, otherwise future collection is against reasonable charge, and fourth, data and information requested by any member country that is not readily available, and not for the purpose of implementation of the Programmes/projects under the Mekong Agreement, it will obtain through payment. The data and information to be exchange require the standard, format determined by the JC.

At this stage, the member countries need to further strength their ‘spirit of co-operation’ and development of trust in many fields, including integration of development plan of programs/projects in each country, and also harmonisation of national legislation with the Mekong framework Agreement. Though these working environment, it will speed up the process and facilitate the sharing of data and information.

2. The Preliminary Procedures on Notification, Prior Consultation and Agreement

The ‘*Preliminary Procedures for Notification, Prior Consultation and Agreement*,’⁷⁹ which will be adopted by the Council in October 2002, is second procedural rule under the WUP program. The procedure needs to identify the ‘*proposed use*’ as the key term, which deals with water use of the Mekong River system in different locations, seasons, and types of water uses that are subject to ‘Notification’, Prior Consultation or Specific Agreement.

The proposed uses specify in article 5(A) of the Mekong Agreement mainly deals with tributaries of the Mekong. Under the article, the proposed uses are classified into ‘*intra-basin uses*’ and ‘*inter-basin diversions*’ and they shall be subject to ‘notification’ to the Joint Committee. Notification to JC is also required if the

⁷⁹ The Council will adopt the Procedure in October 2002 (See: Start up WUP-PIP, Annex I, B. B1.3).

proposed use of water on the mainstream is classified as ‘intra-basin use’ and during ‘wet season.’⁸⁰

By contrast, ‘Prior Consultation’ requires, if the proposed use locates on the mainstream, classified as ‘inter-basin diversion’ and during the ‘wet season’,⁸¹ and ‘intra-basin use’ during dry season,⁸² shall be subject to ‘prior consultation’, aiming at arriving at an agreement by the JC.

Finally, the proposed use classified as ‘inter-basin diversion’ on the mainstream during dry season, it shall be subject to specific agreement for each project by the JC.⁸³

Although the Mekong Agreement defines the terms ‘Notification’, ‘Prior Consultation’, ‘Agreement’, and ‘Proposed use’ in chapter II, for its effective implementation it still needs to clarify some terms, inter alia, ‘domestic and minor uses’, ‘significant impact’, ‘intra-basin use’ and ‘inter-basin diversion’, ‘mainstream’. These terms are often used to identify the water uses, which could be either subject to ‘Notification, Prior Consultation or Specific Agreement’.

The term ‘Proposed use’ is covered by these three categories above, and it is necessary to observe when applying any of the three categories. The Mekong Agreement defines the term ‘Proposed Use’ in chapter II as follow:

‘Proposed Use’ means: *“any proposal for a definite use of the waters of the Mekong River system by any riparian, excluding domestic and minor uses of water not having a significant impact on the mainstream flows.”*

Reading from the definition, it is not clearly indicated whether the definition aims at quantitative use of water only, i.e., abstraction of water. Question on the other uses of the Mekong River, such as navigation, tourism timber floating and exploitation of resources along the Mekong, like sand extraction, etc are not identified, but Mekong Agreement covers all these areas.⁸⁴ If these activities were not governed by the definition, they would not be subject to Notification, Prior-consultation, or Agreement. In practice, these lacks of clarity could cause serious dispute between member countries.

2.1 Notification

The Mekong Agreement requires member states to notify on proposed use of water in the Mekong River system in different situation, seasons and location of water use. Notification requirement here focuses particularly to implement article 5 of the Mekong Agreement, which deals both with the use of water on the tributaries and

⁸⁰ Under article 5(B) 1.a) of the Mekong Agreement: “On the mainstream of the Mekong River during the wet season, intra-basin use shall be subject to notification to the joint committee.”

⁸¹ Under article 5(B) 1.b) of the Mekong Agreement: “on the mainstream, during the ‘wet season’, inter-basin diversion shall be subject to prior consultation...”

⁸² Under article 5(B) 2.a) of the Mekong Agreement: “on the mainstream, during the ‘dry season’, ‘intra-basin use’ shall be subject to prior consultation...”

