



OUTCOME REPORT

THE FUTURE PROSPECTS OF THE MEKONG RIVER



JUNE 2019

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REGIONAL CONFERENCE ON

**THE FUTURE PROSPECTS OF THE
MEKONG RIVER**

13-14 June 2019

Phnom Penh, Cambodia



**សិក្ខាសាលាផ្លូវកំចប់ន់ ស្តីពី
Regional Workshop on**



ទស្សនវិស័យអនាគតនៃទន្លេមេគង្គ

The Future Prospects of the Mekong River

សហការរៀបចំដោយ

In cooperation with

វិទ្យាស្ថានខ្មែរ សំរាប់សហប្រតិបត្តិការ និងសន្តិភាព
ស្ថានទូតសហរដ្ឋអាមេរិក ប្រចាំព្រះរាជាណាចក្រកម្ពុជា

**Cambodian Institute for Cooperation and Peace (CICP)
U.S. Embassy in Cambodia**

ថ្ងៃព្រហស្បតិ៍ - សុក្រ ១១-១២ ខែ មេសា ឆ្នាំ កុរ ឯកស័ក ព.ស.២៥៦៣
ថ្ងៃទី១៣-១៤ ខែ មិថុនា ឆ្នាំ ២០១៩ សណ្ឋាគារ រ៉ាហ្វល ឡើយ៉ាល់ ភ្នំពេញ

13 – 14 June 2019

Raffles Hotel Le Royal, Phnom Penh



ACKNOWLEDGEMENTS

As the world's twelfth longest river and seventh longest in Asia, the Mekong has long been recognized as a crucial source of life and hope for the more than 70 million people in China, Cambodia, Laos, Myanmar, Vietnam and Thailand, who reside within its the basin. However, considerable research from myriad scholars and analysts demonstrates the deep concern held as regards future of the Mekong in light of a diversity of threats to its sustainability.

With regard to governance of the river and collaboration and cooperation among the Mekong states, there are already a notable variety of existing mechanisms initiated by diverse development partners. The Mekong River Commission (MRC), the Lower Mekong Initiative (LMI), the Greater Mekong Sub-region Cooperation (GMS), the Mekong-Ganga Cooperation (MGC), the Mekong Japan Cooperation (MJC), the South Korea-Mekong Cooperation (SKM), the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) and the Lancang Mekong Cooperation (LMC), despite considerable distinctions in these institutions, generally strive to foster cooperation and sustainability in the Greater Mekong Subregion. In spite of these optimistic notes, there is limited evidence that these institutions have been able to work with each other in complementarity in order to achieve their stated ultimate purposes.

Attempting to serve as a platform to bring fresh insight into the future of the Mekong and its governance, with the support of the Embassy of the United States of America in Cambodia, the Cambodian Institute for Cooperation and Peace (CICP) was profoundly pleased to be able to host this *Regional Workshop on the Future Prospects of the Mekong River*. We would like to express our sincere appreciation to all of the eminent keynote speakers, role players, distinguished guests, and participants for sharing their invaluable perspectives during the workshop that substantially contributed to the composition of this outcome report. I very much hope that the insights provided in this outcome report will generate positive contributions, stimulating serious deliberations among various policy-making, scholarly, academic, grassroots and other relevant communities in order to pave the way for prudent consideration of future policy to ensure the sustainable future of the mighty Mekong River.

Ambassador Pou Sothirak

Executive Director

Cambodian Institute for Cooperation and Peace (CICP)



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CONTEXT AND OVERVIEW

This one-and-a-half-day regional workshop will examine the main, contemporary issues related to the future of the Mekong River. In light of the establishment of the Lancang-Mekong Cooperation Mechanism and Cambodia's current leadership of the Mekong River Commission, it is more important than ever to gain a clearer picture as to the political, environmental, and human security issues connected to the Mekong and its development in both the short and long terms. This workshop will comprise of four discussion sessions, in addition to a free and open discussion session and to be followed by a wrap-up session at the end.

The first panel session will feature four speakers who will set stage and provide an overall assessment of the current status of the Mekong in its current geopolitical and institutional context, paying particular attention to the questions of: (i) the efficacy or lack thereof as regards to the existing sub-regional institutions with responsibility for Mekong governance and (ii) the Mekong in the broader context of great power competition in the region.

The second panel session puts high emphasis on the diversity of perspectives at the national level and hence will feature five speakers from the Mekong countries, i.e. Cambodia, Laos, Myanmar, Thailand, and Vietnam to set out their respective views on the progress and potential challenges as perceived in their own countries, to [future] intra-regional cooperation, as well as coordination with all the existing Mekong mechanisms in the short and medium terms.

The third panel will examine the primary concern of the Mekong River itself which include the environmental, sustainability, and human security aspects, focusing particular attention to: (i) threats to that sustainability; (ii) the development of hydropower along the river (both in upstream states as well as within Cambodia itself and the tradeoffs involved in relations to the need for lower electricity prices and the importance of environmental and social protection); and (iii) what steps need to be taken in order to resolve existing threats to the river's ecosystem and biodiversity, (iv) the importance of the Mekong in providing livelihood and its role as a nutritional safety net for those in the bottom decile of the population; (v) the diverse local, national, and regional economic roles of the Mekong and the various challenges that it confronts; (v) the sustainability of rural communities along the river; among others.

Finally, the fourth session will open the second day of the conference by looking at the future prospect of the river as regards defining action areas that are particularly time sensitive as well as more closely examining the dynamics of shared governance. Panelists will address the following questions: (i) What are the main problems at present and what needs to be done in the short and medium terms to resolve these issues? (with discussion building off of the conclusions of the prior two panels); (ii) What are the interests and roles of the diverse stakeholders along the Mekong river? In addition to state actors, what role can civil society play in supporting the sustainability of the Mekong? and (iii) How can collaboration among all stakeholders be made more effective? What have been the key lessons learned from previous attempts at collaboration that can guide more fruitful efforts in future?

PROGRAM AGENDA

Day 01 (13 June 2019)		
8:00 – 8:30	Registration	
8:30 – 8:40	Welcome Remarks	H.E. Ambassador Pou Sothirak Executive Director Cambodian Institute for Cooperation and Peace (CICP), Phnom Penh
8:40 – 8:50	Opening Remarks	Mr. Michael A. Newbill Chargé d’Affaires US Embassy in Cambodia
8:50 – 9:10	Special Remarks	H.E. Mr. Walter Douglas Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy, East Asian and Pacific Affairs Bureau, U.S. Department of State
9:10 – 9:40	Keynote Address	H.E. Mr. Sim Vireak Advisor to the Ministry of Foreign Affairs and International Cooperation of the Kingdom of Cambodia
9:40 – 9:55	<i>Special Inaugural Launching of the Journal of Greater Mekong Studies (JGMS)</i>	H.E. Ambassador Pou Sothirak Executive Director, CICP Mr. Michael A. Newbill Chargé d’Affaires US Embassy in Cambodia
9:55 – 10:00	Group Photo Session for Role Players	
10:00 – 10:30	Coffee Break	

10:30 – 12:15	<p><u>SESSION I: <i>The Current Status and Assessment of the Mekong in the Geopolitical and Institutional Context</i></u></p> <p>1. Mr. Chea Sophearin Regional Water Policy Expert Mekong River Commission (MRC)</p> <p>2. Ms. Lindsey W. Ford Director of Political-Security Affairs, Richard Holbrooke Fellow, and Deputy Director of the Washington D.C. Office of the Asia Society Policy Institute (ASPI)</p> <p>3. Dr. Tek Vannara Executive Director The NGO Forum on Cambodia</p> <p>4. Ms. Maki Aoki-Okabe Research Fellow Institute of Developing Economies, JETRO Tokyo, Japan</p> <p>5. Dr. Se Hyun Ahn Professor, Department of International Relations and Director of Center for Energy Security Strategic Studies (CESSS), College of Public Affairs and Economics, University of Seoul, Korea</p> <p><i>Q&A and Discussion</i></p>	<p><u>Chair: Ms. Gwen Robinson</u> Visiting Senior Fellow, CICP Senior Fellow, ISIS Thailand Editor-at-Large, Nikkei Asia Review</p>
12:15 – 13:30	Lunch	
13:30 – 15:15	<p><u>SESSION II: <i>National Perspectives from CLMTV countries: Opportunities and Challenges of the respective Mekong Cooperation mechanisms</i></u></p> <p>1. Dr. Mak Sithirith Water Governance Specialist</p> <p>2. Mr. Sulathin Thiladej Director of Division Institute of Foreign Affairs (IFA) Ministry of Foreign Affairs, Lao PDR</p> <p>3. Daw Than Than Htay Member of the Myanmar Institute of Strategic and International Studies (MISIS)</p>	<p><u>Chair: Ms. Pich Charadine</u> Senior Fellow and Coordinator of the Global Center for Mekong Studies (GCMS – Cambodia Center), CICP</p>

	<p>4. Dr. Pongphisoot Busbarat Lecturer, Faculty of Political Science, Chulalongkorn University; Research Fellow at ISIS Thailand</p> <p>5. Dr. Le Hai Binh Vice President Diplomatic Academy of Vietnam (DAV)</p> <p><i>Q&A and Discussion</i></p>	
15:15 - 15:45	Coffee Break	
15:45 - 17:00	<p>SESSION III: <i>Environmental, Sustainability, and Human Security aspects of the Mekong</i></p> <p>1. H.E. Watt Botkosol Deputy Secretary General Cambodia National Mekong Committee</p> <p>2. Mr. Sudam Pawar Director of Innovation and Technical Connectivity Mekong Institute, Thailand</p> <p>3. Mr. Jake Brunner Head, Indo-Burma Group International Union for Conservation of Nature (IUCN)</p> <p>4. Mr. Brian Eyler Energy, Water, Sustainability Program Director, and Southeast Asia Program Director of the Stimson Center, USA</p> <p><i>Q&A and Discussion</i></p>	<p><u>Chair:</u> H.E. Dr. Chap Sotharith Secretary of State, Ministry of National Assembly-Senate Relations and Inspection; and Board Members of CICP</p>

Day 02 (14 June 2019)		
8:30 – 10:30	<p><u>SESSION IV: Future Prospects of the Mekong River and its Subregion Cooperation Mechanisms</u></p> <p>1. Dr. Han Phoumin Energy Economist, Economic Research Institute for ASEAN and East Asia (ERIA) Jakarta, Indonesia</p> <p>2. Dr. Bradley J. Murg Visiting Senior Research Fellow of CICP Professor of Political Science and Director of Global Development Studies, Seattle Pacific University (USA)</p> <p>3. Dr. Vijay Sakhuja Visiting Senior Fellow, CICP Former Director of National Maritime Foundation New Delhi, India</p> <p>4. Ms. Gwen Robinson Visiting Senior Fellow, CICP Senior Fellow, ISIS Thailand Editor-at-Large, Nikkei Asia Review</p> <p>5. Prof. Zhang Wei Wei Senior Research Fellow, Global Center for Mekong Studies (GCMS – China Center) China Institute for International Studies (CIIS), Beijing, China</p> <p><i>Q&A and Discussion</i></p>	<p><u>Chair: Mr. Kavi Chongkittavorn</u> Senior Fellow, ISIS Thailand; Columnist, Bangkok Post</p>
10:30 – 11:00	Coffee Break	
11:00 – 11:45	<u>SESSION V: Open and Free Discussion</u>	Moderate by Ambassador Pou Sothirak , Executive Director, CICP
11:45 – 12:00	Wrap-Up and Closing Remarks	H.E. Ambassador Pou Sothirak Executive Director, CICP
12:00 – 13:30	Lunch	
End of Program		

ROLE PLAYERS



H.E. Ambassador Pou Sothirak

Executive Director

Cambodian Institute for Cooperation and Peace (CICP)

In addition to being the Executive Director of the Cambodian Institute for Cooperation and Peace (CICP) since 2013, Ambassador Pou Sothirak also serves as Advisor to the Royal Government of Cambodia as of February 2014. He was appointed as Secretary of State of the Ministry of Foreign Affairs and International Cooperation of Cambodia from September 2013 to January 2014. He was a Visiting Senior Research Fellow at the Institute of Southeast Asian Studies (ISEAS) in Singapore from January 2009 to December 2012. He also served as Cambodian Ambassador to Japan from April 2005 to November 2008. He was elected Cambodian Member of Parliaments twice during the national general election in 1993 and 2003. He was appointed as Minister of Industry Mines and Energy of the Royal Government of Cambodia from 1993 to 1998. He obtained a degree in Electrical and Computer Engineering from Oregon State University, USA in March 1981 and had worked with the Boeing Company from 1981-1986. Ambassador Pou Sothirak has written extensively on various challenging issues confronting the development of Cambodia and threatening peace and security of the region of Southeast Asia.



H.E. Mr. Walter Douglas

Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy

East Asian and Pacific Affairs Bureau, U.S. Department of State

Walter Douglas is the Deputy Assistant Secretary of State covering the offices of Regional and Security Policy (RSP) as well as Press and Public Diplomacy (PD) in the Bureau of East Asian and Pacific Affairs at the U.S. Department of State in Washington, DC. He is the bureau's lead on the Indo-Pacific framework and oversees public diplomacy, political/military affairs, strategic planning, and foreign assistance. Mr. Douglas was previously the Deputy Assistant Secretary of State for International Media Engagement in the Bureau of Public Affairs. Before that, he served overseas as minister counselor for public affairs at the U.S. embassy in New Delhi. Earlier, Mr. Douglas was a senior visiting fellow at the Center for Strategic and International Studies (CSIS) in Washington, DC. His report "Engaging the Muslim World: Public Diplomacy after 9/11 in the Arab Middle East, Afghanistan, and Pakistan" was published in 2013.

Until October, 2011, Mr. Douglas was based in Islamabad as the director of communications for the U.S. mission in Pakistan. Before that, he served in Washington as executive assistant to the Under Secretary for Public Diplomacy and Public Affairs and as the director of the office of press and public diplomacy in the Near Eastern Affairs bureau. This followed a tour as public affairs officer at the U.S. embassy in Riyadh, Saudi Arabia. Mr. Douglas also served as a public affairs officer at U.S. diplomatic missions in Turkey, Cyprus, and Iceland. He was deputy to the spokesman at the U.S. mission to the United Nations when Madeleine Albright was ambassador. Earlier, he served at the U.S. missions in South Korea and Cote d'Ivoire. Prior to joining the Foreign Service, Walter worked as an advertising executive in New York and as a legislative assistant to a member of the U.S. House of Representatives.

Mr. Douglas graduated from the University of Pennsylvania with a B.A. in history.



H.E. Mr. Sim Vireak

*Advisor to the Ministry of Foreign Affairs and International Cooperation
of the Kingdom of Cambodia*

A career diplomat with Japanese background. Currently, he is the Advisor to the Ministry of Foreign Affairs and International Cooperation, handling various multilateral portfolio including the Mekong cooperation. For academic purpose, he also provides support to the Asian Vision Institute as its Strategic Advisor. Other than foreign policy, his personal interest also covers government policies related to poverty reduction, stimulation of private sector, foreign direct investment, economic and industrial diversification, infrastructure development and the economic positioning of Cambodia within ASEAN. He conducted his study in Japanese in the area of international politics for seven years in Tokyo, receiving undergraduate degree from Hitotsubashi University and master degree from the University of Tokyo. He writes occasionally to local newspapers and international magazines and his writings can be accessed from his blog: <https://simvireak.blogspot.com/>



Michael Newbill

*Chargé d'Affaires
US Embassy in Cambodia*

Michael Newbill assumed the position of Deputy Chief of Mission at the U.S. Embassy in Phnom Penh, Cambodia in July 2017. He is a career member of the Foreign Service.

From 2015 to 2017, Michael Newbill served as Deputy Director for Mainland Southeast Asia in the bureau of East Asian and Pacific Affairs, covering Burma, Cambodia, Laos, Thailand, and Vietnam. Prior to this, Mr. Newbill was the Counselor for Economic and Political Affairs at U.S. Embassy Kampala, Uganda. From 2010 to 2012, Mr. Newbill served as Director, then Senior Director, for South Asian Affairs, on the National Security Council in the White House, handling all political, economic, and military issues for India and other South Asian countries. Mr. Newbill also served as the Political and Economic Affairs Chief in Mumbai, India (2007-2010), the Economic Officer on the India Desk (2005-2007), as an Economic Officer in the U.S. Embassy in Bangkok, with responsibility for multilateral and bilateral trade, intellectual property rights, biotechnology, and other economic issues (2003-2005), and Vice Consul in Manila, Philippines (2000-2002).

Prior to joining the Foreign Service, Mr. Newbill ran a project on Regional Security and Confidence-Building in South Asia for the Henry L. Stimson Center, a Washington-based research institution.

Mr. Newbill received his B.A. in History and English Literature from the University of Illinois, Champaign-Urbana in 1994 and a M.A. in South Asian History from the University of Wisconsin at Madison in 1997. In 1994-95, Mr. Newbill was a Rotary International Ambassadorial Scholar at Jawarharlal Nehru University in New Delhi.



H.E. Dr. Chap Sotharith

*Secretary of State, Ministry of National Assembly-Senate Relations and Inspection
Board Member of CICP*

Dr. Chap Sotharith is Secretary of State (Vice Minister) of Ministry of National Assembly Senate Relation and Inspection. He is also Board Member of the Cambodian Institute for Cooperation and Peace (CICP). From 2004-2008, Dr. Chap Sotharith served as Executive Director of CICP and Advisor to Deputy Prime Minister, H.E. Sok An. From 2008-2018, he worked as advisor and Director of Cabinet of H.E. Mrs. Men Sam An, Deputy Prime Minister. During the past 20 years, Dr. Chap has been involved in various policy research networks including the Economic Research Institute for ASEAN and East Asia (ERIA), the East Asian Development Network (EADN), and the ASEAN Institutes of Strategic and International Studies (ASEAN-ISIS) that provides policy inputs to the ASEAN policy-making processes. Within these networks, he is very active in writing papers, presenting ideas in many regional and international conferences in many topics related to international relations, international politics, trade, investment, and international economies. He, from time to time, worked as Consultant to many international organizations such as World Bank, UNCTAD, and FAO. Dr. Chap holds a Master of Science from Asian Institute of Technology (AIT), Bangkok in 1994, and Doctor of Philosophy (PhD) in Economics from Sydney University, Australia in 2006. He has published many books both in English and Khmer on topics related to Cambodia and regional development.



H.E. Mr. Watt Botkosol

*Deputy Secretary General
Cambodia National Mekong Committee*

H.E. Mr. Watt Botkosol, MSc in Forestry and Executive MBA in Human Resources Management, has been working for the Government of Cambodia since 1995 and has over 20 years of experience working at the senior management level with the national government, inter-governmental organizations and coordination with different countries under the frameworks of Mekong River Commission (MRC), Cambodia Water Partnership (CamboWP), and Global Water Partnership Southeast Asia (GWP-SEA).

He has comprehensive practical experience within national and transboundary river basin governance and basin-level development planning, conducted in an integrated (inter-sector, inter-disciplinary and inter-agency) perspective, and related policy formulation, action planning and investment roadmap preparation.

He is presently serving as Deputy Secretary General of Cambodia National Mekong Committee (CNMC), following an assignment as Director of its Planning and International Cooperation Department. Since 2013 he has been a member of the National Working Group for Water Resources, hosted by Ministry of Water Resources and Meteorology. He is Project Manager for Mekong Integrated Water Resources Management Phase 3-Cambodia-Water Resources Management in Northeast Cambodia (2016-2021). He was the founder of Cambodia Water Partnership and has served as its chairman (2009-2015) and as the Chairman of GWP-SEA (2016-2018). Author of several conference papers and thematic reports about basin-level governance, including an invited paper on 'Water Security, Food Security and Livelihoods in Cambodia and the Lower Mekong Basin' presented at Chatham House, London (2011), as well as other events hosted by IUCN, Conservation International, MRC, and national and international conferences. In 2018 he became a Member of the Advisory Committee, Global Center for Mekong Studies (GCMS-Cambodia Center).



Dr. Tek Vannara
Executive Director
The NGO Forum on Cambodia

Mr. Tek Vannara has approximately 18-year experiences with non-governmental organizations in particular on environment, natural resources management, water governance and leadership. In addition, he has great experience of community development, eco-tourism, indigenous people, diplomacy and network with NGOs, the governmental ministries, development partners, private sector and CBOs. Since 2014 until to present, he holds the position Executive Director of the NGO FORUM on Cambodia, it is a membership organization that have 96 national and international organizations as member and 450 national and international organizations in Cambodia as network members. Since 2007 to August 2012, Vannara was playing very active as part time lecturer for the master program at Royal University of Agriculture on the subjects of natural resource management and eco-tourism and he has supervised and advised to at least 45 master students who written their thesis on the field of natural resource management and environment. From 2007 to 2009, Vannara became a Chairperson of board of director of Cambodia Community Based Eco-Tourism Network that coverage 35 members (35 NGOs, academies, private companies and government institutes), representative of CSO in Asia Pacific and South East Asia to the UNREDD executive board. Till now, Vannara have been published 16 books related to hydropower, renewable energy, fishery resource management, river basin management, forestry management, indigenous people and watershed. It was published by national, regional and international. In 2012, Vannara got an excellence award on environment and peace in Asia from Eco-Peace Leadership Center and UNEP at The Kangwon National University, South Korea.



Dr. Se Hyun Ahn
Professor, Department of International Relations and
Director of Center for Energy Security Strategic Studies,
College of Public Affairs and Economics, University of Seoul, Korea

Se Hyun Ahn is Professor of the Department of International Relations and the Director of the Center for Energy Security Strategic Studies in the University of Seoul. He is the current member of Expert Committee of Presidential Committee on Northern Economic Cooperation. He is also the Senior Advisor to the National Bureau of Asian Research (Washington Think Tank), and International Advisor to Chinese Foreign Ministry branch, the China Institute of International Studies (CIIS). He was also the former Vice President for International Affairs in the University of Seoul and the Vice President for Korea University International Cooperation Committee as well as visiting professor at CIIS. He is the former member of policy advisory committee for the ROK Ministry of Unification and the current member of policy advisory committee of ROK Ministry of Oceans and Fisheries. He also advises ROK Ministry of Foreign Affairs and Ministry of Economy and Finance. He is also the board member of Council for Security Council for Asia Pacific (CSCAP)-Korea and the member of Pugwash Conferences. Prior to coming to Korea, he was the visiting research fellow at the Asia Research Centre at the London School of Economics and Political Science (LSE)

His areas of particular interests include East Asian security relations and regional economic security and the US-Russia-China relations as well as energy security and diplomacy. He holds his Ph. D from the International Relations department in the London School of Economics and Political Science, and an M.A. from the School of Foreign Service, Georgetown University. He was also trained in the St. Petersburg Mining University, Russia.



Dr. Bradley Jensen Murg

Visiting Senior Fellow, CICP

Assistant Professor of Political Science and Director of Global Development Studies in the School of Business, Government, and Economics at Seattle Pacific University

Dr. Bradley Jensen Murg is Assistant Professor of Political Science and Director of Global Development Studies in the School of Business, Government, and Economics at Seattle Pacific University. He is also Affiliate Professor at the Henry M. Jackson School of International Studies at the University of Washington.

Dr. Murg's research, supported by grants from the Social Science Research Council and the International Research and Exchanges Board, focuses on legal reform, the political economy of foreign aid, and economic development in the Mekong region, China, and the former Soviet Union. His current work as research director at the Greater Mekong Research Center explores the history of foreign aid in Cambodia, paying particular attention to Soviet assistance in the 1980s as well as Chinese aid and investment today.

Dr. Murg graduated Phi Beta Kappa from Emory University with a BA/MA in philosophy, received his MSc. in economic history from the London School of Economics, and his M.A. and Ph.D in Political Science from the University of Washington. Dr. Murg has worked in Asia for nearly 20 years, initially having moved to the region as a Henry Luce Scholar at the Asian Development Bank in 2000.



Dr. Vijay Sakhuja

Visiting Senior Fellow, CICP

Former Director of National Maritime Foundation, New Delhi, India

Dr Vijay Sakhuja is former Director, National Maritime Foundation, New Delhi. He is currently Visiting Senior Fellow, Cambodian Institute for Cooperation and Peace, (CICP) Phnom Penh, Cambodia; Executive Editor, India Strategic; and is associated with Kalinga International Foundation, New Delhi. He has been on the faculty of a number of think tanks and universities in India and abroad.

A former Indian Navy officer, Sakhuja received MPhil and PhD degrees from the Jawaharlal Nehru University in New Delhi. He specializes in Indo-Pacific affairs, maritime security, climate change, Arctic affairs, Blue Economy and 4th Industrial Revolution Technologies and has published over 40 books, edited volumes and monographs.

He is author of 'Asian Maritime Power in the 21st Century: Strategic Transactions - China, India, Southeast Asia'; 'Confidence Building from the Sea: An Indian Initiative'; co-author of 'Climate Change and the Bay of Bengal: Evolving Geographies of Fear and Hope'; His recent academic works are Asia and the Arctic: Narratives, Perspectives and Policies (2016), Perspectives on Blue Economy (2017), The Blue Economy: Concept, Constituents and Development(2017), South Asia Defence & Strategic Perspective(2018 and 2019) and Indian Navy Yearbook 2019 : Perspectives and Technologies.

Dr Vijay Sakhuja is member of the international editorial board of Journal of Indian Ocean Region (Taylor & Francis).



Mr. Sudam Pawar

*Director of Innovation and Technical Connectivity
Mekong Institute, Thailand*

Mr. Sudam Pawar is a Director of the Innovation and Technological Connectivity (ITC), a Program department at Mekong Institute, Inter-Governmental Organization (IGO) of GMS region. He has a demonstrative experience in Development sector, Projects, Management, Consultancy, Training and Capacity Development.

His key areas of interest are Innovations, Technologies and Connectivity in Energy, Environment, Entrepreneurship, and Sustainable Livelihood. He has wide experience in implementing various development projects in Asia and Africa, funded by multilateral agencies, Governments, and Private Sector. He established major skills in the development of Plan and Budget, implementation, performance measures and working relationships with donors, stakeholders through vast networking. Working in a global environment helps him in familiarity with local regulatory and legal frameworks and equipping with a broad vision, flexibility within the vertical and horizontal management structures for the highest performance outcomes.

Sudam obtained his B. Tech degree in Agricultural Engineering from MPKV Agricultural University and MBA-International Marketing from Jadavpur University, Kolkata, India.



Mr. Chea Sophearin

*Regional Water Policy Expert
Mekong River Commission (MRC)*

Mr. Chea Sophearin is Regional Water Policy Expert at the Mekong River Commission (MRC) Secretariat, an intergovernmental organization serving its Member Countries of Cambodia, Lao PDR, Thailand and Viet Nam for the sustainable development and management of the Mekong River basin. He manages and advises on the overall implementation of the five MRC's water Procedures, including the Procedures for Notification, Prior Consultation and Agreement (PNPCA) – a set of three separate processes undertaken by MRC Member Countries for certain projects using water from the Mekong basin.

For five years from 2010 to 2015, he was also with the MRC Secretariat, holding various positions including Program Officer for MRC's Procedures and Policies and Interim Chief of International Cooperation and Communication Section. Besides coordinating the implementation of the five MRC's water Procedures, he managed relations with the donor community and Dialogue Partners China and Myanmar.

In his recent career, he was Civil Society Coordinator for a consortium of civil society organizations and Expert on Social Accountability for the World Bank from 2015 to 2019. Earlier in his career, he worked at the Ministry of Foreign Affairs and International Cooperation of Cambodia at the Asia 1 Department, holding a few key positions including Deputy Director. For about nine years, he was in-charge of bilateral cooperation between Cambodia and other ASEAN countries, and some sub-regional groupings namely Cambodia, Lao PDR and Viet Nam; Cambodia, Lao PDR, Myanmar and Viet Nam; CLV, CLMV and ACMECS (Ayeyawady-Chao Phraya-Mekong Economic Cooperation) cooperation.

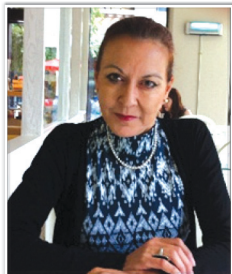
Academically, he received his Bachelor of Law from the Royal University of Law and Economics and a High-Ranking Civil Servant Diploma of Diplomacy from the Royal School of Administration from Cambodia, and a Master of International Affairs from Australian National University.



Mr. Kavi Chongkittavorn

*Senior Fellow, ISIS Thailand
Columnist, Bangkok Post*

Kavi Chongkittavorn is a senior fellow at Institute of Security and International Studies (ISIS) Thailand. He has been a journalist for more than three decades covering Thai and regional politics. He began his career as a reporter in 1983 and became the paper's foreign news editor in 1986. Then, he was asked to explore Indochina—first as Bureau Chief in Phnom Penh, Cambodia (1988-1990) and later on in Hanoi, Vietnam (1990-1992). After a year in Oxford University as Reuter Fellow in 1994, he went to Jakarta and served as Special Assistant to the Secretary General of ASEAN in Jakarta in 1995 before returning to journalism. He was named the Human Rights Journalist of 1998 to commemorate the 50th Anniversary of the Universal Declaration of Human Rights by Amnesty International. From 1999-2000, he was the President of Thai Journalists Association. From 2000-2001, he went to Harvard University as Nieman Fellow. He served as a member of jury and from 2005-2008 as its chair of Guillermo Cano World Press Freedom Prize organized by UNESCO.



Ms. Gwen Robinson

*Visiting Senior Fellow, CICP
Senior Fellow, ISIS Thailand
Editor-at-Large, Nikkei Asia Review*

Gwen Robinson is a Senior Fellow at the Institute of Security and International Studies at Chulalongkorn University in Bangkok and a Senior Visiting Fellow at CICP, specializing in Southeast Asian politics and economics. She also holds a part-time position as Editor-at-Large of Nikkei Asian Review, an online and weekly journal of Asian affairs. She was a Visiting Fellow at the Sydney-based Lowy Institute in 2004 and was for 18 years a correspondent and editor with the Financial Times in Europe, Asia, and America (1995-2013). Among earlier roles she was Tokyo-based correspondent for The Times of London (1993-95) and an editor and writer with Nikkei Weekly (1990-93). She was born in Japan and attended the Australian National University (BA, Asian History).



Ms. Pich Charadine

*Senior Fellow and Coordinator of the Global Center for Mekong Studies (GCMS)
Cambodian Institute for Cooperation and Peace (CICP)*

PICH Charadine is the senior fellow and the coordinator of the Global Center for Mekong Studies (GCMS) of the Cambodian Institute for Cooperation and Peace (CICP). She was the adjunct lecturer in the Department of Political Science at Zaman University, Cambodia. She had been working with several non-government organizations and had also jointly conducted numerous research fieldwork projects, prior to her current affiliation.

She obtained her Bachelor of Arts in Political Science and International Relations with High Honors from Zaman University (Cambodia) and holds a Master of Arts in Dialogue Studies (concentrated on political dialogue) with Merit from Keele University (United Kingdom). She has written on various issues concerning Cambodia's political development and its subsequent foreign policy implications. Her focus is on Sino-Cambodia relations (particularly political economy dilemma, foreign aid policy, and economic statecraft), ASEAN studies, Cambodia's politics and foreign relations.



Dr. Mak Sithirith

Water Governance Specialist

Dr. Mak Sithirith received his PhD in geography in 2011 from Department of Geography, National University of Singapore and Post-doc in transboundary water governance in the context of climate change in 2014.

A strong advocate for resource governances in the Tonle Sap Lake and the Mekong, he involves his students and colleagues in activities that support communities in the Tonle Sap Lake and the Mekong. His professional interests focus on research in the Tonle Sap Lake and the Mekong, particularly the resources and water governance. He has produced number of publications on the Tonle Sap and Mekong in the well-known and recognized publishers. In the future, he will publish more papers for his career.



Mr. Sulathin Thiladej

Director of Division

Institute of Foreign Affairs (IFA), Ministry of Foreign Affairs, Lao PDR

Mr. Sulathin Thiladej graduated with a MA in Public Policy from the Australian National University in Canberra (2016-2018), a BA in International Relations from the Diplomatic Academy of Vietnam in Hanoi (1999-2003), and received one-year scholarship for research on East Asian community building at Reitaku University in Tokyo (2008-2009).

Mr. Thiladej joined the Ministry of Foreign Affairs in 2004, serving in various positions including Secretary to Minister of Foreign Affairs and diplomat of the Embassy and Permanent Representative of Laos to ASEAN in Jakarta. Currently, he is serving as the Director of Division of the Institute of Foreign Affairs (IFA) to the Ministry of Foreign Affairs. His research interests include history, politics and security in East Asia, roles of major powers including China, Japan and Australia in Southeast Asia, and Laos' relations with China and Vietnam.



Daw Than Than Htay

Member

Myanmar Institute of Strategic and International Studies (MISIS)

Daw Than Than Htay graduated from Yangon University of Arts and Science in 1970. She completed her MIPP (Master of International Public Policy) from SAIS, the Johns Hopkins University, Washington DC in the year 1989.

She was joined the Ministry of Foreign Affairs in 1972 and has served in the Ministry of Foreign Affairs and the Myanmar Missions in the various positions. She was posted in the Myanmar Embassy in Beijing, PRC as a Second Secretary from 1977-1979, Myanmar Embassy in Canberra, Australia as a First Secretary from 1984-1987, Myanmar Embassy in Jakarta, Indonesia as a Counsellor from 1992-1997 and Myanmar Embassy in Beijing, PRC as a Deputy Chief of Mission(DCM) / Minister Counsellor from 2001-2005 respectively. She was retired as Deputy Director General of Political Department in 2007. She was served as a Secretary of Myanmar ISIS under the Ministry of Foreign Affairs from 2007-2009. Since 2013 she is serving as a member of the Myanmar Institute of Strategic and International Studies (MISIS).



Ms. Lindsey W. Ford

Richard Holbrooke Fellow

Director of Political-Security Affairs at the Asia Society Policy Institute (ASPI)

Lindsey Ford is the Richard Holbrooke Fellow and Director for Political-Security Affairs at the Asia Society Policy Institute. From 2009-2015, Ms. Ford served in a variety of roles within the Office of the Secretary of Defense, including as the Special Assistant to Secretary of Defense Chuck Hagel for the 2014 U.S.-ASEAN Defense Forum. Most recently, Ms. Ford served as the Senior Adviser to the Assistant Secretary of Defense for Asian and Pacific Security Affairs, where she managed a team of advisers overseeing maritime security, multilateral security affairs, and force management planning. Ms. Ford was also a leading architect of the Asia rebalance strategy work for the Department of Defense's 2012 Defense Strategic Guidance Review and oversaw the development of the Department's first Asia-Pacific Maritime Security Strategy. Ms. Ford has worked as a researcher for the Center for a New American Security and as a consultant to organizations including the United Nations Development Fund for Women. She is a frequent commentator on Asian security and defense issues and her analysis has been featured by outlets including the New York Times, the Wall St. Journal, the Financial Times, Politico, Foreign Policy, the Straits Times, CNN, MSNBC, and Bloomberg.



Dr. Phongphisoot Busbarat

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Pongphisoot (Paul) Busbarat is a lecturer at the Department of International Relations, and a fellow at the Institute of Security and International Studies (ISIS Thailand) Chulalongkorn University. His research interests include Thai foreign policy, mainland Southeast Asia's relations with great powers, and ideational approaches to International Relations. Before joining Chulalongkorn, Paul conducted research and taught at various institutions including ISEAS-Yusof Ishak Institute, Columbia University, Sydney University, and Australian National University. He is working on a manuscript examining Thailand's identities with China and the United States and its influence on Thai foreign policy postures towards both powers. Paul holds a PhD from ANU and postgraduate degrees from Columbia and Cambridge Universities.



Dr. Le Hai Binh

Vice President

Diplomatic Academy of Vietnam (DAV)

Le Hai Binh is Ph.D. in International Relations, Diplomatic Academy of Vietnam. He is Vice President of the Academy. He began to serve in the Ministry of Foreign Affairs in 2000, posted to the Embassy of Vietnam in Brunei Darussalam from 2000 to 2003, then worked at the Chief Cabinet Office of MOFA from 2004. He took the duty of Secretary to the Minister from 2005 to 2011, promoted to Deputy Director General of Policy Planning Department in 2008. He served as the Ministry's Spokesman from 2014 to 2017 and moved to the Diplomatic Academy of Vietnam in April 2017 to be its Vice President. He used to be Director General of the Institute of Foreign Policy and Strategic Studies, Diplomatic Academy of Vietnam. Le Hai Binh wrote several books and articles both in Vietnamese and English.



