Regional Workshop on Transboundary Water Cooperation
in the context of the SDGs in South Asia and beyond
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Presentation

"Transboundary water cooperation in Mekong Countries, key issues, challenges and intervention to address"

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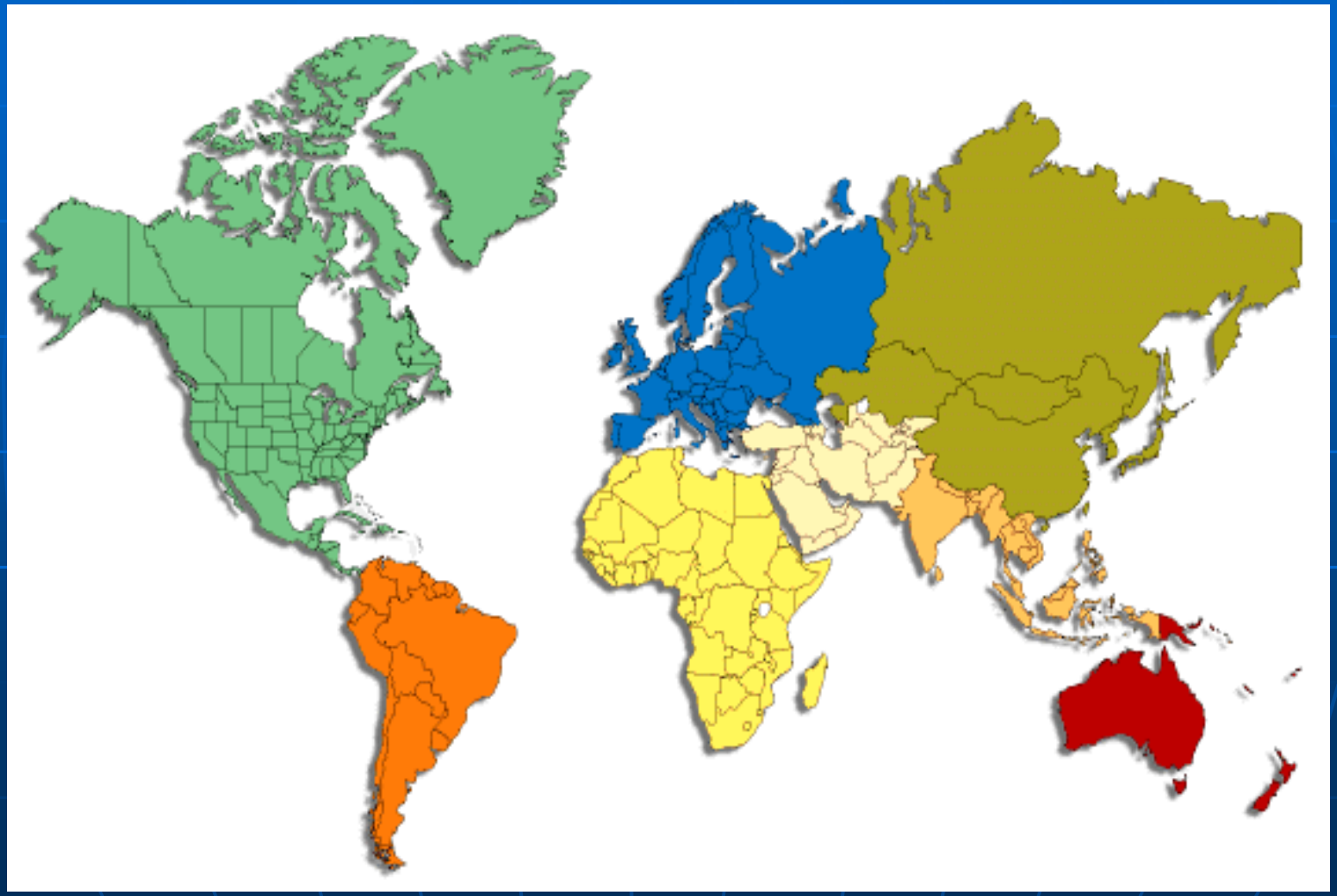
We are in the world



Transboundary water resources contribute to the economic, social, and environmental well-being of communities around the globe. Despite their inter-connectivity (national, sectoral), challenges remain in efforts to integrate the management of water resources that are shared across national and administrative borders.

"Patricia Wouters, TECH BACKGROUND PAPER No.17

- The global Sustainable Development Goals (SDGs) are expected to provide an operational framework to implement development across sectors. There is strong support for dedicated goals on water, energy and food with a broad scope that reflects the realities of resource management.
- By adapting and coordinating national development plans appropriately, regional sustainability, affected by national developments, can be enhanced, without compromising the national objectives. This provides a strong argument for including transboundary cooperation in the SDGs.

MRC, 2014, Cooperation for Water, Energy, and Food Security in Transboundary Basins under Changing Climate

I. Overview of the Mekong River Basin

Mekong River Basin

- The Mekong River, the longest river in Southeast Asia and one of the largest rivers in the World, its drainage area is 795,000 km2 ranking as twenty-first and its length is 4,800 km, in rank of twelfth, its runoff (475,000 million cubic meters) is ranked as eighth in the World.

  - Large international river basin shared by 6 countries and recently about 75 million people (incl. the Upper Mekong basin)
  - Many planning reports were produced since the 1950s but little water infrastructure got built in the Lower Mekong basin compared to other river basins
  - The flow regime of the Mekong is still close to its natural state
  - Unique biodiversity and large fisheries
  - Much of the Mekong Basin remains among the poorest regions - malnutrition poses great challenges

- Fresh water is a critical resource to be managed and developed with appropriate manner as long term driven factor for economic and industrial activities, for agriculture and food production, water supply and goods services, including tourism and recreation.