⁸³ Article 5(B) 2.b) of the Mekong Agreement: “on the mainstream, during the dry season, any ‘inter-basin diversion’ shall be agreed upon by the JC through a ‘specific agreement...’

⁸⁴ Article 1 Areas of Cooperation covers all of these fields.

mainstream of the Mekong River system. Other terms, such as ‘notify’ required in article 7: ‘Prevention and Cessation of Harmful Effects’ and article 10: ‘Emergency Situation’, which are considered in different situation, is a question whether it falls under the definition of ‘Notification’ in chapter II of the Mekong Agreement. It is necessary to make it clearer for all member countries, particularly, to identify in what circumstance and situation the terms would apply.

2.1.1 Definition and Key-terms

The relevant terms relating to Notification are defined in Chapter II of the Mekong Agreement as follow:

‘**Notification**’ means: “*timely providing information by a riparian to the JC on its proposed use of water according to the format, content and procedures set forth in the Rules for Water Utilization and Inter-Basin diversion under article 26.*”

The definition serves to explain what and when the members Countries have obligation to notify their uses of Mekong River system. According to the definition, when a country has to notify, the notification must be accompanied by ‘*information*’, and preparing in accordance to the format, content and procedures set forth in the ‘Rules for Water Utilisation and Inter-basin diversions. It implies that these rules, which will be adopted by the Council,⁸⁵ will contain all the detail provisions and mechanism to facilitate the member countries for handling notification.

2.1.2. The distinction between the use on the mainstream and tributaries and between the wet and dry seasons in the Mekong river system

The proposed use of water that requires for notification in the following categories:

(1)-On tributaries, (Article 5. A.):

General requirement of this article is that when a member country plans to use water on the tributaries of the Mekong, no matter what types of uses it may make, here ‘intra-basin use’ or ‘inter-basin diversion’, it requires that member country to notify to the JC.⁸⁶

At the moment, the terms ‘intra-basin use’ and ‘inter-basin-diversion’ were not further interpreted. General understanding, an ‘*intra-basin use*’ is when member countries use the water within the border of basin line, while an ‘*inter-basin diversion*’ is to understand that water is diverted out of the basin line. The water use on tributaries does not make distinction between dry and wet seasons; it means that water uses in both seasons and no matter what types of water uses require member countries to notify to the JC only. There is some argument on the use of water on tributaries during dry season. If there is no limit for water use on tributaries in each country, by using this clause, a member country may take water from its tributaries out of the system as much as it want, and in particular the border line between mainstream and tributaries has not been specified.

⁸⁵ WUP-PIP-Annex G.

⁸⁶ The Agreement does not make distinction between intra-basin use and inter-basin diversion, dry and wet seasons in the case of proposed use on tributaries.

(2)-On the Mainstream: (Article 5.B 1.a):

Intra-basin use during wet season only. Under this category of water use, it also requires member countries to notify to JC. In this situation, the water use is targeting on the mainstream. In order to make the water use of the mainstream subject to notification, such water must be made during the wet season and use within the basin line only.

2.1.3. Types and Size of the proposed use subject to notification

The type and size of water use may be another issue to consider here. Under the terms ‘proposed use’, it excludes ‘domestic and *minor uses of water and not have a significant impact on the mainstream flows*’. By reading the term, it is understood that any water use that considers as ‘minor’ or ‘domestic’ is not a ‘proposed use’. Thus, it does not need to notify to JC. However, if such ‘minor’ or ‘domestic uses’ may have ‘significant impact’ on the mainstream, it will still fall under notification requirement to the JC. Again, here it needs to clarify what would be ‘minor or domestic use’ and what is ‘*significant impact*’ on the mainstream. For instance, a cumulative of minor or domestic uses may cause significant impact on the mainstream flows.

Although, Mekong Countries are not concerned much with quantity of water, but in dry season, there are already be problem. In the dry season, excessive uses of water may cause to reduce certain level of the mainstream flows. The Mekong Agreement also requires that certain level of flows on the mainstream during dry season must be maintained.⁸⁷ Thus, in order to determine what would cause ‘significant impact on the mainstream flows’ it depends on the setting of minimum level to be maintained.