Dr. Han Phoumin

Energy Economist

Economic Research Institute for ASEAN and East Asia (ERIA), Jakarta, Indonesia

Han Phoumin has about 18 years of experience working at various international and inter-governmental organizations and multi-disciplinary research consortiums related to energy market and technologies, environment, integrated water resource management, governance, and economic development in the region of ASEAN and EAST ASIA. He specialized in economic development and policy and applied econometrics. Much of his career in the past 10 years involved with power sectors, especially with sustainable hydropower development, renewable energy research, energy efficiency, clean coal technology, energy security, and energy demand and supply forecasting.



Mr. Brian Eyler

*Energy, Water, Sustainability Program Director, and Southeast Asia Program Director
Stimson Center, USA*

Brian Eyler is a Senior Fellow and Director of Stimson's Southeast Asia program. Eyler is an expert on transboundary water-food-energy nexus issues in the Mekong region and specializes in China's outbound investment in Southeast Asia. He has spent more than 15 years living and working in China and over the last ten years has conducted extensive research with stakeholders in the Mekong region, leading numerous study tours through China and mainland Southeast Asia. Before coming to the Stimson Center, he served as the Director of the IES Kunming Center at Yunnan University and as a consultant to the UNDP Lancang-Mekong Economic Cooperation program in Kunming, Yunnan province. He holds a MA from the University of California, San Diego and a BA from Bucknell University. Brian is the co-founder of the influential website EastBySoutheast.com. His first book, *The Last Days of the Mighty Mekong* was published by Zed Books in February 2019.



Ms. Maki Aoki-Okabe

Researcher

*Institute of Developing Economies, Japan External Trade Organization (JETRO),
Tokyo, Japan*

Ms. Maki Aoki-Okabe has served as full-time researcher at Institute of Developing Economies, Japan External Trade Organization (JETRO) since 2003. From 2000 to 2001, she was teaching assistant in the field of international relations at University of Tokyo. Her research field includes International Relations, Thai Foreign Policy Latest research topic: Influence of international exchange of goods, money and human and its impact on regional integration in Southeast Asia: the case of Thailand. She published variety of papers related to her research field and other related subject matters.

Ms. Maki Aoki-Okabe obtained her B.A. in Arts and Science from Tokyo Women's Christian University in 1998 and M.A. in International Relations from the University of Tokyo in 2000. She also has been Ph.D Candidate in International Relations at the University of Tokyo.



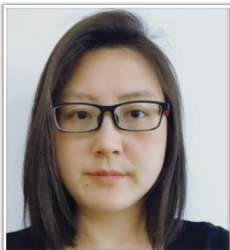
Mr. Jake Brunner

Head, Indo-Burma Group

International Union for Conservation of Nature (IUCN)

Based in Hanoi, Jake Brunner is Head of IUCN's Indo-Burma Group covering Vietnam, Cambodia, Lao PDR, Thailand, and Myanmar. Before joining IUCN in 2008, Jake spent eight years running Conservation International's Indo-Burma Program from Washington, DC, Hanoi, and Phnom Penh. Previously, Jake spent eight years at World Resources Institute, an environmental policy research center in

Washington, DC. He holds a BA in Geography from Oxford University and a MS in Remote Sensing/GIS from London University.



Prof. Zhang Wei Wei

Senior Research Fellow, Global Center for Mekong Studies (GCMS – China Center)

China Institute for International Studies (CIIS), Beijing, China

Ms. Zhang Weiwei is a research fellow with China Institute of International Studies. She has focused her research on Northeast Asia studies and Chinese public diplomacy. She has published widely on China-Japan relations, U.S.-Japan alliance,

Japanese foreign policy, China-Japan-Korea cooperation and etc. She was an author of the Blue Books on International Situation and China's Foreign Policy for eight consecutive years, taking charge of the public diplomacy chapters of the books. She has also authored a number of reports to the government on a range of topics.

EXECUTIVE SUMMARY

In light of growing concerns with regard to the detrimental risks generated from negative development practices along the Mekong River as well as the limited complementarities among the various regional frameworks in providing adequate responding measures, the Cambodian Institute for Cooperation and Peace (CICP), with the support of the US Embassy in Cambodia, organized the Regional Workshop on the Future Prospects of the Mekong River on 13-14 June 2019 in Phnom Penh. This event served as a scholarly forum to shed light on diverse perspectives concerning various pertinent matters confronting the Mekong Subregion with the objective of determining policy recommendations for relevant authorities.

Scholars and experts from Cambodia, the region and beyond provided their insights as to the prospects of the Mekong through various distinctive lens ranging from political, security, economic, social, and environmental aspects. There was a general consensus that while viewing development in the Mekong as crucial, it is necessary to reconsider some existing policies and frameworks impacting both the river and its basin. There are strong indications status quo practices and place the long-term sustainability of the Mekong in considerable jeopardy.

Although there has been increasing momentum among existing regional mechanisms to work with one another towards the development soundness and sustainability of the Mekong sub-region, concrete actions in this regard remain few and far between. The momentum for collaboration has been complicated by increasingly tensions and visible competition among the great powers with interests in the region. During the regional workshop, there were consistent calls for greater recognition of the growing research consensus as to the challenges confronting the future of the Mekong. Moreover, environmental and grassroots concerns need to be given greater weight and more serious consideration in policy-making circles.

Specifically, in the first panel session, the discussion mainly focused on an overall assessment of the current status of the Mekong in its current geographical and institutional context. There was a consensus view during the panel that there have been notable interests from significant actors in the region and beyond with regard to the Mekong, resulting in the creation and revitalization of various regional mechanisms. There have been calls for strengthening collaboration among these frameworks such that they complement rather than compete with one another. However, some scholars were not optimistic about the momentum given the geopolitical realities at hand, i.e., great power competition in the region. Some still viewed the Mekong River Commission (MRC) as the most institutionalized body among all existing Mekong mechanisms and posited that it can play important roles provided that certain necessary institutional reforms are genuinely implemented.

In the second and third panel discussions, the focus was largely around the national perspectives of the Mekong countries as well as the environmental, sustainability, and human security aspects in the Mekong sub-region. Despite stressing their different development priority areas, at the national level, the Mekong states welcome all existing regional frameworks and seek collaboration with each of these. With regard to the questions of environment, sustainability, and

human security - severe risks are now present due to a variety of negative externalities deriving from current practices and the lack of effective responses thereto.

In the fourth panel, discussion broadly examined the future prospects of the Mekong River and its sub-regional cooperation mechanisms. There was a wide acceptance of the view that political competition does and will continue to exist in the Mekong cooperation mechanisms. Some scholars posited the trend as inevitable and called instead for more prudent coordination among those frameworks. Some were, conversely, optimistic and saw some room for real coordination among those mechanisms, provided that more genuine gestures towards cooperation are visibly demonstrated by the relevant actors.

Lastly, during the session of free and open discussion, there were calls for policy-making circles and relevant authorities to have more serious considerations on the concerns of the grassroots with regards to any planning for the future of the Mekong River. Another transpired crucial point was over whether or not there are going to be common agendas in the Mekong cooperation mechanisms. Scholars and experts split views over this matter. Some were optimistic, indicating that as long as there are clear guidelines and rules of engagements and cooperation, the common agendas are possible. Some saw otherwise, stating that the Mekong states and development partners have their own different national priority areas for development which make common agendas among these mechanisms difficult.

SUMMARY OF THE PROCEEDINGS

Overview

The *Regional Workshop on the Future Prospects of the Mekong River* was organized by the Cambodian Institute for Cooperation and Peace (CICP) with the support of the US Embassy in Cambodia on 13-14 June 2019 at Raffles Hotel Le Royal in Phnom Penh, Cambodia. The event was attended by more than 130 participants including venerable monks, members of the diplomatic corps, government officials, representatives from the international organizations, non-governmental organizations, civil society, and the academic community. The Workshop discussed the contemporary political-security, social and environmental contexts as well as challenges posed by countries in the Mekong sub-region and the future uncertainty of the Mekong River itself.

Concomitantly, CICP officially launched the first issue of the *Journal of Greater Mekong Studies (JGMS)* whose attempt is to serve as a platform for the dissemination of diverse scholarly views from national and regional experts exploring issues concerning the Mekong region and to clarify the policy implications thereof to the relevant stakeholders and authorities concerned.

Opening Session

The Regional Workshop began with the Welcome Remarks by **H.E. Ambassador Pou Sothirak**, Executive Director of CICP. In his speech, Ambassador Pou elaborated the main objectives of this Workshop as to assess the contemporary trends and key concerns in the Mekong River and exploring different mechanisms in order to construct the sustainable development prospects for this sub-region.

The floor was then handed to **Mr. Michael A. Newbill**, Chargé d'affaires of the US Embassy in Cambodia. In his Opening Remarks, Mr. Newbill stated that the Mekong sub-region is strategically important for the US. The US engagement with the Mekong is part of its Indo-Pacific Strategy as well as a continuous supportive framework to ASEAN. He also highlighted the U.S notable achievements in this region including the multi-billions dollar investment and trade as well as the increasing number of scholarship opportunities offered throughout the years. Beside the achievements, Mr. Newbill also emphasized the challenges and risks incurred in the Mekong, specifically, the remarkable number of dam constructions in the upstream part of the region, which significantly affects the downstream countries and posing a critical threat to this sub-region.

The next distinguished role player who took the floor was **H.E. Mr. Walter Douglas**, Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy of the East Asian and Pacific Affairs Bureau of the U.S. Department of State. In his Special Remarks, he reassured the US' commitment to the Mekong, ASEAN and the Indo-Pacific region as a whole. He stressed: "the American do not go anywhere". He emphasized that the US' Indo-Pacific Strategy is important to ASEAN, Mekong as well as Cambodia for the fact that the strategy adheres to the centrality of the regional grouping and the member countries. Mr. Douglas specified that there are three

pillars of the Indo-Pacific Strategy namely: Economics, Governance and Security which all aim to ensure the open, inclusive, transparent and rules-based liberal international order.

Last but not least, **H.E. Mr. Sim Vireak**, Advisor of the Ministry of Foreign Affairs and International Cooperation of Cambodia, delivered his keynote address. He discussed Cambodia's involvements in the eight Mekong cooperation mechanisms. He mainly underlined the implications behind the cooperation trend in the Mekong region as follow: (1) Multilateralism is still alive in the Mekong, (2) Collaborations in the Mekong go beyond water cooperation, (3) Mekong mechanisms aspire to be complementary not rivalry, (4) The cooperation trend reflects the considerable interests of external partners on the Mekong, and (5) Development in the region remains challenging but should not be politicized. H.E. Mr. Sim Vireak concluded his speech by stating that Cambodia can play a role in agenda-setting of the Mekong mechanisms and will continue to commit to endeavors for the best interest of sustainable peace, sustainable development and shared prosperity for people in the region.

After the conclusion of all remarks by our distinguished role speakers, the *Special Inaugural Launching of the Journal of Greater Mekong Studies (JGMS)* took place. **H.E. Ambassador Pou Sothirak** demonstrated that the Journal is a new initiative of CICP which aim to gather scholarly views on various aspects and challenging issues in the Mekong, to fill in a substantial gap in the regional policy-oriented literatures, as well as to provide policy implications to relevant stakeholders. Amb. Pou thanked the US State Department for their generous support to JGMS for the first two-years. In response, in his short remarks, **Mr. Michael A. Newbill** called the launching as another astonishing milestone for enhancing a better understanding on the Mekong and congratulated CICP for yet another important milestone and the diligent work been undertaken. Amb. Pou and Mr. Newbill then jointly unveiled the official launching of the JGMS. The official group photo took place before the Opening Session came to an end.

Session I: The Current Status and Assessment of the Mekong in the Geopolitical and Institutional Context

The first session was chaired by **Ms. Gwen Robinson**; Visiting Senior Fellow of CICP, Senior Fellow of ISIS Thailand and Editor-at-large at Nikkei Asia Review. The first presenter was **Mr. Chea Sophearin**, Water Policy Expert of the Mekong River Commission Secretariat. He discussed 3 main points: the current status of the Mekong River, Opportunities and Challenges of the Mekong River, and MRC as the regional mechanism for sustainable development and management of the Mekong River. He praised the obvious importance of the Mekong as regards the expansion of irrigation system and agricultural productions, the potential for hydropower, navigation route, sand mining, and fisheries, of which it was estimated that the annual economic value of the water-related sectors is almost US\$ 35 billion per year. As for the challenges, the key concerns reside in the environment, sanitation, and natural disaster. Last but not least, Mr. Sophearin elaborated on the composition and structure of MRC as well as its mandate and functions.

The second speaker was **Ms. Lindsey W. Ford**, Director of Political-Security Affairs of the Richard Holbrooke Fellow, and Deputy Director of the Washington D.C. Office of the Asia Society Policy Institute (ASPI). Five points were discussed. First, she viewed that this era is the period of

competition between the US and China as both countries do not play by the international norms, and China does not seem to satisfy with the existing rules. Secondly, Ms. Lindsey understood that the competition between the US and China is not in the form of “Cold War 2.0” for the fact that the nature of competition is more resided in technology or trade, not really the sort of ideological competition. Moreover, she stated that it is and would most likely continue to be a competition than a cooperation because of the increasing contestation to shape and redefine global rules, the complex interactions between economic, technological, military, the difficulties of building coalition as there were alignments and divisions, the mistrust between state and state, and lastly the defensive barrier. She then cautioned some challenges amidst rising competition between major powers, especially for Southeast Asia. She questioned whether or not ASEAN has embraced their own strategic autonomy of neutrality. The other challenge was the possibility of ASEAN to leverage their centrality to lead, and to establish a cooperative space beyond and within the competitive boundaries. Besides, Ms. Ford also emphasized the principles of navigation in an Era of Competition in 4 points, such as *Free* (countries have to make decision upon their sovereignty), *Open* (countries should welcome diverse partners), *Fair* (every nation must play by a shared set of rule and attain responsibility for their own citizens), and *Transparent* between countries and within countries.

Next presenter was **Dr. Tek Vannara**, Executive Director of The NGO Forum on Cambodia. He discussed the key actors and the agenda for sustainable development in the Mekong Region. There are certainly many key actors and stakeholders ranging from state, institutions, to civil society. However, the agendas covered are on the prospect of economic development rather than on environmental cooperation, and there is limited space for civil society group to be engaged and take part in the discussion and toward the process of policy design. Nevertheless, the main challenge, he argued, is that the affected community and the people concerned have not been paid much attention into and thus the policy implication has not been adequately reflected upon.

Another presenter was **Ms. Maki Aoki-Okabe**, Research Fellow of the Institute of Developing Economies of JETRO in Tokyo, Japan. She talked about the historical overview of Japan’s Mekong Development Policy and raised some Japanese treaties and strategies about investment and cooperation with the Mekong sub-region, including the Tokyo Strategy 2018. One enduring challenge is the donor coordination in the Mekong. Ms. Aoki also exemplified on the coordination progress between Japan and China on the Mekong sub-regional development.

The last presenter of the first session was **Dr. Ahn Se Hyun**, Professor of the Department of International Relations and Director of the Center for Energy Security of Strategic Studies (CESSS) of the College of Public Affairs and Economics at Seoul University, Korea. He elaborated on the evolving engagement of the Republic of Korea in the Mekong River project while also provided the priority policy of South Korea toward the Mekong sub-region, included strengthening partnership with ASEAN, sustainable development and human-centric developments. The ROK’s official development assistance (ODA) to the Mekong countries under the Korean International Cooperation Agency (KOICA) was also mentioned as well as the recent developments and achievements in those countries under the benchmark of ROK-Mekong Cooperation. Furthermore, Dr. Ahn explained the South Korea’s New Southern Policy, which cut-cross wide range of sectors in ASEAN. As parts of its mechanisms to engage with the region, South Korea concretizes the knowledge-based capacity building projects, such as Knowledge

Sharing Program (KSP), Capacity Improvement & Advancement for Tomorrow (CIAT), master's degree training projects, and local capacity building.

Ms. Gwen Robinson as the Chair posted a question to the panel that one of the main themes that has come out as regards the evolution of thinking for the development of the Mekong region – ranging from LMI/FOIP to Korea's new initiative and Ms. Maki Aoki-Okabe "Mekong congestion" point, there are quite a few existing mechanisms with various levels of effectiveness. Mr. Chea Sophearin's point on expanding the MRC was particularly salient. Also, noting 57 different international organization's (as pointed out by Mr. Tek Vannara) – is a very significant number. Is there too much focus on new institutions as opposed to a focus on consolidating existing institutions? How about a mechanism to better coordination before going in to new spending?

Ms. Ford elaborated that where there are a number of different coordination mechanisms out there – each of those mechanisms needs to look at whether there is a degree of complementarity, are projects sustainable, are there differing standards for different projects, etc. The Chair postulated whether there is a danger of overlapping initiatives. Thoughts on this as related to Japan's Tokyo Strategy – 150 Japanese projects on the drawing board, things are getting quite confusing.

Ms. Aoki-Okabe said when Japan and China concluded the memorandum of understanding on cooperation, it will be a good case for coordinating large scale projects. Whether it is GMS or Japan-Mekong etc. – there is a project, necessary to demarcate which project is done by which funder. This sort of initiative should be a good example. But the problem is not just one of coordination but also the question of which entity will take on the project, i.e. the role of the private sector and diverse firms.

Dr. Anh Se Hyun argued there is no link between ROK's New Southern Policy and China's BRI or the US FOIP, this is just ROK's own strategy designed to increase opportunities and to build linkages to the Mekong region for South Korea. In the private sector, some individuals in the Korean private sector see the Greater Mekong Subregion as a great opportunity for South Korean firms to shift away from the Chinese market and see Vietnam, Cambodia, etc. as a great opportunity.

Mr. Chea Sophearin: From the point of view of the MRC, favor not having many regional institutions – it is a kind of competition. However, cooperation coexists with competition – it cannot be divided. The most important thing is the need to review whether new platforms are beneficial – and to note the importance of reviewing existing institutions and empowering those institutions.

Mr. Brian Eyler posted a question that congestion is a function perhaps of ASEAN's dysfunction. ASEAN as adrift and hence drift. Or is this due to ASEAN's lack of attention on transboundary river governance etc. **Ms. Gwen Robinson** added that perhaps a function of the division of ASEAN owing to the Sino-US rivalry. Japan and South Korea are doing direct bilateral work in the region rather than working through ASEAN – is this due to ASEAN dysfunction?

Dr. Ahn Se Hyun stressed that ROK's new policy is done in parallel with support for strengthening of ASEAN but currently views ASEAN without clarity as to how to operate with it. **Ms. Aoki-Okabe** said that cooperation with ASEAN is a core component of Japanese policy towards SE Asia, particularly with regard to water management where interests of the various states are all quite different. Moreover, there is the issue of the interests from the maritime ASEAN states which are quite different, e.g. railway connectivity is less of an issue for the non-mainland states.

Ms. Gwen Robinson questioned that by putting more money into Mekong summits, does this reinforce a division in ASEAN? **Prof. Zhang Wei Wei** argued against some points made by Ms. Ford with regards to power competition. She then elaborated on the aspect of trade balance with the US – that the US has a huge trade deficit with China, that is an oversimplified understanding of the trade issue. Next, in correcting the trade balance between the US and Japan – one of Trump's proposal has been that Japan purchase more advanced US military technology. Conversely in the Chinese case, the US will not sell military technology to China. Second point, the PRC initiative in the form of BRI or LMC derived from Deng Xiaoping's idea of the highly-developed 'help' the under-developed; this is the underlying mentality of the Chinese initiative rather than a power competition against Japan, Korea, or the United States. The joint development of the region benefits China very much, ergo that is why China supports development in the region.

Ambassador Pou Sothirak posted a few questions to the panel. First, a question for Mr. Chea Sophearin. He said he is a proponent of the role of MRC – it is vital in light of its strong track record. In regard to competing MRC relevant, he argued that we have to ask why MRC is not relevant and we need to set out the lack of capacity on the enforcement side as well as the importance of being an honest broker. It is time for MRC to do a reality check – can MRC convince its members to adhere to its own guidance? To Ms. Ford, Amb. Pou expressed his appreciation that she is talking about opportunity – not about containing China. When discussing competition from the American side, the issue of limiting China continues to come up. How to limit bad competition and promote better cooperation between the US and China? The last point about ASEAN centrality – ASEAN needs to put the entire agenda on the table – what are the topics that ASEAN is not putting on the table as we see ASEAN unable to direct the agenda.

Mr. Chea Sophearin responded that he is trying to develop ideas as to how MRC can stay and keep its relevance. We still see the MRC as relevant in the future, at the same time, he pointed out some challenges and constraints. If we look at the composition and structure of MRC – minister level council etc. – the main role of MRC is to produce a basin-wide strategy and we take into account national development plans as well. One of the examples that Amb. Pou pointed out – the 10-year moratorium – to some extent not all member countries are on board, there is reassessment and review. We are trying to convince everyone that MRC is central in order to achieve the goals related to the Mekong.

Ms. Ford explained that in terms of topics to discuss in regional settings, there should be no inherent barriers. For example, in 2012 when disagreements over the South China Sea precluded a common state at the end of the foreign ministers' meeting, that is an example of when ASEAN needs to come together – when an issue needs to be discussed, they have to be put other. As to

reducing the negative effects of bad competitiveness – competition is not bad in and of itself. But when there is competition without shared rules, countries seek out their own advantage; ergo, standards and rules that everyone adheres to need to be applied. On win-win, she said she was not talking about the trade imbalance – but instead the question of tech transfer and structural concerns rather than a deficit issue.

Session II: National Perspective from CLMTV countries: Opportunities and Challenges of the respective Mekong Cooperation mechanisms

The second session was chaired by Ms. Pich Charadine, Senior Fellow and Coordinator of the Global Center for Mekong Studies (GCMS – Cambodia Center) of CICP. The first speaker was **Dr. Mak Sithirith**, who is a Water Governance Specialist, mainly discussed on the content of MRC 1995 Agreement and the case of 3S Dam (3S is a term used to describe Sesan, Sekong and Srepok river watersheds, which join to form one tributary of the Mekong River as it flows through Cambodia in Southeast Asia). He demonstrated that the MRC 1995 Agreement does not overpower the national sovereignty to mitigate negative transboundary social and ecological impacts of water development. Riparian states prioritize national interests and sovereignty of decision-making for water security (and wider national security). The 3S rivers get less political attention than the mainstream. The MRC 1995 Agreement does not take the transboundary characteristics of the 3S Rivers in full account. This loophole allowed unlimited development of hydropower dams in the 3S basin. He argued that the sharing of water resources in the 3S basin has been affected by: (1) Position of the riparian states in the Mekong Region – upstream versus downstream, (2) Geopolitics of the Mekong countries, (3) The economic and political relations, and (4) The bilateral relationships. These factors determine the utilization of the water in the 3S region, not the 1995 MRC Agreement. And these factors have resulted in an uncontrolled development of dams in the 3S basin. The uncontrolled development, management and operation, disabled the riparian countries to secure flows, volumes, qualities, space, temporal variations and livelihoods in the Mekong basin, posing an increased ‘security’ in the region. Nevertheless, the MRC should continuously review and revise the MRC 1995 Agreement to keep up with the increased socio-economic and demographic developments in the basin.

Next speaker was **Mr. Sulathin Thiladej**, Director of Division of the Institute of Foreign Affairs (IFA) of Ministry of Foreign Affairs of Lao PDR. He demonstrated that Laos is welcoming all Mekong mechanisms that continue to boost connectivity and growth in the region. He said the Mekong initiatives provided opportunities such as 1/. Boosting trade, 2/. Increasing investment, 3/. Developments of hard and soft infrastructure, and 4/. Boosting tourism as well as other cooperation. However, there are challenges of such cooperation trend including a tendency of domination and marginalization of some Mekong mechanisms, difficulties in setting priority areas, limited coordination among them, and misalignment of mechanism ownership and national strategies. Mr. Thiladej offered two main recommendations namely, 1/. Establishing coordinating secretariats of Mekong mechanisms and 2/. Creating a database for sharing information and other valuable findings.

Another presenter was **Daw Than Than Htay**, Member of the Myanmar Institute of Strategic and International Studies (MISIS). Similar to the previous speaker, Daw Than Than Htay stated that Myanmar is receptive to all Mekong initiatives as long as they align to the development of the

country. She also mentioned about the Myanmar's involvement in the Mekong mechanisms such as Mekong-Japan Cooperation, Lancang Mekong Cooperation and Lower Mekong Initiative. She also praised LMC's initiative of creating the network of Global Center of Mekong Studies (GCMS) of which has been served as a platform that injects intellectual recommendations to relevant authority.

The fourth speaker was **Dr. Phongphisoot Busbarat**, Lecturer, Faculty of Political Science, Chulalongkorn University, and Research Fellow at ISIS Thailand. He mainly discussed about Thailand's presence in Mekong mechanisms, particularly its relation with the Lancang Mekong Cooperation. He argued that there are challenges with regard to the LMC including that the mechanism may reduce the importance of other existing mechanisms, the implication of less bargaining power by smaller states, and the coordination issue. For ways forward, he recommended the following:

- LMC should adhere to inclusive and open regionalism, and take into count the ongoing progress in other cooperation mechanisms.
- LMC's agenda should support other regional frameworks, especially ASEAN.
- Policy coordination should be improved in order to strengthen CLMTV's position against unintended consequences. Smaller platform such as ACMECS or MRC can be utilized.
- ASEAN as a whole should also pay greater attention to the development and cooperation in the Mekong sub-region.

The last presenter was **Dr. Le Hai Binh**, Vice President of Diplomatic Academy of Vietnam (DAV). He mainly focused on discussing challenges, achievements and ways forward. Regarding to challenges, he raised three main points namely 1/. Lack of development resources, 2/. Uncoordinated use of water resources, and 3/. Rising strategic rivalries between major powers. Concerning achievements, he said that the Mekong cooperation mechanisms has been able to mobilize huge amount of resources for national socio-economic development, to be key platforms for dialogues and discussion on major regional common issues, as well as to contribute to strengthening sub-regional connectivity. Despite these achievements, he also indicated that there are certain limitation preventing the Mekong cooperation mechanisms from having more prominent stride include conflicting national interests among Mekong states, limited awareness among the public about the cooperation mechanisms, comparative advantages issues, inadequate cooperation areas, and limited attention towards sustainable development. With regard to ways forward, he offered the following recommendations:

- Promote the coordinated approach of Mekong countries in participating in sub-regional cooperation mechanisms, especially the ones with the involvement of external partners.
- Promote the involvement of various government agencies as well as other groups such as academia, private sector, non-governmental organizations in sub-regional cooperation activities in a bid to further strengthen mutual trust and understandings and to seek for new thought and ideas for future maneuver.
- Build and harmonize common regulations in the cooperation sectors, especially in trade, investment and environment protection and water management.

- Promote environmental protection, sustainable development in order to ensure water, food and energy security as well as to effectively respond to emerging issue of climate change. Involving the participation of developed partners is important as they are usually experienced and have greater resources and more modern technologies.
- Strengthening the connection between cooperation mechanisms.
- Actively promote the participation of private sectors in the process of designing and implementing cooperation programs.

Mr. Chea Sophearin explained that apropos of the 1995 Mekong Agreement, in terms of process and procedure in coordinating the water dialogue and consultation, there is one specific procedure that states clearly the different procedures for notification. Countries notify other states (and so on, outlines the diverse elements of the process); in only one case, when a country wants to divert water is consensus required and so far, there is no project along these lines. The MRC has a very limited role – we pass the information to other member countries, it does not result in the exchange or consultation – several examples provided along the lines. To supplement, through our current monitoring on the water flow, it shows that even with the current development from China, including the current two or four hydropower developments, the flow still has no problem, water quality has no problem. It even provides some kind of more water during the dry season but we need to do more monitoring of exploring why it happened. The water level in some places, however, is below the natural minimum level. So far through our monitoring, there has been no violation yet – just to supplement the discussion.

From the audience, a proposition to connect the first session to the current session was made. Given that the panelists discussed the importance of greater coordination, particularly among donor countries, a suggestion was raised that it is up to the principal beneficiaries of aid whether they feel comfortable with this kind of congestion, competitiveness among donor countries. Can they most gain from this kind of multiplication of mechanisms or could they make use of aid much better, more effectively if there was better coordination? We know that aid is an element of foreign policy but forget about geopolitics and focus on the effectiveness of aid – if the riparian countries (CLMTV) were to join forces and force a unity of vision and then lobby all of those donors for better cooperation, bear in mind that MRC is just a mechanism; we need the governments. Governments to joint action to get donors to develop a sort of joint mechanism for better coordination. In this process, we can draw on a lesson from the past – first, the resourcefulness of some countries in dealing with rival donors. Thailand managed to maintain its independence regardless of the rivalry between France and Britain.

Another question to the whole panel, why is LMC going faster than other mechanisms in the region? Also, what is the lessons learned that we can draw from that reality which could be applied to other initiators of cooperation in the region? And are other cooperation mechanisms complimentary to the MRC at present?

Dr. Le Hai Binh posted three reasons: (i) China has simply been very active; (ii) institutionalization process; and (iii) funding available. **Dr. Phongphisoot Busbarat** elaborated that we have to go to the fundamental issue, perhaps first there is the question of geography. This region has been of the locations of important focus for China historically – Southeast Asia is a backyard to China. Second, this new leadership looks to grand strategy under BRI – especially

the Mekong region is one of the main BRI corridors. This is not just interest but it is also the face of China, necessitating success and “gaining face” for China at the global level. Akin to when China first opened to the international community. **Daw Than Than Htay** pointed out that every two years there has been a leaders’ summit and foreign ministers’ meetings, national secretariat meetings, etc. There is also the GCMS for the Track II side – these centers are also working for research. The principle of the LMC – consensus, equality, etc. – only in ASEAN do we get consensus, but in LMC we also act by consensus. This is a shared, cherished principle. Moreover, there is the good neighborliness policy of the members. Also – only riparian states are members. Finally, the question of trade – which is essential for development. All of these come together with small and medium scale projects and the funding is also there. Thus, it has gone very fast.

Dr. Mak Sithirith thought that one thing is China used to have no cooperation at all with the riparian countries – then this is a shift. Second, there is regionalism – and no state wants to be left out. Development aid – for Cambodia, China has provided significant funding and those funds come without strings attached, as opposed to that from the west. **Mr. Sulathin Thiladej** said the Mekong sub-region is a strategic geographic location for China – i.e. “backyard of China.” Second, LMC is a non-binding framework. Third, China has resources – the funding is there. **Mr. Chea Sophearin** added that in terms of collaborating with others, MRC is open to cooperation with all others – there are not many others with such a narrow mandate. Others have been established with diverse goals. MRC has worked with ASEAN, will work with LMC as well etc. – as determined the member states.

Ambassador Pou Sothirak jumped in the discussion as to why LMC is going faster than others and of making existing mechanisms synchronize with one another. There are two important aspects of LMC. First, it is a leader-driven framework – there is nothing else in between. With just two summits, the first batch of 108 projects already completed and 200+ projects now in full speed. Second, money – there is a LMC Special Fund of \$300 million for five years. The first two years are the foundation years, the next three are the implementation stage – China is very focus-oriented. Amb. Pou also mentioned the establishment of GCMS – which China created; CICP has been chosen to be the national coordinator, DAV and IFA are the others. So, that is why China has moved so fast; no illusions on that. Then he looked into the aspect of lack of coordination. He questioned who would then be THE coordinator? China, Japan, Korea, ASEAN? Who will coordinate? The coordination will have to be acceptable to China, Japan, India, and the rest. The second point – Dr. Li mentioned there is no rule for the common use of water, unless we have a common rule for the common use of the Mekong, we will continue to see this problem – so how do we develop these rules that are acceptable to everyone? Perhaps another summit meeting beginning with Track II in order to determine who to do this. For example, Vietnam proposed a COC on the Mekong – not sure that China would agree, Amb. Pou stressed. There has been talk on water governance – but it has not gotten off the ground. LMC has already begun to discuss. As regards MRC, it would be good for China and Myanmar to join and this would allow MRC to enforce some of their recommendations as a way to address some of the challenges that we currently see.

Session III: Environmental, Sustainability, and Human Security aspects of the Mekong

The third session was chaired by **H.E. Dr. Chap Sotharith**, Secretary of State of the Ministry of National Assembly-Senate Relations and Inspection; and Board Members of CICP. The first presenter was **H.E. Mr. Watt Botkosol**, Deputy Secretary General of the Cambodia National Mekong Committee. He stated the Mekong is very important for the livelihood of the people residing along the river. However, challenges remain. First, there has been limited awareness, knowledge and capacity about cooperation, management and sustainable development of the Mekong by relevant stakeholders. Second, there is lack of cooperation, understanding, and information sharing between the Mekong states. Third, network of information sharing among relevant stakeholder remains limited. In this regard, H.E. Mr. Watt Botkosol proposed joint LMC basin planning. He suggested 10 points of priority development areas namely, 1/. Irrigation and agriculture, 2/. Water management, 3/. Importance of fisheries, 4/. Hydropower development, 5/. Navigation of transport and river networks, 6/. Development of tourism and recreation, 7/. Water supplies to support domestic and industrial development, 8/. Flood control and management, 9/. River eco-system and environmental conservation and 10/. Social asset and movement in the Mekong development.

The next speaker was **Mr. Sudam Pawar**, Director of Innovation and Technical Connectivity of the Mekong Institute in Thailand. In his presentation, Mr. Pawar mainly highlighted the threats to sustainability in the Mekong and steps to resolve existing steps. Concerning the threats, he raised aspects including hydropower development, climate change, illegal wildlife trade and habitat loss. Regarding ways forward, Mr. Pawar recommended the following: 1/. Assessing hydropower impacts, 2/. Addressing Climate Change, 3/. Promoting Sustainable Forestry, and 4/. Building a Balanced Infrastructure.

Another presenter was **Mr. Jake Brunner**, Head of the Indo-Burma Group base in Vietnam. Mr. Brunner mainly elucidated three points. First, there are increasing pieces of evidence indicating that dam construction leads to negative impacts such as significant ecological changes, implications for the livelihood of the community presiding along the river and lack of resource utilization. Second, risks due to dam construction continue to increase. Third, more careful considerations should be taken into account to be on path for development sustainability for the Mekong including increasing the multi-purpose functions of dams, the multi-purpose crop utilization along the Mekong basin, improvement of water management and more diversified energy planning.

The last speaker of the session was **Mr. Brian Eyler**, Program Director of Energy, Water, Sustainability, and Southeast Asia Program Director of the Stimson Center in the US. Mr. Eyler presented on various main aspects and details of the problematic situations concerning dam construction in the Mekong. No Mekong basin development plan by some Mekong states as well as the adhoc approach concerning the project implementation are what he explicitly highlighted. He called for more careful considerations and recommended the following:

- Basin-wide, system-scale planning for Laos and Cambodia to quantify tradeoffs & develop scenarios including optimized cross-border power trade
- Develop programmatic investment landscapes: 3s Clean Energy Zone

- Maximize river connectivity:
 - Avoid the Sambor Dam and Stung Treng dams by offsetting capacity loss
 - Keep Sekong River free flowing through Laos
- Results of system-scale study are incorporated into MRC BDP3 and/or CLVT PDP revisions
- Facilitate policy, regulatory, and physical infrastructure to support non-hydro RE investment.

During the discussion session, many questions and comments focused mainly on technical issues concerning the data sharing, the need to discuss the issues based on scientific approaches and the call for more favorable considerations on the renewable energy such as the wind and solar energy.