II. TRB WRM issues and Challenges

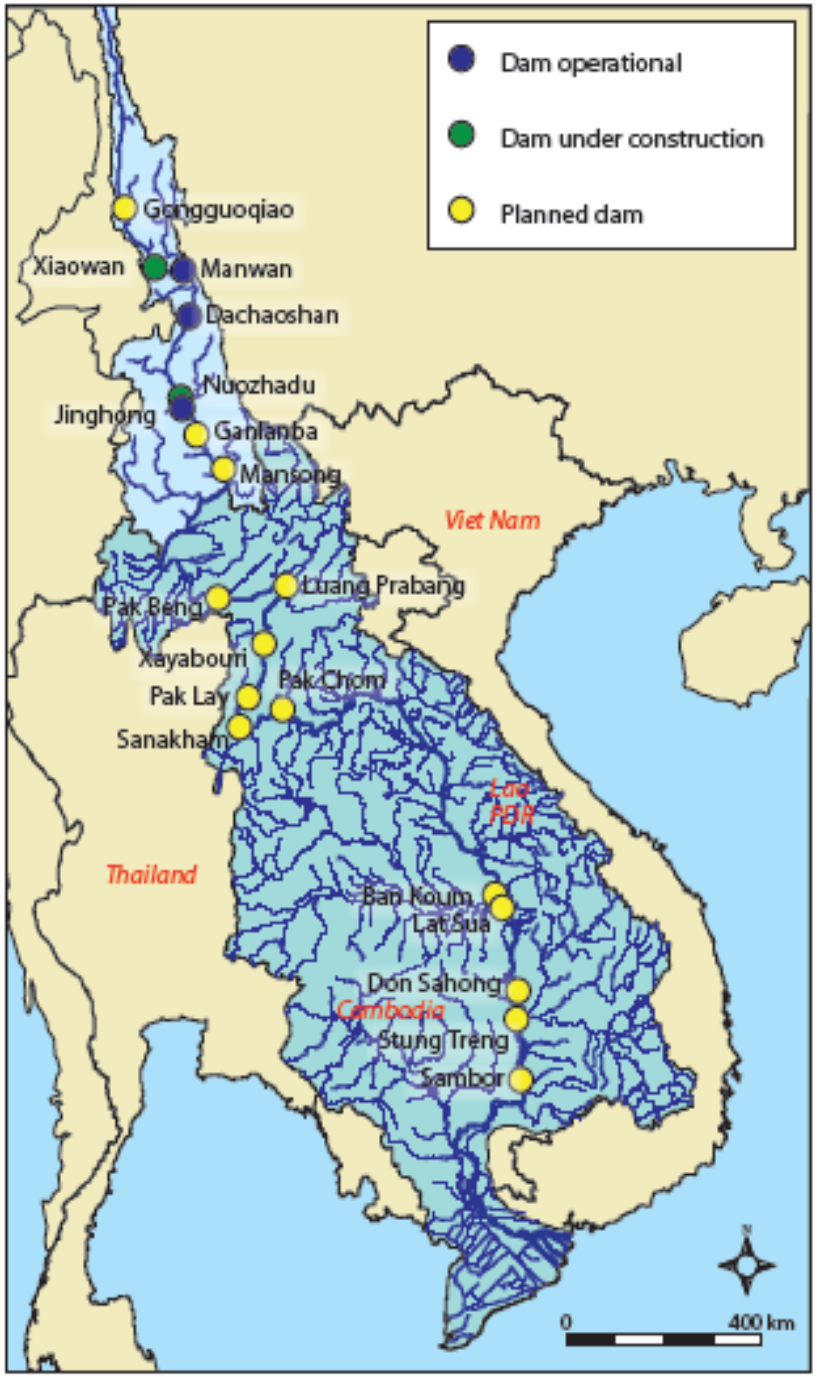
River Basin-key assets

- A river basin as the most appropriate unit for the development and management of water resources has prompted the search for appropriate institutional arrangements for river basin management:
  - the natural dynamics of the river basin, which function to transfer water and sediments to the ocean,
  - leaving a characteristic morphology—river channel, floodplain, valley side—to form the basis of river habitat.
- Its important resources and the impacts to its resources which is the maintenance of terrestrial ecosystem services which provide important indirect services to humans, and that can if necessary be valued.

Trends in water resources development

- Hydropower development
- Irrigation development
- Mining
- Public and industrial water supply
- Tourism and eco-tourism
- Navigation
- Flood protection
- Fisheries