At the moment, different types of water use, which require certain amount of waters, for instance, navigation requires high level of water on the mainstream, also People in the Mekong Delta needs high volume of water to prevent salt water intrusion, many farmers in the upstream countries need water for irrigation, etc. All of those water users may have different interests to maintain level of water on the mainstream.

To address this issue, the MRC needs to set level of ‘*minimum flow*’ on the mainstream during dry-season, and allocate certain amount of water for each country is entitled to use.⁸⁸

2.1.4. What constitutes "Notification?"

The four member countries have argued on the issue of what constitute a notification, whether notification should be in writing, or simply provided by any means or should the notification be effective with supported by information. Some countries argue that the notification is just to inform others, who may object to the use of water, and may require information. For the development of the ‘Procedure for

⁸⁷ Article 6 of the Mekong Agreement: (Maintenance of Flows on the Mainstream).

⁸⁸ Examples of using Cap system in Murray-Darling Basin, Setting the Cap, Report of audit Group, November 1996.

Notification, Prior-consultation and Agreement’ or any subsequent rules, the Technical Drafting Group (TDG) needs to take into consideration that the rules are not conflict with intention of the Mekong Agreement.

It implies that ‘notification’ must be made in written form, because the definition requires that notification accompanied by ‘information’, and in according to the format, content and procedures set forth in the Rules for Water Utilization and Inter-Basin Diversions. The information indicates such ‘proposed use’ must proved that the use will not cause any significant impact on the mainstream flows.

Also argument is whether the notification should be accompanied by the result of EIA. The EIA may be required depending on scale and types of projects and proposed use, and the MRC may need to determine this issue.

2.1.5. When should the Notification be provided and responded?

The argument here, is whether notification should be provided as earlier as possible the NMCs has received all information on proposed uses submitted by the line agency to allow other countries react on such proposed use. The argument goes into the question whether the notified States may make any objection to such proposed use.

Because notification must be submitted to the JC, it may need some time to consider such proposed before such proposed use can be proceeded. If notification aims only to inform JC and other member countries on such proposed use, it may not serve any purposes of the cooperation, provide information of such water use only. For the water uses falling under the category of notification, MRC may need to classify the proposed uses in different scales so that certain water uses may go through consideration.

The procedure for notification may specify time limit and period for review such proposed use by JC, with a view that such proposed use does not cause any ‘*significant impact*’ on the mainstream flows. In addition to significant impact on the mainstream flows, the “*definite*” character on proposed use of water of the Mekong River system is another point to discuss. According to the definition of ‘proposed use’, only the proposal for the use of waters of the Mekong River system, which will be definitely be implemented, is subject to notification. If the proposed use is not sure when to implement, it may not need to notify to JC and other member countries. Thus, it comes to the question again when to notify. It is because a proposed use may surely or ‘definitely’ be conducted only after the relevant authorities in respective country have approved such proposed use. For this reason, the notification may be submitted to the JC only, when such proposed use is approved in the plan of water use in each respective member country.

In the absence of any procedure on this issue, the 1997 UN convention of the Laws on the Non-navigational uses of international is an example for thought. The Convention provides in article 13 (period for reply notification), period of six months for notified states to reply. Within this period, the notifying state shall not implement the proposed use. In the absence of replying (article 16), the notifying states may proceed with the implementation of proposed use. If this is accepted in the Mekong framework agreement, during this period, the JC shall facilitate the parties to discuss

on the issues, in particular, to consider the ‘significant impact’ on the mainstream flows. Note that the UN Convention, respecting to notification and period for consideration, requires watercourse states to cooperate in this matter when the planned measures may have ‘significant adverse effects’ upon other watercourse states. It does not make any distinction between the water uses on tributaries or mainstream. But the Mekong Agreement makes it different between the proposed on tributaries and the mainstream. So that the proposed uses on the mainstream require a more detail consideration (through the Prior consultation or Specific Agreement) as will be discussed below. Therefore, the UN Convention may not operate on the same ground with the Mekong Agreement, but using as example for explanation in this connection.