Session IV: Future Prospects of the Mekong River and its Sub-Region Cooperation Mechanisms

The fifth session was chaired by **Mr. Kavi Chongkittavorn**, Senior Fellow of ISIS Thailand and Columnist of Bangkok Post. The first presenter was **Dr. Han Phoumin**, Energy Economist of the Economic Research Institute for ASEAN and East Asia (ERIA). He discussed the driving factors behind the rapid dam construction in the Mekong, possible impacts of such trend, and steps forward. The main driven considerations behind the dam construction tends to be motivated by the economic and commercial energy factor. Regarding the possible impacts, he went through various aspects such as biodiversity of fish species, flagship species- Giant Mekong Catfish, capture fisheries and livelihood, wetlands, environment hotspots, water quality, hydrological flow and water level, sediment transport and river morphology, river bed and bank erosion and salinity intrusion. For ways forward,

Dr. Han recommended the following:

- It is important to understand trans-boundary conflict clearly, i.e. the fish losses and environmental damages which impinge on the “social and food security”. Then it could be effectively managed by reaching consensus that meets the needs of all stakeholders.
- The goal is for all to “win” by having at least some of their needs met. Recognition of this fact undoubtedly led to the Mekong Vision with the sharing of benefits.
- 1995 Agreement includes provisions for resolving possible riparian disputes and is open to all the riparian states.
- Trans-boundary issues in the preferred scenarios required mechanisms suitable to develop trust through MRCS as an honest broker that secure cooperation.
- Some activities are related to improving processes of conflict avoidance and resolution through informal dialogues with a trusted broker or facilitator.
- In this regard, it is important to make sure that the riparian state or group to make the negotiations have equal capacity and skills to understand the trans-boundary issues well.
- Transparency and providing for public consultation are amongst the keys to the success of trans-boundary issues.

- Create an enabling environment for community participation and especially, to enhance the role of women.
- Identifying and monitoring hotspots so that mediation services may be offered early in the process to prevent tensions from leading to conflict.

The next presenter was **Dr. Bradley J. Murg**, Visiting Senior Research Fellow of CICIP and Professor of Political Science and Director of Global Development Studies at the Seattle Pacific University. He raised on the pressing challenges concerning cooperation in the Mekong for the past 25 years by highlighting points including conflicting national interests, the limited understanding about the scope of development by donor states, lack of development plans, as well as lack of cooperation and specialization. When talking about the Mekong, Prof. Murg argued that stakeholders seem to overlook the importance of the river and instead discuss more about other aspects such as corridor connectivity, economic cooperation, and assistance aids competition. Another point that he raised was the context of cooperation in the Mekong. In this part of the world, there is a power asymmetry among itself. There are five developing countries and the upstream country which is China, the world's second largest economy. Another context of the region is that there has been increasing interest by extra-regional powers such as the US, Japan and Korea on their engagement with the region. In this regard, as various official statements and scholarly communities indicated that there is a need of more cooperation and coordination between different initiatives in the Mekong. Prof. Murg opined that cooperation is hard for there is conflicting national interests and priority areas among the Mekong member states as well as increasing power competition between the US and China all over the region. To be able to cooperate, stakeholders need clear rules, guidelines and institutions to manage their relations. So far, only MRC is the most institutionalized framework, having the 1995 MRC Agreement as a core. Concerning MRC, although China is not part of it, it has shown tendency to work with the institution on technical aspects since 2008. However, the turning point was instead of joining the MRC, China opts to create its own initiative known as the LMC. The relevance of MRC has been once again questioned given that China seems to focus more on its own mechanism whilst tangible supports for the institutionalized framework seem not being secured. Prof. Murg raised a scenario that should the MRC lose its relevance, the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) and the LMC as they are among the most institutionalized framework of cooperation in the region. However, this scenario of the absence of a rules-based institution is what not many wishes to see.

The third one was **Dr. Vijay Sakhuja**, Visiting Senior Fellow of CICIP and Former Director of National Maritime Foundation in New Delhi, India. He presented about the Mekong River Management through 4IR (Industrial Revolution). According to his view, Industrial Revolution can build smart resilience in order to manage Mekong River Basin. Artificial Intelligence helps predict and reduce the impact of the future flood. The blockchain can monitor water flows, track discrepancies, preclude vested interests towards a fairer and smarter water system. Unmanned Ariel Vehicle (UAV) and drones can use in river traffic and safety of vessels, pollution and flood response. Underwater Unmanned Vehicle (UUV) can crawl on the riverbed to measure water quality, capture picture of sedimentation as well as identify trash and measure scientific data.

The next presenter was **Ms. Gwen Robinson**, Visiting Senior Research Fellow of CICIP, Senior Research Fellow of ISIS Thailand and Editor-at-Large at Nikkei Asian Review. She began by

presenting the strategic political landscape in the region. China has been trying to push its BRI whilst Japan and the US have been eager to promote their respective Free and Open Indo-Pacific. For Japan and the US, their views on Indo-Pacific are relatively the same on the ground that they are eager to engage with the region and to respond in the wake of increasing power competition. The power competition between the two sides, with China at the one side whilst the US at the other, presents many concerns to the region such as the fear that smaller states have to choose side on top of the current trade war. However, at the same time, with the competition, it can be observed that there have been considerable interests made by extra-regional powers such as Korea, the EU, and Australia to the region which is a welcoming sign. The competition and increasing interests in many ways have shaken some agendas such as the transparent development assistance, diversity of fund, more cooperation and inclusiveness to move forward. The trends seem to play parts in shifting China's thinking about its BRI which used to be mainly focusing on government-to-government and investment projects. There has been increasing momentum that Beijing has started to take more into account as regards public opinions and backlashes in the recipient countries resulted from their investments. China has also started to focus more on soft power projections including humanitarian assistance as well as assistances in healthcare and education. Beijing has shown favorable tendency to cooperate more with the main regional actor, namely Japan, in the investment and cooperation in the third countries. Regardless of the positive prospects of such trends, the power competition remains volatile, and it remains to be seen whether or not all sides are able to reach agreements to place their differences aside and focus more on cooperation.

Lastly, **Prof. Zhang Wei Wei**, Senior Research Fellow of the Global Center for Mekong Studies (GCMS-China Center) of Chinese Institute for International Studies (CIIS) in Beijing, presented about the Future Prospect of Mekong Sub-Regional Cooperation, in which she focused on Lancang Mekong Cooperation. She raised three misperceptions on the Chinese cooperation. First, she denied that China is engaging in a power competition game and tries to dominate the region. She argued that there has been Chinese influence in the Mekong region, but Lancang Cooperation is not a power game. Secondly, China builds dams to destroy the environment of region as she viewed that China has started to cooperate on water resources under Lancang Mekong Cooperation. Another misperception was that China is carrying out debt-trap diplomacy as she explained that China is not the only debt holder in some countries like Sri Lanka, where only 10% of debt belong to China. Lancang Mekong Cooperation (LMC) is an offer of Chinese development experiences in term of infrastructure, foreign direct investment, and industrialization, so on and so forth. Before she concluded her presentation, she offered some principles to overcome the current problems. First, she suggested that the development should be prioritized for the fact that every development has negative sides. Secondly, equal consultation should be held with the Mekong countries. Third, every development should be result-oriented and efficiency. Finally, there should be inclusiveness, where every parties are engaged as well as coordinated.

During the discussion part, there were increasing calls for pushing more environmental issues and data exchanges as important agendas discussed in any Mekong cooperation mechanisms. There were also three main questions raised at that time. First, how can Japan, the US and China can work together in the Mekong? Ms. Gwen Robinson answered that there has not been official trilateral cooperation between the three countries. However, there has been increasing momentum that Japan has been working with China in the third countries. Given that the US

under the Trump Administration seems to decide on the black and white basis, it proves to be difficult for the US institutions to engage in any projects with China, although there are interests to collaborate at the sideline.

Another question was that is it true that China uses the LMC to advance its BRI and foreign policy objective? Prof. Zhang Wei Wei stated that this is the view projected by outsiders, not by China. The country does not adopt ambitious foreign policy like many posit. It only hopes that all countries are able to endeavor in pursuing the development models that they see fit to themselves.

Third question was will China join the MRC? Prof. Zhang stated that she is not a water specialist, and her views in response to the question are purely personal. She said the MRC was originated in 1950s at the period that China then was not China today. Later on, China has seen the importance of cooperating with the MRC. However, as the country has its own priority areas and development agendas, it decides to initiate the LMC that has mandate beyond just water cooperation.

Session V: Open and Free Discussion

The session was chaired by **H.E. Ambassador Pou Sothirak**. Amb. Pou instigated the discussion by synthesizing what had been discussed in the previous sessions of the regional workshop into three points. First, there have been momentums to welcome complementarity in the Mekong cooperation, although there is considerable question doubting whether or not such coordination needs rules. Second, there are increasing views that ASEAN can play important roles in the Mekong. However, so far, limited evidence indicates that some ASEAN member states are enthusiastic about such roles. Third, concerning the Mekong region, scientific approach needs to be more carefully considered to address the issues.

H.E. Mr. Walter Douglas succinctly assured the US' commitment towards the Mekong and welcomed all cooperation mechanisms. He stressed any coordination needs rules in place.

There was a diverse set of questions of various subject matters raised by participants mainly from civil society, think tank and academia communities. Among them were what the model of cooperation in the Mekong would be. Role players shared pool of their views about the question. Both **H.E. Watt Botkosal** and **Mr. Chea Sophearin** indicated their supportive view of having the model of having more rules-based coordination among Mekong cooperation. For **Mr. Brian Eyler** and **Dr. Bradley J. Murg**, they were in agreement to demonstrate that there is a need to drive the voice from the grassroots to the top, rather rely on the waiting from the top-down planning made by the respective governments. Other speakers also shared similar position about the trend and stressed that issues such as environment and human security along the Mekong need to be heavily prioritized.

Another main question was what are the roles of the MRC in the future? Will it be marginalized by the Lancang-Mekong Cooperation (LMC)?

Daw Than Than Htay responded that in the Mekong, there is not only LMC, there are also other Mekong cooperation mechanisms. With regards to the LMC, there are increasing momentums

that the mechanism is striving to be inclusive with other initiatives. **Prof. Murg** agreed parts of Daw Htay's statement. He said that indeed, there has been growing momentum made by the LMC to be inclusive and complement with other mechanisms. However, such efforts have been still in shallow level, particularly on the water governance aspects. There are also arguments that should China be sincere with the inclusiveness of LMC, why the country opts to remain outside of the existing rules-based mechanism, i.e. the MRC to be precised.

Next crucial question was how to have common agenda in the Mekong cooperation mechanisms?

Prof. Zhang Wei Wei stated that it is difficult to have common agenda in the Mekong initiatives given the national agenda of each member state is vastly distinctive. In certain cases, this cannot be easily reconciled. **Ms. Lindsey Ford** thought otherwise. Common agenda in the Mekong, Ms. Ford posited, is possible if there are clear guidelines and principles of cooperation and coordination. In fact, the Mekong states can galvanize the support from ASEAN if they dare to stand up with maritime states in the South China Sea issues. **Dr. Pongphisoot Busbarat** stated that to have more common agenda in the Mekong and ASEAN, the role of think tanks and the engagement with ASEAN maritime states needs to be strengthened and promoted. **Amb. Pou** welcomed the recommendations. However, it is widely understood that the ASEAN maritime states do not see the Mekong as their respective important agenda. **Mr. Sulathin Thiladej** said to have more collective ASEAN actions, more discussions and negotiations among inter-sectorial bodies. Regarding to the LMC, Laos is willing to act as inter-sectorial coordinator.

Another main inquiry was what are the costs of cooperation in the Mekong?

Mr. Brian Eyler responded in brief that there are difficulties in coordinating the cooperation mechanisms in the Mekong. However, it would cost to the Mekong more if all relevant stakeholders decide to do nothing about the situations they are now encountering.

Closing Session

In the wrap up session, **H.E. Amb. Pou Sothirak** shared certain views about how to make LMC inclusive and complement with other existing Mekong mechanisms. He mainly recommended two points: 1/. Create LMC Summit Plus in which expands the LMC Summit to include other representatives from other Mekong mechanisms and 2/. Create LMC Development Bank (LMCDB) which would welcome fund from not only China but other potential financial institutions as well. Amb. Pou then handed the floor to **H.E. Mr. Walter Douglas** to share his concluding impressions. H.E. Douglas stated that the leadership individuals, as indicated in history, have played important roles in contributing to significantly positive changes to the world. In this regard, concerning the Mekong, he demonstrated there should be more pressures exercised on the leadership in the Mekong states to concern more about the region.

In conclusion, H.E. Ambassador Pou Sothirak thanked the US State Department, H.E. Mr. Walter Douglas, the US Embassy in Cambodia, chairpersons, speakers, participants as well as CICP staff before declaring the official end of the regional workshop. The event was concluded in friendly and cordial atmosphere.

ANNEX

WELCOME REMARKS

H.E. Ambassador Pou Sothirak

Executive Director of the Cambodian Institute for Cooperation and Peace

- H.E. Sim Vireak, High Representative of the Ministry of Foreign Affairs and International Cooperation of Cambodia
- H.E. Walter Douglas, Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy in the Bureau of East Asian and Pacific Affairs at the U.S. Department of State
- Mr. Michael Newbill Chargé d' Affaires, US Embassy in Cambodia
- Esteemed Officials from various Ministries of the Royal Government of Cambodia
- Distinguished Members of the Diplomatic Corps, International Organizations and Civil Societies
- Excellencies, Ladies and Gentlemen



First and foremost, on behalf of HRH Samdech Norodom Sirivudh, Chairman and Founder of the Cambodian Institute for Cooperation and Peace, I would like to welcome all of the distinguished participants to this regional workshop on the Future Prospects of the Mekong River.

Since becoming Executive Director of the Cambodian Institute for Cooperation and Peace in 2013, I dedicate myself to bring about critical issues that confront the region for a wider debate, dissect the consequences they may bring, and explore better alternative. And I can assure you that the theme of this regional workshop encapsulates this commitment aptly.

Today, we are gather here in Phnom Penh to discuss the future of the Mekong River and its significant sources to sustain lives for the people who live along side its basin, while hoping to

find sound resolutions to the multitude of challenges that this important River is facing in order to safeguard its continued fundamental role in nurturing livelihoods for people dwelling along its course.

Being the world's 12th longest river and the 7th longest in Asia, the Mekong River has long been regarded as the foundation of economic growth and prosperity in mainland Southeast Asia and it is known to be the most productive fresh water fish in the world, providing constant supply of fish and other resources in the river system. The mighty River provides food, drinking water, irrigation, transport, and energy to more than 70 million people in China, Cambodia, Laos, Myanmar, Vietnam, and Thailand, who live on its basin.

Scientist, scholars, activists, and media have informed us that the River's benefits are now at risk due to inappropriate development of various projects. These ill-conceived schemes of development have the potential to cause destructive damage, if suitable resolutions are not met satisfactory.

Perhaps, one of most crucial trans-boundary challenges related to the Mekong River is the irresponsible building of hydropower stations which could impose adverse effects on many critical issues such as flood and dry spell, environmental degradation, social relocation, diminishing of fish stock and food security, just to name a few.

Due to their massive size and huge storage capacity, some of these dams have been considered to be a real threat to the livelihoods and can seriously jeopardize the whole environment due to landslide, deforestation, reduction of sediment and degradation of the overall ecosystem of the Mekong River as well as inflict serious and complex impacts on downstream areas with visible consequences affecting the river flows, biodiversity, and riparian livelihood.

Fortunately, however, there exist various initiatives giving rise to the prospect of regional collaboration for sustainable development of the Greater Mekong Sub-region.

Up until now, there have been various frameworks such as the Mekong River Commission (MRC), the Lower Mekong Initiative (LMI), the Greater Mekong Sub-Region Cooperation (GMS), the Mekong-Ganga Cooperation (MGC), the Japan Mekong Cooperation, the South Korea-Mekong Cooperation (SKM), the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) and the Lancang-Mekong Cooperation (LMC), all of which represent a catalyst to bring about sound development along the Mekong region.

Notwithstanding this good news, these various initiatives have yet to prove that they can and will function without dispel one another or in dire competition with each other to uplift the wellbeing of all of the inhabitants of the riparian states. They must operate in tune and to be in complementarity with mutual respect of one another to achieve the ultimate objective of narrowing the development gap and promote inclusive and sustainable growth for this part of the region.

Excellencies, Distinguished Participants, Ladies and Gentlemen,

It is with the reasons that this regional workshop is planned for today and tomorrow.

With a poll of credible and knowledgeable speakers from Cambodia, the region and beyond, we will discuss the challenges that continue to impose sever tolls of the Mekong River and explore various solutions to mitigate these impacts on the mighty river. We will also endeavor to deliberate various ways to ensure that existing institutions and frameworks that are designed to promote sustainable development are working in tandem in a more inclusive and supplement manner with one another to enhance regional cooperation to address developmental issues for countries sharing the Mekong River.

This regional workshop aims at inspecting key contemporary concerns related to the future of the Mekong River. The workshop will address salient feature of various mechanisms whose attributions are to render effectiveness and credibility to promote sustainable and inclusive development for all countries situate along the Mekong River.

This workshop comprises four discussion sessions, in addition to a free and open discussion session and to be followed by a wrap-up session at the end.

The first panel session, featuring five prominent speakers, set stage by providing the overviews of the current status and assessment of the Mekong in the geopolitical and institutional context. The speakers will share their perspective on the efficacy or lack thereof as regards to the existing sub-regional institutions with responsibility for the management of the Mekong River based on the principle of good governance and in the context of great power competition in the region.

The second panel session places the emphasis on the diversity of perspectives at national level of CLMTV countries and look at opportunities and challenges of the respective Mekong Cooperation mechanisms. There will be five credible speakers from Cambodia, Laos PDR, Myanmar, Thailand and Vietnam who will give their views in their own countries perspective and provide their opinion about the future intra-regional cooperation and coordination with all the existing Mekong mechanism in the short to medium terms.

The third panel session deals with the environmental, sustainability, and human security aspects of the Mekong. For this panel, four outstanding national and international speakers are selected to examine the primary concern of the Mekong River itself which include the environmental, sustainability, and human security aspects, focusing particular attention to threats and sustainability of the development of hydropower along the river both in upstream states as well as within the downstream states. They are also expected to touch upon what steps are needed to resolve existing threats to the river's ecosystem and biodiversity, the importance of the Mekong in providing livelihood and economic roles of the Mekong and the various challenges that it confronts.

The fourth session will open at the second day of the conference by looking at the future prospect of the river as regards defining action areas that are particularly time sensitive as well as more closely examining the dynamics of shared governance. Five outstanding panelists will address

such questions as: What are the main problems at present and what needs to be done in the short and medium terms to resolve these issues? What are the interests and roles of the diverse stakeholders along the Mekong River? What role can civil society play in supporting the sustainability of the Mekong? and How can collaboration among all stakeholders be made more effective?

Following that panel, there will be a free and open discussion before the wrap-up session for all participants to contribute to the overall theme of this regional workshop. I will be privileged to share these last two sessions. I am very much looking forward to hearing good ideas and bold propositions from all the participants of this workshop to achieve the objective laid down by this workshop. Therefore, please do not hesitate to give me your frank views, comments, and suggestions.

Excellencies, Distinguished Participants, Ladies and Gentlemen,

Before closing my remarks, please allow me to take this opportunity to recognize the important presence of our distinguished guests of honor.

First, I would like to acknowledge the presence of H.E. Sim Vireak, High Representative of H.E. Prak Sokhonn, Deputy Prime Minister and Minister of the Ministry of Foreign Affairs and International Cooperation of Cambodia for acceding to deliver a keynote address despite his busy schedule. His presence today signifies the important attachment given by MOFAIC on issues related to the Mekong and its sub-region. His presence today amplifies the strong support given by the Ministry for this workshop.

Second, I am indeed honored to have the high presence of H.E. Walter Douglas, Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy in the Bureau of East Asian and Pacific Affairs at the U.S. Department of State who has also agreed to give special remarks at this workshop. His being here at this regional conference exemplified the preoccupation given by the US State Department on various issues concerning the Mekong region. His Excellency's presence with us today certainly adds important value to this workshop and we are very much looking forward to hearing your remarks.

I would like to thank Mr. Michael A. Newbill, Chargé d'Affaires of the US Embassy in Cambodia for joining me in giving the opening remarks to provide more contexts which I might unintentionally omit. His presence here today is deeply appreciated and represents a source of encouragement for all of us to make this workshop more worthwhile for a prosperous region.

Last but not least, I would like to also thank all my friend and colleague's speakers and chairpersons of the workshop for traveling to the Kingdom of Wonder to share their rich perspectives on this important regional workshop. I thank all of the distinguished local participants and the distinguished guest for taking their valuable time to attend this event.

Most importantly, I would like to express my Institute's gratitude to the U.S. Embassy in Cambodia for partnering with my Institute and for supporting this regional workshop. Without the valuable contribution from the U.S. Embassy here in Phnom Penh, this event would not have been possible.

Finally, I sincerely hope that the deliberation of this region's workshop will bring about a clearer picture, encourage wider debate, and provide more comprehensive policy recommendations as to the political, social, environmental, and human security issues connected to the Mekong River and its regional development in both short and long-term tenure. I shall look forward to actively engaging with all of you and thank you very much for your kind attentions.

OPENING REMARKS

Mr. Michael A. Newbill
Chargé d’Affaires of the US Embassy in Cambodia

- Excellency Pou Sothirak, Executive Director of Cambodia Institute for Peace and Cooperation (CICP).
- Excellency Sim Vireak, Advisor to the Ministry of Foreign Affairs and International Cooperation
- Department of State Deputy Assistant Secretary Mr. Walter Douglas

Good morning everyone! It is my pleasure to join you today.

As our Senior Bureau Official (and nominee to be Ambassador to Cambodia) Patrick Murphy recently said, 2019 is a real milestone in our engagement with the Mekong region. This year marks the 10th Anniversary of the Lower Mekong Initiative (LMI), which was launched in Phuket in 2009. We see our engagement with the Mekong as an integral part of our Indo-Pacific Strategy, and of our broad efforts to support ASEAN, including through the Initiative for ASEAN integration, which aims to close the development gap between countries and bolster regional unity. I’d like to thank CICP for hosting this important regional workshop, and providing an open forum for regional thinkers to exchange ideas on how to best maintain and manage the wonderful resource that is the “mighty” Mekong river.

Today’s focus on the Mekong is both timely and relevant. The Mekong region is strategically important to the United States. It is home to U.S. treaty ally Thailand, and our increasingly vital partner Vietnam – countries that together are the 2019 and 2020 Chairs of ASEAN. With Laos, Myanmar, and Cambodia, it is also a neighborhood of fast-growing economies that face challenges of governance, and vulnerability to external economic pressures.



We approach the Mekong guided by the principles that have underpinned prosperity across the Indo-Pacific for decades, and which are at the core of our regional strategy: a commitment to sovereignty, transparency, good governance, ASEAN centrality, and a rules-based order with respect for international law.

U.S. economic ties run deep in the Mekong region, with total investment of \$17 billion in 2017. Two-way trade stood at \$109 billion in 2018. Millions of Americans derive their heritage from these countries, and make up an invaluable part of our society. Over the last 10 years, U.S. agencies have also provided over \$3.8 billion in assistance to the countries of the Mekong. Over 33,000 students from the five Mekong countries were enrolled in U.S. colleges and universities last year – a rise of 16 percent. And over 72,000 of the region’s brightest youth are now part of our Young Southeast Asian Leaders Initiative (YSEALI).

In the last two years, shifting geo-political dynamics have begun to pose major new challenges. We have seen the growth of debt dependency; disproportionate control over dozens of upstream dams by a single nation; plans to blast and dredge riverbeds; the erosion of existing river governance; extraterritorial river patrols; and the spread of transnational crime and trafficking – in narcotics, people, and wildlife. All these trends pose risks to the autonomy, economic independence, and water, energy, and food security across the Mekong region.

The United States, along with many other nations, is concerned about this situation. We see our engagement with the Mekong region as an integral part of our Indo-Pacific Strategy, and part of our broader efforts to support ASEAN, including through the Initiative for ASEAN Integration, which aims to close the development gap and bolster regional unity.

We sincerely hope that this workshop will provide a forum to discuss these issues openly and critically – because they are critically important for the livelihoods of the populations of these five countries.

I believe that Walter will talk about the larger view of the Indo-Pacific Strategy, but I would like to talk about how the United States government is looking at these issues with regards to the Mekong River, and about some of our initiatives in Cambodia. We want our collaboration under the LMI to help address transboundary challenges and support our Mekong partners in making a meaningful, positive impact on the livelihoods of their people. We do not seek for the LMI to be in competition with other Mekong cooperation mechanisms. The added value of the LMI – and by extension the Friends of the Lower Mekong – is to be open, responsive, and complementary to other sub-regional frameworks based on similar principles and focused on our comparative advantages.

On transboundary water resources management, our collaborative efforts under the Mekong Water Data Initiative, for which Secretary Pompeo announced \$2 million last year, are making great progress. We expect to have a pilot version of the data access platform available for testing and use within the coming months. In fact, just a few weeks ago, a team from the Army Corps of Engineers was here in Phnom Penh and held a workshop with the Mekong River Committee to train them on this data access platform.

In addition to LMI, we plan a range of other initiatives to expand U.S. engagement with your countries, and partner in addressing trans-boundary challenges. These include an Indo-Pacific Conference on Strengthening Governance of Transboundary Rivers that draws on global best practices; and applying our various economic Indo-Pacific initiatives to energy, infrastructure, and the digital economy of the Mekong region. We are also working to align our efforts in the Mekong more closely with our allies and partners, including Japan, Australia, the ROK, and the EU.

Finally, let me reiterate: in this 10th year of the Lower Mekong Initiative, our efforts in the Mekong are at the heart of our support for a unified ASEAN, and of our principled approach to the Indo-Pacific. And our support of this conference is therefore part of our broader engagement with the five countries of the Lower Mekong, and our effort to promote transparency, sustainability and accountability through our Free and Open Indo-Pacific Strategy. With that, I will let Walter address this strategy further, and one again, I thank you all for attending today.

SPECIAL REMARKS

*H.E. Mr. Walter Douglas
Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy,
East Asian and Pacific Affairs Bureau, U.S. Department of State*

"Where America goes, we seek partnership, not domination."
- Secretary Pompeo at the July 30, 2018 Indo-Pacific Business Forum



What is the Indo-Pacific Strategy?

- President Trump announced the strategy in Da Nang, Vietnam in November 2017.
- The three pillars of the Indo-Pacific Strategy are Economic, Governance, and Security.
- All Indo-Pacific nations must be independent, strong, and satellites to none.
- ASEAN centrality is a cornerstone of the U.S. vision for the Indo-Pacific.
- The values and principles driving our policy – like sovereignty and decisions made free from coercion -- are shared widely by allies and partners in the Indo-Pacific.

Cambodia-Specific Points

- The United States, as well as the international community, has expressed concerns about the political situation in Cambodia.
- Over the past 18 months, we have witnessed democracy unwind, civic space close, and an increasingly co-opted foreign policy.
- The Indo-Pacific Strategy's principles of sovereignty, transparency, and a rules-based order directly complement how Cambodia can improve its bilateral relationships with the United States.
- The United States thinks a more productive bilateral relationship would be of benefit to both countries.
- We hope to see progress regarding our concerns to build a broader partnership.

Economic

- Developing countries in the Indo-Pacific need \$1.7 trillion in infrastructure investment every year (ADB). No government has this much money.
- We are not alone in our focus on the private sector. The greater the embrace of private sector, the greater the economic growth. Look at the opposite. State-dominated and -directed investment results in corruption, unevenly distributed economic growth, and ultimately public backlash.
- No one invests more in the Indo-Pacific than the United States. U.S. FDI more than doubled from 2007 to 2017, reaching \$940 billion. In 2016, U.S. direct investment supported 5.1 million jobs in the Indo-Pacific region.
- Based on consultations with allies and partners, we identified digital economy, infrastructure, and energy as target sectors for development.
- The International Development Finance Corp. will double our development finance to \$60B worldwide.

Governance

- Economies must be open, transparent, and rules-based.
- Infrastructure must not just be built, but maintained. Only transparent contracts at World Bank standards can ensure high-quality projects that last.
- Anything less risks corruption and poor construction as corners are cut. The NYT, the WSJ, the FT and Reuters recently highlighted construction and corruption in secretive projects in Sri Lanka, the Maldives, Malaysia and Ecuador, among others.
- Regional groups like ASEAN, APEC, LMI, and IORA keep standards and transparency high.
- Accountable government practices prevent unsustainable debt, and keep foreign governments from corrupting local officials. See Hambantota Port in Sri Lanka and 1MDB scandal in Malaysia.

Security

- The U.S. provided more than \$500 million dollars in security assistance in FY2018. This includes \$400 million in FMF, more than prior three years combined. Focus on maritime domain awareness, Humanitarian Assistance/Disaster Response, peacekeeping, and countering transnational threats.
- Economic growth depends on sea lanes and airspace remaining free and open.-since we are here discussing the Mekong River, it's important to note that we include all rivers in this as well.

KEYNOTE ADDRESS

“Mapping Mekong Cooperation Complementarities and Policy Implications”

H.E. Mr. Sim Vireak

Advisor to the Ministry of Foreign Affairs and International Cooperation of Cambodia

- Excellency Walter Douglas, Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy,
- Excellency Pou Sothirak, Executive Director of CICP,
- Mr. Michael Newbill, Chargé d'affaires, of the U.S. Embassy,



I convey the best regards from H.E. Deputy Prime Minister Prak Sokhonn, Minister of Foreign Affairs and International Cooperation.

It is a great pleasure for me to address you all here at the Regional Workshop on the Future Prospects of the Mekong River. I extend my appreciation to CICP and the US embassy for organizing this event, which provides opportunities for stakeholders both from Track I and Track II to exchange views on the development of the Mekong region.

As I also wear the hat as a researcher, please expect me to express view that is in between the line of Track 1.5.

My focus today is to elaborate on two keys points. Firstly, the mapping of Mekong cooperation complementarities, which I intend to provide a brief update on various Mekong cooperation

frameworks. Secondly, I would like to present my personal view on policy implications from these complementarities.

Excellencies, Ladies and Gentlemen,

I. Mapping Mekong Cooperation Complementarities

“There is no development without peace and there is no durable peace without development either.”

Our ultimate goal is peace and prosperity. The best way to achieve this goal is to craft a foreign policy that places sustainable economic development at its core. In such spirit, Cambodia aligns our development strategies to take advantage of various flagship initiatives. At the sub-regional level, various Mekong cooperation mechanisms are complementary to Cambodia’s economic diplomacy as well as efforts to bridge development gap, and pursue an inclusive and fully integrated ASEAN Economic Community.

Cambodia always seeks to capitalize from all the Mekong sub-regional cooperation mechanisms, namely: 1) Mekong-Ganga Cooperation (India), 2) Mekong-Japan Cooperation, 3) Mekong-Republic of Korea Cooperation, 4) Lower Mekong Initiatives-LMI (the United States), 5) Mekong-Lancang Cooperation (People’s Republic of China), 6) Greater Mekong Sub-region (GMS), 7) Mekong River Commission (MRC) and 8) the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS).

Cambodia regards all Mekong partners as the key strategic and economic partners in our diversification strategy. Cambodia’s economic development cannot be dissociated with contribution from our partners such as the US, China, Japan, the Republic of Korea, India and other friendly nations in building a sound and strong economy for our people’s enhanced livelihood.

More than being a participant, Cambodia is also playing a leading role in contributing to agenda-setting of various Mekong platforms as host and chair of the high-level meetings.

1) Mekong-Lancang Cooperation (MLC)

For instance, in January 2018, Cambodia chaired the 2nd MLC Leaders’ Meeting in Phnom Penh, which produced the Phnom Penh Declaration and the Five-Year Plan of Action on the Lancang-Mekong Cooperation (2018-2022). Cambodia co-chaired successfully with China this landmark meeting under the theme “Our River of Peace and Sustainable Development” at the important juncture where this new mechanism is moving from the “foundation-laying stage” to an “expansion stage” marked by an ambitious agenda of partnership and cooperation.

As the host and co-chair, Samdech Techo Prime Minister Hun Sen praised the significant achievement of the Mekong region in achieving peaceful co-existence through mutual respect for each other's territorial integrity and sovereignty and non-interference in each other's internal affairs. The latest 4th MLC Foreign Ministers’ Meeting, held in Luang Prabang in December 2018, agreed to concretize the joint building of an MLC Economic Development Belt, to enhance production capacity cooperation through a multi-nation multi-industrial park cooperation,

among others. Cambodia also suggested to conduct study on the possibility to establish the international secretariat in order to ensure effectiveness and efficiency of coordination as well as to create a repository institutional memory keeper.

Since the launch of the LMC Special Fund in 2016, which China has pledged USD 300 million for the region for five years, Cambodia has received a total of 35 projects (approximately 14 million USD) covering a broad scope of cooperation activities in the field of agriculture, tourism, ICT, education and research, water resources, rural development, air connectivity, cultural and religious exchanges.

It is worth to note that MLC mechanism provides the highest level of project ownership for Mekong countries as we can involve directly from the project formulation process until final delivery. These projects are small by design, maximum half a million dollars each, because they are not massive infrastructure projects but their impact for the Mekong Sub-region is significant. They work as the soft infrastructure to complement the hard infrastructure implemented under other bilateral and multilateral schemes. There are also projects that provide scholarships for students from rural areas, making tangible impacts that touch the lives of the people and contribute to the improvement of their well-being.

2) Mekong River Commission (MRC)

In April 2018, Cambodia hosted the 3rd Mekong River Commission (MRC) Summit in Siem Reap. Under the theme “Enhancing Joint Efforts and Partnerships towards the Achievement of the Sustainable Development Goals in the Mekong River Basin”, the Summit reaffirmed the significance of the 1995 Mekong Agreement and the mandate of MRC as a unique treaty-based inter-governmental river basin organisation for Mekong cooperation.

In the planning and strategic framework, the Leaders adopted the Basin Development Strategy based on the Integrated Water Resource Management (IWRM) Principle 2016-2020 and MRC Strategic Plan 2016-2020. Many other sectoral strategies were also approved such as Mekong Adaptation Strategy and Action Plan for Climate Change and Basin-wide Fisheries Management and Development Strategy.

3) Lower Mekong Initiative (LMI)

The Lower Mekong Initiative, which is a cooperation framework between the Mekong countries and the United States, also witnessed a turning point as it recalibrated itself into a platform for policy dialogues to ensure an informed management of resources and sustainable development with good governance. Two inclusive pillars have been developed: 1) the Water, Energy, Food, and Environment Nexus; and 2) Human Development and Connectivity.

Cambodia has been proactive in supporting the mechanism. Cambodia and Thailand successfully co-chaired with the United States on each respective pillar at the First LMI Policy Dialogue in April this year in Bangkok, and Cambodia led the discussion with the US on the strengthening of STEM education in the region.

Cambodia has benefited from many activities under this initiative. LMI has made tangible impacts in terms of strengthening our capacity in managing sustainable infrastructures. Capacity building programs ranging from boosting people's resilience in countering negative effects from extreme weather to promoting water data sharing and enhancing data collection capacity to reduce the risks of floods and droughts are crucial for improving agriculture-led economic growth and food security. Educating and empowering women entrepreneurship, strengthening regional educational institutions and student networks focusing on STEM are other positive contributions that the LMI can rightfully claim, among others.

This year marks the 10th anniversary of the establishment of LMI. The LMI mechanism has matured to become an important tool for the region in addressing many transnational and cross-cutting issues that require collective endeavors to mitigate risks, boost resilience and to ensure that the region is on the right path for sustainable development.

I wish to underline our joint efforts that have led up to the "Joint Statement to Strengthen Water Data Management and Information Sharing in The Lower Mekong" last August 2018. This is one of the important milestones for LMI and the Friends of Lower Mekong in galvanizing efforts to strengthen capacity of Lower Mekong countries and the Mekong River Commission in collecting, analyzing and managing water, land and weather data to mitigate climate-related risks.

At this important juncture of the revitalized LMI, Cambodia also welcomes the US's intention to establish the LMI Public Impact Program. We anticipate that this Program will be strongly supported by concrete funding with enhanced stakeholder support from countries in the region within the project formulation and implementation process.

4) Mekong Japan Cooperation

Now, let me move on the Mekong Japan Cooperation. Last year October, Japan hosted the 10th Mekong-Japan Summit Meeting in Tokyo by unleashing the "Tokyo Strategy 2018 for Mekong-Japan Cooperation" focusing on three pillars namely the vibrant and effective connectivity, people-centered society and the realization of a Green Mekong.