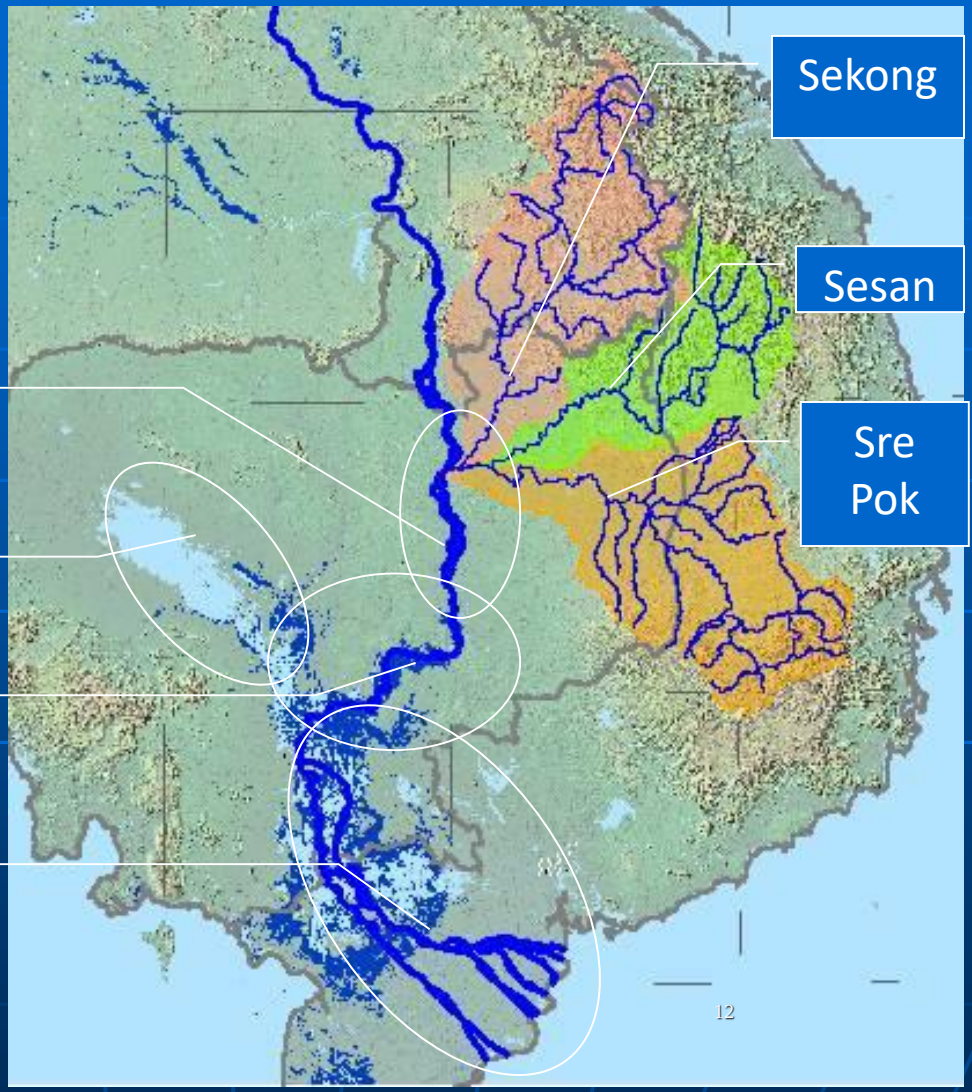
Global Water Partnership



Impacts of basin development

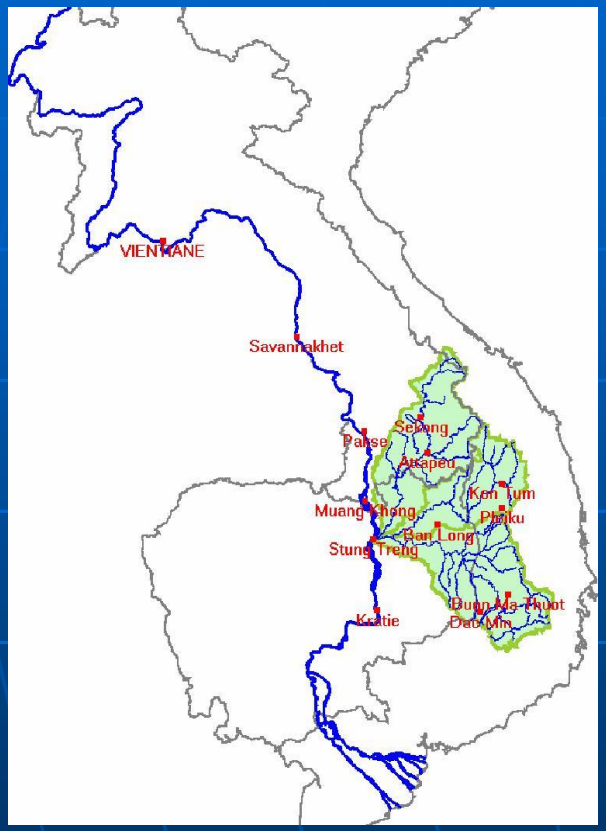
- Watershed degradation and flash floods
- Changes in stream flow
- Changes in water quality
- Reduction in capture fisheries
- Sediments
- Degradation of aquatic ecology
- High economic benefits
- Increasing risks for vulnerable natural resource users