2.1.6. Mechanism for handling Notification.

The process of notification from one member Country to another is not between private party, entities, which are normally water users. The process of notification will pass through many gates before reaching notified States. It starts with the application for the uses of water by any prospective users and must contain certain information required; it then must be filed with the competent authorities responsible for management of such type of use before being forwarded to concerned NMCs. The notification will then be forwarded to the MRCS, JC and to other member States. Note that the JC will hold its session twice a year or when ever it is necessary,⁸⁹ it may hold special session only to decide on proposed use of water. For this reason, the process for the proceeding of notification may take longer than six months, if such proposed use requires responds from all related bodies.

It is necessary that the member countries integrate plans of water uses in their territories with plan developed by the MRC, the Basin Development Plan; so that the JC will be able to consider in the short period of time what proposed uses are approved under the plan.

2.1.7. Notification to prevent Harmful Effects and Emergency Situation

In addition to ‘notification’ specified under article 5, Articles 7 and 10 of the Mekong Agreement also require member countries to notify another. These two articles require that any member state is ‘*notified*’ to cause harmful effect to the Mekong River Basin, or becomes aware of any special water quantity or quality problems constituting an emergency situation, it shall ‘*notify*’ other member state concerned and JC.

The purpose of notification in these two articles is to prevent and cessation of harmful effects to the environment of the Mekong River system. It is general obligation of the member Countries to prevent harmful effects to the environment in the Basin and to stop all harmful causes to the environment. The situations in articles 7 and 10 may not fall under the definition of the terms ‘Notification’ in chapter II of the Mekong Agreement, which deals with ‘proposed use of water’ only, but here with ‘cessation of harmful effects’ and ‘emergency situation’. The question here is whether notification in these two situations should be dealt with

⁸⁹ Article 23 of the Mekong Agreement.

the ‘Procedure for Notification, Prior Consultation and Agreement’, or in separate section of the procedure. Even if it is not covered by the procedure, it is necessary to consider at early stage to protect the environment, water quality and quantity.

In Conclusion to the notification requirement, the prospective users of the Mekong River system must see the differences between the proposed use on the mainstream and tributaries, wet and dry season, intra-basin use and inter-basin diversion. These criteria need to identify whether such proposed uses are required for ‘Notification, Prior-Consultation and Agreement’. The notification is a mechanism to facilitate the member Countries for informing each other when any member have intention to use water on the tributaries or on the mainstream during the wet season by intra-basin use.

The ‘proposed use of water’ is what the definition of ‘Notification’ in the Mekong Agreement intends to identify. It means abstraction of water from the system. There are, however, other notifications in different situations that are not related to water use, but require the member Countries to notify another, in the cases of article 7, ‘Prevention and Cessation of Harmful Effects’, and article 10, ‘Emergency Situation’. These are needed to clarify not less than the ‘notification’ specified in article 5 of the Mekong Agreement.

2.2 Prior Consultation

The Mekong Agreement requires more detail consideration than the ‘notification’ process through ‘consultation’ when ‘proposed use’ of water taking place on the mainstream. In this case for the ‘prior consultation’ is required in the following situations:

- (1) if the ‘proposed uses’ places on the ‘mainstream’ for water use during ‘wet-season’ and it is ‘inter-basin diversion’;
- (2) , if the proposed use places on the ‘mainstream’ for water use during ‘dry season’ and it is ‘intra-basin use’;
- (3) If there is surplus quantity of water on the ‘mainstream’ in excess of the proposed uses of all member countries during ‘dry season’ and the proposed use is ‘inter-basin diversion’. In the third case, the proposed use must be agreed and unanimously confirmed by the JC.