Unlike the "New Tokyo Strategy 2015" in which Japan committed around 750 billion Yen (about 6,821 million US\$) in ODA to the Mekong region for three years (2016-2018), the "Tokyo Strategy 2018" did not provide specific financial pledge. It is worth noting that financial pledge for the Mekong-Japan Cooperation is not an exclusive or standalone package but rather a combination of all Japanese assistance to the region. In the list of projects, there is no clear distinction between bilateral projects, Mekong sub-regional projects, or other multilateral projects.

On top of the hard and soft connectivity, Cambodia has drawn attention to the importance of the "industry connectivity" which was laid out in the Tokyo Strategy 2018. Cambodia strongly encouraged the utilization of the enhanced hard and soft connectivity by private sector by considering the whole Mekong region as their integrated supply and production chain through modalities such as "Thailand+1" or "Vietnam+1", in which Japan's major factories in Thailand or Vietnam outsource downstream production chains to Cambodia to maximize the utilization of different comparative advantages and incentives that each Mekong country can offer.

5) Mekong-Republic of Korea Cooperation

For the Mekong-Republic of Korea Cooperation, the New Southern Policy has served as a major boost to this cooperation framework. Samdech Techo Prime Minister Hun Sen has been the most vocal advocate for the elevation of the Mekong-ROK cooperation to the Summit level. Therefore, Cambodia is pleased that such bold determination was announced at the 8th Mekong-ROK Foreign Ministers' Meeting last year in Singapore.

We are now working hard altogether to provide inputs for tangible goals and directions that our Leaders could announce at the upcoming inaugural Mekong-ROK Summit to be held back-to-back with the 30th ASEAN-ROK Commemorative Summit in November 2019 in Busan. The auspicious celebrations will become a new milestone for our relations and cooperation that will define future path for an upgraded and elevated cooperation.

As part of the New Southern Policy, Cambodia also highly appreciated the state visit of President Moon Jae-in to Cambodia in March this year, which testified the ROK's strong interest and commitment to the deepening of friendship and enhancement of multi-pronged cooperation both in bilateral as well as multilateral framework under the three pillars of "People, Prosperity and Peace".

6) Mekong-Ganga Cooperation (MGC)

Cultural and religious connectivity, agriculture, ICT and education cooperation are the important sectors within the Mekong-Ganga Cooperation, which is the platform between Mekong countries and India.

It is worth to recall that India was the first official development partner of the Mekong sub regional cooperation framework. In MGC, we have adopted the first Plan of Action to Implement Mekong-Ganga Cooperation (2016-2018) marking a concrete step toward the implementation of various cooperation projects in the priority areas, namely tourism, cultural cooperation, education, people-to-people contact, transport and connectivity, ICT, health and agriculture. Over the past years, the MGC framework has succeeded in establishing Entrepreneur Development Centres (EDCs), Center for English Language Trainings (CELTs) and the Vocational Training Centers (VTCs) in various Mekong countries including Cambodia.

As host country of the Traditional Asian Textiles Museum which was inaugurated in 2014 in Siem Reap, Cambodia has made efforts to ensure sustainability of operation by involving private sectors and seek way to ensure profit in the running of the museum with the increasing flow of tourists in Siem Reap.

7) The Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS)

For ACMECS, the consolidation of the ACMECS Master Plan was an important milestone. Starting from the Bagan Declaration in 2003 and the Economic Cooperation Strategy Plan of Action, fast-forward to various revolving Plans of Action, we have come to the point in which we all decided to formulate the ACMECS Master Plan (2019-2023) at the initiative of Thailand. From

specific Plans of Action, we have made a bolder move to put forward a vision that is regionally designed and “home-grown” based on the common achievements as well as trials-and-errors from more than a decade of journey of sub-regional cooperation.

This home-grown vision, I believe, is resulted from the strong spirit of self-reliance and ownership of the sub-region as well as from the interactions among various Mekong sub-regional frameworks that have offered on the one hand complementarities benefiting the region’s development while on the other hand also have presented inevitable pressures from influence competition.

The adoption of the Bangkok Declaration and ACMECS Master Plan last year did send a clear voice to the world that sustainable economic development supported by peace, good neighborliness, and friendship is what the region really wants the most.

Cambodia agreed in principle on the initiative of Thailand on the establishment of the ACMECS Fund, and ACMECS Infrastructure Fund and Trust. It is our task now to deliberate and study more on the mechanism, structure, feasibility, and Terms of References of these Funds. So far, together with the List of Prioritized Projects, we have finalized the List of First Batch of Development Partners and instrument to engage with potential Development Partners to effectively garner financial support. Cambodia will chair the 9th ACMECS Summit in 2020.

8) Greater Mekong Subregion

Vietnam hosted the 6th Greater Mekong Subregion (GMS) Summit in April 2018. The Ha Noi Action Plan (HAP) 2018–2022 was developed to provide necessary adjustment and sharpen the focus to ensure maximum effectiveness of the GMS Economic Cooperation Program. To support the HAP, Regional Investment Framework 2022 was formulated, identifying a pipeline of 227 projects with an indicative cost of USD 66 billion.

The GMS Summit highlighted the 25th anniversary of the establishment of the mechanism and showcased project results arising from strong partnerships among countries, the Asian Development Bank and other development partners through, among others, the Regional Investment Framework (RIF). Cambodia will be the next chairman of the 7th GMS Summit in 2020.

II. Policy Implications

Thus, from such robust activities and engagements, what implications can be drawn?

First and foremost, we can all agree that the multilateralism is still alive. Countries still deem opportunities to interact and cooperate as fundamental to promote dialogue for peace and cooperation for sustainable development. Sustainable peace and development remains the core collective interest for all of us, especially for post-war zone like the Mekong region.

Now that the Mekong sub-region is an integral part of the ASEAN Community and even a center of the global growth engine, it is worthy to note that we did not come thus far by succumbing to

the “zero-sum game mindset”, but instead we have consistently adhered to win-win cooperation and multilateralism approach anchored by a strong spirit of mutual trust, respect and equality.

With all our Mekong countries partners we have combined force to prove that engaging in cooperative multilateralism can served the region well and we should continue to do so for the future to come.

Secondly, except for unique functioning of the MRC, it would be a misunderstanding that the Mekong cooperation is confined to water resources cooperation. In fact, most of the Mekong cooperation mechanisms are sort of common diplomatic platform for engagement between the Mekong nations and regional powers on a wide range of priority areas. It is possible to say that the Mekong mechanism is a "clustering factor" of development efforts of all the Mekong countries across many fields.

Thirdly, as many Mekong frameworks continue to evolve, uniqueness of each mechanism starts to emerge and they have complimented one another from their own individual specialty and values added. For instance, no mechanism is going to replace the technical expertise on water data that has been excelled by the MRC and no other mechanism is going to best capitalize on the strength of the economic corridors that have been developed under the GMS either. This is also true for specific development partners as they seek to carve their own niche in their interaction with the Mekong countries.

Fourthly, the fact that there are many Mekong cooperation frameworks means that there are many external partners, who are interested in the region. This is a good point for good reason. With an annual growth rate of up to 7%, the Mekong countries shines brightly and the region has been considered as one of the main driving forces behind regional and global economic growth. Economies now constitute a consumer and labor market of over 300 million people, with rising incomes and a combined GDP that could exceed \$1 trillion by 2020.

On the other hand, having many Mekong frameworks also means that tangible and concrete funding for cooperation is not something that is always readily available. Therefore, countries in the region need to find alternatives for diversified sources. Moreover, when it comes to the issues of ownership and stakeholdership, it is fair to say that Mekong countries don't want to be inactive and passive by listening to reports of completed projects without any involvement in any process of project formulation and delivery.

As the development challenges are too huge, it is the role of the Mekong countries to encourage healthy competition among development partners mindful that cooperation and complementarity should be the core spirit instead of the “zero-sum mindset” or strategic division and confrontation. The Mekong countries are mindful that Mekong platforms should not be politicized or become an arena to push for anti-China, anti-US, anti-Japan, anti-Korea, anti-India polarization or fall prey to geopolitical consequences that are the remembrances of the recent past.

Finally, as various Mekong frameworks continue to evolve robustly, I wish to underline that Cambodia is proud that we could play a role in setting the agenda for the development of the

Mekong region by actively engaging as a host and co-chair of various platforms. For future to come, Cambodia is highly and consistently committed to push further the above endeavors for the best interest of sustainable peace, sustainable development and shared prosperity for peoples in the region.

On that note, I wish to conclude my remark by expressing my sincere hope that today's regional workshop will be crowned with great substantive successes.

**REMARKS by H.E Ambassador Pou Sothirak,
Executive Director of the Cambodian Institute for Cooperation and Peace**

**During the Special Inaugural Launching of
the Journal of Greater Mekong Studies (JGMS)**



Excellencies, Distinguished Guests, Ladies and Gentlemen

Professor Milton Osborne, a prominent scholar and expert on the Mekong River, once said that the mighty river is *“an endless source of fascination, but a course of deep concern of its future”*.

Like Prof. Milton Osborn in many way, I find the mighty Mekong River possess a captivating beauty unmatched when compare with other great Rivers.

The Mekong River is one of the travelers’ most attracting mystical frontiers because of its stunning and spectacular natural beauty and unexceptional experiences like cruising down the Mekong, visiting the fantastic temples, trekking through the jungle, and appreciating thousand year olds culture and unique ways of life of the local inhabitants. Once you are traveling up and down the Mekong River stream, you fell an unforgettable experience.

Beside this rare attribution, the Mekong River is the most important source of life, feeding and nurturing well over 70 million inhabitants with food and nutrition and represent fertile ground for wild-life, fish and rich ecology mother nature has to offer.

However, if you read the latest book titled “the Last Day of the Mighty Mekong” by Brian Eyster, a renowned scholar and an expert on transboundary issues in the Mekong region, you notice that the River is now undergoing profound changes fill with predictable studies that describe dire future for the river system affecting people who rely on its resource for livelihoods due to the persistently ill-conceived development projects that have mushroomed on its mainstream and tributaries.

Excellencies, Distinguished Guests, Ladies and Gentlemen

I would like to welcome you to the Special Inaugural Launching of the Journal of Greater Mekong Studies (JGMS). The Journal is a new initiative set forth by my Institute, the Cambodian Institute for Cooperation and Peace.

The logic behind this publication have to do with the endeavor to better understand the various sub-regional institutional arrangements which have become the international spotlight on the region as a site of geopolitical rivalry between and among the major powers amid crucial shifts in the global power balance and to gain deeper appreciation of the dynamic that drive the development of Mekong River with regard to the sub-regional economic integration and cross-border infrastructure development as well as to become fully aware of the impact, both positive and negative, of massive new investment and aid programs funded by various development partners of states within mainland Southeast Asia.

The Journal of Greater Mekong Studies strive to fill in a significant gap in policy-oriented literatures with other analysis and study of the Greater Mekong Sub-region which has expanded in recent years in step with significant economic growth and investment that has led to many new challenges and opportunities in the area.

The key focus of the Journal is given to policy-oriented scholarly research examining the social, environmental, economic and developmental aspects of the Mekong River on specific topic such as agriculture, fisheries, nutrition, climate change, energy, human security and any other confronting issues within the Greater Mekong sub-region as a whole.

Bringing together CICP’s unique global network of scholars and policy analysts who specialize in the region and with the support from its well qualified editorial board, this journal aims to stimulate discussion and help to shape policy decisions being taken in capitals across the globe that affect the Greater Mekong region. At the same time, this journal will present a unique opportunity to facilitate new relationships and fresh discussions between academics, analysts, civil society and governments, and to cast new light on the political, economic and security questions confronting the region today.

The Journal of Greater Mekong Studies will be published on a biannual basis, as well as updates and new material in online format throughout the year in order to reach as wide an audience as possible. The journal could include a book review section highlighting recent developments in relevant scholarly literature. The journal will also devote space to shorter form, op-ed style articles examining the salient contemporary policy questions confronting the region and its people. Initially, CICP plans to focus on regional specialists and contributors – providing a new

outlet to Mekong-sub-region policy analysts from Cambodia, China, Laos, Myanmar, Thailand and Vietnam. In the medium term, the journal aims to expand to include contributions from scholars and policy experts across the globe with an interest in the Greater Mekong Sub-region.

For this first publication, as readers, you will find eminent scholars and regional experts share their rich and knowledgeable perspective addressing diverse challenges facing the Greater Mekong Sub-region today. As such I would like to take this opportunity to thank all the contributors for their valuable contributions. Especially, I would like to thank Dr. Milton Osborne, Editorial Board Advisor of the Journal who has agreed to give an insightful Introductory Message. I also like thank my dear friend, H.E. Dr. Sok Siphana, Senior Advisor to the Royal Government of Cambodia for providing an intuitive Special Forward.

It is with fervent obligation that I would like to announce that the Journal of Greater Mekong Studies is made possible for the first two years with a generous grant made available by the U.S. Department of State in Washington DC., represented here by H.E. Walter Douglas, Deputy Assistant Secretary of State for Public Affairs and Public Diplomacy in the Bureau of East Asian and Pacific Affairs at the U.S. Department of State. I would like express our heartfelt appreciation to you, Sir, and to the U.S. Department of State for your strong and kind support for our Journal.

It is my honored now to call upon Mr. Michael Newbill, Chargé d'Affaires, US Embassy in Cambodia to say a few words about the launching of this Journal.

MEKONG RIVER COMMISSION AS AN INTER-GOVERNMENTAL ORGANIZATION TO SUPPORT SUSTAINABLE MANAGEMENT AND DEVELOPMENT OF THE MEKONG RIVER

Mr. Sophearin Chea

Water Policy Expert, Mekong River Commission Secretariat



Abstract

The Mekong River is the world's 12th longest river, flowing for almost 4,763km through China, Myanmar, Lao PDR, Thailand, Cambodia, and Viet Nam. Its basin with an area of 810,000 km² is the world's 21st largest, and hosts around 65 million people. Population growth and demand to support rapid economic growth in each riparian country put a lot of pressures on Mekong water and its resources such as change of river flow, reduction in sediment, loss of wetlands, pressures on fisheries and other habitats, as well as river ecology. These pressures have been aggravated by impacts of climate change.

The Mekong River Commission (MRC), an inter-governmental organization established in 1995 by the governments of Cambodia, Lao PDR, Thailand and Viet Nam is mandated to promote cooperation in management and development of the Mekong River System for benefits of all basin countries. Although with long history of cooperation with its predecessor - the so-called Mekong Committee - dated back in 1950s, the MRC is currently still exploring ways how to promote and strengthen itself to be more effective regional institution to support Member Countries in realizing their potential but sustainable development, as well as to get compromise over national and basin trade-offs.

This paper¹ consists of three parts. It begins with current status of the Mekong River. Then, it describes overall opportunities of and challenges the Mekong River is facing from water use and development. And the last part will explore how the MRC positions itself as a Mekong regional mechanism in and what should it be strengthened to keep its relevance and be an honest and capable broker in supporting development and management of the Mekong River System.

I. Current Status of the Mekong River System

The Mekong River is the world's 12th longest river, flowing for almost 4,763km from the Himalayas in China at an elevation of about 5,000m, where it is known as the Lancang River through Myanmar, Lao PDR, Thailand and Cambodia into the East Sea (referred to also as the

¹ Data and information in this paper are extract from a number of the MRC documents, namely the State of the Basin Report 2018 (to be published soon), the Strategic Plan 2016-2020, and the Basin Development Strategy 2016-2020.

South China Sea) in Viet Nam. It has the world's 8th largest flow, with a mean annual discharge of approximately 446km³, and its basin is the world's 21st largest by area, draining 810,000km².

There are approximately 65 million people living within the LMB. Thailand and Viet Nam account for a little over a third of the population in the LMB each, Cambodia a fifth and Lao PDR the remainder.

The contribution of the basin countries to the annual discharge is: China 17%, Myanmar <1%, Lao PDR 41%, Thailand 15%, Cambodia 19% and Viet Nam 8%. The flow from the Lancang-Upper Mekong basin contributes 18% of the average annual flow in the LMB, but up to 40% of dry season flow.

Water flow monitoring records suggest that there is a clear indication of increased average dry season flows as a consequence of the recently completed new storage dams in China. But at the same time, the uncoordinated operation of storage dams would cause negative impacts such as delay of the flood onset due to dam filling and unexpected flow changes in the dry season, which would impact the Tonle Sap and the delta.

Water quality in the mainstream is relatively stable and still meets the agreed minimum standards in all but a few locations around urban centres, including the densely populated Mekong delta. Growing population, increasing industrial activity, and the potential increase of the use of agro-chemicals in agriculture may result in increased pollutant loads in the Mekong basin.

The Mekong River system hosts one of the most diverse and prolific freshwater capture **fisheries** in the world. A recent review of MRC monitoring programme data and other studies from multiple sources estimated there are 1,148 fish species in the Mekong Basin, making the LMB one of the places with the highest fish biodiversity per square kilometre in the world. Estimates made of capture fisheries production in the LMB range from 0.9 to 2.1 million tons per year. This valuable resource is threatened by overfishing, the use of destructive fishing gear, agricultural and industrial water use, habitat fragmentation and loss of riverine connectivity from dams, roads, drains, canals, and barrages.

Sediment trapping and sand mining throughout the Mekong basin have resulted in a major reduction in sediment loads. A valuable resource for the construction sector, the incidence of gravel and sand mining from the mainstream has also greatly increased in most parts of the LMB. The major resulting changes in sediment loads are expected to impact on the morphology of the river and the delta's coast line.

Salt water intrusion in the lower Mekong delta is known to extend more than 50km inland during the dry season and close to 2 million ha of land are affected by this. Salinity is a serious constraint to agriculture and rice yields are negatively affected by high salinity levels.

The LMB **wetlands** are important hotspots of biodiversity and play an important role in the economy, society and culture of the region. With population growth there have been impacts on wetlands with reclamation and conversion to rice fields, increased urban runoff, increased

riverine navigation, intensification of agriculture and aquaculture with increased use of fertilizer and pesticide and increased discharge of urban waste water.

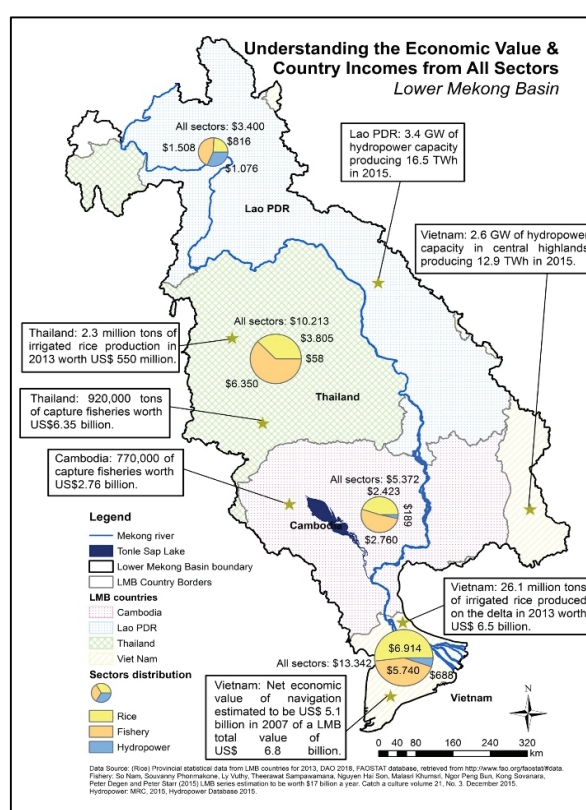
The Mekong basin is expected to be significantly affected by **climate change**. Results of long-term climate model projections under various emission scenarios indicate that temperatures will increase and sea level rise, while changes in rainfall and run-off may increase or decrease, depending on location within the basin. The predicted changes in rainfall and temperature could cause greater variability in the hydrological regime of the Mekong.

II. Opportunities and challenges faced by Mekong River

1. Opportunities

It is expected that water will be more available during dry season. This in combination with food security demand expansion of land for **irrigation** is still a potential in the Mekong. Irrigated agriculture is the main water user in the basin. It has grown from virtually nil in the 1950's to in excess of 5.7 million hectares (Mha) in 2013 (nearly 80% of which is in Viet Nam), with a total economic value of US\$ 7.7 billion per year.

The Mekong basin has considerable potential for **hydropower development**, serving both domestic and export markets, enhancing both regional economic integration and energy security. By 2015, 59 hydropower projects of between 1 MW and 4,200 MW had been developed in the LMB with a total installed capacity of 10,017 MW, representing some 35% of the total estimated technical hydropower potential for the LMB. The gross economic value of hydropower production has increased from US\$ 0.55 billion per year in 2005 to over US\$ 2 billion in 2015.



The Mekong River has long been an important **inland waterway for cargo and passenger transport** between the numerous riverine communities along the Mekong. In addition, the river has also emerged as an increasingly important international trade route connecting the six riparian states. The cargo in 2007 was worth US\$ 6.8 billion annually. The IWT cargo has since risen to 23 million tons in 2014. Over the same period, total passenger numbers have risen from 37.6 million annual to 69.4 million, over 800,000 of whom were tourists.

Sand mining in the LMB is extensive and provides a critical input into construction and industrial sectors. Extraction of sand in the region has increased rapidly with the increased demand, much having been driven by infrastructure upgrading on the delta, as well as for export to regional markets. Data for sand and sediment mining activities in the basin is not systematically collected, but the sector is believed to be worth in the order of US\$ 175 million annually.

Annual **capture fisheries** of 2.3 million tonnes was calculated at about US\$ 11.2 billion, representing about 65% of the total value of all types of fisheries production. The economic value of reservoir fisheries is significantly lower based on a yield of 230,000 ton annually worth US\$1.2 billion in 2015, up from US\$ 0.7 billion in 2010.

Overall, in aggregate, the annual economic value of the water-related sectors is almost **US\$ 35 billion per year**, excluding tourism and forestry.

2. Challenges

Fast growing economies of the Mekong Region demand extensive water resources development. Although the water resources development enhances regional energy security and agriculture production, it puts direct pressure on the natural flow regime and biodiversity of the Mekong.

Environmental degradation from developments in water and (non-water) sectors: MRC scenario and other assessments show that on-going degradation of water quality, fisheries, biodiversity, wetlands and environmental assets is likely to continue with developments not only in the water sectors (intensive agriculture and aquaculture, hydropower and irrigation dams, flood control work, sand mining and navigation dredging, etc.) but beyond (e.g. industrialisation, urbanisation, deforestation, etc.).

Hydropower developments in the Upper and Lower Basin: Further anticipated development of hydropower has the potential to bring about large and transformative benefits, especially for the poorer countries in the region, but may also lead to significant costs and risks especially to capture fisheries and sediment if not properly managed.

River bank and coastal erosion is seen as a large and growing problem in some river stretches and in the delta, where it has been estimated that 500 ha of land is being lost annually, worth about US\$ 12.5 million per year.

Flood damages is annually reported by the Member Countries for the Annual Mekong Flood Reports. Data for 2010-2014 shows that the annual cost varied between US\$ 0.02 billion (2012) up to US\$ 0.5 billion (2011), with an average of this 5-year period of US\$ 0.2 billion per year.

It is also a rapidly changing river because of its contribution to the rapid economic development of the basin countries, but also as a consequence of this development on the river itself, including the impacts of increasing population, urbanisation and industrialisation. Adding to these on-going changes are uncertain futures, particularly as a consequence of **climate change**. An increase

in the risk of both **flooding and drought** is expected, with low-lying areas downstream particularly at risk.

III. MRC as Mekong Regional Mechanism for sustainable development and management of the Mekong River System

1. From Mekong Consultative Committee to Mekong River Commission

Development planning of the Lower Mekong Basin dates from 1952 when the UN Economic Commission for Asia and the Far East (ECAFE – now ESCAP) presented a first report on flood control and water resources development. In 1957, drawing on an ECAFE report on “Development of Water Resources in the Lower Mekong Basin”, the four LMB governments issued a Joint Declaration that led to establishment of the Mekong Committee under a “Statute of the Committee for Coordination of Investigations of the Lower Mekong Basin”.

The Mekong Committee remained the central institution for LMB cooperation for the next 37 years. The Committee was heavily supported by the United Nations and other countries throughout this period. The Committee, which changed its name in 1965 to the “Committee for Coordination of Comprehensive Development of the LMB”, oversaw implementation of extensive studies and preparation of several plans for the lower basin. By 1975 the Committee was able to sign a “Declaration of Principles” with robust rules, particularly on mainstream development. However, Thailand did not uphold the declaration due to its intention to irrigate its northeast part with Mekong water.

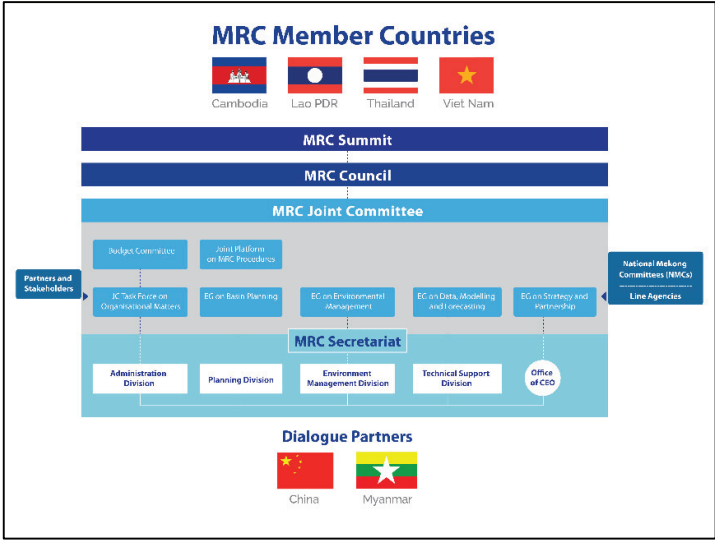
Internal conflict within Cambodia in 1976 led to the country’s disengagement from the Mekong Committee for 14 years, during which time the other three countries established an Interim Mekong Committee as a holding measure. Following the Paris peace agreement of 1991 in Cambodia, negotiations between the four countries began in 1994 for a new agreement. Finally, the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin was signed in 1995 (the 1995 Mekong Agreement).

The 1995 Mekong Agreement also established the Mekong River Commission (MRC) with the purpose of promoting cooperation in the management and development of the water and related resources of the Mekong River Basin to achieve the full potential of sustainable benefits to all basin countries. China and Myanmar, who share the basin as well, are dialogue partners of MRC and are increasingly engaged in discussions about the future management of the basin.

2. Mekong River Commission

The Mekong River Commission is an inter-governmental organization with the mandate to implement the 1995 Mekong Agreement and the projects, programmes and activities taken thereunder in cooperation and coordination with each member and the international community, and to address and solve related issues and problems.

The MRC has three core functions namely: 1) Secretariat, Administrative and Management Functions; 2) Core River Basin Management Functions – CRBMF (Data acquisition; exchange and Monitoring, Analysis, modelling and assessment; Planning support; Forecasting, warning, and emergency; and Implementation of the five MRC Procedures); and 3) Consulting and Advisory services.



Under the Agreement, the MRC has three principal organs: the MRC Council, Joint Committee, and the Secretariat. To manage Mekong affairs internally and to facilitate Mekong cooperation, each Member Country has established a National Mekong Committee (NMC), comprising representatives of the relevant major line/implementing agencies in each country and supported by a secretariat (NMCS). The MRC works with its dialogue partners, development partners, and wider stakeholders.

Summit of Heads of Government: Although, the 1996 Mekong Agreement did not specifically state about the Summit, but this four-yearly Summit of Heads of Government, was organized since 2010. It is the highest political forum of the MRC whereby outcomes of cooperation are assessed as well as direction for the following four years for the Commission and Mekong cooperation is set. The last, Third Summit was organized in April 2018.

MRC Council: As the highest decision-making body in the MRC, the Council makes policies and decisions on all policy-related matters concerning implementation, including organizational policies, basin-wide strategies and plans, strategic cooperation partnerships, and resolution of differences. The Council provides strategic guidance on priority setting, and in that connection, considers and approves the Annual Work Plans (including annual budgets) based on recommendations from the Joint Committee. The MRC Council is composed of one member from each Member Country at the ministerial and cabinet level with no less than vice minister level.

MRC Joint Committee: The Joint Committee steers the implementation of the Strategic Plan and oversees overall implementation. This role includes technical priority setting and guidance, considering and endorsing policy-related resolutions for submission to the Council for approval. The Joint Committee discusses and considers policy, technical and organizational management issues arising during the implementation of the Strategic Plan. They provide guidance, reviews

and advises on the preparation of the Annual Work Plan, covering both definition of annual activities and allocation of annual budgets. They can establish and be assisted by Task Forces, Working Groups or similar arrangements in providing technical expert inputs and advice on certain policy-related issues. It is composed of one member from each Member Country at no less than head of department level.

MRC Secretariat: As the administrative and technical arm of the MRC, the MRC Secretariat facilitates regional discussion, negotiation and communication, provides technical and advisory support on regional and basin-wide issues, and undertakes the Strategic Plan's activities in cooperation with national counterparts.

National Mekong Committees (and line/implementing agencies): In each Member Country, line and implementing agencies in water and related sectors as well as those relevant to Mekong cooperation are members of a National Mekong Committee (NMC), supported by a Secretariat, that performs cross-sectoral, cross-agency coordination, communication and reporting. The NMC Secretariats are located in the ministry responsible for water and/or environment and play a key role in promoting, supporting and overseeing implementation in their respective countries. Relevant line and implementing agencies lead the technical implementation of agreed national level activities that contribute to MRC's outcomes.

Dialogue Partners: China, Myanmar are dialogue partners of the MRC. Taking a "whole basin" approach cooperation with the upper riparian countries has also been enhanced. China and Myanmar have demonstrated an increasing commitment to cooperation, including sharing data and information and conducting joint activities.

Development Partners: MRC's Development Partners (DPs) are an important asset in a number of respects: as a key source of funding for mission-critical activities; as a source of support for priority-setting led by MRC's Member Countries and subsequent implementation; as a channel to relay both MRC recommendations to stakeholders and stakeholder feedback to the MRC; and through their contribution to MRC performance, by requiring accountability for the effective use of DP funds.

External stakeholder engagement: enhanced engagement with broader partners and stakeholders is one of the key aspects of MRC focus. In recent years, the MRC has strengthened its work with civil society organizations, research institutes, think-tank organizations in order to promote and to strengthen their works.

3. Keeping MRC relevant and reliable

Taking into account the opportunities to develop while considering sustainable development, the MRC has been trying to fulfill its mission and strengthen itself in assisting in the promotion of interdependent sub-regional growth and cooperation and to provide an adequate, efficient and functional joint organizational structure to implement the 1995 Mekong Agreement. Below section describes what the MRC should do to keep her relevant and reliable for Mekong cooperation.

Better monitoring and communication of the Basin conditions: The MRC will need to improve its current monitoring and forecasting systems as well as its modelling tools and capability. The data and information routinely and periodically assembled will be maintained in regional databases and publicly shared through the MRC's web-based Data Portal. Coordinated and timely communication network to link with the disaster management focal points in each country to support transboundary incident including pollution, incident alert, mitigation and response will need to be strengthened. Capacity in making reliable forecast and prediction on water flow, flooding and drought needed to be enhanced so that it can support Member Countries with adequate measures to avoid and mitigate the impacts of the incidents.

Improving Implementation of the MRC Procedures, Strategies and Guidelines: Within the MRC, five sets of Procedures have been approved to manage the basin in a cooperative way. The intent of the Procedures and their supporting guidelines is to provide a systematic and uniform process for implementation of the 1995 Mekong Agreement by the MRC and Member Countries.

In addition to the approved Procedures, many strategies and guidelines have been finalised or under formulation by the MRC through working closely with the Member Countries related to fishery management, sustainable hydropower, Preliminary Design Guidance on Mainstream Hydropower, the Transboundary Environmental Impact Assessment (TbEIA) etc. Use and application of these MRC strategies and guidelines require effective promotion and dissemination. The MRC Secretariat need to work closely with National Mekong Committee (NMC) Secretariats to ensure these knowledge products engage effectively with national policy processes that can assist decision-makers in Member Countries ongoing and planned investments in the basin.

Strengthening regional cooperation and wider engagement: The engagement and cooperation needed between a wide range of stakeholders to realize fully the potential benefits for the basin. Cooperation between the MRC Members and Dialogue Partners (China and Myanmar) is central to developing and managing the Mekong *as one river*. Partnership with other regional cooperation framework like ASEAN, GMS, Lancang-Mekong Cooperation will need to be reviewed and leveraged.

Understanding usefulness of different stakeholders' perspectives, MRC will strengthen relationships of member governments with a broader range of actors: the private sector, civil society, research organizations and other river basin organizations through its established Regional Stakeholder Platform with aims at promoting common understanding of the evidence base relating to the basin; nurturing greater understanding of the role and benefits of MRC Procedures and other knowledge products; as well as providing a forum for substantive involvement in the assessment of scenarios and projects and development of basin-wide strategies and guidelines and provide recommendations to political decision makers.

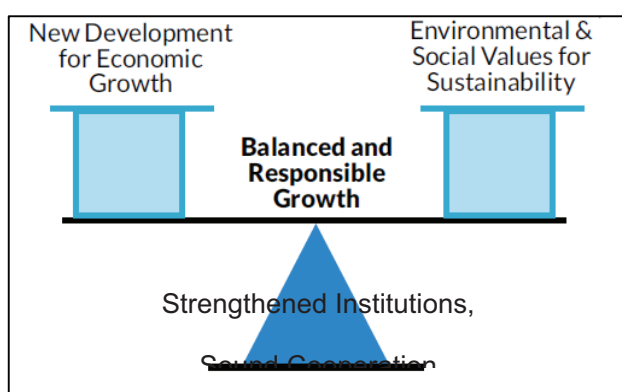
Managing trade-off and cost and benefit sharing: The MRC should adopt a more proactive stance to basin planning as mandated by Art. 24 of the Mekong Agreement to allow itself to work with all Member Countries and significant stakeholders to create platforms to discuss benefit sharing and trade-off between national development plans and thereby to determine the best

ways by which to develop the basin given the current circumstances and the legitimate aims and concerns of each Member Country.

The potential for increased regional cost and benefit sharing in all sectors has been identified through the promotion of both “national projects of basin-wide significance” (which expand development opportunities within the basin) and “joint projects” (projects involving two or more countries to address issues and opportunities that each country alone could less effectively do). These projects are now seen as central to building cooperation and promoting greater regional interdependence.

Being honest and capable facilitator in water diplomacy: As a technical and knowledge body, MRC will need to play role of a honest facilitator on which people in the basin countries can rely on to provide scientific and even-handed information and advice on technical aspects, and to pro-actively facilitate solutions and agreements. Such a facilitator would also be able to table mechanism and projects for cost and benefit sharing that will represent a reasonable and fair outcome for all countries. Facing emerging challenges in the Mekong, the MRC would need to be more empowered to provide independent recommendations to support dialogue and negotiation between Member Countries.

Conclusion



The Mekong River System is still home to many species and rich of biodiversity. Current status of its water flow and quality is acceptable in most parts of the River. There is still a lot of potentials for development in many water-related sectors which can contribute to economic growth of riparian countries. However, facing population growth, rapid industrialization, urbanization, hydropower dam construction, over-fishing, and aggravated

by climate change, the mighty Mekong River has been encountered with many threats which has alarmed all riparian countries and all relevant stakeholders. The Mekong River Commission is one amongst the many regional mechanisms in the Mekong, but the only one established by the four lower Mekong Countries to work toward sustainable development and management of the Mekong River. To realize this main goal, it obligates commitment and efforts from all relevant stakeholders to make balance between economic growth and social and environment well-being. And for the MRC, it needs to be strengthened to be seen as a reliable (honest and capable) organization and to work with all relevant stakeholders to uphold the Mekong cooperation for basin development and well-being of the basin people.

SOUTHEAST ASIA IN AN ERA OF STRATEGIC COMPETITION

Ms. Lindsey W. Ford

*Director of Political-Security Affairs, Richard Holbrooke Fellow, and
Deputy Director of the Washington D.C. Office of the Asia Society Policy Institute (ASPI)*



“Strategic competition” has recently become a popular buzzword in the foreign policy community. Much of this renewed attention can be attributed to growing tensions in the U.S.-China relationship, and concerns that the world’s two biggest economies may be heading toward a new Cold War. In today’s presentation, I will outline some of the drivers behind competition between the United States and China, explain why present-day strategic competition will differ from the post-World War II Cold War, and discuss the implications of these dynamics for Southeast Asia.