Cambodia Mekong Basin-Critical zones

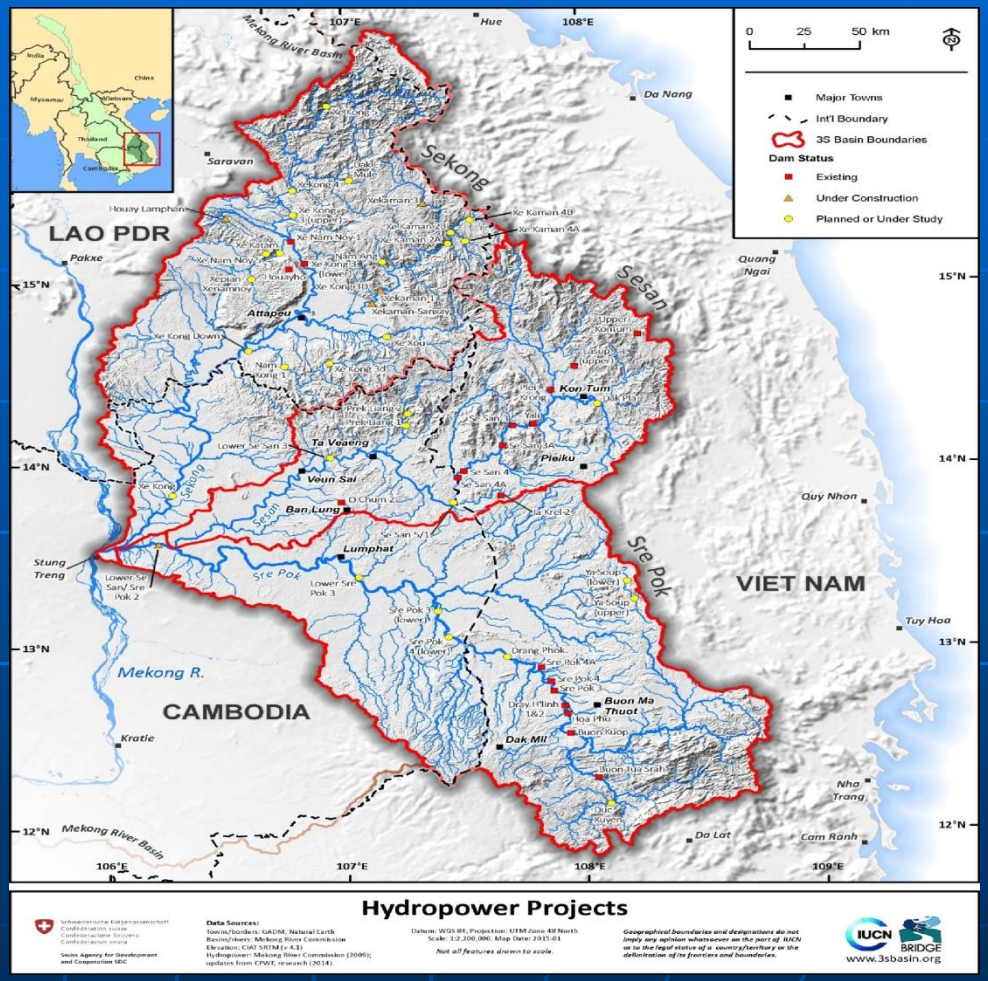


However, development pressures in all countries sharing the Basin are already affecting the river's regime and the livelihoods of those dependent upon the river's rich bio-diversity.

3S Basin Map

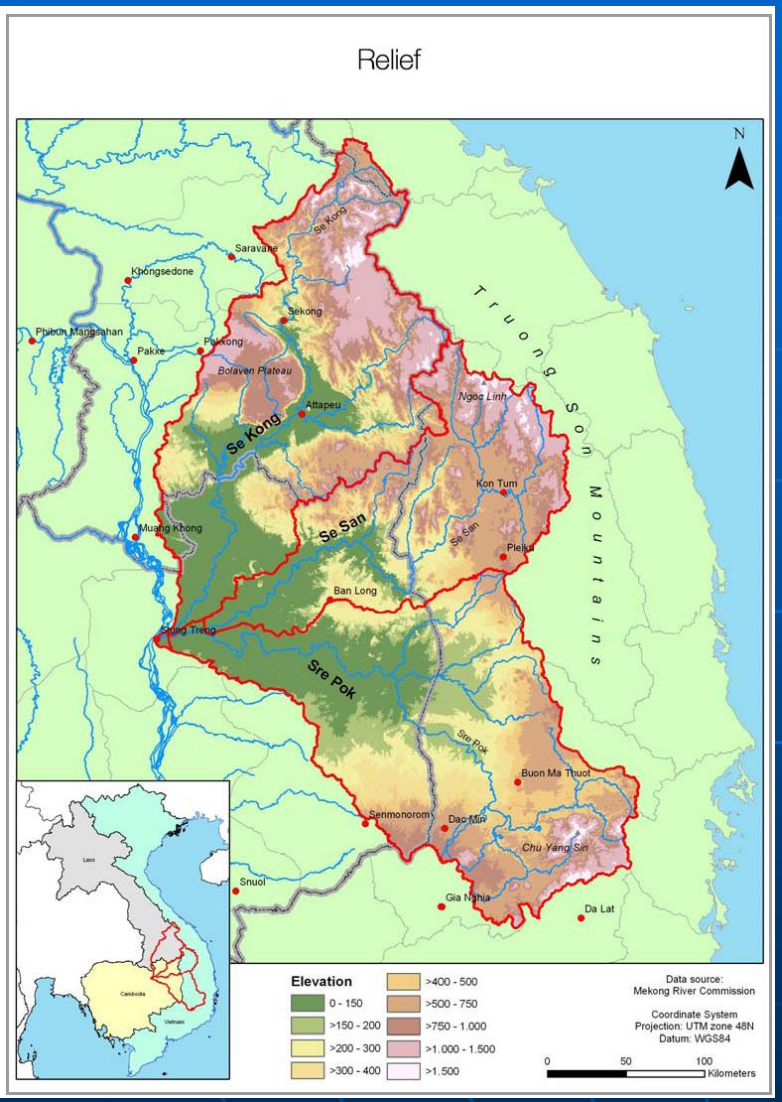


3S Setting



Cascading hydropower plants

3S main Transboundary issues



- Uncoordinated river basin use and management
- Pressure on the resources: river, ground water, forests, fish
- Trans-boundary impacts of hydropower development
  - River flow
  - Water quality
  - Sedimentation
  - Flood
  - Fisheries and other aquatic resources of the river and its system are under pressure
- Need for meaningful and effective cooperation

Challenges for River Basin Development and Management and their impacts

- Large-scale water resources development: such the development of cascading hydropower plants and irrigated agriculture, other water related development plans.
- Planned water resources development that will create large economic benefits but also large environmental impacts on capture fisheries, aquatic ecology and sediment transport, which may also affect the Mekong mainstream.
- Dry season water flows may not change much or even increase in the River Basin due to the interplay between the hydropower and irrigation developments.
- Transboundary impacts may be limited as most of the adverse impacts from nationally planned development will be felt nationally.
- Flooding is an increasing problem in the Basin, mostly due to watershed deterioration.

Global Water Partnership

Challenges for River Basin Development and Management and their impacts

- Assumed that all countries have developed clear statements of national water-related policy and strategy. An improving institutional and regulatory framework increasingly supports these policies, and removes uncertainty as to which agency has the role of the 'water resources manager.
- River Basin Organizations (RBOs) have been established to support the implementation of integrated approaches to address water allocation and other water management issues in the River Basin.
- The establishment of RBO within country and transboundary river basin is very important. However there is a need for a stronger role of the national water management agencies and their provincial departments to steer an integrated multi-sector planning and management process to balance a range of desired outcomes and prevent, minimize and mitigate environmental and socio-economic impacts.