2.2.1. Definition and Key-terms

Chapter II of the Mekong Agreement defines ‘Prior Consultation’ as follow:

Prior consultation: *“Timely notification plus additional data and information to the JC as provided in the Rules for Water Utilization and Inter-Basin Diversion under article 26, that would allow the other member riparian to discuss and evaluate the impact of the proposed use upon their uses of water and any other affects, which is the basic for arriving at an agreement. Prior consultation is neither a right to veto the use nor unilateral right to use water by any riparian without taking into account other riparians' rights.”*

The definition here again contains the term ‘*proposed use*’, which was discussed above.⁹⁰ Here, the prior consultation starts with the notification process, requiring

⁹⁰ See infra: definition of ‘proposed use’ in section 2.

supports of data and information for the consideration and evaluation by others member countries. The prospective user must provide sufficient information, and to allow other member countries to discuss and evaluate the impact of the proposed use on the mainstream flows. In this regard, the result of Environmental Impact Assessment (EIA) would be useful for consideration.⁹¹

2.2.2. When Prior Consultation is needed?

To clarify three categories of water uses above, pursuant to article 5: B.1.b); B.2 a); and B.2 b) of the Mekong Agreement, the following proposed uses are subject to Prior Consultation:

(1) Inter-basin diversion on the mainstream during wet-season (Article 5 B.1 b));

The requirement of this clause targets on the water use of the mainstream during the wet season and if such use is considered as ‘inter-basin diversion.’⁹² The purpose of this article is that the member countries may not divert water out of the basin line without prior consultation with another states through JC. The reason is that notification is not enough, proposing country must take into account the interests of the Basin as whole before proceeding to such use. Even if during wet season there is tremendous amount of water on the Mekong mainstream.

(2) Intra-basin uses on the mainstream during dry-season (Article 5 B. 2 a));

The requirement of this clause also serves the interest of protecting the whole basin by maintaining the level of water flows on the mainstream. By contrast to Article 5 B 1 b), above, this type of water use is taking water from the mainstream during the ‘dry season’ and if such proposed use considered as ‘intra-basin use’⁹³. It is expected from intra-basin use that the water will return to Mekong River system. The rational is during dry season level of the Mekong is low, and even intra-basin use can affect the level of the mainstream flows. Therefore, it requires member countries to consult with another before proceeding the water use.

(3) An inter-basin diversion of the surplus of water during dry-season (Article 5 B. 2 b));

Next case also concerned water use on the mainstream during dry season, but dealt with ‘inter-basin diversion’. The Mekong Agreement allows any member country to propose use only, if there is surplus of water on the mainstream, which exceeds the required level of mainstream flows and other member countries have confirmed that they do not need to use such surplus of water within the basin.

For practical reason, the proposed use on such surplus amount of water needs to be reviewed year by year, because the agreement gives first priority to ‘intra-basin users’ over ‘inter-basin diversion’ from the mainstream. But from time to time, there could be different level of intra-basin uses.

In addition to the discussion above, the definition of ‘Prior Consultation’ specifies that prior consultation is ‘*neither unilateral right*’ to use ‘*nor right to veto*’ the use of

⁹¹ Although the Mekong Agreement does not require member countries to provide EIA on any proposed use, but for evaluation and consideration on the proposed use, EIA may contain relevant information to support the evaluation of the proposed use.

⁹² See: *infra*, explanation on ‘inter-basin diversion’ in point 2.1. b) (Notification)

⁹³ See: *infra*, explanation on ‘intra-basin use’ in point 2.1. b) (Notification)

water without taking into accounts other riparians' rights.⁹⁴ The sentence implies that prior consultation may not always reach an agreement by the JC. It puts the emphasis that the member countries consult with another before using water, but it is not absolute obligation to reach an agreement in each case. In contrast, the next case below requires that 'proposed use' must be concluded in 'Specific Agreement' for each proposed project.

In summary the prior consultation emphasis on the water use of the mainstream only. It aims primary at three situations. First water use or proposed use places on the mainstream during the wet season by inter-basin diversion; second, the proposed use on the mainstream during the dry season by intra-basin diversion; and third situation is when the proposed use on the mainstream during dry season of surplus of water by inter-basin diversion.

Also in this situation, the definition of the 'proposed use' of water is not clear whether it aims only the use of water or any other use of the Mekong River. Other types of uses that are directly affect the mainstream, i.e., bank protection, other constructions along the Mekong River, uses of other resources of the Mekong River, or other types of uses, are needed to consider and consult with another in order to protect the Mekong as whole.