Drivers of Strategic Competition

The Trump administration’s 2017 National Security Strategy argues the United States is contending with a “more competitive world”, one in which “China and Russia challenge American power, influence, and interests, attempting to erode American security and prosperity”. For friends and partners in Asia, the downward turn in U.S.-China relations may appear abrupt. However, many of the underlying drivers of this shift predate, and will likely endure beyond, the current administration. Over the past few years, a growing sense of frustration has emerged in U.S. policy circles that China has simultaneously taken advantage of American openness while avoiding or selectively playing by the international rules. The combination of China’s increased authoritarianism at home and revisionism abroad have engendered a growing pessimism about how China intends to wield its increasing power on the global stage.

Alongside this trend, we have seen China pursue a more assertive foreign policy in the Xi Jinping era. It has begun to more openly push back against the global status quo, chafing against rules it believes unfairly advantage the United States and its partners. Chinese leaders have made clear they see the present moment as one of strategic opportunity, a period in which both domestic and international conditions are right for China to expand its ‘comprehensive national power’ and seize President Xi’s “China dream of national rejuvenation”. China’s more assertive foreign policy has not only heightened tensions with Washington, it has often heightened frictions with other Indo-Pacific states. China’s actions in the South China Sea, its political and economic coercion of smaller neighbors, and the frequently one-sided terms of its Belt and Road Initiative (BRI) projects, have created the impression that China is seeking to shape a region that will acquiesce to Beijing’s interests.

While strategic competition between the United States and China certainly dominates the headlines, these dynamics are only part of a broader trend toward a more contested and competitive dynamic in the Indo-Pacific region. Asia's economic dynamism has given it more influence in the global arena, but it has also created a more fluid geopolitical environment that increases the potential for state-to-state friction. The 2018 border skirmishes between India and China at Doklam, ongoing tensions between China and Japan in the East China Sea, and even the accelerating pace of arms purchases across Southeast Asia all remind us that competitive dynamics are widespread across the region. These trends are unlikely to change in the near-term.

Attributes of a More Competitive Era

With all of the discussion about great power competition, some scholars and experts have begun to openly question whether we are hurtling toward a new Cold War. Indeed, one could observe the recent breakdown of U.S.-China bilateral trade talks and spiraling technology disputes and question whether a Cold War 2.0 is already underway. However, the Cold War analogy is a poor fit to describe the 21st century environment, especially in the Indo-Pacific. Today's competitive environment is likely to be both more complex and more multi-faceted than the post-World War II era. China and the United States are economically and institutionally integrated – with each other and with other Indo-Pacific nations – in a way that differs significantly from the East-West blocs of the Cold War. Similarly, the *nature* of the competition is likely to differ. The drivers of present-day competition will more likely be economic and technological in nature. Ideological competition has begun to feature more prominently in U.S.-China policy debates, but it is not the main driver of today's competitive dynamics.

If 21st century competition will not replicate the 20th century Cold War era, what can we ascertain about the likely attributes of today's competition? Five attributes in particular stand out.

- Competition over efforts to shape and redefine global norms and rules will be particularly intense. Countries are already enmeshed into an existing array of regional and global institutions and will have an increasing incentive to shape these institutions in a way that best promotes their interests.
- Neither China nor the United States will be able to divide the world into segmented blocs of allies and partners. Countries are likely to align differently from issue to issue, while others may more openly pursue neutrality between the great powers, making coalition-building and multilateral coordination a more challenging exercise.
- Widespread strategic competition is likely to further erode trust and transparency if, and as, countries see the regional environment as more zero-sum. This, in turn, may reduce **dialogue and transparency, and elevate the risk of miscalculation in the diplomatic**, economic, or military domains.
- Complex interactions between economic, technological, and military arenas will enhance the likelihood that competition in one arena may reverberate into another. The potential for dual-use applications of various technologies may make it difficult for countries to establish dividing lines between competitive and cooperative aspects of their relationships.
- Fears about unfair competition and zero-sum advantages are likely to incentivize countries to establish additional defensive barriers, particularly in the economic and

security arenas. This will make cooperation more challenging; it also creates a greater need to create off-ramps and confidence-building measures to prevent dangerous escalation dynamics.

Challenges and Decision Points for Southeast Asia

Southeast Asian states have been vocal in expressing concern about the potential impact that U.S.-China competition will have on smaller states in the region. The concerns most frequently voiced are: 1) that smaller states will bear the deepest costs of escalating tensions, as they become the battlefield on which great power competition plays out; and 2) that “de-coupling” of the American and Chinese systems will force smaller states to choose sides between their two largest partners. Singaporean Prime Minister Lee Hsien Loong emphasized this point at the recent Shangri-La Dialogue in Singapore, observing: “unfortunately when the lines start to get drawn, everybody asked, are you my friend or not my friend? And that makes it difficult for the small countries.”

The concerns of Southeast Asian partners are not without logic or merit. The old African proverb, “when the elephants fight, it is the grass that gets trampled” is well known in this part of the world. However, the current rhetoric about strategic competition – both in Southeast Asia and in the United States – fails to adequately appreciate the agency, and indeed, influence available to smaller states in a more competitive environment. The strategic competition playing out in the Indo-Pacific reflects an effort to shape order in the region. While smaller Southeast Asian states may have relatively less raw power or material resources, the middle-powers and smaller nations of the Indo-Pacific have historically been the engines of order-making in this region.

ASEAN can continue to be an order-maker instead of an order-taker, but this will require difficult decisions. In a more competitive and contentious strategic environment, there will be strong centrifugal tendencies that pull countries apart rather than together. If ASEAN hope to preserve its centrality, it will need to be serious about the institutional reforms necessary to strengthen intra-ASEAN cohesion and manage these pressures. This will necessitate more than simply carving a neutral, precisely equidistant path between large nations. In an environment in which regional rules, standards, and norms are up for grabs, Southeast Asian states have a compelling interest to argue for the outcomes that best preserve their interests. The issue is not for ASEAN states to “choose” between the United States and China; it is simply that ASEAN should be free to make its own choices. Successfully navigating strategic competition will therefore require a greater emphasis on *strategic autonomy* vs. neutrality. Emphasizing strategic autonomy maximizes ASEAN’s most valuable assets – its independent voice, its convening power, and ability to shape a multilateral agenda. Strict neutrality, by contrast, runs the risk of silencing ASEAN just at the moment when it matters most.

To maintain strategic autonomy and ASEAN centrality, three questions bear particular consideration:

- Can ASEAN member states find sufficient internal flexibility to prevent diverging viewpoints from paralyzing the institution?

- In an era in which security disagreements are becoming increasingly fractious and divergent, can ASEAN still set a level-playing field for open dialogue, and ensure that no single country can prevent important topics from being discussed?
- And finally, in an era in which it may be hard to define precise cooperative-competitive boundaries, can ASEAN carve out cooperative initiatives and shared interests even in contested arenas?

Principles of Navigating Competition

The drivers that are shifting countries in the Indo-Pacific region toward a more competitive and potentially unstable era will not fade. If anything, they are likely to accelerate as economic, demographic, and technological change continue to shift power balances in the region. In this type of environment, states will not be able to freeze the status quo. They will instead need to focus on creating a stable order within which change can occur, one with the attendant rules, principles, and institutions to minimize the risk of conflict.

The following principles can not only help better navigate competition in the Indo-Pacific, they are also principles that can help preserve stability and prosperity here in the Mekong region—where multiple nations have an interest in maintaining shared access to a precious ecosystem.

Free

Every Indo-Pacific nation is entitled to free choice: in determining their own futures, in managing their own resources, and in shaping their relations with other countries. Here in the Mekong, for example, if any one country exerts greater control over shared resources, determines when and how much water can flow, or seeks to siphon off or independently manage resources for their own gain, it inherently undermines the sovereign choice and freedom of other states.

Open

Indo-Pacific nations have an interest in avoiding closed spheres of influence, and welcoming diverse groups of regional partners and partnerships. For example, multiple countries have cooperative dialogue mechanisms here in the Mekong, including the United States, China, Japan, Australia, the Republic of Korea, the European Union, and India. These mechanisms need not compete; they can be complementary. What matters most is not *who* the partner is, but *how* the partnership does business. Can nations agree to align principles and best practices?

Fair

Security and prosperity means that all nations, big and small, must play by a shared set of rules. Every nation has responsibilities they must uphold—to each other and to their citizens. Fair play, both internally and externally, requires developing high-quality standards that don't advantage any one country or any one group of citizens over another. In the Mekong region, this means ensuring that development partners cannot waive away important environmental or labor standards that would disadvantage other competitors, harm vulnerable people groups, or damage other nations' resources simply for their own gain.

Transparent

Transparency promotes good decision-making, prevents unfair advantage-taking, and is the only way to build trust. This transparency matters both at home and abroad. For example, when Mekong region governments and companies make decisions about new water management projects, dams, or other initiatives that will impact the livelihood of citizens in surrounding areas, it is important to explain the terms and conditions of these agreements to the public, rather than hiding them behind closed doors. And when governments enter into loans or development agreements, it is important to provide a clear accounting of the decision-making procedures behind these agreements and the conditions that each respective side has promised to uphold.

Sustainable

Finally, nations should endorse the principle of sustainability. Sustainability is not merely an environmental concern. It is a principle that should apply to economic development, political institutions, and human capital as well. If countries here in the Mekong, and across the Indo-Pacific region, hope to preserve the free and open region they have enjoyed for the past few decades, they will need to ensure that they manage *all* of their resources in a way that preserves them for future generations.

Thank you.

REPUBLIC OF KOREA'S INVOLVEMENT IN THE MEKONG RIVER PROJECT: PAST, PROGRESS AND PROSPECTS

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BACKGROUND

Republic of Korea (ROK) hosted the first ROK-Mekong Foreign Minister meeting in Seoul on October 27th- 28th 2010, and announced Han River Declaration in order to establish comprehensive partnership between ROK and Mekong river states. But even prior to 2010, during the 1980s, ROK had participated in GMS by both attending the meeting of the Mekong Commission and providing the assistance with the member countries of Mekong Commission. Moreover, following the establishment of GMS in 1992, MRC in 1995, and ASEAN, ROK has actively taken part in numerous events of regional development activities.

In general, ROK's main policy had aimed at poverty reduction and rural development in Mekong Region. Also, ROK intended to produce more domestic experts on Mekong region in Korea. And the primary objective of ROK's Mekong Policy was to utilize its distinctive soft power. More specifically, ROK agreed to focus on three things: 1) strengthen the partnership with ASEAN, 2) sustainable development; and 3) human centered development.

EDCF and KOICA turned out the two main control towers within government bodies which operated and provided the different types of assistance and funds to Southeast Asian countries. Since Korea became OECD member state, ROK dramatically increased oversea development assistance (ODA) disbursement in Mekong River area. According to 2014 EDCF Annual Report, Korea has provided about US \$ 1.8 billion ODA and became the 16th largest donating nation among 29 Development Assistance Committee (DAC) member states. Since 2011, Korea has continued to increase aid volume to maintain its ODA global status and even hosted the 4th High Level ODA Forum (HLF-4) in Busan, Korea. Korea's 2013 ODA volume reached at about US \$ 1.3 billion. Among this particular volume, bilateral loan was US \$ 500.6 million accounting for 38.2%, while bilateral grants totaled at US \$ 809.0 million, which consisted of 61.8% of total ODA volume. Moreover, in 2013, compared with previous year, Korea' multilateral ODA to regional development and other international organizations has also increased dramatically by US \$ 446 million.

EDCF Policy on Mekong Region

In 1987, ROK created the Economic Development Cooperation Fund (EDCF) under the direct control of the Export-Import Bank of Korea (Exim Bank), the branch of the Ministry of Finance and Economy (MOFE). EDCF became one of the most important ROK's leading organization to control various ODA programs.

EDCF made a huge loan commitment in 2014 while conducting 28 projects in 13 different nations with US \$ 1,273 million scale. Given Korea's traditionally close economic relations and geographical proximity to the region, Asian countries were the biggest recipients for EDCF's loan commitment accounting for 74.9% of overall fund. Accordingly, the Mekong countries were also part of the primary target for Korea's loan program. Vietnam turned out ROK EDCF's largest recipient country with total volume of US \$ 2 billion. Also, regarding loan disbursement, EDCF also shared its disbursement to Asia as the first priority, comprising of 54.6% in 2014. Vietnam equally remained the biggest recipient in disbursements by USD 129 million. It is interesting to note that despite the creation of EDCF in 1987, establishing relationship with other Mekong countries except Thailand took almost another decade.

KOICA

In April 1991, ROK also established another ODA commanding institute, the Korea International Cooperation Agency (KOICA). KOICA which belonged to ROK Ministry of Foreign Affairs has provided grants, technical assistance to developing countries. Above all, KOICA's main role was to identify global development issues and encourage socio-economic aspect of the national development of partner countries. In this sense, KOICA's main strategy was to maximize ROK's cultural linkage and geographical proximity with ASEAN states.

KOICA has produced a wide range of aid programs to Mekong River states. These individual programs include infrastructure improvement, aids in kind and in cash, emergency reliefs, creation of development studies institutions, collaborations of experts, medical practitioners, Taekwondo instructors training, recruiting volunteers, NGOs, administrative training, international organization cooperation, the advocate of ROK's global Saemaul Undong program (SMU), and so on.

RECENT DEVELOPMENT

ROK's recent participation in Mekong Project was further consolidated by President Moon's New Southern Policy which was designed by Blue House office in 2018. Up to this moment, despite several official meetings organized by relevant ROK's government departments, it is undeniable that overall country's interests towards Mekong region and Southeast Asia was still minimal. Nonetheless, during Moon's administration period, ROK's commitment and national interests toward this region was highly upgraded and promoted at the presidential office level. And national perception towards this area has also dramatically changed from not only tourist attractions to new political and economic strategic partners.

Previously, On September 6, 2010 for the first time ever, ROK has hosted GMS forum in Korea with 150 participants including over 100 domestic companies. ROK emphasized that Mekong River region will turn into the 2nd Han River miracle, with Asia's new frontier spirit while leading 21st century. So far ROK has only participated in small scale project such as railroad construction and water resource management for GMS project. Nonetheless, ROK will increase the activities such as transportation infrastructure, trade, environment, energy and ICT.

Specifically, ROK is planning to provide GMS with the following programs: build-up of transportation infrastructure, promoting active investment through the simplification of regulation, joint cooperation for climate change, development of clean and renewable energy, the establishment of IT infrastructure and electronic government. Furthermore, since 2011, Korean companies including Hanhwa, Daerim, Hyosung, Incheon Airport corporation, Korea Consultants International, SK have been very active on this. And ROK has also started the following project from 2011: development of tourist resources, the development of bio energy, small hydro power, railroad infrastructure in the rural area of Vietnam and Laos.

In 2010, ROK made some substantial achievement throughout GMS forum. First, ROK Ministry of Economy and Finance and ADB agreed on pursuing joint consulting for GMS and introduce Korean model of development strategy, and participating in ROK's Knowledge Sharing Program (KSP) module project for ODA, as well as renewing the MOU of 3.5 billion US dollar ADB joint loan program.

Secondly, in the realm of environment, ADB and other Korean government agencies such as Korea Environment Institute, Korea Adaptation Climate Change Center, Korea Forest Service agreed to sign MOU for the development of GMS.

Thirdly, ADB agreed on arranging bilateral business meeting between Korean companies and ADB on developing new market in Mekong River area in infrastructure, communication, environment, trade and investment. In particular, ROK considers that Mekong River states' biggest strength is abundant natural resources, massive labor forces and the will of people for economic prosperity and economic openness. More specifically, ROK companies are very keen on Vietnamese oil industry, Myanmar natural gas, Thai rubber industry, Laos timber, Cambodian fishery business.

Fourth, at the minister level, Thailand and ROK discussed the possibility of building nuclear power plant. Laos Ministry and ROK discussed signing on EDCF, KSP, Green Growth and Global Green Growth Institute cooperation. ROK has provided 0.932 billion US dollar for transportation infrastructure and water resource development project through EDCF.

As far as the total amount of ROK's ODA support for GMS states was concerned, total aid including credit aid and grant aid along with East Asia climate partnership was US \$ 2.2 billion. Among them are EDCF portion 1.78 billion US \$ (transportation, electricity and other economic infra), grant ODA 410 million US \$ (education, medical treatment and social infra) plus East Asia climate partnership 11.7 million US \$ (Vietnam and Cambodia water resource and electricity infra). It is important to point out that 932 million US \$ out of 1.78 billion \$ was solely spent on GMS program itself. And as for the KSP support, Vietnam and Cambodia were the major two

receiving nation and yet Laos was added on the list since 2010. For Vietnam case, between 2004 and 2009, 27 different project was implemented and Vietnam Development Bank was founded in May 2006 in due course. For Cambodia, between 2006 and 2009, 9 different project was carried out. And the ROK private sectors' total investment on GMS states was 9.1 billion US \$ with 180 thousand cases back in 2008.

KNOWLEDGE SHARING PROGRAM (KSP):

ROK's Knowledge Sharing Program is the flagship of ROK's unique ODA program, given that ROK's ODA's total scale cannot be compared with the US, China or Japan, in terms of quantity matters. Therefore, ROK is aiming at rather quality control for its ODA policy abroad. And there is no wonder KSP would turn out ROK's main strategy toward GMS.

Korea was one of the most impoverished countries in 1948, but through international aid and its own efforts to build a sustainable foundation for growth, the country has eradicated poverty and has achieved a remarkable socioeconomic transition, becoming one of the leading global economies. Korea joined the Organization for Economic Cooperation and Development's (OECD) Development Assistance Committee in 2010, making its official transformation from an aid recipient into a donating nation.

Korea's development experience employs practical solutions accumulated through trial and error, and its knowledge of successes and failures is a great asset for developing countries to help take on development challenges and promote sustainable growth.

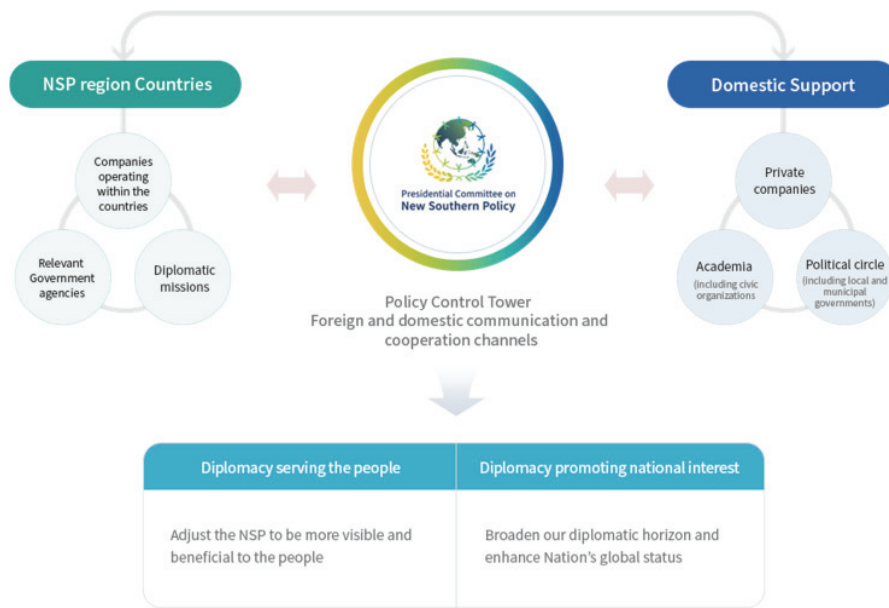
Hence, the Korean Ministry of Economy and Finance (MOEF) launched KSP in 2004 to cope with the rising demand for deriving policy implications of the Korean development model and contribute to sustainable prosperity abroad. Korea has employed leading source of knowledge sharing by conducting the KSP with over 76 countries and has promoted the concept of knowledge-based cooperation along with hosting the G-20 Seoul Summit in 2010 and the Fourth High Level Forum on Aid Effectiveness in Busan in 2011.

NEW SOUTHERN POLICY

ROK's strategic interests and involvement in GMS was further consolidated by President Moon's emphasis on Southeast Asian countries. The Presidential Committee on New Southern Policy is a special committee under the Presidential Commission on Policy Planning focusing on developing the core concepts and strategies of the New Southern Policy, managing boundary of responsibilities of diverse departments, identifying joint projects to be pursued by the Departments, and reviewing and assessing the performance and progresses.

The Presidential Committee on New Southern Policy's Identity is a symbolic mark inspired by the concept and vision of building a, "People-centric community of peace and prosperity." It symbolizes the people of the world holding hands together while surrounded by rice and laurel leaves that stand for prosperity and peace.





Background

One of the reason why ROK takes ASEAN so seriously has to do with the following strategically important factors in the region.

The vast blue ocean of a huge economy spread across the Southern region

- Young and dynamic region with a fast growth rate
- Spotlighted FDI region with a big consumer market
- Continuously growing middle class population

Vision



Directions for Promoting the New Southern Policy

ROK's New Southern Policy, aimed at significantly expanding relations with ASEAN, focusing on three pillars of "people, prosperity and peace."

Greater mutual understanding through an expansion of exchanges

- Increasing the number of mutual visitors
- Expanding 2-way cultural exchanges
- Supporting HR capacity building
- Helping improve governance by enhancing public administration competencies, etc.
- Promoting rights of Indian and ASEAN people staying in Korea
- Offering support to improve quality of life

Building a base for mutually beneficial, future-oriented economic cooperation

- Strengthening institutional framework for greater trade and investment
- Actively participating in the development of infrastructure aimed at greater connectivity
- MSME cooperation and improved market access
- Improving innovative growth competencies through new industries and smart cooperation
- Designing a cooperative model tailored to each nation

Constructing a peaceful and safe environment in the region

- Invigorating exchanges between Head-of-States and high-ranking officials
- Greater cooperation for building a peaceful and prosperous Korean Peninsula
- Expanding cooperation in national defense and the defense industry
- Collective responses to anti-terrorism as well as cyber and maritime security
- Better resilience to regional contingencies

ROK'S MAIN STRATEGY TOWARD MEKONG RIVER SUB-REGION

1. Planning to host more high-level meeting with Mekong river states on a regular basis: expand the current foreign minister meeting up to other relevant ministries level such as energy, trade, industry, education and cultural department.
2. To create more comprehensive dialogue and comprehensive strategy toward this region: beyond economic viability, more political and diplomatic approach required, and cultural approach related to human network and constructivist approach necessary
3. For example: balancing the proportion of ODA to the region: Credit aid for road, railroad, dam construction and Grant aid for small scale project
4. Soft power approach in connection with sharing Korean pop culture and promoting educational program and exchange of young students at high school and university level
5. Promoting more Korea's tailor-made ODA approach:

- Knowledge-Sharing Program: transferring Korea's own experience and long-term network between humans, for example: introducing SaeMaUI development project
 - analyzing individual states' need for education, health policy, energy and environment
 - shaping unique and different program from Chinese and Japanese ones, more focusing upon green growth, ICT and educational field
 - establishing partnership with middle power states such as Australia or looking at the possibility of joint cooperation type
 - increasing (Capacity Improvement & Advancement for Tomorrow) CIAT program: human network and KOICAA Fellowship program
 - Special Master Program for developing states and GMS states in Korea Universities
6. Planning to create the possible ROK-Mekong Institute for long term R&D
- Possible role: hosting seminar and international conference and policy making, and connecting ROK companies with Mekong region, promoting Mekong interests among Korean society.

MEKONG COOPERATION AND WATER SECURITY: A TRANSBOUNDARY WATER GOVERNANCE IN 3S RIVER BASIN

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Abstract

The transboundary water governance become key governance challenges in the 3S basin the following the increased hydropower developments. The current mechanisms such as 1995 MRC Agreement are in place to address the transboundary water governance. However, power asymmetry and the hydro-hegemony that drives the cooperation and the competition in the transboundary water governance. Climate change makes further transboundary water variability and will complicate the asymmetric power and hydro-hegemony of the riparian states in addressing transboundary water governance. Hence this paper addresses the research question: How can the transboundary water governance be improved in the context of increased hydropower development and climate. It uses a literature review and a case study in 3S basin to illustrate the hydro-hegemony in climate change. The paper examines the hydro-hegemony of riparian in context increased hydropower dams in 3S basin and climate change. It suggests rethinking the transboundary water governance is a way forward to cope with climate change and more dams in 3S basin that could secure the flow, the volume, the quality, the ecosystem services and livelihoods.

Keywords: Transboundary water governance, asymmetric power, hydro-hegemony, climate change water security, cooperation, competition.

Introduction

There is a lot of scholarly knowledge on transboundary river governance in hydro hegemony theory, but the theory is less developed on hydro hegemony theory in Climatic Change. Hence this paper addresses this gap that seeks to answer the questions: How can transboundary water governance be improved in the context of climate change and the increased hydropower dams building? In answering this question, the researcher undertakes a study in the 3S basin (3S is a term used to describe the Sesan, Sekong and Srepok rivers, which join to form one tributary of the Mekong) to examine the impacts of damming the 3S Rivers and climate change on water and livelihoods in 3S Region.

Governance is the structures and processes by which societies share power and shapes individual and collective actions, decisions are made and action taken through the application of responsibility, participation, information availability, transparency, custom, and rule of law to use and manage resources (Lebel et al., 2006;). Structure refers to frameworks including culture, law, agreements, materials and technical possibilities, the institutions, the market, and the different level of government within which these actors operate. It is the arrangement of and relations between the parts or elements of the institutions, market and government. Process refers to a form of interaction or a series of actions or steps taken by actors in the society under the arranged structures with the defined roles and responsibility based on policy, laws, agreements, materials and technical possibilities in order to achieve a particular end. In many cases, structures, process and institutions often perpetuates social exclusion, vulnerability, and poverty.

Furthermore, Transboundary water governance can be understood as a process of dialogue, negotiation and decision-making, involving a wide range of actors. This process is facilitated by regional mechanism or institutions that are at the centre of how states cooperate to use transboundary waters. They carry out a number of functions, including water allocation, implementation and management of water infrastructure and implementation of flood management policies, and protection, monitoring, and assessment of water quality and quantity (Sanchez and Roberts, 2014; (Dore, Lebel and Molle, 2012). The transboundary water governance is guided by the treaties, agreements and policies that guides the dialogue, negotiation; decision-making and action among concerned riparian states to cooperate and share water uses among states equitably (Dore, Lebel and Molle, 2012; Zeitoun and Warners, 2006, 2008). The 1997 United Nations Convention on the Non-Navigational Uses of International Watercourses is an example (UN ILC, 1997), and 1995 MRC Agreement is another international agreement to manage the Mekong River Basin sustainably.

In doing this, it involves many actors at multiple scales (See Figure 1) and it is motivated by key drivers particularly the demographic change, energy and flood security, state security, increasing development (hydropower dams) and trade (Dore, Lebel and Molle, 2012). Actors with asymmetric powers and hydro-hegemony employ different tools and strategies to legitimise their positions and influence the decision-making in allocation of tranboundary waters. Different forms of power shape different forms of hydro-hegemony and different forms of hydro-hegemony establish different forms of interaction on the transboundary water governance (Mirumachi, 2013; Zeitoun and Warners, 2006 & 2008). The dominative form of hydro-hegemony is thus associated with induced relative scarcity for the weaker riparians and unstable hydro-

relations. However, when the riparians are roughly equal in power, the established control of the resources may become contested, with the resulting competition leading to either a reversal of the dominative form of hydro-hegemony or progression towards a leadership form (Zeitoun and Warners, 2006, 2008). In any case, decisions made about allocation of transboundary waters among countries sharing the river effects the flow, the volume, the quality, the ecosystem services and the livelihoods of people living dependent on river's resources, and shape the power and politics of the states in the basin to use their positions and geographical spaces to influence the sharing of transboundary waters (Sithirith, Evers and Gupta, 2016).

Climate change may render future river flow variability. At the same time, climate change and water variability are also expected to have an effect on ripariants and intensify security within international river basins. However, myriads of issues in relation to climate change concerning timing, scale, intensity and its impacts, particularly the character of potential impacts, and how those impacts interact with other drivers of change are unknown. These may further complicate the forms of hydro-hegemony, power asymmetry and existing shared water management strategies (Dinar, Katz, Stefano and Blankespoor, 2015). Thus, rethinking transboundary water governance is a way forward that addresses the increased hydropower development and climate change. This requires a shift from traditional paradigms that attempt to reduce uncertainties to a new paradigm that acknowledge and embrace changes and continue learning as cornerstones of effective transboundary water governance. Addressing uncertainty requires flexibility in institutional arrangement and agreements. The many formalized cooperation among countries sharing transboundary rivers takes the form of basin-level or regional treaties and the institutions to implement and oversee the procedural and substantive commitments made. These commitments have evolved and shifted over time from an overriding focus on allocation of water supplies and hydropower development to increasingly include provisions for multiple uses, joint development and increasingly for environmental protection (Sanchez and Roberts, 2014).

This article intends to take the conceptual discussion above to analyze the transboundary water governance in the 3S basin that is home to 2.5 million people, covering 78,650km²: Cambodia (33%), Laos (29%) and Vietnam (38%) (Arias *et al.*, 2014; Piman *et al.*, 2012; MRC, 2003). The 3S basin rivers contribute 23% of this (100km³) with an average flow of 2,886m³/s (Piman *et al.*, 2013; ADB, 2010b). The basin is home to about 2.5 million people, most of who are from minority ethnic groups (Piman *et al.*, 2013). First, the article starts with the discussion of theory on transboundary water governance and provides the conceptual framework on how dams and climate change shape the hydro-hegemony in transboundary water governance. Second, the article examines hydropower dam development in 3S basin and its impact on rivers, peoples and ripatians. Furthermore, the article examines climate change and its contribution to hydrological variability, and it complicates the hydro-hegemony and transboundary water governance in 3S basin. Third, the article discusses the rethinking transboundary water governance in the context of climate change and the increased hydropower dam development in 3S basin, focusing on shared control of water resources, particularly securing the flow, the volume, the quality, the ecosystem services and livelihoods. Finally, the article draws my conclusions and make recommendations on how to improve transboundary water governance in the context of climate change and hydropower dams in 3S basin.

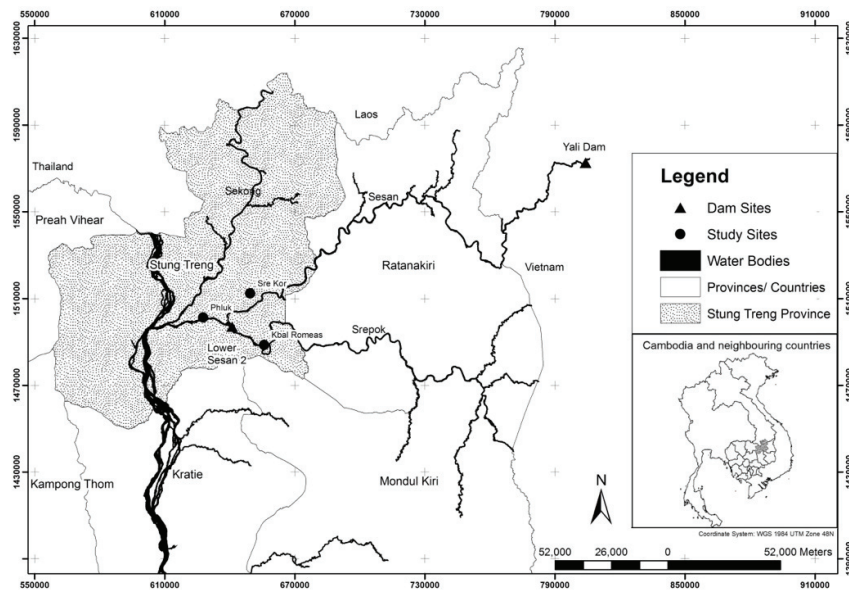


Figure 2: Map of the study area

To study the transboundary water governance in the 3S basin, I selected two hydropower dams: (i) the LS2 Dam, which is situated at the confluence of the Sesan and Srepok rivers in Cambodia, and (ii) the Yali Dam on the Sesan River in Vietnam. These cases will allow me to demonstrate the hydro-hegemony in the climate change and increased hydropower dams in 3S basin, contributing to transboundary water governance. These case studies will also allow researcher to examine closely the ways in which the riparians cooperate and compete in sharing water within the transboundary river management framework that exists, and how this situation contributes to the security of other states (see Figure 1).

Mekong Cooperation and Hydropower Dams in 3S Basin

Four countries signed the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin on 5th April 1995. The Agreement provides a legal mandate for MRC to coordinate riparian activities in the Lower Mekong Region in developing and managing the Mekong River Basin. The Agreement defines the scope of works, coordination, joint planning and joint action to achieve sustainable development, while protects the environment and maintains the region’s ecological balance. The Agreement promotes sustainable development along the Mekong with the construction of hydropower dams still remaining possible. However, Hydropower dam building in the Mekong mainstream and its tributaries is still possible in the 1995 MRC Agreement, and that creates a loophole for riparians to compete for dam building and other infrastructure development (MRC, 1995).

The 3S basin is a key hydropower development area, as 14 dams have already been built, and a further 28 are at the development stage, though little regional coordination or consultation has taken place thus far with regard to these developments. Vietnam has already built 13 dams in the basin and plans to build more on the Sesan and Srepok rivers, while Laos has built one dam, has five under construction and has proposed 15 more. Cambodia is currently building the LS2 dam and plans to build another six dams (Merme, Ahlers, & Gupta, 2013; Piman *et al.*, 2013). These

under-construction and planned dams will further intensify issues around Transboundary water governance in the Mekong region. Transboundary water governance, particularly in Cambodia, is closely linked to personal security, environmental security such as floods and droughts, as well as food security, economic security and political security, and all of these together lead to issues of national security. To further understand how dams affect the transboundary water governance, the researcher examines two dams in 3S basin, one in Vietnam – the Yali Dam, and another one in Cambodia – the LS2 Dam (See Table 1).

Table 1: Cases of the Yali Dam and Lower Sesan 2

Cases	Yali Dam	Lower Sesan 2 (LS2)
Physical structure of dams	<ul style="list-style-type: none"> • Electricity generating capacity – 720MW. • The dam is 65m high and its reservoir covers an area of 64.5km². • Yali Dam is located about 70 to 80km from the Cambodia/Vietnam border. • Construction cost: US\$1billion. • Built in 1993 • Yali Dam is the second largest dam in Vietnam. 	<ul style="list-style-type: none"> • The LS2 dam is located about 1.5km downstream from the river’s confluence with the Srepok River; 25km from the Mekong River. • The dam is 75m high wall and a 340km² reservoir. • Electricity generating capacity – 420MW. • Construction started in early 2014 and will be completed by 2019. • The cost of construction – US\$781 million.
EIA	<ul style="list-style-type: none"> • Yali Dam’s EIA physically took place six kilometers downstream of the dam, within Vietnamese territory. • Downstream in Cambodia were not covered by the EIA, • Also, the EIA was not publicly released in any form, and has not been released since the dam was built. 	<ul style="list-style-type: none"> • Construction of the dam is being carried out by the Hydro Power Lower Sesan 2 Co. Ltd., a company jointly run by the Royal Group of Cambodia and China's <u>Hydrolancang International Energy</u>.
Funding Organization/ Donors	<ul style="list-style-type: none"> • Russian and Ukraine governments • Government of Vietnam • Switzerland • Sweden 	<ul style="list-style-type: none"> • Electricity of Vietnam also holds a 10% nominal stake in the project. • Build-operate-own-transfer project (BOOT) mechanism, with ownership being transferred to the RGC after 40 years of operation.
Impacts and Its Effects	<ul style="list-style-type: none"> • Approximately 20,000 people in 3,500 families in Ratanakiri Province in Cambodia 	<ul style="list-style-type: none"> • Flooding 33,564ha of forest, and of this, about 30,000ha is currently forested, 1,290ha is

	<p>experienced serious socio-ecological impacts from Yali dam. At least 39 people in northwest Cambodia have drowned, along with thousands of livestock, since construction began on the \$1.2 billion Yali Falls dam in 1993.</p> <ul style="list-style-type: none"> • In Vietnam, around 8,500 people were displaced to make way for the <i>Yali Dam</i>. • Flooding, skin rashes, stomach problems, drownings of both people and livestock, and a decline in fish stocks are among myriad problems recorded in Stung Treng as a result of Vietnam's Yali Falls dam. • The Electricity of Vietnam Corporation (EVN) has failed to alleviate damages caused by Yali dam. 	<p>agricultural land; grassland covers about 218ha and bush forest about 47ha.</p> <ul style="list-style-type: none"> • About 350ha of evergreen forest will be lost to the dam and its resettlement areas. • At the same time, some 5,073ha of semi-evergreen forest and 27,711ha of a deciduous forest will be submerged by the dam. • The total biomass loss – 45 million tons. • About 2003ha of community forestry area in Srae Kor Commune. • The LS2 Dam will also affect 10,399ha of economic land and forest concessions that the RGC previously granted to six private companies.
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Hydro-hegemony, Climate Change and Mekong Cooperation

What lessons can be learned from these two cases; of two dams located in the 3S basin, one in Vietnam and the other in Cambodia? It is clear that there is no water war taking place in the Mekong region, as Pear-Smith (2012) and Wolf (1998) have argued. However, there are issues involving states and state's hydro-hegemony. Indeed, there is hydro-hegemony over the 3S dams, but it is balanced by both upstream and downstream power relations. As mentioned by Wolf (1999: 259), violent tensions can occur if the aggressor is both the "downstream and the regional hegemon". However, in the case of the 3S basin, Vietnam is the hegemon and is also upstream, while Cambodia is the weaker state and is located downstream. Added to this, the current Cambodian government is close to the Vietnamese politically, and this limit the possibility of Cambodia to influence Vietnam in building the shared benefits between the two countries over 3S basin issues.