Major drivers of change

- Development activities have pressure on the resources (river, ground water, forests, fish resource), large part of most productive land still depends on natural conditions- extreme and frequent flooding and frequent drought which are major problems;
- Frequent local seasonal scarcity of water located along the rivers;
- Change of river morphology in the 3S basin due to bank erosion;
- Change in land use leading to loss of wetlands and placing threats on the aquatic ecosystems;
- Urbanization, which is fast and significant in scale;
- Climate change impacts to water resources.

III. Intervention to address the TRB WRM Challenges

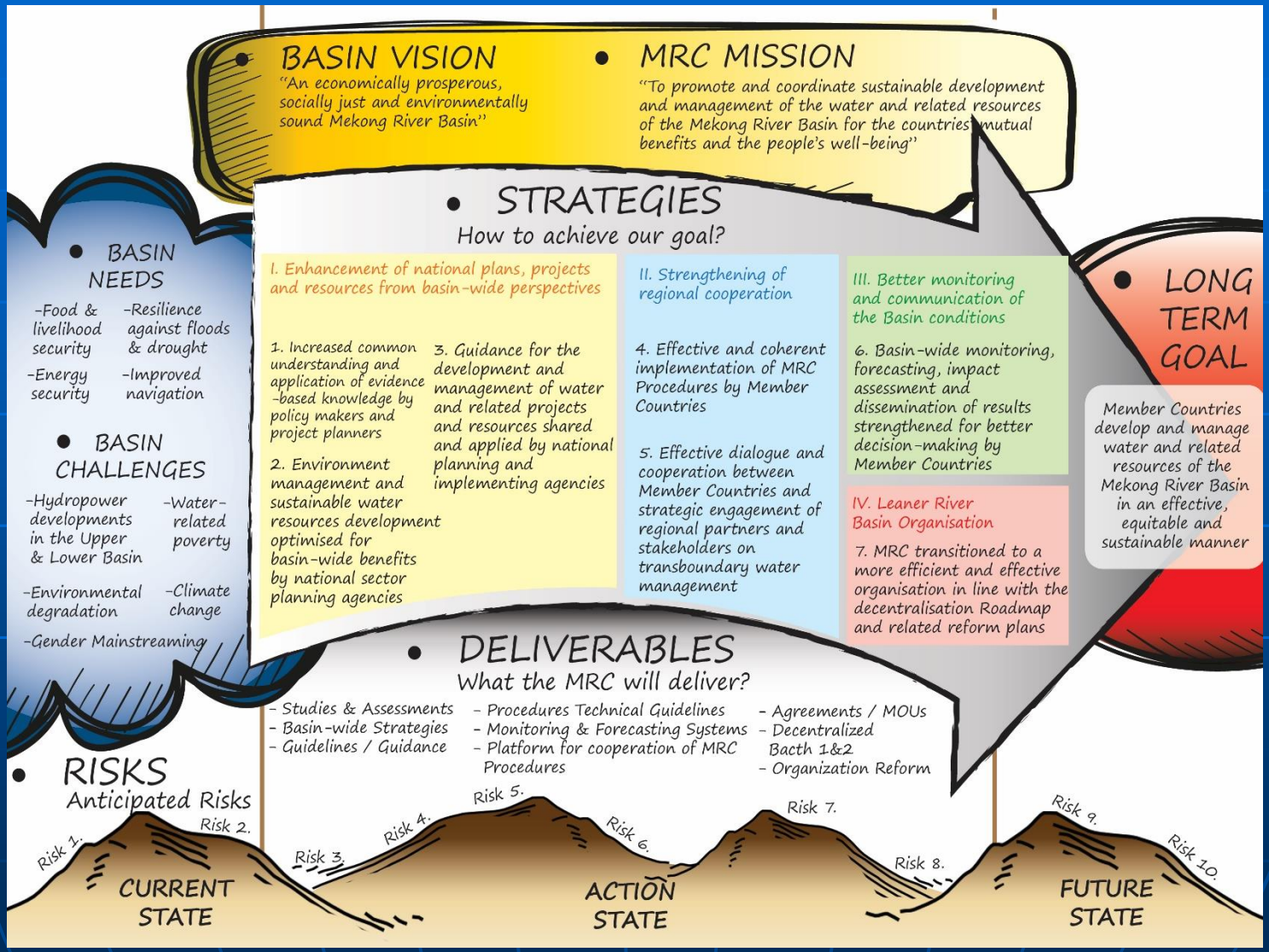
The 1995 Mekong Agreement is also for TSBC

Start of a new era of Mekong Cooperation:

- Cooperate in ***all fields***…but not limited to…hydropower, irrigation, fisheries…
- Development of ***full potential of sustainable benefits*** for all Member Countries.....through formulation of a Basin Development Plan
- ***Prevent harmful effects*** on the environment and the ecology
- Enabled by ***water utilization procedures*** and ***monitoring systems*** *e.g.* Notification, Prior Consultation and Agreement of significant projects