2.3. Specific Agreement:

2.3.1. Definition and key-terms

Chapter II of the Mekong Agreement defines 'Agreement' as follow:

Agreement under Article 5: "*A decision of the Joint Committee resulting from prior consultation and evaluation on any proposed use for inter-basin diversions during the wet season from the mainstream as well as for the intra-basin use or inter-basin diversions of these waters during the dry season. The objectives of this agreement is to achieve an optimum use and prevention of wasters through a dynamic and practical consensus in conformity with the Rules for Water Utilization and Inter-Basin Diversions set forth in Article 26.*"

The term 'proposed use' is also an important element, see definition above. From the definition here, all proposed uses of water those require under the 'prior consultation' above aim 'at arriving agreement by JC.' It is to understand here there may be not always the case, where the result of the consultation, will reach an agreement by the JC. If the consultation can reach an agreement, this definition will then be applied.

Certain requirement for proposed use that must be agreed upon by the JC for each project is in the case of article 5 B. 2. b), which is discussed below.

2.3.2. Scope of requirement for specific agreement

Specific requirement simply requires any proposed use of water on the mainstream that considered as 'inter-basin diversion', during dry season. It describes

⁹⁴ See: Definition of Prior-consultation.

in article 5 B. 2. b) as follow: *“any inter-basin diversion project shall be agreed upon by the Joint Committee through specific agreement for each project prior to any proposed diversion.”*

The proposed use of water falling under this article must be made only through ‘Specific Agreement’ with JC. Here, the type of water use is involving with the abstraction of water from the mainstream during dry season by diversion of water directly from the mainstream to non-basin area. This type of water use could directly affect the maintained level of mainstream flows. It, therefore, requires most strict consideration in the cooperation, which must be concluded in specific agreement confirmed by all member countries through JC before taking water in this category.

In summary to the development of procedural rules within the Mekong framework, the two procedures discussed in this paper are primary procedures to facilitate other development programmes of the MRC, one was adopted and other is under the consideration. They set detailed provisions and guidance to the member countries for performing their obligations under the Mekong Agreement, in particular, for the cooperation in data, information exchange and in process of notification, consultation and agreement on any proposed use of water in the Mekong River system. Both adopted rule and planned rules to be adopted in the near future by the MRC, however, are new to Mekong member countries. Both Mekong Agreement and adopted procedural rule cover many terms and principles that need further clarification. In many international agreements, principles are mostly specified in particular article.⁹⁵ It is recommended that principles need common understanding. Here the member countries cooperate on the basis of international law, and in the absence of any agreement, the international principles, norms are applied and they will pass into regional and national laws.⁹⁶ For the effective implementation of the Mekong Agreement, it is, therefore, important for member countries to develop clear rules and promote common understanding at early stage. It will help to avoid future disputes, especially, where the mechanisms for solving many differences are not sufficiently developed at the national and regional levels. To have more feasible outcome of the co-operation, MRC may review the capacity of each member country for implementation of the Mekong Agreement and adopt procedural rules, measures suitable to such circumstances.

III. Conclusion

With the establishment of the mechanisms for basin management deriving from the Mekong Agreement, the member countries harmonise their efforts and pursue together the sustainable development of the basin and the protection of the related environment. The cooperation of the Mekong countries today has reached certain level of achievement.

⁹⁵ Principles used in the Mekong Agreement in Chapter III do not specify in a particular article, including most recognised ‘polluter pays principle’ or ‘precautionary principle’, and other principles are not contained in the Agreement. Comparing to the Danube Convention, article 2 (4) ‘Polluter pays principle’ and ‘Precautionary Principle’; and article 4 of the Rhine Treaty, with nine principles described; 1992 Water UN/ECE Convention, specifies the principles in article 2 (5);

⁹⁶ Alexandre Kiss and Dinah Shelton, International environmental law, second edition (p. 44).

The development of the procedure for data and information exchange is a forward step in the cooperation between the member countries. All member countries have recognised that data and information are vital for the decision-making process and as key to success in their cooperation. It will also help to create an environment of trust and confidence between them.