However, as both the upstream and 3S hegemon, Vietnam is seeking to maximize the benefits it can derive from the 3S basin – at the expense of its weaker neighbors and in light of the inadequate MRC mechanisms in place to protect the Mekong tributaries – by building more hydropower dams in the area to control water for Vietnam's use. It can be seen that the upstream 3S hegemon is influencing the ways in which the hydropower dams in the 3S basin are being built, the increased scarcity of water and climate change, by not consulting or sharing information with Cambodia over any EIAs carried out, and also not putting in place robust early warning mechanisms. The trans-boundary impacts of the Vietnamese dams are further weakening

Cambodia's position with regard to trans-boundary river management activities, due to its lack of resources and weak capacity.

Mekong region cooperation, as guided by the MRC Agreement of 1995, is influenced by hydro-hegemony, a lack of consultation and there being no need for consensus; all of which favors the hydro-hegemon, which in this case is Vietnam. This situation is deeply embedded in the MRC Agreement. At the same time, the MRC Agreement does not prevent hydropower dams being built, as, although proposed dams on the mainstream have to go through a consultation process before being built, no consensus is required, while dams built on the tributaries require no consultation at all, just notification, even if they are located on trans-boundary rivers. The MRC Agreement is heavily influenced by the hydro-hegemon, and so benefits them the most. As the upstream country for the Sesan and Srepok rivers, Vietnam has built dams without consulting Cambodia, even though they pass through Cambodia's territory. This lack of cooperation has led to tension developing among the states involved.

The two case studies above illustrate the situation regarding upstream-downstream relations in the 3S Basin; the lack of negotiation and information, and the role of the 3S hegemon. They also highlight how the dams built, or being built, have induced interstate tensions and threatened intrastate security, as well as the lack of information sharing that has taken place. We have also shown how Vietnam's inability to put in place an early warning system for the Yali Dam can be viewed as a security threat to Cambodia, for when water is released from the upstream dam, Cambodian communities suffer the most, and Vietnam shares very little information with its neighbor in this regard. This lack of information about the dams and other hydrological data can be seen as a "water weapon", as described by Zavari (2008), one used by the Vietnamese government to protect its interests around the 3S basin. Every time Cambodia raises concerns about the impacts the Vietnamese dams are having on Cambodia, the Vietnamese government points a finger at Cambodia and accuses it of making groundless accusations, and of not having enough evidence (Pear-smith, 2012; Hirsch and Wyatt, 2004). The counter argument to this is that Cambodia cannot possibly provide scientific evidence about the impacts of the dams to Vietnam, since it is Vietnam that refuses to share information with it on upstream conditions (Wyatt and Baird, 2007).

Wyatt and Baird (2007) view this kind of behavior by Vietnam as typical of an upstream hegemon, but it is behavior that threatens the livelihoods of people downstream in Cambodia. A lack of financial, technical and resource capacity has left Cambodia unable to study the impacts the Vietnamese dams will have on its territory, and the MRC has not been able to provide financial and technical support to Cambodia either. This lack of MRC support for the weaker country, illustrates the failure of this regional mechanism to provide checks and balances against hegemonic power, and to hold the hegemon accountable. As a result, Cambodia lacks the scientific information needed to negotiate with the Vietnamese, and has no formal mechanism in place which it can use to negotiate with them (Wyatt and Baird, 2007; Hirsch and Wyatt, 2004).

Water Security and Transboundary Water Governance

The hydropower dams have made the hydrological variability. The hydrological variability induces water security and this has affected the riparian states, its peoples, environments, and

economies. The transboundary water governance become key challenges in the Mekong on how big and small, poor and rice countries share water equitably and produce no harm. The current mechanisms such as 1995 MRC Agreement, the notification, the prior consultation, the maintenance of the reverse flow and so on are in place to guide the transboundary water governance. However, power, politics, positions, sovereignty and interests have driven the cooperation along the line of competition. The poor, the weak and the small riparian states are not well protected by the existing mechanism and therefore, placing vulnerable position between cooperation and competition. The strong, the rich and big riparian states cooperate with power and politics that often take advantages of the mechanisms, power, politics and position over the weak. Furthermore, the climate change will make further transboundary water variability and will make the cooperation in the Mekong complicated. The climate change will complicate the power, politics, position, and policy of the riparian states. Thus, it is important to rethink the transboundary water governance.

Water Security: The Flow, the Volume and the Quality, and Ecosystem Services

The 3S tributary provides the largest flow contribution among Mekong tributaries with an average discharge of 510 m³/s during March-April and 6,133m³/s during September (Adamson, Rutherford, Peel, & Conlan, 2009). The existing dams increased the dry season flow by 28% and decreased the wet season flow by less than 4% at the 3S outlet. The development of proposed hydropower dams in the 3S are expected to further increase dry season flows by 63% and decreases wet season flows by another 22% at the outlet of the 3S basin (Piman, Cochrane, et al., 2013). Climate change has increased rainfalls in the wet seasons, leading to more waters stored in the reservoirs that could break the dams if water is not released. However, the release of flood water to save the dams from possible damage causes heavy flood downstream area in Cambodia. Heavy flood has occurred almost every year in 3S River since 2000, affecting the bio-physical environment, ecosystem service human life and food security (MRC, 2011a; Piman, Cochrane, et al., 2013).

The hydropower dams and climate change have contributed to too much water in the wet season and too little water in the dry season. These fluctuations depend on upstream power generation and peak floods in the upstream 3S Rivers. The flow alteration contributes to volume variability. Thus, governance of transboundary water is about securing the volume and that induces water security (Elden, 2013). Hence, securing the volume means contributing enough water to secure the acceptable (environmental) flow in the Mekong and in the 3S Rivers, enabling harmonious co-existence of living and non-living entities; and increasing ecosystem services and providing food security to people. But for the nation it also means securing enough volume of water for irrigation schemes to produce food and to produce energy for a demanding population (outside the basin territory) (Cochrane, Arias, & Piman, 2014).

The MRC Agreement is unable to secure the flow in mainstream (Piman, Lennaerts, et al., 2013). The MRC Agreement is discriminatory to the 3S and it does not explicitly deal with flows in tributaries and their relationship with the mainstream flow. The construction of dams further jeopardizes the security of flow commitment intended by the MRC Agreement (KCC, 2009; Piman, Lennaerts, et al., 2013). Thus, transboundary water governance must address water security in the tributaries that produce no harm to downstream riparian. Without securing the

flow, the dam and climate change would induce water security, affecting livelihoods of river dependent communities. Furthermore, the MRC 1995 Agreement does not explicitly address the 'volume'. Thus, the 1995 MRC Agreement should provide a provision that could secure the volume of water in tributaries and the ecosystem services.

Securing Space, the Power, Place and Position

The politics of position (Lebel et al., 2005) relates to upstream-downstream power relations but also with respect to deforestation on river banks. Position determines the power and politics of riparian, in the 3S Region Laos and Vietnam are the upstream powers, who affect Cambodia's water security downstream (Lebel et al., 2005). The MRC 1995 Agreement (Article 5) enhances this power through the limited notification procedure which does not require the prior informed consent of Cambodia. Vietnam, a downstream country to Laos in the main stream, is building dams itself while questioning the Xayaburi and Don Sahong Dams in Laos as these dams affect the Mekong Delta. Laos's assertiveness might encourage Cambodia to build the proposed Sambor dam, which will together affect the Mekong ecosystem dramatically. The politics of location affects cooperation in good faith very difficult.

The MRC 1995 Agreement cannot stop the damming processes in the Mekong mainstream and tributaries or protect the Tonle Sap and Mekong Delta from upstream developments which could affect the ecosystem and economy irreversibly. Dam developments upstream and climate change will affect the flows, volumes, and quality and specific places such as Tonle Sap and Mekong Delta (Centra Technology & Scitor Corporation National Intelligence Council, 2010). The trade-offs for individual countries between the benefits and losses of dams need to be analyzed in the context of the larger Mekong issues. The transboundary water governance must take into account the space, place and position for planning and the development of hydropower dam in the great uncertainties of climate change.

Seasonality and temporal variation

Climate change has uncertain rainfall effects throughout the Mekong Basin affecting the duration, seasonality and level of the water. The annual rainfall varies from 1,100 to 3,800mm (Piman, Lennaerts, et al., 2013). These effects affect local livelihoods. Dams may mitigate greenhouse gas emissions (green energy) while helping to adapt to climate change through their water control capacity. The MRC 1995 Agreement stresses cooperation to minimize the harmful effects of natural occurrences (e.g. climate change related floods and droughts) and man-made activities (e.g. damming). However, the altered flows – the increased dry season and decreased wet season flow regime – contributes to the homogenizing flow between the wet and dry season and possibly mitigates the effects of climate change in the 3S (Chinvanno, 2004; Eastham et al., 2008). Further homogenizing of flows due to dam developments means that there will be less seasonality. Ngo and Masih (2014) show in their hydrological analysis of the upper Sesan that the peak high flow of the Sesan has moved 2 months forward in the year. This can have a dramatic effect on cropping and fishing calendars. However, due to dam operations and management strong fluctuations in the flows remain. The rise and fall of water levels varies between day and night. The flow does not make a distinction between dry or wet season anymore and local communities in Srae Kor and Phluk villages along the Sesan have started to call it a '*tonle chkot*'

or '*crazy river*', as temporal variations cannot be predicted by them (timing and duration) (per.comm., 18 May 2014). The communities cannot anymore predict the rivers behavior over time, their knowledge is no longer viable and therefore, their economic activities based on the river are affected.

Securing livelihoods

3S Rivers are importance for the livelihoods of people living along the rivers. They cultivate paddy rice and eat rice with fish. They supplement their foods by raising animals and collecting non timber-forest products (NTFPs). These form the base of their livelihoods' security. During river floods, crops and other livelihoods sources are damaged, affecting their security.

Dam building in 3S Rivers alters the water flow, volume, and quality over space and time which affects the communities' livelihoods; health, food security and environment (Baird et al., 2002; Grimsditch, 2012; Rutkow, Crider, & Ciannini, 2005; Ryder, 2008; SWECO Grøner, Norwegian Institute for Water Research, ENVIRO-DEV, & ENS Consult, 2006). Unpredictable flood surges due to dam releases lead to property destruction and loss of life (Grimsditch, 2012). The development of the Lower Sesan 2 dam may worsen the socio-ecological security. The enormous reservoir associated with the dam will submerge many villages and ecosystems (KCC, 2009). Since 2000, upstream dams have induced flood surges in the 3S leading to at least 35 deaths in Cambodia creating the fear of dams as a life threat.

The change in water flow, volume, quality and seasonality affects local farming, fishing, *chamcar* and forest areas along the 3S Rivers contributing to food insecurity. Dams block fish migration, change the water temperature, flows and turbidity negatively which also affects the fish populations and migration leading to declining fish catch. The Yali Dam operations have considerably reduced fish populations as the current flows do not trigger fish to migrate upstream to former spawning areas.

Conclusion

The Mekong Agreement of 1995, one designed to shape regional cooperation among the Lower Mekong countries, has not been able to prevent upstream-downstream relations developing, with upstream countries tending to take advantage of the cooperation framework by building dams and creating trans-boundary issues. This framework has also not been able to protect its members, and has so far been unable to resolve the trans-border issues mentioned here, making some members vulnerable to the actions of others. The strong and powerful members have tended to benefit the most, while the weaker members have become more vulnerable due to a lack of regional coordination or intervention. Under the current regional cooperation framework, Cambodia is vulnerable to dams being built on the 3S rivers, as are its people. Cambodian people living along the Sesan and Srepok rivers have been struggling for more than 15 years to have the RGC intervene on these issues with the Vietnamese government and MRC; to address the impacts of the Vietnamese dams. However, no solutions have been proposed to address people's concerns, for not only have the two governments been seen as colluding, but also the regional mechanism, the MRC, has failed to provide security to those communities affected by dams in the 3S basin.

There is; therefore, perhaps a need for the Lower Mekong countries to re-examine the terms, conditions and mandates of the MRC Agreement; to seek to reform the current MRC systems and processes. At the same time, there is a need for the MRC as an organization to re-examine dam building activities on international tributaries in the Mekong Basin, and set strict rules for governments to follow with respect to the building of dams on the Mekong mainstream. Even more importantly, regional cooperation in the Mekong, and particularly in the context of globalization and geo-politics, needs to actively engage with both China and Myanmar, for by not doing so, it will be difficult for the four lower Mekong countries to protect the downstream sections of the river, particularly with China dominating the Upper Mekong.

Dam building in the 3S basin will lead to tensions developing in the future if it continues as is, and without interventions taking place in the form of bilateral and regional cooperation mechanisms. In the future, such development could potentially trigger social movements against the dams, particularly among the most affected communities. For example, communities in Cambodia already affected by dams built in Vietnam protest on a regular basis, demanding fairer compensation levels for the loss of their livelihoods, food sources and other natural resources. At the same time, similar movements have grown in Thailand.

The LS2 Dam in Cambodia will provide an electricity supply to Cambodia and aims to promote development in the northeast, as well as in other regions of Cambodia. However, at the same time, it will create further social and environmental problems for those communities already exposed to the impacts of dams built in Vietnam over the last 20 years, plus will affect others so far unaffected, leading to further dissatisfaction with the state's inaction. Mobilization of dam affected communities will; therefore, be needed to counterbalance the power of the state.

Large dams would seem to be an inappropriate solution to underdevelopment in the northeast of Cambodia, as they will bring-about an unstable environment and lower livelihood security. As has been shown here, dams in the 3S basin, whether in Vietnam or Cambodia, are likely to damage the rivers' ecosystems, change river flows and destroy the livelihoods of people living along their courses. As a result, a message should be given to the states involved and the dam developers that smaller dams are much more suited to the local environment and local people's livelihoods, and so should be explored as an alternative development option.

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LAO PERSPECTIVE: OPPORTUNITIES AND CHALLENGES OF THE MEKONG COOPERATION MECHANISMS

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As one of the world's most essential strategic geographies and dynamic economies, Mekong sub-region has grabbed great attention of the major external players over the past years. The Mekong basin countries have reaped the benefits from the various mechanisms initiated by those players, meanwhile these countries are also facing issues and challenges. Laos, situated in the heart of the Mekong sub-region, has made considerable progress in developing its economy and reducing extreme poverty, significantly contributed by the Mekong cooperative mechanisms. Nevertheless, there are major challenges including decisions about best management practice, misalignment of mechanism ownership and national strategies, and the

issues of national and regional coordination mechanism. This paper recommends that the Mekong cooperation must be coordinated at national and regional levels collectively to address the common issues.

Over the past three decades (1986), Laos has opened up and participated in various mechanisms both regionally and globally, which adhered to Laos' foreign policy on international cooperation with all countries and development partners. The cooperation of Mekong mechanisms is an integral part of Lao development, such as Lower Mekong Initiative (LMI), Mekong-Lancang Cooperation (MLC), Mekong-Ganga, Mekong-Japan, Mekong-Korea, Greater Mekong Sub-region (GMS) and Mekong River Commission (MRC). These mechanisms are among the 12 Mekong cooperative mechanisms that are being implemented, which have been increasingly dynamic and productive as they provide more opportunities at national and sub-regional levels in supporting the Mekong countries' development plans and needs in various areas mainly economic development and environmental sustainability (Ho & Pitakdumrongkit, 2019).

Through the numerous mechanisms, Laos has made good progress in advancing socio-economic development. The average GDP growth is 6.5% and GDP per capita increases about 4 times from 1986 to 2017, and in 2018, the GDP per capita was USD 2,577, making Laos a lower middle-income country and targeting for high middle-income country by 2030 (NIER, 2019). These positive outcomes are largely attributed to the Mekong cooperative mechanisms. Moreover, they have also fulfilled the Laos' strategy for transforming from a land-locked to land-linked country, which will allow Laos to be part of trade and investment network and a transportation hub for the regional as it is located in the heart of the Mekong sub-region and shared borders with all Mekong countries. To a greater extent, this is not limited to national and sub-regional integration, but also

aligned with the promotion of regional connectivity and beyond including the 2025 Master plan on ASEAN connectivity by 2025 and the 2030 Sustainable Development Goals.

As mentioned earlier, the Mekong cooperation mechanisms will play a significant role in turning Laos' geographical limitation to more opportunities by enabling Laos to be a part of trade and investment network and to have better access to regional markets and attract more foreign investment. In recent years, the volume of trade and investment in Laos has significantly increased each year, with 17% of trade and 15% of investment on average annual growth (NIER, 2019). In the area of trade, although Laos has trade relations with more than 70 countries, its main trading partners are neighbors, mainly Thailand, Vietnam and China, with the trading volume with these three countries accounts for 87% of total trade, of which 55% traded with Thailand, 20% with China, and 12% with Vietnam. Regarding investment, as Laos is becoming more integrated economically within the region, the flow of foreign direct investments (FDI) has been observed. The volume of FDI projects has increased, reaching about USD 30 billion between 2003 and 2017. Like major trading partners' composition, the FDI has been mostly from the three neighboring countries mainly China, Thailand and Vietnam, with the investment value accounting for 30%, 26% and 13% of total FDI respectively (ibid.).

To be a regional transport hub, as Thailand, China and Vietnam are among the top trading partners and almost trade in goods with these countries is conducted by in-land transportation. Therefore, the implementation of the land-linked strategy including the Lao-Chinese railway and Vientiane-Hanoi expressway linking roads associated with the strategy will benefit not only Lao's exports to the region, but also the exports of other countries to Laos in greater volume. Moreover, it is also expected that transport infrastructure development will benefit the transit trade between Thailand and Vietnam, as well as Thailand and China. Furthermore, the impact of the Mekong mechanisms has significantly contributed to an increasing number of tourist arrivals in Laos each year. Since 2014, the number of tourists recorded about 4 million visiting Laos. The most tourists are from the countries in the region, among these, Thailand is the largest source market, accounting for 46% of international arrivals, followed by Vietnam 23% and China 17%. The fastest-growing market from a substantial base is the Republic of Korea (NIER, 2019).

In short, the existing and emerging mechanisms in the Mekong sub-region have offered the region various options. For example, as discussed earlier, with the combination of MLC transport infrastructure project with other essential projects, Laos will be more physically connected with other countries in the region and beyond. This connectivity will also support the holistic approaches of national socio-economic development. While the opportunities have been offered to Laos in particular and the Mekong sub-region as a whole, the challenges have been posed. First, rather than being complementary and compatible to each other, the possibilities of the competition among the Mekong cooperation mechanisms have been observed, (Vannarith, 2019). Many concerns are that the ownership of implementing strategies might be dominated by other more predominant Mekong mechanisms, such as the emergence of MLC mechanism driven by China might dominate or marginalize the existing Mekong mechanisms, for instance, MRC as it has more resources. Second, Mekong countries may find it difficult to make decision in prioritising the projects under various mechanisms, which tend to be competitive to each other. Although the Mekong cooperative mechanisms refer to as a collective platform or multilateral cooperation, when it comes to the implementation, it is difficult to take action collectively. The evidence has shown that the decisions to implement projects have been made bilaterally in most

cases. This is because each country has its own priorities, capacities, and advantages (EOJ, 2019). For instance, the Mekong-Japan cooperation, which is driven by Japan, in terms of implementing projects, Japan consults and collaborates with recipient countries individually such as Japan-Laos and Japan-Cambodia. Likewise, Laos and China have bilaterally made the decision to build the Lao-China railway project under the Belt and Road Initiative (BRI), although it is an integral part of ASEAN railway network. Third, the lack of coordination and cooperation among the Mekong cooperative mechanisms is another obvious issue. This has led to the lack of understanding among mechanisms and their strategies, resulting in the overlapping of their projects. There are too spatially and sectorally widespread, which may result in the inefficiency of resources allocation (NEAT WG, 2016). Moreover, coordination within ASEAN countries is challenging as it works inefficiently (Tay et al., 2017). ASEAN has given relatively less attention to the Mekong cooperation. This is reflected by the slow progress of the ASEAN Mekong Basin Development Cooperation (AMBDC) platform, which was established in 1996. This platform has made little or no progress. For example, the mega project, the Singapore-Kunming rail link, remains largely incomplete, despite the initiative emerged two decades ago. The slow progress of such a platform can be attributed not only to inadequate financial and other resources, but also to little concrete and less interests by maritime ASEAN countries (Ho & Pitakdumrongkit, 2019).

To address those challenges, some key recommendations are provided: First, establishing and enhancing coordinating secretariats at national and sub-regional levels. Although recognition of the significance of coordinating concern, almost all Mekong cooperation mechanisms presented little the coordinating development at national and sub-regional levels. Thus, at national level, it is important to set up or strengthen the coordination within their public agencies and also coordinate collectively at sub-regional level. To an extent, the coordination between the existing and emerging of mechanisms should be promoted and enhanced, so that all regional mechanisms could align their strategies with Mekong sub-regional countries' priorities which will further contribute to the implementation and fulfillment of their national development plans and needs. Moreover, enhancing cooperation and collaboration among the respective mechanisms will help them to understand each other's strategies and addressing common issues. To promote and enhance cooperation among them, scholars recommended that database should be created for sharing information so as to build and enhance mutual understanding among the mechanisms. In addition, the ASEAN coordination needs to be strengthened in the wake of the competition by several external players in the region. ASEAN should oversee activities in the Mekong sub-region as well. If ASEAN does not do more to contribute to the development of the Mekong sub-region, ASEAN will lose its relevance in this aspect to other external players. As a result, it could split between the mainland and maritime ASEAN countries.

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MYANMAR'S PERSPECTIVE ON LANCANG-MEKONG COOPERATION

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The Mekong is a trans-boundary river in Southeast Asia. It flows through seven countries, China, Myanmar, Laos, Thailand, Cambodia and Viet Nam. As the six longest river in Asia and very important for economic development of the riparian states. Even though there are many institutions for Mekong River, Myanmar is the member of LMC, ACMECS, GMS and dialogue partner of MRC. Among them LMC is the most active in the Mekong area and its principles and objectives synergize with Myanmar National Economic Development Plan.

The LMC was created in November 2015 with six Lancang-Mekong river riparian countries to promote practical and value-added cooperation in advancing sustainable development narrowing development gaps and promoting the overall regional integration process. The goal of the LMC was to build a community of shared future of peace and prosperity for the LMC countries. The LMC countries are agreeable to cooperate in accordance with the principles of, consensus, equality, coordination, mutual benefits, respect for the United Nations Charter and International Laws. The LMC is moving toward a new sub-regional cooperation mechanism by synergizing China's Belt and Road Initiative and the ASEAN Community Vision 2025 as well as the Master Plan on ASEAN Connectivity 2025 and Visions of other Mekong sub-regional Cooperation Mechanisms. It will also promote the implementation of the UN 2030 Agenda for Sustainable Development. The LMC is focus on three pillars, namely political and security, economic and sustainable development and social, cultural and people to people exchanges.

The LMC also identifies five priority areas of cooperation including connectivity, production capacity, cross border economic cooperation, water resources and agricultural and poverty reduction. The LMC member will broaden their cooperation areas such as digital economy, environmental protection, customs and youth and to gradually form a cooperation framework of 3+5+X.

Myanmar's Economic Policy

Myanmar has large economic potential, but it faces economic, social and political challenges. The absence of rural infrastructure, poor transport infrastructure, lack of modern telecommunication infrastructure, significant power shortages are constraining immediate growth prospects. It is important for the country to accelerate economic growth by expanding domestic and regional markets and by development of manufacturing export sector. Therefore Myanmar sustainable economic policy emphasize on expanding financial resources, promoting and assisting small and

medium enterprises as generators of employment and growth, fostering the human capital prioritizing the rapid development of agriculture, live-stock and industrial sectors, food security and increase export formulating specific policies to increase foreign investment and strengthening property rights and the rule of law, achieving environmentally sustainable cities, upgrading public services and utilities, expanding public space, and making grater efforts to protect and conserve cultural heritage and protecting individual rights and property rights through enacting law and regulations. Connectivity such as road and rail connectivity between Myanmar and other LMC member countries found to be important and as well give a window of opportunity to integrate with sub-regional countries and beyond.

Synergizing the LMC mechanisms with Development Strategy of Myanmar

The LMC five areas of cooperation are important for the economic developments of Myanmar. The Joint Statement on Production Capacity Cooperation Among Lancang-Mekong Countries also emphasize to focus jointly promoting economic development and industrial transformation and upgrading in relevant countries and provide necessary support for SME's development in the production linkages. LMC also agree to prioritize in productive capacity cooperation sectors such as electric power, power grid, automobile, metallurgy, production of building materials, supporting industries, light industry, textile, medical equipment, information, communications, rail transport, land transport, air transport, equipment manufacturing, renewable energy, equaculture and agricultural processing. The production capacity cooperation of LMC will support the Myanmar government policy of promoting SME's to generate employment and growth and also became a important factor in promoting Myanmar agricultural and fishery sectors.

Myanmar Sustainable Development Plan based on the just balancing of sustainable natural resources modification as allocation across the States and Region. Myanmar government would very much like to see development of rural areas especially remote border areas. Development of border areas will expedite the major aims of national reconciliation and peace and stability of the country. LMC leaders agreed to support enhanced economic and technological cooperation and development of economic zones and special economic zone in border area, industrial zone and SciTech parks. These measures will support development of border areas.

The LMC Special Fund was set up by China to support Priority Projects and has been offering financial support for 138 projects for the year 2018. Myanmar has been allowed 19 projects to formulate under this special fund. The LMC Leaders' Second Summit in Cambodia in 2018 has approved a Five Year Plan (2018-2022). The Plan of Action is formulated with the aim of contributing to the economic and social development gap within the region and building a community of shared future of Peace and Prosperity among Lancang-Mekong Countries.

Myanmar participation in the other mechanisms in the Mekong river region

Myanmar is the member of other mechanisms of Mekong river region. These are GMS, ACMECS, and as a dialogue partner in MRC.

Greater Mekong Subregion (GMS) was formed in 1992 with six countries of the Mekong Sub region and launched the GMS Economic Cooperation Program to enhance economic relations

with the assistance from the Asian Development Bank (ADB). The GMS has adopted three strategies, these include to increase connectivity numerous economic corridors and transport (road, railway, and shipping) corridors; improving competitiveness; and building a greater sense of community have been planned.

The three economic corridors include East-West Economic Corridor (Myanmar-Thailand- Laos-Viet Nam) and North-South Economic Corridor (Thailand- Laos- China(Kunming)) and Southern Economic Corridor. (Thailand- Cambodia-Viet Nam), Myanmar participation in GMS is in the East- West Corridor.

Myanmar is also a member of Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS). ACMECS was founded in 2005 and to cooperate in five priority areas of cooperation including transport, and trade and investment facilitation. Further coordinate to complete multi model transport connectivity and make full use of existing road transportation networks and economic corridor such as GMS. ACMECS encourage the development of air linkages among major cities, cultural and natural heritage sites. There are many others framework of cooperation in the Mekong Region. Among them, a number of frameworks initiated by countries outside the Region, especially the Lower Mekong Initiative (LMI), the Mekong-Japan Cooperation, the Ganga-Mekong Cooperation and the Mekong- South Korea Cooperation.

Among these Mekong river mechanisms LMC is the fastest growing economic cooperation due to strong financial support of China.

Conclusion

The six riparian states of Mekong River are expanding their areas of cooperation. LMC is moving forward for open and inclusive. LMC plan to invite existing regional mechanisms to participate in LMC activities to share their experiences, ideas and concern. The MRC expressed willingness to cooperate with LMC in order to jointly implementing activities. Similarly, ACMECS looks forward to identifying the potential areas of cooperation with LMC. These are very promising indications for the development of countries in the Mekong river areas. There are challenges that we still need to face in formulation of policy and goals for Mekong river basin. The best way to solve these problems by openness, inclusiveness and policy making process should be conducted based on both top-down and bottom-up approach so that local community can participate in the process. The strong financial support is also important for successful completion of the projects. I am confident that all six riparian countries can work together for more integrated and prosperous Mekong river region.

THAILAND'S PERSPECTIVE ON THE NEW DEVELOPMENT OF THE MEKONG SUB-REGIONAL COOPERATION

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Introduction

A significant element in Thailand's foreign policy in the Mekong sub-region is not only to place Thailand as an active player in this area but also to encourage multiple stakeholders to participate in sub-regional development. The involvement of external actors has benefited the sub-region substantially as various development projects from different agencies and countries have helped lift the standard of living of millions of people. In addition, most of Mekong cooperation mechanisms take ASEAN as a broad reference; thus, they have directly contributed to the strengthening of ASEAN as the true regional pillar.

However, the Mekong sub-region is witnessing a new development in recent years. China has entered into the scene as an active player in supporting a new sub-regional arrangement—the Lancang-Mekong Cooperation (LMC). Competing cooperation mechanisms offer benefits to the CLMVT countries as they complement what may have been overlooked in each mechanism. Theoretically, LMC potentially provide better opportunities for the sub-region as it brings China to seriously participate with the region. However, in relation to changing the geo-strategic environment, LMC may also reflect the ongoing major powers' competition.

In this context, Thailand faces both opportunities and challenges in how to shape its foreign policy to continue a constructive engagement with different regional stakeholder as well as to ameliorate adverse consequences of power competition.

Thailand and the Mekong Sub-Regional Mechanisms

The development of the Mekong sub-region has been one of the major foci in Thailand's foreign policy. Since the end of the Cold War, it is undeniable that Thailand's renewed interest in the sub-region has manifested in its multiple attempts to engage with the countries in the sub-region. The main policy objective is mainly to serve both Thailand's economic and strategic benefits. The regional dimension is intrinsic to this foreign policy and crucial in its own right. That is, a peaceful and prosperous Mekong sub-region is a prerequisite to maintaining Thailand's national interest. The spirit of "turning the battlefield into market places" foreign policy under the late Prime

Minister Chatichai Choonahavan at the beginning of the post-Cold War has never faded from Bangkok's intention to shape the development of the sub-region.² That is, Bangkok attempts to build and support various sub-regional cooperation mechanisms.

Thailand has involved directly in creating cooperation mechanisms in this geographical area. For example, Thai local public and private sectors in 1991 spearheaded a cooperative scheme amongst five cities in the upper Mekong River basin, known as "Five Chiangs Strategy" encompassing Chiang Mai, Chiang Rai, Luang Prabang, Jinhong, and Keng Tung.³ The strategy intended to revive and stimulate local economic activities in this area based on their shared culture, history, and local connection. The Thai government later supported the initiative, which developed into the Quadrangle Economic Growth in 1993.

The Ayeyarwady - Chao Phraya - Mekong Economic Cooperation Strategy (ACMECS) was also proposed by Thailand in 2003. ACMECS aims to reduce development gaps between CLMV and old ASEAN countries. The reform of Thailand's overseas development assistance in the early 2000s also helped streamline Thailand's priorities in its ODA policy, hence, helps improve the implementation of ACMECS schemes. Recently, the Thai government has renewed its interest in using ACMECS as the main vehicle to coordinate its Mekong policy.⁴

Thailand is also an active supporter in various regional mechanisms related to the Mekong sub-region, particularly, the Asian Development Bank's Greater Mekong Subregion (GMS) projects. Located at the centre of mainland Southeast Asia, Thailand unavoidably sees GMS's different economic corridors important to its economic development. GMS projects help stimulate economic momentum in Thailand's impoverished areas by connecting with the rest of the Mekong sub-region. It is, therefore, not a surprise that Thailand's economic planning for its regions has well-coordinated with the GMS projects, especially, the construction of the transport network and the harmonisation of cross-border rules and regulations.

Recognising the region's limited financial and technical capacities, gaining supports from external players is always essential to sub-regional development. Thailand also plays a coordinating role in mobilising external involvement in different programmes. In 1994, for instance, Thailand welcomed New Zealand's sponsorship in setting up the Mekong Institute in Khon Kaen as a regional centre for capacity building for sustainable development in the sub-region. In 2009, Thailand recognised the Institute as an international organisation under its law. Thailand proposed the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) as a forum that connects South Asia and Southeast Asia in 1994. Although the forum does not include other Mekong countries besides Myanmar and Thailand, BIMSTEC is meant to offer a gateway for South Asia to interact with the Mekong region.

² Pongphisoot Busbarat, "A Review of Thailand's Foreign Policy in Mainland Southeast Asia: Exploring an Ideational Approach," *European Journal of East Asian Studies* 11, no. 1 (August 1, 2012): 127-54.

³ "Yutthasat ha Chiang su siliam setthakit penma yangrai [How did Five Chiangs Strategy transform to Quadrangle Economic Growth?]," Northern Region, accessed June 8, 2019, <http://prdnorth.in.th/article/a2.htm>.

⁴ "Getting to Know ACMECS--the Cooperation between Three Major Rivers (in Thai)," accessed June 9, 2019, <http://www.mfa.go.th/main/th/information/8149/88649-ทำความรู้-ACMECS-ความร่วมมือสามแม่น้ำ.html>.

Thailand is also a co-host, co-donor, and co-sponsor in Mekong-Japan Cooperation to make sure that Japan not only continues to play a constructive role in mainland Southeast Asia but this mechanism is also compatible with other existing regional mechanisms such as ACMECS, GMS, ASEAN, and UN frameworks.⁵ Thailand and Japan also agreed during the latest Mekong-Japan Summit in 2018 that projects and plans within Mekong-Japan Cooperation should be streamlined with ACMECS in which Thailand is a prime mover.⁶ Likewise, Thailand is also a coordinator in the Mekong-Republic of Korea (ROK) Cooperation, especially in the agricultural and rural development issues. Thailand co-hosted several forums such as a consultative forum to drafting an action plan in the early stage of cooperation as well as a business forum for networking and information exchange. The Mekong-ROK centre for capacity building and training activities was also set up in Bangkok.⁷ Recent Mekong-ROK ministerial meeting agreed to make greater efforts to bolster SMEs' competitiveness for the region's inclusive and sustainable development.⁸

Thailand's ODA policy, particularly, demonstrates its new approach to streamline Thai foreign policy and Mekong cooperative mechanisms. Since the early 2000s, Bangkok has designated itself as a new donor country. It focuses on development cooperation programmes, particularly, in neighbouring countries such as development projects, volunteer and expert programmes, fellowships, scholarship, and training.⁹ The significance of the CLMV countries can be seen from the fact that the value of Thailand's ODA programmes in these countries alone remains approximately half of total ODA value provided through Thailand International Development Agency (TICA) in the past two decades (Table 1).

TICA's role is not limited to providing bilateral development cooperation but also liaising its policy and programmes with other like-minded third parties, including foreign countries, regional bodies, and international organisations. In this context, Thailand has become a hub for overseas development assistance programmes in mainland Southeast Asia. The essence of this role is to coordinate ODA programmes so that they are better implemented and effective. At the same time, it also reflects the nature of this sub-region that welcomes all constructive cooperation from different stakeholders.