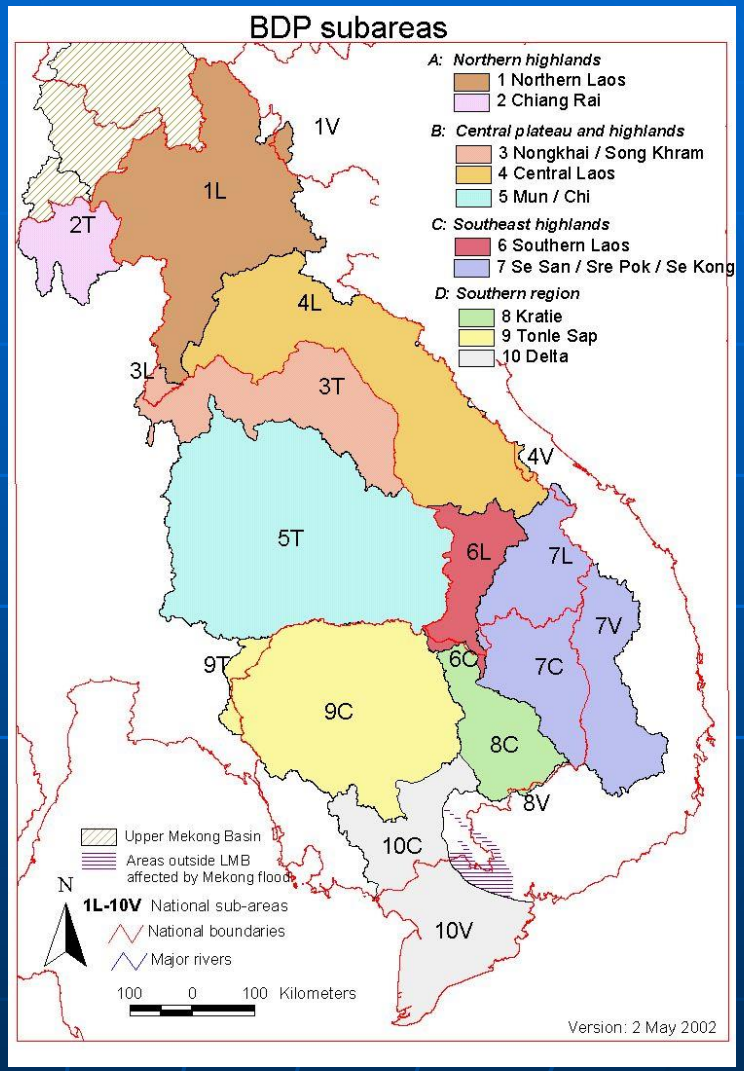
The Agreement is about cooperation on balancing basin development and protection. The BDP is a primary instrument for this cooperation created the Sustainable Development initiatives for the Basin

MRC Strategic Governance



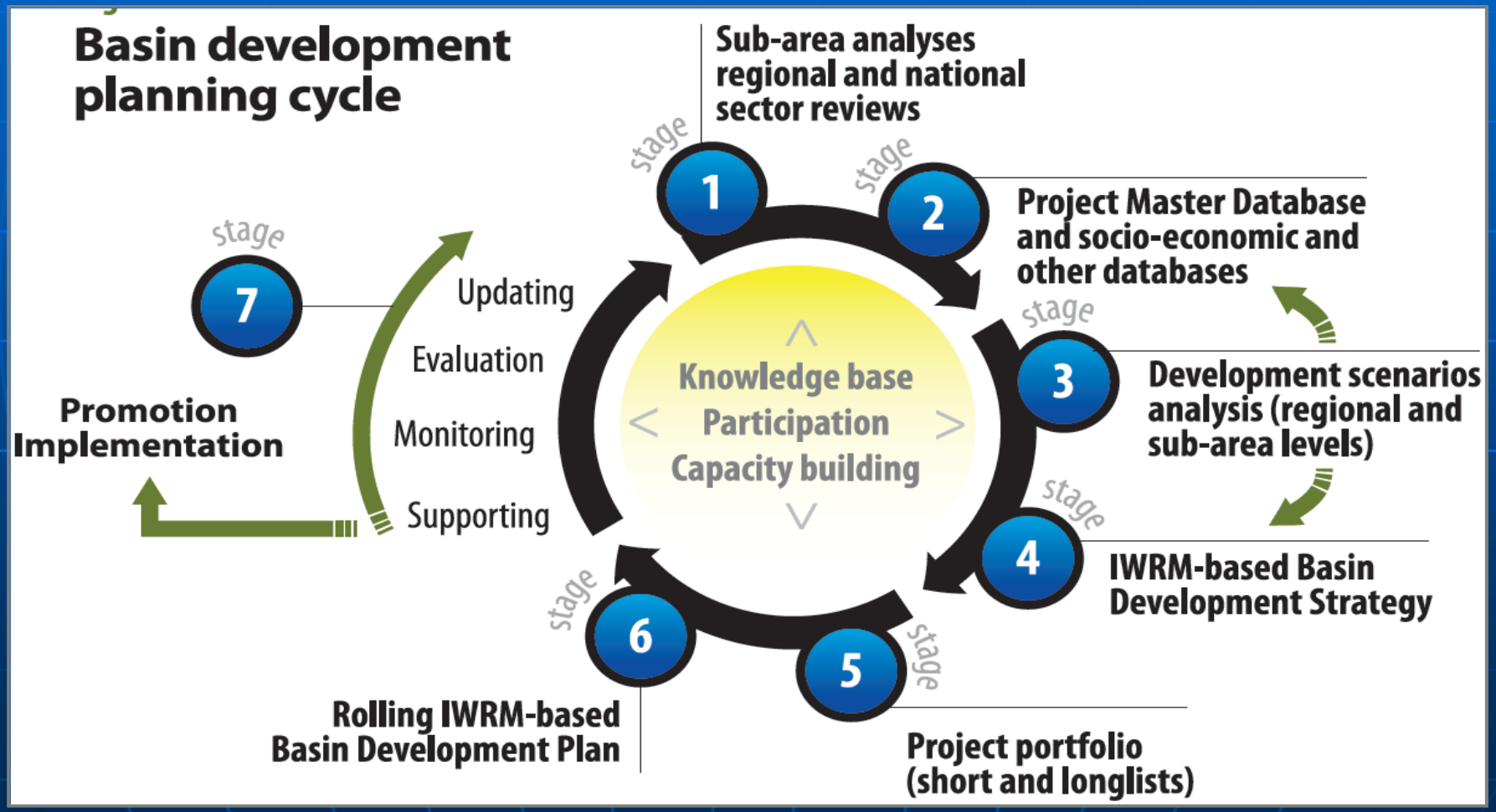
IWRM-based BDP

- **Basin Development Plan (BDP)** as the general planning tool and process to identify, categorize and prioritise the projects and programs to seek assistance for and to implement the plan at the basin level.
- LMB is divided to 10 Sub-Area for BDP-transboundary panning process.