The next challenging goal is the development of the procedure for notification, prior consultation and agreement. It requires the member countries to work even more closely to cooperate in protecting the environment of the basin and to integrate their efforts.

All this is based on the expectation that member states observe the policy and rules issued by the Council. In practice, however, the decisions of the Council and the actions taken at national level are often inconsistent. There are still many overlaps and conflicts of interest between national structure, legislation, policy and decisions within the Mekong framework Agreement. A strong and efficient joint body could help to harmonise the national policies and developments with the Mekong cooperation goal.

To achieve this goal, however, the member countries need to work with one another in good faith, and to strongly support the implementation of the Mekong Agreement. Moreover, each member country needs to strengthen its national institutions for the effective implementation of the Mekong framework agreement, in order to facilitate common management. Learning from other regional and international developments and experiences is valuable for all member countries.

Attachment list (I)

- A. Basin Modeling Package and Knowledge base**
- A1 Information and Knowledge Base Development
 - A1.1 Modeling Needs, Data Requirements, and Selection criteria
 - A1.2 Review of all existing Data
 - A1.3 Database and Information System design
 - A1.4 Assessment of national legal and institutional framework
 - A1.5 Development, testing, and implementation of the Knowledge and information management system
 - A1.6 Water Quality Data and Problem Assessment
 - A1.7 Identification and filling of critical assessment
 - A2 Development of Basin Modeling Package
 - A2.1 General Basin Modeling Requirements
 - A2.2 Water quality modeling and strategy development
 - A2.3 Integration of Upper and Lower Basin models
 - A2.4 Calibration and Verification of the WUP modeling package
 - A2.5 Verification of water use monitoring protocols
 - A2.6 Supports for the rules formulation and consultations
 - A3 Environmental, economic, and Social Transboundary Analysis and Modeling
 - A3.1 Transboundary problem assessment, priorities, and data needs
 - A3.2 Closing critical data gaps
 - A3.3 transboundary model component development
- B. Development of the Rules for Water Utilisation**
- B1 Procedural Rules
 - B1.1 Data and Information Exchange
 - B1.2 Water Use Monitoring
 - B1.3 Notification, Consultation and Agreement procedures
 - B2 Technical rules
 - B2.1 Maintenance of flows on the Mainstream
 - B2.2 Water Quality rules
- C. Institutional strengthening of the MRC and the National Mekong Committees to implement the WUP**
- C1 Project and Program management support
 - C2 Technical Training, Capacity Building and team-building
 - C3 Communications, Participation, and Public Awareness
 - C4 Participation in GEF regional and global programs.

Attachment list (II)

- Hydrological data (Timing: daily and every year);
- Meteorological data (Timing: daily and every year);
- Ground water data (Timing: every year);
- Irrigation data (Timing: every year);
- Data on water use by user group, and total (Timing: every year);
- Agricultural data (Timing: every year (subject to availability) especially for area planted and area irrigated);
- Soil data (Timing: MRCS is in the process of developing a digital soil map for the MRB. When completed, it can be provided to the member states. Since soil data are quite static, there is no short or medium term time interval for exchange);
- Inundation, flood management and control data (Timing: every year);
- Forest/land cover data (Timing: every 3 years);
- Fisheries data (Timing: every 2 to 5 years);
- Navigation data (timing?);
- Wetlands data (Timing: on request);
- Socio-economic data (Timing: every year (subject to availability));
- Health data (Timing: every year);
- Infrastructure data (roads, railroads, dams etc) (Timing: on request);
- Industrialisation data (including: location of existing and planned dams, and hydropower schemes; location of existing and planned industrial zones, including mines, and type of industry) (Timing: every 5 years);
- Urbanisation (population census) (Timing: on request);
- Environmental and ecological data (including: environmental projects metadata; protected areas data; biodiversity data) (timing?);
- Administrative boundaries data (including: provincial, district, commune boundaries; location of villages, urban areas) (Timing: on request);
- Topographic data (Timing: on request);
- Tourism (Timing: every 2 years);