⁵ "Mekong-Japan Cooperation (in Thai)," Ministry of Foreign Affairs of Thailand, accessed June 9, 2019, [http://www.mfa.go.th/business/th/cooperation/245/16214-ความร่วมมือประเทศคู่มน้ำโขงกับญี่ปุ่น-\(Mekong-Japan.html](http://www.mfa.go.th/business/th/cooperation/245/16214-ความร่วมมือประเทศคู่มน้ำโขงกับญี่ปุ่น-(Mekong-Japan.html)

⁶ "Japan-Thailand Summit Meeting," Ministry of Foreign Affairs of Japan, accessed June 9, 2019, [/page4e_000942.html](http://page4e_000942.html).

⁷ "Mekong - ROK Cooperation," Ministry of Foreign Affairs of Thailand, accessed June 9, 2019, [http://www.mfa.go.th/business/th/cooperation/245/25432-ความร่วมมือประเทศคู่มน้ำโขงกับเกาหลี-\(Mekong---ROK.html](http://www.mfa.go.th/business/th/cooperation/245/25432-ความร่วมมือประเทศคู่มน้ำโขงกับเกาหลี-(Mekong---ROK.html)

⁸ The Korea Herald, "Mekong-Korea Cooperation Spearheads Sustainable Development," December 24, 2018, <http://www.koreaherald.com/view.php?ud=20181224000254>.

⁹ "Thailand International Cooperation Agency," accessed June 10, 2019, <http://www.tica.thaigov.net/main/en/>.

**Table 1: Value of Thailand’s bilateral ODA programmes to recipient countries
(unit: 1,000 Baht)¹⁰**

Years	Total ODA	ODA to CLMV	% share of ODA in CLMV
2017	444,301.8	214,435	48
2013	431,373.5	249,232	48
2007	325,307	169,566	52
2002	117,540	75,713	64

A New Chapter of Mekong Cooperation: the Lancang-Mekong Cooperation (LMC)

In the context of the increasing role of China in the international community, Beijing has shown its eagerness to actively participate in the Mekong cooperation mechanisms. This policy intention is deemed to be positive to the current and future sub-regional development. Geographically as a Mekong riparian state, China’s role in the Mekong cooperation mechanisms is not new as it is part of GMS projects and an observer to the Mekong River Commission (MRC). Considering China’s success in its economic development, its role is meaningful and significant to the entire sub-region.

Thailand welcomes China’s role in the sub-regional cooperation as part of its policy of building a coalition of like-minded stakeholders in the Mekong development, as discussed in the previous section. Bangkok initially reached out to Beijing to seek the latter’s support for a new sub-regional framework to coordinate cooperation and address challenges about the Mekong River amongst riparian states. The idea was developed into the Conference on Sustainable Development in the Lancang-Mekong Sub-Region in 2012.¹¹ China also took its active role later that year to further institutionalise the framework under the Lancang Mekong Cooperation (LMC) which was announced during the 17th China-ASEAN Summit in November 2014 in Myanmar. In November 2015, MLC was officially launched at the first MLC Ministerial Meeting in Jinghong, Yunnan Province. The first leaders’ summit was held in Sanya, Hainan Province in March 2016.

LMC’s institutional design

At the first leaders’ summit, the LMC leaders agreed that LMC aims to promote cooperation in three respective areas: political and security issues, economic and sustainable development, and social, cultural and people-to-people exchanges. The Sanya Declaration identifies five key priority areas, including connectivity, production capacity, cross-border economic cooperation, water resource, and agriculture and poverty reduction.¹²

¹⁰ “Total Value of Thai International Cooperation Program (TICP) - Thailand International Cooperation Agency,” accessed June 10, 2019, <http://www.tica.thaigov.net/main/en/other/4296>.

¹¹ “Press Release: Minister of Foreign Affairs of Thailand to Attend the 4th Mekong - Lancang Cooperation Foreign Ministers’ Meeting - Ministry of Foreign Affairs, Kingdom of Thailand,” accessed June 10, 2019, <http://www.mfa.go.th/main/en/news3/6886/97421-Minister-of-Foreign-Affairs-of-Thailand-to-Attend.html>.

¹² “Sanya Declaration of the First Lancang-Mekong Cooperation (LMC) Leaders’ Meeting,” accessed June 10, 2019, http://www.lmcchina.org/eng/zywj_5/t1513793.htm.

The second summit was held in Phnom Penh in January 2018. It outlined the Five-Year Plan of Action (2018-2022) (PoA), which further elaborates the issue of connectivity. This includes the construction and upgrading of infrastructure of railways, highway, waterway, ports, power grid, information network, and aviation. This focus on connectivity reflects a mutual interest between China and ASEAN. Whilst the Mekong sub-region is one of the economic corridors within China's Belt & Road Initiative (BRI), ASEAN also wants to fulfil its connectivity plan 2025.¹³

The institutional design for the LMC was also laid out in the PoA. Regular meetings at different levels are scheduled with biannual leaders' summit, annual foreign ministerial meeting, and different related senior official and joint working groups meetings. The issue of having a secretariat office to coordinate between six national secretariats was discussed. The development of LMC identity was also part of the plan, such as the design of a logo and other symbols. Importantly, China offered to provide a special fund to support pilot and priority projects.

Opportunities and Challenges in the Mekong Cooperation within the Geopolitical Context

Similar to other sub-regional arrangements, LMC can potentially help improve the coordination within Mekong cooperation mechanisms. However, a geostrategic aspect of China's role in the region cannot be factored out. After all, the Mekong sub-region is geographically China's backyard. Therefore, LMC can likely be seen not merely as another regional collective mechanism to provide public good but also a driver for China's regional leadership.

Admittedly, China's attempt to streamline Mekong cooperation within the LMC has a positive outcome for Mekong cooperation. Unlike other sub-regional mechanisms that suffer from the lack of leadership continuity, resource commitment, or political will, Beijing's leadership in LMC will help sustain the cooperation. The Quadrangle Economic Growth in 1993 initiated by Thailand, for example, was eventually incorporated into ADB's GMS scheme due mainly to Thailand's economic crisis in 1997. The dynamics of ACMECS also waned after the fall of the Thaksin government and a decade-long political crisis in Thailand. MRC also lacks a clear leadership as well as the willingness to participate by another two riparian states, China and Myanmar. Other initiatives led by other external powers such as GMS and US-initiated Lower Mekong Initiative (LMI) are also viewed with suspicion by Beijing as counter-balancing vehicles against Chinese interests by other regional powers. Therefore, China's leadership in LMC could overcome the past drawbacks and anchor Beijing's participation in the Mekong sub-region.

However, as much as LMC may continue Beijing's Good Neighbour Policy in the region, it may reduce the importance of other existing mechanisms. Although China emphasises that LMC is meant to complement rather than substitute the current mechanisms,¹⁴ it is more likely that China will pay attention or give more priority to its own regional initiative. China's possession of

¹³ "Five-Year Plan of Action on Lancang-Mekong Cooperation (2018-2022) - World - Chinadaily.com.cn," accessed June 10, 2019, <http://www.chinadaily.com.cn/a/201801/11/WS5a56cd04a3102e5b17374295.html>.

¹⁴ "Spotlight: Lancang-Mekong Cooperation Not to Substitute, but to Coordinate with Other Sub-Regional Mechanisms: Chinese Minister - Xinhua | English.news.cn," accessed June 10, 2019, http://www.xinhuanet.com/english/2018-04/05/c_137090500.htm.

political and economic powers will undeniably change the momentum of the Mekong cooperation mechanisms as a whole.

As a result, China's interests may potentially triumph in the LMC implementation in the future. Despite the fact that LMC officially cherishes the spirit of win-win cooperation, it cannot be denied that LMC is yet another international platform where political and economic bargaining takes place. Smaller nations in the sub-region may face a policy dilemma as they are politically and economically weaker and possess lesser bargaining power. Opposing Beijing's policy and plan in the LMC may also invite tensions and negative political and economic consequences. At the same time, history suggests that mobilising a collective position amongst CLMTV is not an easy task, if not impossible.

Unlike other existing mechanisms in which the role of external stakeholders is leading but relatively distant, LMC may have a tendency to be led, if not dominated, by China. When disagreements take place, China's political and economic prowess will definitely be weighted into the decision-making of the smaller nations. LMC solutions and direction may be suboptimal to the entire sub-region. Benefit

The area of tension between China and CLMTV is likely to be found in the use and development of the Mekong River. China's investment along the Mekong, including constructing dams and navigation channel, will have significant impacts on human security and environment in the lower stream areas. While China is not part of the MRC, instead, its spearhead in the LMC to consolidate its water resource policy in the Mekong has raised a question of its intention and sincerity.

Coupled with Thailand's decade-long political disruption, moreover, China's recent role in the Mekong sub-region, especially through LMC, in fact, directly affects Thailand's regional leadership. Therefore, Thailand has recently attempted to craft a policy to avoid LMC's undesirable impacts. Thailand's position is that LMC should adhere to an inclusive and open regionalism. This is not to deter China's leadership but to persuade and remind Beijing that LMC should take into count the ongoing cooperation mechanisms. These mechanisms offer benefits to LMC's future progress in terms of cost sharing and diversifying sources of know-how and expertise, hence should be of China's interest.

In this regard, Thailand has encouraged China to link and coordinate LMC's agenda to other regional frameworks, especially ASEAN. Thai Foreign Ministry, for example, explained to Chinese officials in a bilateral meeting that sub-regional countries also need to be able to justify to their people why an additional regional mechanism is necessary and beneficial to their countries as well as how it will broadly benefit ASEAN Community building.¹⁵ Thailand's suggestion is reflected in LMC's PoA. The PoA reiterates that LMC 'will support ASEAN

¹⁵ "A meeting with the Chinese Embassy regarding LMC meeting (in Thai)," September 30, 2003, 0704/2080/2558, Ministry of Foreign Affairs of Thailand.

Community building and regional integration, as well as promote the implementation of the UN 2030 Agenda for Sustainable Development'.¹⁶

During the LMC Summit in 2018, Thailand's Prime Minister also emphasised that Thailand has been a spearhead in building the connectivity in the sub-region within different frameworks such as ACMECS, ASEAN, BIMSTEC, and IORA. Therefore, LMC's future direction should be able to coordinate with these regional bodies so that the region realises the goal of linking infrastructure, harmonising rules and regulation for trade and investment, as well as connecting peoples. After all, LMC will be able to benefit both the sub-region and China's BRI strategy, hence truly win-win cooperation.¹⁷

Final remarks

Thailand has been at the forefront of supporting sub-regional development since the end of the Cold War. It has remained Thailand's interest and policy that different frameworks of cooperation will provide benefits to the Mekong sub-region. Both Thailand's initiated mechanisms and its cooperation with other stakeholders have so far shown satisfactory outcomes. That is, the Mekong sub-region is connected than ever before but more needs to be done. Therefore, existing cooperation mechanisms are necessary. Certainly, some problems and drawbacks may have prevented these mechanisms from achieving their full capacities. These challenges can be managed if all stakeholders maintain their strong political commitment and shared goal.

As another Mekong country, China's active participation in the Mekong cooperation provides opportunities and potential to succeed. The region welcomes China's recent leadership through LMC due mainly to the fact that China offers an economic potential as well as a political will. As LMC is part of China's BRI strategy, it undisputedly will benefit the region if managed with the spirit of win-win cooperation.

However, concerns over China's political influence and intention are unavoidable in the context of the rise of China and power competition in the region. This broad geostrategic context alarms policymakers and observers that this issue can become an important challenge to the Mekong cooperation. Cooperation between a single great power and small powers may slip into domination by the former; hence, the cooperation may not fully provide the benefits as it promises. This scenario might overshadow the future of LMC, considering disagreements among the riparian states on the use of the Mekong resources remain unresolved.

It is Thailand's perspective that China's active role in LMC should follow the principle of win-win cooperation. Voices from smaller nations in the sub-region must be taken into China's consideration in a serious manner. Moreover, China should also welcome collaboration with other external stakeholders who share mutual interest and goodwill to the region. This is to

¹⁶ "Five-Year Plan of Action on Lancang-Mekong Cooperation (2018-2022) - World - Chinadaily.Com.Cn."

¹⁷ "LMC Summit agrees to connect China and ASEAN (in Thai)," VoiceTV, accessed June 11, 2019, <https://www.voicetv.co.th/read/SyyzCwNNM>.

ameliorate suspicion on China's intention and eventually to prevent the sub-region from becoming a battlefield of regional power competition.

At the same time, the sub-region also needs to seek a degree of mutual understand and policy position as to how the sub-regional development should be heading. Policy coordination should be improved in order to strengthen CLMTV's position against unintended consequences. Also, ASEAN as a whole should pay greater attention to the development and cooperation in the Mekong sub-region. Direct involvement of other ASEAN member countries will contribute to a more cohesive ASEAN, which is an important step towards its community building.

NATIONAL PERSPECTIVES ON OPPORTUNITIES AND CHALLENGES OF THE MEKONG COOPERATION MECHANISMS

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The Mekong river basin has long been a beautiful, fertile region and rich in resources. The river is the major source of food, nutrition for millions of people and the source of economic development and cultural exchanges for riparian countries. Nowadays, however, the sub-region is facing a number of challenges from environmental, economic to security. Low level of economic development, uncoordinated use of water resources, insufficient infrastructure connectivity are some of the major unaddressed problems. Notably, the issue of uncoordinated use of water resources can pose risks for sub-regional countries such as bilateral mistrusts, threats to water and energy security, environmental degradation and other social impacts.

This presentation will address 3 questions: First, it lays out current major challenges to the Mekong sub-region. Second, it reviews the achievement of cooperation mechanisms in Mekong regions in addressing the challenges and also their limits. Based on these analysis, we provide some recommendation on how to make the best use of these mechanisms.

1. Challenges for Mekong sub-regional

The Mekong sub-region is seeing a number of challenges, ranging from lack of development resources, uncoordinated use of water projects and rising strategic rivalries between major powers.

(i) Lack of development resources

First, although countries have made great efforts in mobilizing resources for development, Mekong riparian countries still lack huge amount of resources, including finance and technology for their national development. Infrastructure is still incomplete, requiring further construction and upgradation. It is the fact that the mobilization of resources has not yet met the demands and most financial sources are from external partners.

Moreover, financial resources have not been diversified, mostly in the form of ODA from developed countries and international organization. Private sector and enterprises have not been given adequate attention, the business environment is not really attractive to promote and attract investment from private sector.

Until now, only GMS and ACMECS have mechanisms to attract enterprises through GMS Business Forum (GMS-BF) and ACMECS Business Council, but these mechanisms are still quite ineffective and are not attractive enough to enterprises from inside and outside the region. [1]

Second, the region is also facing with the problem of labor quality. Many cooperation initiatives cannot be implemented due to the lack of high quality human resources.

(ii) Uncoordinated use of water resources

- Water resource management is among major area of cooperation in sub-regional cooperation. However, not much has been achieved in terms of coordinating the use of water resources as well as sharing hydrological data
- Mekong riparian countries are implementing their own water exploitation projects without due attention to the negative impacts on the environment, the eco-system of the river and the interests of different stakeholders. [2]
- Mekong River Commission is the major mechanism to coordinate the use of water but regulations are not binding and cover only mainstream projects. [3]
- Hydrological data sharing is implemented but has not met the demands of riparian countries (data is not harmonized, hydrological data in dry season is not available).

(iii) Rising strategic rivalries between major powers

With its strategic geopolitical location and huge potential for economic growth, the Mekong sub-region has attracted attention of major and middle powers. There exist more than 10 mechanisms lead by outside partners, including all major powers and middle power such as the China with the Mekong-Lancang Cooperation, US with the Lower Mekong Initiative, Japan with the Mekong-Japan Cooperation framework, and other such as India, Korea, Australia, New Zealand, the EU and its members; and institutions such as ASEAN, ADB, the World Bank.

The involvement of major powers brings both opportunities and challenges for the region. On the one hand, it opens new avenue for regional countries to discuss on important water resource management and development issues, help enhance regional connectivity and draw resources for development. On the other hand, the region is become more and more a playground for strategic competition. China is pushing the implementation of the Mekong - Lancang Cooperation, which is considered an important part of its global BRI and a testing ground "Community of Common Destiny". Meanwhile, the US is restructuring the Lower Mekong Initiative (LMI) and make it an integral part of the the Indo-Pacific Strategy.

The objectives for China and the US are strikingly different. China aims integrating its Southern rural areas with the Mekong sub-region to accelerating their economic growth at provincial level. Secondly, China geopolitically aims for being a rising dominant power country in the region, accelerating its power influence against the current international order led by the status quo power. Meanwhile, Washington's engagement in Mekong sub-region also has several goals: addressing the development gap existed in the region, enhancing supports for its geopolitical agendas and deters Chinese ascending influence in the Mekong sub-region. This kind of hidden agenda make it all the more difficult to synchronize the efforts and make the best use of all the mechanisms for its long term development.

2. Achievements and issues of sub-regional cooperation mechanisms

Facing with the above-mentioned challenges, Mekong riparian countries have been making joint efforts in minimizing the risks while pushing forward cooperation for strengthening security and promoting development. Recognizing the importance of those joint efforts, Mekong riparian countries have been actively participating in almost all sub-regional cooperation mechanisms. Those platforms cover topics of water resource management and other development issues such as connectivity, environmental protection and capacity building and have been positively contributing to the maintenance of peace and promote development in the region.

The increase in the number of the cooperation mechanisms in the last 20 years represents the significant role and achievements that sub-regional cooperation has made in tackling common issues.

Achievements

First, through Mekong sub-regional cooperation platforms, Mekong countries have mobilized huge amount of resources for their national socio-economic development.

As of 2018, after 25 years of operation, the *Greater Mekong Cooperation* has implemented hundreds of projects in a wide array of areas, ranging from transportation, energy, and telecommunications to trade, agriculture and environment with the total capital of over 21 billion USD. In March 2018, at the 6th Summit of the Greater Mekong Sub-region (GMS-6) in Hanoi, leaders of the member countries approved the GMS Regional Investment Framework 2018- 2022 with the list of 227 projects with the total funding estimated of nearly 66 billion USD. [4]

Within the framework of *Mekong - Lancang Cooperation*, many projects have been implemented with fund from the Mekong-Lancang Special Fund provided by China.

The US have also provided 50 million US dollars for cooperation activities within the US - initiated *Lower Mekong Initiative* for the period between 2012 – 2015.

Japan financed the sub-region of about 1,100 billion Japanese Yen in the period of 2009-2015, and 750 billion Japanese Yen (about 6.5 billion USD) for the period 2016-2018 under *Japan – Mekong Cooperation* program. Japan also helped train experts in infrastructure for sub-regional countries. India and South Korea are also committed to making contributions to regional cooperation mechanisms.

Second, Mekong sub-region mechanisms have been the key platforms for dialogues and discussion on major regional common issues.

It can be said that those Mekong cooperation mechanisms have been providing venues for trust building from which sub-regional countries can work together to deal with emerging threats on the basis of mutual respect and common interest. For example, facilitating consultations and dialogues on water exploitation projects has long been the main duty of the Mekong River Commission. The Mekong – Lancang Cooperation include water resource management as one of

its five prioritized areas under which a working group has been set up and put into operation. [5] The Lower Mekong Initiative is promoting hydrologic data among its member countries. With that approach, the sub-region has somehow been effective in dealing with common issues that individual countries' efforts or bilateral cooperation would not be able to resolve.

Cooperation in the Mekong sub-region has also contributed to hunger eradication and poverty reduction, narrowing the development gap and improving the living standards of people along the Mekong river basin. The betterment of infrastructure with the construction and upgradation of roads and seaports has facilitated the economic restructuring toward industry, trade and services which bring about higher economic value and create more jobs for local people. In addition, cooperation in the fields of environment, health and human resource also helps Mekong countries to improve the quality of living standards of local people and look forward sustainable development model. [6]

Third, sub-regional cooperation contributes to strengthening sub-regional connectivity.

In field of development, within sub-regional mechanisms, riparian countries not only work together to implement development projects but also integrate those projects into their development strategy in which connectivity is vital common efforts to promote trade and investment. Currently, most sub-regional cooperation platforms see connectivity as one of their focused areas (for example: GMS, Mekong – Japan, Mekong – Lancang, Mekong – Ganga, LMI). At the present, hard sub-regional connectivity includes the establishment of the East-West Economic Corridor (EWEC), North-South Economic Corridor (NSEC), and the Southern Economic Corridor (SEC). The sub-region has also been initially connected to the outside region with road connectivity. A part from that, through mechanisms like the GMS, Mekong countries have also been strengthening their soft connectivity to promote economic development. In reality, countries in the Mekong sub-region have signed and implemented many bilateral and multilateral agreements to facilitate the movement of people and goods in the region, including the GMS Agreement on facilitation of cross-border transport (CBTA). The removal of "soft" barriers helps to reduce transaction costs, contributing to the promotion of investment, trade and tourism in the sub-region.

Limitations

Though some positive outcomes have been achieved, sub-regional cooperation platforms also show some limitations.

First, there exist differences in interests of Mekong countries as well as among the external partners, especially in the field of water resource management. There has no common rules for the use of common water in the region. It is urgent that regional mechanisms play greater role in coordinating the different interests of individual countries in water usage on the basis of mutual respects and in accordance with international laws.

Second, the propaganda of the achievement of cooperation activities has not been effective that the public do not know much about Mekong sub-regional cooperation. It is the fact that joining the Mekong sub-region cooperation is seen by different groups as not a driving force for economic

restructure and development. The advantages of sub-regional economic corridors have not been effectively taken to attract more investment. Sub-regional cooperation projects have not been well integrated into the national development strategy of Mekong countries.

Third, the comparative advantages of the Mekong countries are relatively similar, so there is competition among the Mekong countries to gain a more favorable position and attract resources from development partners.

Forth, in time of the Industrial Revolution 4.0, Mekong sub-regional cooperation has move its focus to grasping and making good use of the technological achievement from the IR 4.0. Cooperation activities have so far mostly focused on hunger eradication and poverty reduction, infrastructure with no due attention being paid to new issues arising from IR 4.0.

Fifth, due to the pressure to speed up the development, sustainable development aspect in many Mekong countries, including Vietnam, has not been paid enough attention.

3. Recommendations

In the context of the above-mentioned challenges, this paper proposes some recommendations for future cooperation:

In terms of water resources management and environmental protection:

- Promote cooperation among Mekong riparian countries regarding equitable and sustainable use of the Mekong River's resources, including water resources, on the basis of harmony of interests and with an aim to achieve sustainable development for the entire Mekong River basin;
- Promote cooperation among Mekong cooperation mechanisms with major partners such as the World Bank, ADB, the United States, Japan, Korea and the EU to take advantage of resources, technology and knowledge to serve the regional economic development, mobilizing partners to assist in seeking long-term and fundamental technology and policy solutions for sustainable development and environmental protection in the Mekong River region.
- Exchange information more frequently on water use plans of the mainstream and the tributaries of the Mekong river. Conduct joint research on the overall changing water flow patterns and impacts caused by climate change in the whole sub-region. Promote environmental protection, sustainable development in order to ensure water, food and energy security as well as to effectively respond to emerging issues of climate change.
- Improve regulations for Mekong riparian members for strengthening regional cooperation mechanisms and resolving disputes related to water uses projects.

In terms of connectivity, economic cooperation and trade promotion

- Strengthening development strategy connection between Mekong mechanisms. Harmonize common regulations in the cooperation sectors, especially in trade, investment and sustainable development.

- Promote the development of renewable energy to relieve the stress of building hydropower plant along Mekong River in the context that the sub-region has huge potentials for wind and solar energy whose prices are decreasing remarkably, making such kinds of energy more commercializable.
- Enhance the cooperation in new areas, including digital transformation, digital economy in applying technological achievements of the Industrial Revolution 4.0.
- Cooperate in tourism, cultural and people-to-people exchange: The Mekong River is not only beneficial in trade, and investment and fishery development, but also has great potential for tourism development. Therefore, improving cooperation among the member countries for joint programs and project focusing on cross-cultural interaction, people-to-people exchanges and tourism will definitely contribute to regional economic growth.
- Attract foreign investments to the region, and improve production capacities and labor productivity by acquiring experience and technology transfer from developed partners.
- Strengthen policy coordination, capacity building program, cooperation in agricultural science and technology, promote trade of standard agricultural products, thereby ensuring food safety and security and eliminating poverty.

Common solutions

- Promote the coordinated approach of Mekong countries in participating in sub-regional cooperation mechanisms, especially the ones with the involvement of external partners.
- Actively promote the participation of private sectors in the process of designing and implementing cooperation programs.
- Promote the involvement of various government agencies as well as other groups such as academia, private sector, non-governmental organizations in sub-regional cooperation activities in a bid to further strengthen mutual trust and understandings and to seek for new thought and ideas for future maneuver.

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REMARKS by H.E. Mr. Watt Botkosal
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Abstract

Water is essential in almost all areas of human activity and is essential for life, economy and environment. In the Mekong-Lancang River Basin (MRB) more than 70 million people live in 6 riparian countries: China and Myanmar (in the Upper Mekong Basin) and Thailand, Lao PDR, Cambodia and Vietnam (in the Lower Mekong Basin).

The Mekong, one of the world's greatest rivers, is a complex system with high intra-annual and inter-annual flow variability caused by the Southwest Monsoon, bringing both great risks and opportunities. These risks and uncertainties as well as threats are growing as populations and economies grow and climate change advances, putting more people and assets in harm's way, as droughts and floods in the region have demonstrated.

The Mekong River Commission (MRC) was established by the 1995 Mekong Agreement on Cooperation for the Sustainable Development of the Mekong River Basin signed by Cambodia, Laos, Thailand and Viet Nam.

Cambodia is one of the downstream countries with over 86% of its territory lying within the Mekong River Basin of which major parts are prone to floods. The Mekong-Tonle Sap-Great Lake and its related flood plain play an important role of economic and social significance to the country and to the region, sustaining an extremely productive biodiversity ecosystem that is unique in the world. The resources are crucial for especially the poor groups whose livelihoods are still at the subsistence level. The system is vulnerable to change in flow regime as a cumulative effect caused by development and water and related resource management in the upstream part. The economy of the country is heavily relying on agriculture which account for more than 80% of the national work force many of whom still live at the subsistence level. Most of the poorest groups belong to this sector.

Most of the cultivated areas are occupied by rain fed rice cultivation; only 16% of the total area is irrigated. The national water and related resources are under developed and technical and financial resources are very limited. Emerging from decades of unrest and destruction, the country needs to develop its natural resources for the improvement of people living conditions and currently facing many new challenges such as governance; low technical and managerial capacity at national, provincial down to the commune level in projects development, planning, implementation and management, and low public investments in rural infrastructure development.

The purpose of the presentation is to contribute to the discussion on aspects of environmental sustainability and human security related to the Mekong-Lancang future prospects, by sharing views on:

- Development of the regional and national knowledge base
- Development of regional and national networking and knowledge sharing; and
- Development and strengthening of the regional basin development planning

Keywords: Water, water sharing, Mekong future prospective, Mekong-Lancang River Basin, environmental sustainability, human security, threats and challenges, basin development planning, the 1995 Mekong Agreement, IWRM, BDP, transboundary, MRC, NMCs, sustainable development, integrated water governance, data and information sharing, water sharing, costs and benefits, and cost sharing.

The Knowledge Base

Good governance requires tools, skills and knowledge. Understanding the concept of river basin development and management to support sustainable development requires integrated and adaptive management. For example, according to MoE (May 2017), well-informed climate change adaptation and disaster risk reduction require accessible knowledge about in Cambodia but can be applied at the regional level:

- Demography and livelihoods, including trends;
- Hydro-meteorology, including normal and extreme rainfall (combining satellite data with a limited number of well-located ground stations);
- Zoning, land use, vegetation cover, including trends;
- Outbreaks of water-born or water-related diseases;
- Health of habitats and ecosystems/biodiversity, including coastal and marine areas, and including trends;
- 'Red spots' and 'green spots' (or 'assets');
- Adverse events: Floods, drought, forest fires, land-slides, pollution spills, pest attacks, etc., including trends; and
- Climate change exposures and vulnerabilities, including trends and projections.

Such knowledge will facilitate the identification and scoping of development programs and specific development initiatives; assessments of benefits and impacts; and design optimization. The knowledge must be accessible to those who need it, and the knowledge base must be maintained as the conditions are steadily evolving.

Today, in Cambodia, a visible opportunity remains for expanding the knowledge base (NCDDS February 2019).

Networking and Knowledge-Sharing

There is a clear scope for continued and expanded liaison, knowledge-sharing and active collaboration between riparian states, including practitioners and decision-makers within the regional government system, the private sector, civil society, and the academic communities.

The networking must proceed 'horizontally' (between sectors and administrative bodies at each level), as well as 'vertically', reaching all the way from the national government and the transboundary levels to the provinces, districts and communes, down to the community and household level. It must include liaison with established regional and national coordination bodies such as the National Mekong-Lancang Committee, in support of sustainable development with regard to disaster management and prevention, socio-economic development and a healthy environment.

The Mekong-Lancang Integrated Basin Development Planning

The regional integrated governance would create a strong planning framework among riparian countries of all 6 countries with a clear orientation towards funding and decentralization, allocating more authority (and more funds) to the national and transboundary as well as the sub-national (province, district and commune) levels of governance and administration.

IWRM in the context of basin development planning is applied everywhere and in the Lower Mekong Basin since 2005 - in the case of Cambodia since 2007 under the Water Management Law 2007.

Integrated Water Resources Management (IWRM) has been defined by GWP (2002) as “a process that promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”. It has been identified as one of the basic water-related policy approaches in several recent important commitments and recommendations such as those of the Johannesburg Summit and the World Water Forums. The IWRM aims at developing democratic governance and promotes balanced development of water resources for poverty reduction, social equity, economic growth and environmental sustainability. The four member states of the Mekong River Commission Cambodia, Lao PDR, Thailand and Vietnam, have adopted an IWRM approach to guide its work.

The development of the BDP for the whole Mekong-Lancang River has dealt mainly with the regional issues rather than national planning initiatives. The experience from the MRC since 2000 is that the BDP has provided a useful framework for LMB development strategy formulation and for identification and promotion of projects that support the agreed Basin Development Strategy 2011-2015 and 2016-2020. The BDP should cover the potential development focusing on social and economic development and environmental protection and conservation across (1) irrigated agriculture, (2) watershed management, (3) fisheries, (4) hydropower, (5) navigation, transport and river works, (6) tourism and recreation, (7) water supplies (domestic and industrial use), (8) flood control and management; (9) river ecosystem and environment protection and conservation (including aquatic ecosystems and their water demand), (10) social assets and human capital development and management (including poverty reduction and gender aspects), supported by public participation and human resources development.

THE FUTURE PROSPECTUS OF THE MEKONG RIVER

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Abstract

The Mekong River is very important resource for millions of people in Mekong region from its rich and diverse ecosystems. The needs of the increasing population can meet by identifying new opportunities to increase production potential and exploit the synergies between water, food, energy and environment that lead to greater efficiencies and returns.

There are new risks emerging from rapidly changing and often unpredictable environmental conditions and growing interdependencies among water, energy and food. The progression planning has to take advantage of synergies among water, energy, food and the environment. Similarly, the cost and benefits of this chain centered planning may not be equitably distributed among different stakeholders. The collaborative initiatives with Government, private sector and academics will help in providing appropriate data for decision making. Responsibilities of different ministries in Governments requests for synchronized efforts for Management of Water, energy, food and Environment. Appropriate communication across large bureaucracies will accelerate the efforts.

Background

In the Greater Mekong region, the populations are booming and the demand for energy and natural resources is reaching new heights. Around 80 percent of the population depends on healthy natural systems such as rivers, forests and wetlands for food security, livelihoods and culture. At the food-energy-water security nexus, food demand alone in the Mekong countries is projected to grow by between 20 and 50 per cent by 2030. A quarter of the GMS population has no access to electric energy, but this gap is predicted to close with demand expected to increase by 175 per cent between 2010 and 2025. The use of water for agriculture, energy production, and domestic and industrial use is increasing exponentially, within the GMS countries and at the regional level.

The Mekong River originates in the Tibetan highlands and runs through China, Myanmar, Thailand, Laos, Cambodia, and Vietnam before flowing into the South China Sea. Its 2,700-mile length and highly variable seasonal flows fed by monsoons for half the year also make the Mekong unique and the “largest inland fishery, with an estimated 25 percent of the global freshwater catch. More than Sixty million people make an income off the fish, as well as crops grown along the Mekong River and its tributaries.

At present the uses of Mekong River resources include hydropower, fishery, irrigation, tourism and transportation. Fishery resources significantly contribute to regional food security, as well as induce related income generating activities. An escalating land, resource and infrastructure demands arising from urbanization and industrialization combined with a rapidly growing human population means that biodiversity and ecosystem services in the Mekong countries currently face unprecedented threats.

Threats

The most pressing threats for Mekong River are hydropower development, climate change, and illegal wildlife trade and habitat loss. The single most significant impact both now and in the future on the use of water and its management is hydropower. Given current development trends in the region, power demands are expected to rise seven percent per year between 2010 and 2030. Hydropower is the favored energy option for the Mekong's riparian countries. There are series of eight large hydropower cascade dams by China and joint proposals of Lao PDR, and Cambodia and Thailand to build 11 equally large hydropower dams. Most hydropower projects, both administered locally and jointly administered with neighboring countries, have raised widespread social and environmental concerns.

Although hydropower plants can supply large amounts of electricity, but these projects can disrupt river ecosystems and surrounding communities, harming wildlife and forcing out residents. Dams also prevent fish from swimming upstream to spawn. The hydroelectric dams can often change migration patterns and hurt fish populations. Hydropower plants can also cause low dissolved oxygen levels in the water, which is harmful to river habitats. The volume of the water that is found in the river in the dry season is about 30 times less than the wet season.

The current hydropower plans would reduce the amount of sediment reaching the Mekong Delta by up to 97 percent. Sediment enriches and replenishes the entire basin and supports agriculture and fisheries, in turn supporting the economies of Lower Mekong Basin countries. Planned hydropower construction will also cause fish stocks to decline dramatically: the total fishery biomass will be reduced by 35–40% by 2020, and 40–80% by 2040. While it remains inconclusive that it has severe impacts on biodiversity, fishery resources, potable water supply, and most importantly, community livelihood. The findings of the Council Study clearly show that the plans for 11 large hydropower dams on the lower Mekong mainstream and 120 tributary dams by 2040 seriously threaten the region's ecology and economy, as well as local people's access to sufficient and nutritious food.

Impacts

The developments are necessary to improve the lives of millions of people in the region, but if they are not planned sustainably it could also create serious and irreversible problems particularly now in the face of climate change. The several Study warns of severe impacts and trade-offs inherent in current and proposed Mekong hydropower expansion, due to substantial and trans boundary losses to fisheries, sediment transport and other critical ecosystem services.

These impacts will in turn heighten food insecurity and vulnerability of communities throughout the basin and ultimately affect Lower Mekong governments to achieve the Sustainable Development Goals (SDGs). The creation of reservoirs would result in many parts of the Mekong becoming a lake ecosystem, unsuitable for many native aquatic species of the river environment and will eventually drive them to extinction.

The climate change is affecting ecological productivity and economic vulnerabilities in ways that may encourage even greater pressures on the natural system and cause progressively greater stresses to human and economic systems. The projections for the Mekong River Basin for the next 20 to 30 years, are basin-wide temperature increase of 0.79°C, annual precipitation increase of 200 mm (a 13.5% rise), increase in dry-season precipitation in northern catchments and decrease in southern catchments, total annual runoff increase of 21%, increase in flooding in all parts of the basin with the greatest impact on downstream catchments of the Mekong River.

Degradation of ecosystem from climate change will decrease their productivity and capacity to provide livelihoods for people of the greater Mekong. Illegal wildlife trade results in the loss of precious species and also severely alters the ecosystems in which species and people live. Population growth, poor land-use planning and economic policies have led to deforestation and biodiversity loss. Loss of forest habitat and biodiversity weakens the region's ability to adapt to the impacts of climate change and puts communities at risk.

Steps to Resolve Existing Threats

Assessing Hydropower Impacts: Develop tools to help assess which tributaries can be developed for hydropower without compromising the ecological integrity of the lower Mekong basin.