BDP process

- Started since the signing of the 1995 Agreement
- It developed a participatory process, tools, strategic directions, and lists of non controversial projects



MRC promotes Transboundary IWRM Project

- To enhance Country's institutional capacity and technical infrastructure to sustainably manage its water and fishery resources, and thus more effectively engage in transboundary water and related resources management. The targeted areas have national and regional importance.
- The project will contribute to the Bank's twin goals of poverty alleviation and shared prosperity through:
  - (a) supporting sustainable natural resources management along the mainstream Mekong and tributaries; and
  - (b) building capacity for sustainable river basin management in important basins

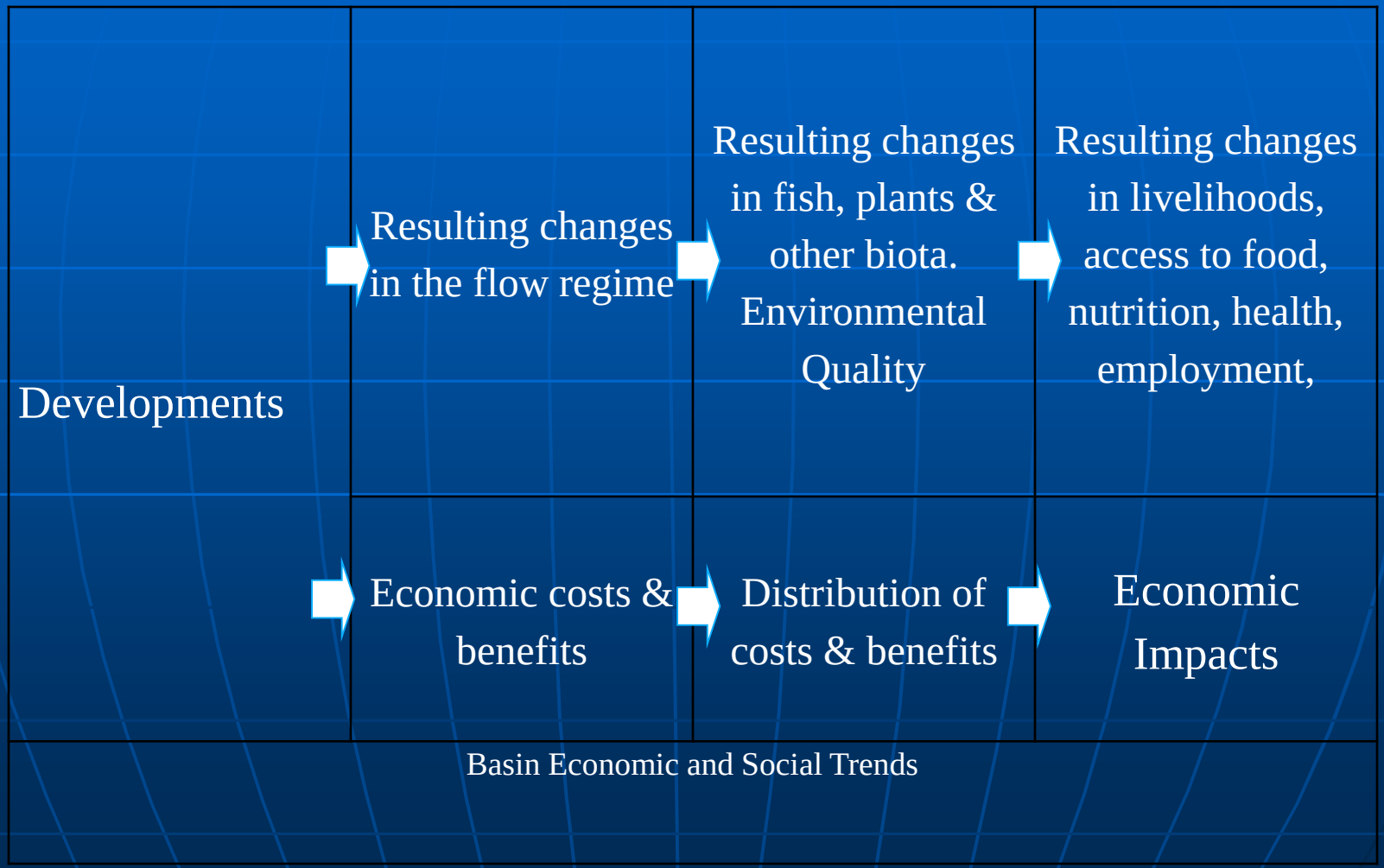
Shared Principles of IWRM' adopted by MRC in 2011

- MRC pursues a balance between pro-active social and economic development on the one hand and conservation of finite natural resources and fragile ecosystems on the other.

That are IWRM Principles:

- Institutional and regulatory frameworks with clear pathways of accountability – establishing the ethic and performance of good governance
- Knowledge-driven planning and management, with open sharing of information
- Community and stakeholder participation; partnerships between government and community for demand-responsive approaches to development
- Integration and coordination of policies and programmes across sectors, countries, competing stakeholder interests and levels of government, achieving an acceptable balance between economic, social and environmental benefits and impact.

Impacts of developments on Environment and People



Trade-off Approaches

- Lessons learnt in the past, BDP since 2000, water management, allocation and use are important elements for policy makers concerned for different sectors and strata of society.
- For integrated planning purpose, trade-off approach are used for evaluation and comparison of different options.
- It was applied only at basin-wide basin level till BDP 2011-2015. Results are scenario-based Basin Development Strategy 2011-2015 and 2016-2020.

Trade-off Approaches

- To meet sustainable development of natural resources, the trade-off approach were applied for different objectives in order to protect environment, promote and maximize social and economic growth.
- The trade-off values is balanced among and involved in selection among those objectives or options of development, protection and conservation of natural resources.
- For transboundary water management at mostly the impacts which reveal issues as a result of two or more states interactions on their development options.
- The preferred trade-off results are information being considered by decision- makers at politic levels and the solution at geographical locations being discussed by technical levels.

Why are trade-offs?

- Considering that among key development sectors like energy, fisheries, environment, agriculture as their benefits and costs, the trade-offs between water and the sectors become more intense, since the marginal supplies tend to require more treatment and/or more energy to produce.
- It is necessary for Cambodia-Lao PDR-Viet Nam to evaluate the trade-offs between negative and positive effects associated with the proposition of all planned sectors' development mainly hydropower plants where possible they can agree.
- The Scenarios based development shall be used for consideration on transboundary water cooperation nexus.

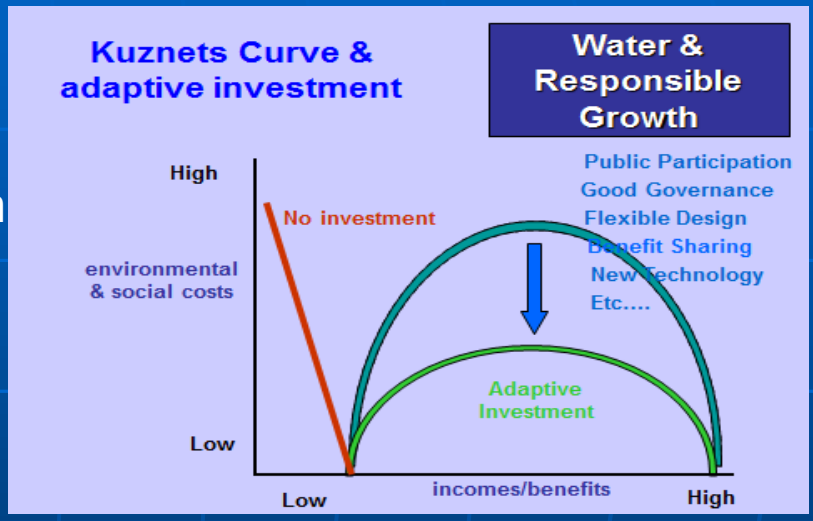
BDP Process is based on IWRM

This will be achieving three key strategic objectives:

- **Efficiency**, since, given scarcity of resources (natural, financial and human), it is important to attempt to maximise the economic and social welfare derived not only from the water resources base but also from investments in water services provision.
- **Equity** in the allocation of scarce water resources and services across different economic and social groups is vital to reduce conflict and promote socially sustainable development.
- **Sustainability**, as ultimately all attempts at water management reform will fail if the water resources base and associated ecosystems continue to be regarded as infinitely robust and we continue to put at risk "the water system that we depend on for our survival"

Future of the BDP promoted for 3S Basin

- The BDP will act as the instrument for impact analysis and consultation and possible applied for 3S basin
- Much of future basin development can and should be undertaken at the national and transboundary levels
- The BDP will explore ways to achieve transboundary benefits and mitigate transboundary costs, through the adaptation and modification of national investments.



- There are almost certainly transboundary opportunities, where two or more LMB countries could develop joint projects that provide substantive benefits that can be shared.
- The only mandated instrument for identifying and promoting such opportunities is the BDP applied by each riparian country

Promoted Development opportunities in 3S Basin

1. Tributary hydropower development
2. Expansion of irrigated agriculture
3. Other opportunities in fisheries, navigation, flood and drought management, watershed management, tourism and environment

Development opportunities and individual country or transboundary joint projects will be implemented at national and transboundary levels, taking into account applicable MRC procedures, assessments and guidelines.

- Procedures for Data and Information Exchange and Sharing (PDIES);
- Procedures for Water Use Monitoring (PWUM);
- Procedures for Notification, Prior Consultation and Agreement (PNPCA);
  Procedures for the Maintenance of Flow on the Mainstream (PMFM);
- Procedures for Water Quality (PWQ) and their Technical Guidelines

Agreed Long-term Joint transboundary action plan

2. Transboundary water management and cooperation frameworks for 3S river basin
3. Effective and coherent implementation of MRC Procedures by 3S Countries
4. Promote effective dialogue and cooperation between 3S Countries and strategic engagement of development partners and stakeholders on transboundary water management nexus
5. Promote better monitoring and communication of the 3S Basin conditions
6. 3S-basin wide monitoring, forecasting, impact assessment and dissemination of results strengthened for better decision-making by 3S Countries
7. Develop the Transboundary River Basin Organization-3S Riparian countries consider establish the TSB RBO

3S Riparian Countries

To discuss, develop and negotiate and agree the Integrated Transboundary management and cooperation frameworks that provide benefits:

- Greater utility from a given amount of water through adjusted allocations or reallocation-with the trade-off approach as results of scenarios in 3S basin;
- Reduced groundwater mining through conjunctive management of ground and surface water in 3S Basin;
- Transboundary intensive use and reuse of water through planned sequencing of uses of all countries;
- Improved water quality through more comprehensive data collection, monitoring and enforcement;
- Incorporation of current social and environmental values into shared water use and allocation and management for better decision making process of each country;
- Inclusion of a wider range of 3S basin stakeholders into and for decision making;
- Reduced conflict among countries and other users in individual country.

IV. Conclusion

- The 1995 Mekong Agreement could have been more articulate on the purpose, scope and mechanisms for transboundary water cooperation, in particular with respect to transboundary tributary basins such the 3S Basin.
- The three countries in the 3S Basin have long term experience establishing and maintaining a partnership for peace and development in the region and they successfully increased cooperation in various sectors of their economy, including transport, education, and interconnected power grids.
- However, the concept of transboundary water cooperation is still quite new for the 3S Basin countries
- There is a need for better understanding of international water law and the key provisions, substantive and procedural rules, and institutional aspects of the UNWC.
- To support SDGs 5.1 (1) evaluating the level and nature of past, present and possible future transboundary water cooperation in the 3S Basin and (2) identifying strategic priorities for transboundary water cooperation in the 3S Basin.
- Strong political will and commitment are needed to support sustainable transboundary water cooperation.


THANK YOU VERY MUCH FOR YOUR ATTENSION!