Addressing Climate Change: Ecosystem based approaches can help by making use of ecosystem and biodiversity to reduce greenhouse gas emission and to assist people to adapt to a changing climate. Work directly with local communities to restore wetlands and coastal mangroves, prime aquaculture and agricultural lands. These initiatives will help build resilience to climate change impacts like sea-level rise, and extreme flooding and drought events.

Promoting Sustainable Forestry: The collaboration with companies, communities and governments to encourage responsible forestry practices that lead to sustainable development. This approach will enhance local economies, integrate watershed management, conserve biodiversity, and provide a long-term solution.

Building a Balanced Infrastructure: The construction of economic corridors essentially large infrastructure and energy blocks threatens the region's biodiversity and local livelihoods with long-term consequences. The collaborative effort of all major stake holders and other conservation partners to promote sustainable approaches to infrastructure development.

Implementing Sustainable Agricultural Practices: With demand growing for thirsty crops, need to works with local communities and industry to encourage responsible agricultural practices that minimize habitat loss and reduce impacts on water use and quality.

All stakeholders must be meaningfully involved in decision-making that protect the environmental wealth and economic development, while supporting livelihoods of river basin communities. Consider the natural and social environments of the entire watershed area when utilizing land and river resources.

The Rural communities who live along Mekong corridor are among the poorer. The livelihood sustainability of these rural communities can be ensured through appropriate public participation and setting the workable objectives for poverty reduction, improved adaptive capacities and systematic disaster management plan. All involved parties including governments must make concerted efforts to maintain fishery sustainability which includes improving fishers' adaptive capacity. A long-term plan must be developed to protect and manage fishery resource and biodiversity. The goal and missions of the development strategies, programs and projects, should be place-based, and geared towards the sustainable livelihood of these people. There are emerging energy technologies, such as solar and wind, as alternatives to hydropower. Assessing these alternatives, together with demand-side management and energy-efficiency measures, would provide major insights for managing water, energy, and food security more sustainably in the lower Mekong basin.

Mekong being the trans-boundary river which must be jointly managed by all stakeholder nations. Hence, regional collaboration in watershed and river basin management is significant. The uses of Mekong River water resource needs precisely estimate water quantity used with actual relation to land use and occupation. The establishing comprehensive databases will help to compile all types of information engineering, environmental and socio-economic. It is the socio-economic information that is most lacking. This is the 'rice bowl' of Asia and at its heart lays the Mekong River. Finally, the leaders support in identifying opportunities and implementing programs will certainly produce better benefits to all stakeholders. The Mekong River, the treasure house of biodiversity, is worth conserving for the benefit of all people around the world.

TRANS-BOUNDARY WATER RESOURCE DEVELOPMENT IN LOWER MEKONG BASIN: A CRITICAL TRADE-OFF AND ITS PLAUSIBLE SOLUTIONS

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Abstract

This paper uses the current results of the Basin-wide water resource development scenario assessment of the Basin Development Plan (BDP) of the Mekong River Commission Secretariat (MRCS) to analyze potentials benefits for economic development to meet the ambitious goal of the riparian states of the LMB (Lower Mekong Basin) countries for poverty reduction and, at the same time, analyze risks of potential trans-boundary trade-off which will require appropriate mechanism to be in place. The scenario assessment results present both opportunities and risks associated with different levels of water resource development in the Mekong countries. All scenarios could be broadly defined into 3 main categories with different timeframe and assumptions. The Definite Happening (DH) scenario talks about the cascades of hydropower construction in Lancang River from year 2000-2015, the upper part of the Mekong River. The DH scenario brings large changes of water flow regime in dry season that could be considered as opportunities to meet dry season water demand in the LMB, particularly for the irrigation expansions. The 20 Year Plan Scenario (20-YP Scenario) talks about condition above the DH scenario to include the possibility of proposed 11 mainstream dams and tributaries in the LMB from year 2000-2020. The 20-YP Scenario consisted of various alternative options and configurations of the mainstream dams, i.e., the 20-YP Scenario without Mainstream Dam, 20-YP Scenario without 2 Thai Mainstream Dams...etc. The 20-YP Scenarios will bring both economic opportunities in terms of net present value from water resource development as well as risks related to biodiversity changes, the environmental damages and losses of livelihoods, the dependency on the natural resources of the Mekong River. Each of the scenario results presents the trans-boundary trade-off which requires appropriate skills, capacities of the LMB riparian countries to discuss and negotiate for the solutions. Finally, this paper provokes more discussions rather than an answer; however, author provides some suggestions that could be, in his views, possible mechanism and solution that fit the context of the LMB countries to maximizing the opportunities and at the same time balancing the sustainability of the Mekong resources.

Disclaimer: Any view expressed in this paper is solely the responsibility of the author.

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I. Introduction

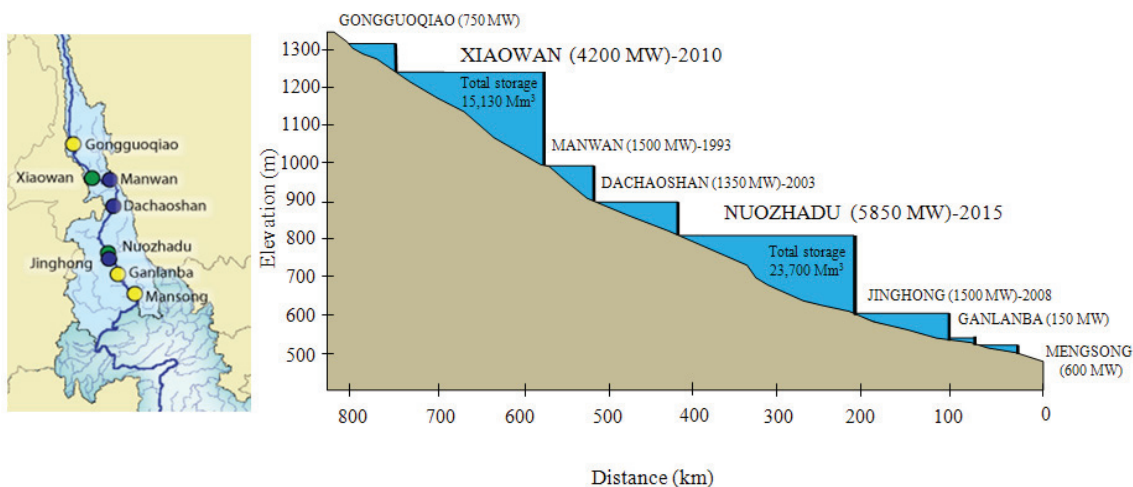
1. Background

The Mekong River is the international river shared with six countries, China, Myanmar, Thailand, Lao PDR, Cambodia and Viet Nam. It flows very far distance as 4800 km starting from the headwaters on the Tibetan plateau with thousand meters high and run across different geographical features and characteristics of elevation and landscape to the Mekong Delta of the southern sea of China. It is ranked as the 12th longest river in the world and ranked 8th of the largest water volume discharge river in the world. The Mekong River feeds population of at least 80 million people in the Basin of the six countries and continues to feed more in the future if resources are properly used. With its riches of biodiversity and aquatic life, the people of the Mekong has been enjoyed with these blessings of resources and at the same time, enjoy the riches of cultures brought by the spirits and aspirations of the Mekong water.

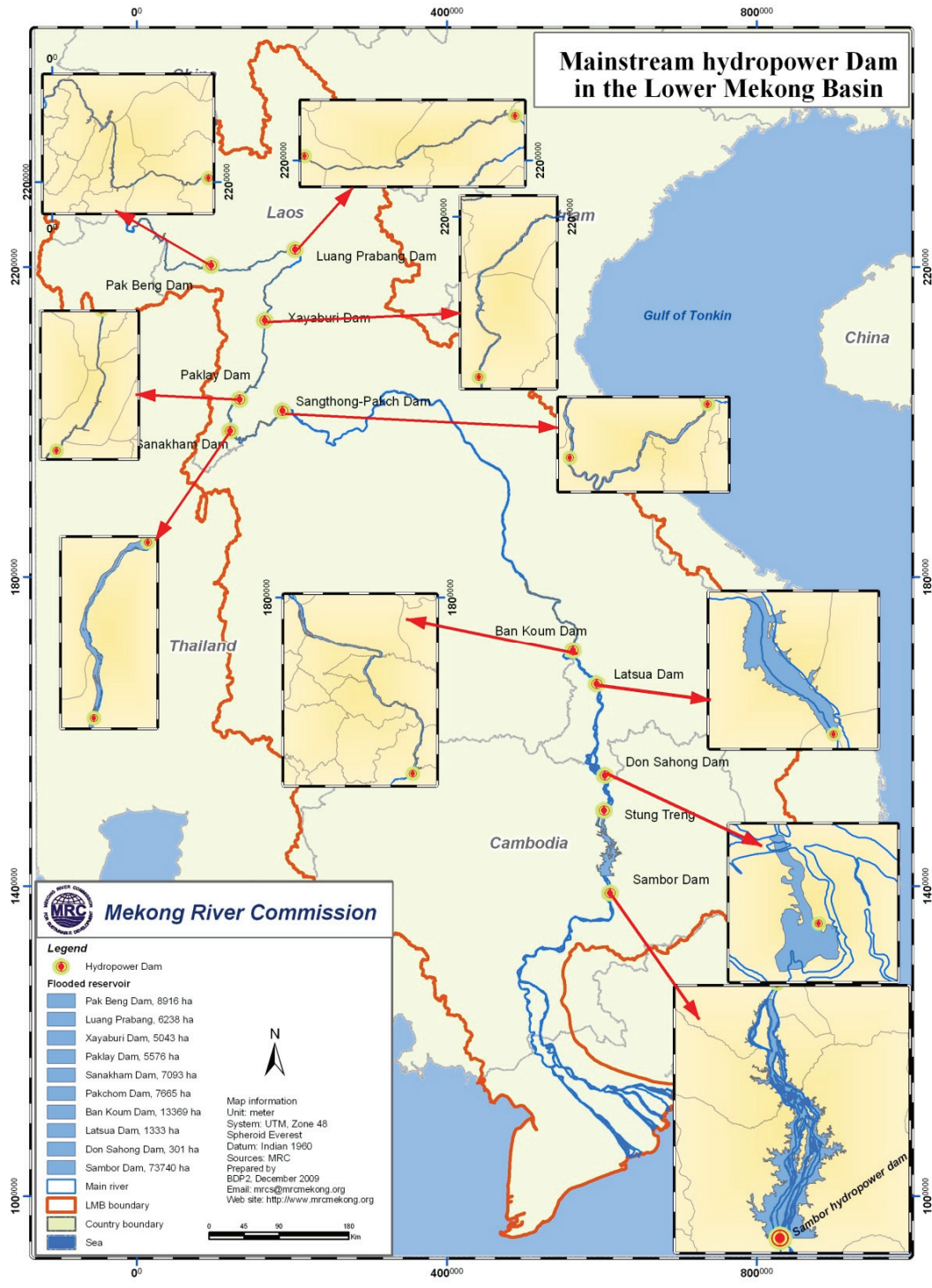
The Mekong River Commission (MRC) was founded in 1995 agreement by the four country governments of Cambodia, Lao PDR, Viet Nam and Thailand. The four countries see the common goals of using the Mekong water resources to accelerate equitable growth for poverty reduction and at the same time to protect resources through the principle of Integrated Water Resource Management (IWRM). In 1996, China and Myanmar became a dialogue partner to the MRC. The Mekong River Commission Secretariat (MRCS) is the secretariat of the MRC to provide technical and administrative service to the MRC council and Joint Committee (JC). The Council, highest body of the decision-making level of the MRC where member consists of one member in each country of the ministerial or cabinet level, meets once a year to provide policy decisions and guidance concerning the promotion, support, cooperation and coordination of joint activities and programs to implement the 1995 agreements. The JC consisted of one member from each country of no less that head of department level, is responsible for the implementation of policies and decisions of the Council and supervise the activities of the MRCS.

In the past two decades or so, there was no talk about the human intervention of the large-scale development such as hydropower and irrigation in the tributaries and the mainstream. As of today, the 2000s, there are three completed dams under operation- Manwan, Dachaoshan and Jinghong- and two are under construction- Xiaowan and Nuozhadu- and other three are planned in the Lancang river of China (see map 1). In addition to tributary dams and the irrigation expansion possibility, the Lower Mekong countries also have plan for the proposed 11 mainstream dams on the Mekong River (see, map 2). All these emerging developments of the upper and the lower part of the Mekong River do bring both opportunities and risks to the

countries, which further imply social, environmental and economic implications of the Mekong countries.



Hydropower Station	Gongguoqao	Xiaowan	Manwan	Dachaoshan	Nuozhadu	Jinghong	Ganlanba	Mengsong
Status	Planned	Under Construction	built	built	Under Construction	built	Planned	Planned
Distance to the Nanla River Mouth (km)	750	582	522	420	210	102	75	28
Normal Water Level (m)	1319	1240	994	899	812	602	533	519
Height of Dam (m)	130	292	132	120	262	107	/	/
Total Reservoir Capacity (X 10 ⁸ m ³)	5.1	151.3	10.6	8.9	237	12.3	/	/
Installed Capacity (MW)	750	4200	1500	1350	5850	1500	150	600
Annual Power Generation (X10 ⁸ kWh)	39.4	188.9	76.0	67.1	239.0	76.2	7.8	28.9



No	Dam	Installed capacity (MW)	Active storage (mcm)	Dam height (m)	Inundation area (ha)
1	Pakbeng	1,230	442.4	62.1	8,916
2	Luangprabang	1,410	734.0	68.0	6,238
3	Xayabuly	1,260	224.7	53.0	5,043
4	Paklay	1,320	383.5	54.5	5,576
5	Sanakham	1,200	106.1	38.0	7,093
6	Pakhom	1,079	217.2	29.5	7,665
7	Ban Kum	1,872	402.9	29.0	13,369
8	Latsua	686	530.0	22.0	1,333
9	Don sahong	360	115.0	10.6	301
10	Stung Treng	980	70.0	22.00	N/A
11	Sambor	3,300	2,000.0	35.00	73,740

Through series of national and regional stakeholder consultations including the Regional Technical Working Group (RTWG) of the Basin Development Plan (BDP), nine scenarios are considered and assessed for creative visioning of potential future planning and strategy in the LMB. With its configuration amongst some scenarios, it made up 13 scenarios in total. Those scenarios are set up based on the current and future plan of the countries, in which the levels of interventions are varied from scenario to scenario (see table 1).

Table 1: Scenarios under consideration

No.	Short Title	Full Title	Development Period	Interventions/Projects
Baseline situation				
1	BS	Baseline Scenario		Year 2000 infrastructure including existing HEP dams
Definite happening situation				
2	2015-UMD	Upper Mekong Dam Scenario	2000 - 2015	Baseline extended to include the full HEP cascade on the Lancang

3	2015-DH	Definite Future Scenario	2000 - 2015	2015-UMD plus 26 additional HEP dams in LMB and 2008 irrigation and flood measures
Foreseeable future situation				
4.0	2030-20Y	LMB 20-Year Plan Scenario	2010 - 2030	2015 DF plus 11 LMB mainstream dams and planned tributary dams, irrigation, and water supply
4.1	2030-20Y+CC	LMB 20-Year Plan Scenario Climate change	2010 - 2030	As above plus climate change for average year between 2010-30 and 17cm sea level rise
5	2030-20Y-w/o MD	LMB 20-Year Plan Scenario without mainstream dams	2010 - 2030	As above, excluding 11 LMB mainstream dams
6.1	2030-20Y-w/o LMD	LMB 20-Year Plan Scenario with 6 mainstream dams in Northern Lao PDR	2010 - 2030	As above plus 6 LMB mainstream dams in upper LMB
6.2	2030-20Y-w/o TMD	LMB 20-Year Plan Scenario with 9 mainstream dams, excl. Thailand	2010 - 2030	2030-20Y, excluding the two Thai mainstream dams
6.3	2030-20y-w/o CMD	LMB 20-Year Plan Scenario with 9 mainstream dams, excl. Cambodia	2010-2030	2030-20Y, excluding the two Cambodian mainstream dams
7	2030 - 20Y Flood	Mekong Delta Flood Management Scenario	2010 - 2030	Baseline plus 3 options for flood control in Cambodia and Viet Nam Delta
Long term future situation				
8.0	2060-LTD	LMB Long-term Development Scenario	2030-2060	2030-20Y plus all feasible infrastructure developments in LMB
8.1	2060-LTD+CC2	LMB Long-term Development Scenario Climate change	2030-2060	As above plus climate change for average year between 2030-50 and 30cm sea level rise

9	2060-VHD	LMB Very High Development Scenario	2030-2060	As above, extended to full potential infrastructure developments
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The above Table1 gives a brief summary of the scenario formulation and all scenarios could be broadly classified into three groups based on time and levels of intervention:

The Definite Happening Scenarios – developments within the Upper and Lower Basins that are already under implementation and are in place by 2015. These include the completion of six of the cascade of hydropower dams on the Lancang River, referred to as the Upper Mekong Dam Scenario (UMD), and the completion of 25 hydropower projects in the tributaries of Lower Mekong Basin (LMB), which together with the UMB comprise the Definite Happening Scenario).

The Foreseeable Future Scenarios – which comprise the developments in the DH plus the developments which each country has put forward as being within their plans to implement within the next 20 years. These comprise further hydropower development in the tributaries and on the mainstream and irrigation development. The scenarios have been structured to investigate the alternative impacts of these developments with and without different combinations of mainstream dams. In addition the Foreseeable Future Scenarios also consider various flood management projects within the Cambodian – Viet Nam floodplain

The Longer-term Scenarios – which represent a plausible continuation of the Foreseeable Future with the main purpose to examine the longer term hydrological changes and associated environmental impacts. These also comprise full potential developments in all sectors to explore the impacts of this very high level of basin development.

The current well-being of the Mekong people are poor and these millions of poor people exploit the natural resources of the Mekong Basin for their food security and livelihoods. At the same time, the status of water infrastructure development is limited compared with most other large river basins in the world. In response to the above emerging need of power demand to meet the energy consumption of the emerging economy of Southeast Asia and to address the ambitious poverty reduction of the LMB, the LMB countries are looking at all possibilities including the uses of the Mekong water resource for generating incomes as well as for the poverty reduction to meet the Millennium Development Goal (MDGs) Targets. The surge of oils in global market and its huge fluctuation, geopolitical dependencies of oils in the middle east and the trends of the global renewable energy, and the growing energy demand to meet the growing economy of the Southeast Asia, have made the Mekong countries consider seriously on the possibilities of developing hydropower in the Mekong counties. In addition, the level of water resources development is clearly driven by markets and the private sector while most government sees it fit for the purpose of the common goals.

Given the above described situation, there has been an increasing pressure from the basin countries and project developers for provision of an integrated basin perspective against which national plans and proposed projects can be assessed to ensure an optimal balance between

economic, environmental, and social outcomes in the Lower Mekong Basin (LMB), and mutual benefits to the LMB countries. The development of such a basin perspective is beyond the responsibility of any individual country or project developer. Legally and intuitively, the role of Mekong River Commission (MRC) as agreed by the “1995 agreement” of the LMB countries is seen in an appropriate position to advise in such a challenging water resource development in the LMB. Experience elsewhere in the recent year suggested that scenarios for water resource development could be a tool for planning and strategy testing. Therefore, this paper aims to use scenarios assessment results of the Basin Development Plan (BDP) of the MRCS to discuss and analyse the development scenario relative to the issues of trans-boundary trade-offs.

1.2. Objective of the study

The objective of this study is to use the results of the Basin-wide development scenarios of the Basin Development Plan (BDP) of the Mekong River Commission Secretariat (MRCS) to analyze the possible issues related to trans-boundary trade-off in which proper mechanism of conflict and resolution shall be in place. Built on the notion that water is the path and opportunity for cooperation; however, it could also create conflicts if the trans-boundary water will not be managed well for the mutual benefits of the shared water resources. Therefore, this study is mended to:

- (i) Identify plausible major trans-boundary issues related to water resource development in each scenario;
- (ii) Analyze consequences as the results of any implementation of negotiated scenario by the Lower Mekong Countries;
- (iii) To suggest way-out including the possible conflict and resolution for mutual benefit sharing.

a. Scope of analysis

Although the study presents all scenario results of the assessment; however, the analysis of the trans-boundary trade-offs focus on only the preferred scenarios that the LMB countries wish to agree on for the level of water resources development. The process to reach agreeable or preferred scenarios is a participatory-based on the decision of the national consultation process where participants came from various national and specialized agencies. The selected preferable scenarios are based on the national interests as well as the basin interest. When the LMB countries meet for the negotiations of selected scenarios, they are to discuss on the costs and benefits of the scenarios and way of sharing benefits. The selection is based on the matrix of evaluating positive and negative impacts of each scenario. The livelihood of the selected scenarios is based on the high benefits and low impacts.

Therefore, this paper to some extent analyze only the realistic scenarios that are plausible for the trans-boundary trade-offs for water resources development in the LMB countries.

1.4 Organization of the study

The following chapters include chapter II which talks about the brief summary of method used in the assessment of Basin-wide development scenario; chapter III summarize results of the Basin-wide development scenarios; chapter IV discussed on preferred scenarios; chapter V talks about major trans-boundary issues related to water resource development; and chapter VI suggests the way-out of conflicts and making resolution.

2. Method used in the Basin-wide development scenarios

The assessment of Basin-wide development scenarios has been carried out by the BDP of the MRCS over the year 2009-2010. It is a step-wise approach and involved a lot of coordination amongst multidiscipline teams of hydrology, modeling, mapping, social, environmental and economic experts. To assess the opportunities and risks for each scenario, the results of hydrological changes for each scenario were performed and then picked up by the multidiscipline team to interpret the impact on social, environmental and economic impacts. The techniques involved a lot of GIS and overlay maps between the changes of hydrology vis-à-vis the socioeconomic and environmental characteristics of the basin. Experts were struggling to provide pictures of the assessment as the Mekong basin involved complexity where uncertainties must be admitted; however, it does not prohibit the planner and decision-making to be undertaken to meet the emerging pressure and call for the basin perspective.

Since scenarios bring both opportunities and risks, therefore, it is very important to present the aggregated picture of scenarios to decision-making level in terms of quantitative analysis, with supports of qualitative explanation of risks. Here economic approach has been used to assess the value of positive and negative impacts for each scenario. Because the scenarios involved in both current and future development, the costs and benefits of each scenario are assumed to be the best approach to deal with such complexity by presenting the opportunities and risks in the Net Present Value rather than Net Annual Benefits and Costs. Constructing costs and benefits stream required certain information regarding the investment cost (the capital cost and the interest during construction), the operation and maintenance cost, year of construction and year of completion. Once the investment cost stream is in place, the benefit stream can be established along the cost stream where it requires certain information on sale cost of unit of production, i.e., annual power production and its replacement cost in the case of hydropower. For most of the environment value, i.e., the bank erosion, the calculation involves the value of assets lost and relocation cost with and without dams; the wetland cost involves the value of net value of wetland with and without dams; the navigation involves the net value of IWT cargo volume with and without dams. The same approach applied for the rest of sector for the NPV calculation. Although, the assessment tried to quantity as much as possible for all involved sectors; however, some environment cost are yet to be included in the NPV and social cost is not included either.

The idea is that the conventional NPV has the advantage of dealing with future money by using appropriate “discount rate” to reflect the momentary value of dollar purchasing power in current price in which in this case “2009 current dollar value” is used. It is important to construct the costs and benefits stream for the calculation of the annual benefits and costs, and further we can

calculate the NPV of that particular project. For the calculation NPV for each scenario, we used the assumption of 10 percent discount rate over the life-span of 50 years. All future money are discounted to the current money of 2009.

In this assessment, the quantifiable sectors expressed in the NPV included: hydropower, irrigation, navigation, bank erosion, flood damage mitigation, capture fisheries reduction, reservoir fisheries, aquaculture production, forest areas reduction, recession rice, wetland areas reduction, mitigation of salinity affected areas and reduction in eco-hotspot or biodiversity. There are several other parameters not quantifiable, but able to express in other magnitude, i.e. the number of livelihood lost vis-à-vis the number of jobs created in each scenario. The flagship species, the river channel habitats, the deep pool...etc. are expressed in the degree of "negative, positive, severity, extinction...etc.).

Therefore, readers shall bear in mind when read and interpret the NPV of each scenario as it has its limitation to quantify all the direct and indirect of positive and negative impacts. We assume that the further trickle down effects (spill-over effects) generated by the positive economic impacts will off-set the unquantifiable negative impacts in the long-run. Thus, the current NPV could be represents the magnitude of gain and loss of each scenario.

3. Summarized results of Basin-wide development scenarios

The summarized result of the Basin-wide development scenario is presented in Table 3.1 in terms of the economic net present value by sector and by country. The table 3.1 brings the snapshot of the scenario, but it does not provide the whole picture of the impact in terms of the environment and social consequences. Figure 3.1 provide a snapshot of the hydrological changes at observed stations in the LMB for each scenario. Before discussing the preferred scenarios, it is very important to describe the results of each scenario and based on these results, the country try to rank the most favourable scenario that could serve the interest of country as well as the interest of the basin in terms of the economic prosperity by using the water resource development, and at the same time, by balancing the environmental sound and social equity.

Definite Happening Scenario:

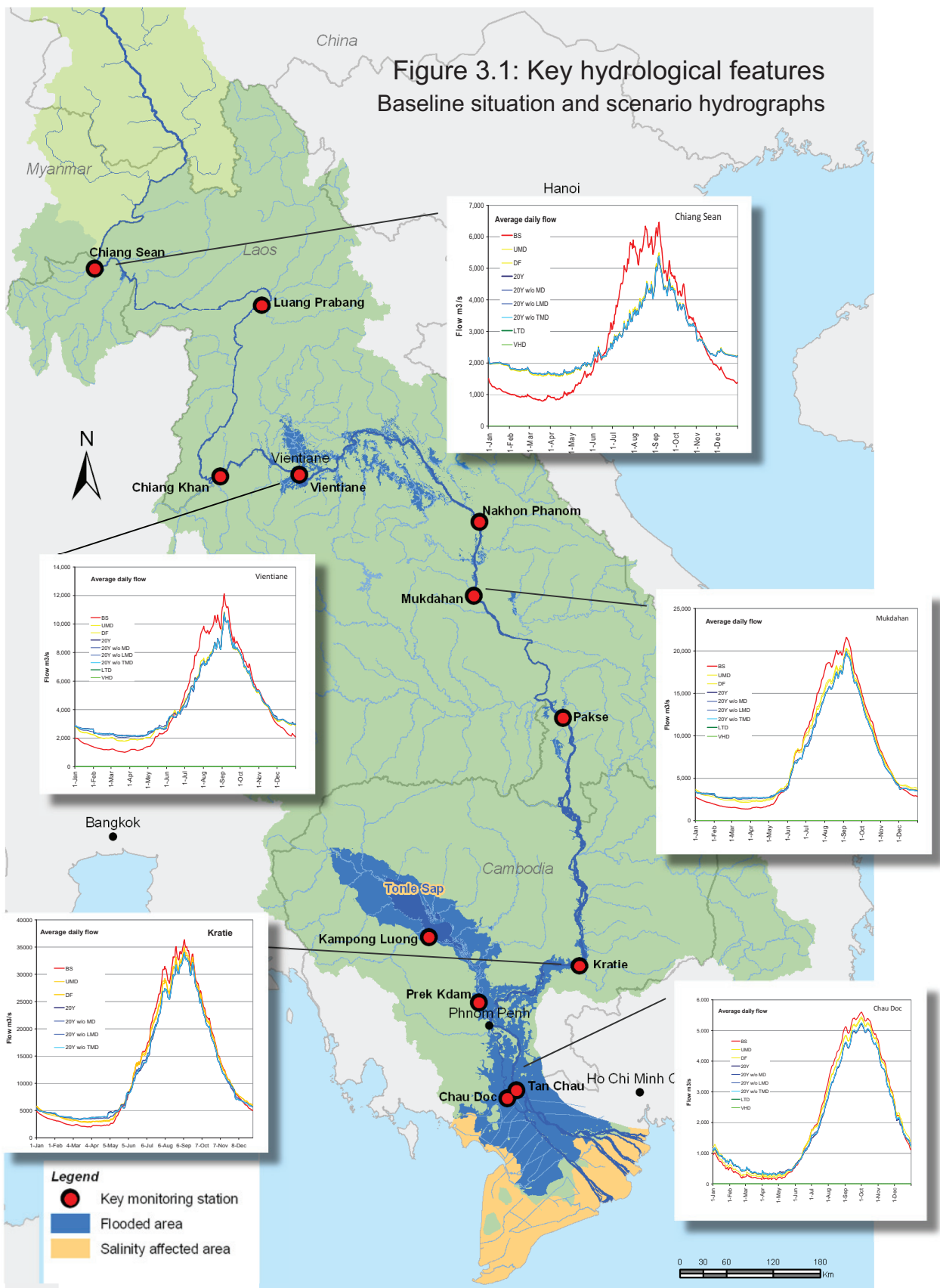
The Definite Happening Scenario creates a very significant change in flow regime by 2015-2020, caused mainly by the new storages being developed in China. These changes are inevitable and irreversible and bring about a departure from the natural flow regime, which hitherto has remained unchanged in the mainstream for over a century, notwithstanding the changing landscapes within the catchment over this period (the retention of runoff by forests having been replaced by the retention of rice fields in many areas).

The new storages in the UMB, supplemented by current but less significant development of hydropower reservoirs in the LMB, will cause dry season flows to increase and flood flows to decrease. An irreversible process of long term geomorphological adjustment, whilst locally significant in some locations in the short term, will be become more noticeable after 20 years.

Table 3.1: Economic net present value by scenario, sector and country (US\$ million)

	Definite Happening	20-Year Plan w/o MS Dams	20- Year Plan w/o Lower MS Dams	20- Year Plan w/o Thai MS Dams	20-Year Plan w/o Cambodia MS Dams	20- Year Plan	20-Year Plan + Climate Change	Long Term Devt Scenario	Long Term Devt + Climate Change	Long Term Very High Devt
Hydropower	11,491	17,603	25,002	28,706	30,333	32,823	32,823	37,865	37,865	38,787
Irrigated Agriculture	0	1,659	1,659	1,659	1,659	1,659	1,659	3,423	3,423	11,789
Reservoir Fisheries	91	107	132	202	1695	215	215	4203	4203	473
Aquaculture	1,129	1,261	1,261	1,261	1,261	1,261	1,261	1,892	1,892	2,522
Capture Fisheries Losses	-946	-	-	-	-1,218	-	-	-	-	-
Wetland Area Reduction	-228	732	952	1,914	-178	1,936	1,936	1,818	1,818	1,801
Eco-hotspots/Biodiversity	-85	176	178	225	-305	225	101	-260	36	-
Forests	-153	183	228	349	-254	372	372	-731	-	-
Recession Rice	-144	173	175	178	-176	178	278	-226	185	-
Flood Mitigation	461	360	360	360	360	377	-	408	-	43
		0	0	0		7	273		296	2
Saline Area Reduction	20	25	23	21	23	27	-2	22	-2	16
Riverbank Erosion	0	n	n	n	n	n	N	n	n	n
Navigation	64	64	64	64	64	64	64	64	64	64
Total LMB	11,700	19,596	26,729	29,277	31,739	33,386	33,404	40,624	40,514	50,176
Country Comparisons										
Lao PDR	6,595	11,688	17,636	18,927	22,632	22,588	22,604	26,235	26,334	28,530
Thailand	1,095	2,750	3,913	3,970	4,223	4,410	4,445	4,644	4,730	5,396
Cambodia	693	1,446	1,351	2,237	1,143	2,237	2,628	5,049	5,216	11,013
Vietnam	3,317	3,711	3,828	4,142	3,741	4,151	3,727	4,697	4,233	5,237
Total LMB	11,700	19,596	26,729	29,277	31,739	33,386	33,404	40,624	40,514	50,176

Figure 3.1: Key hydrological features
Baseline situation and scenario hydrographs



This increase in dry season flows will be sufficient in volume to support all of the expanded mainstream irrigation proposals in the 20-Year Plan Scenario.

The irreversible changes in flow regime will result in a significant reduction in natural flooding which will **diminish the productivity of wetlands and capture fisheries**, as well as species diversity. Flooding extent will reduce by 249,000 ha or 5% in the LMB: in Lao PDR with 64,000 ha or 16%, in Thailand with 64,000 ha or 16%, in Cambodia with 106,000 ha or 5%, and in Viet Nam by 11,000 ha or 1%. A significant part of the reduction of flooded areas comprises valuable wetlands.

In particular, there will be a significant reduction in flooding extent around the Tonle Sap: 39,839 ha or 3.2% in an average year, which will impact on the extent of inundated grasslands, forests and flood recession rice and the related livelihood values that these areas support.

One environmental hotspot on the mainstream in Northern Thailand and one hotspot on the Lower Sesan in Cambodia will be highly impacted by the ongoing developments in this scenario.

Capture fisheries, which are particularly relevant to rural livelihoods, will be reduced by an estimated 15% in Lao PDR, 3% in Thailand, 7% in Cambodia, and by 9% in Viet Nam, as a result of the flow changes (caused mostly by the UMB dams) and the blockage of fish migration (caused mostly by current tributary dam development in the LMB).

An irreversible process of long term river bed incision and bank erosion are induced, whilst locally significant in some locations in the short term, will become more noticeable after 20 years. Floodplain sedimentation will decrease within a decade with consequences for agricultural production, if not compensated with fertilizers. Also the discharge of fine sediments and associated nutrients to coastal water will decrease considerably with negative impacts on marine fisheries.

Notwithstanding the negative impacts on wetlands and fisheries productivity, the scenario will create a net economic benefit to the LMB countries of US\$ 11,700 million NPV, mainly from new hydropower but also reduced flood damages and increased reservoir fisheries. However, the scenario put the livelihoods of about 887,000 vulnerable people at risk who are dependent on river's resources: 297,000 in Lao PDR, 46,000 in Thailand, 102,000 in Cambodia, and 442,000 in Viet Nam.

The key points of this scenario are that:

- ❑ The changes to flow regime are inevitable and irreversible and set in process a range of environmental and social impacts which will need to be recognised and addressed; and
- ❑ The new storages provides sufficient flow augmentation to meet the consumptive demands of the Foreseeable Future Scenarios.

LMB 20-Year Plan Scenario without Mainstream Dams:

This scenario comprises development of 1.8Mha of new irrigation within the LMB (with approximately 500,000 ha dry season irrigation) and 56 tributary dams either under construction or planned to be developed by 2030.

All the water demands for the planned irrigation over the next 20 years will be met with surplus flows into the delta over and above the baseline flows. There will be a small further decrease in flooding compared to that achieved in the Definite Future Scenario with small, but similar, incremental benefits and dis-benefits.

The tributary dams will have a negative and largely local impact on capture fisheries offset mitigated in yield terms by the opportunity to increase reservoir fisheries. The tributary dams will create resettlement issues and the reduction in capture fisheries will have social impacts, particularly with regard to food security amongst those living along stretches of the rivers.

The new irrigation development will cause an increase in nutrients entering the river systems, which may have local impacts, but the large dilution effect in the mainstream will negate any significant trans-boundary impacts.

Changes in the ecology of the Tonle Sap Lake would be as a result of a reduction of nutrients entering the system due to a decrease in reverse flow (mainly caused under the Definite Future Scenario), but this may be partly compensated by increased loadings from agricultural return flows.

Capture fisheries would further decline compared to the Definite Happening Scenario. The decline is significant in Cambodia (8%) but less in other countries: Lao PDR (0%), Thailand (1%) and Viet Nam (4%).

This scenario would put up to 522,000 livelihoods at risk in addition to the 887,000 vulnerable resource users that could be affected in the Definite Happening Scenario. The increase is highest in Lao PDR: 404,000 people or 135%. The increase is less in the other countries: Thailand 0, Cambodia 110,000 people or 108% and Viet Nam 10,000 or 2%.

The NPV of benefits will be US\$ 19,596 million NPV relative to the baseline (US\$ 7,896 million compared to the Definite Future Scenario), largely from tributary hydropower dams. The scenario would create 1.02 million job opportunities in all LMB countries, primarily in the hydropower, irrigation and fisheries (reservoir and aquaculture) sectors.

LMB 20-Year Plan Scenario without Lower Mainstream Dams:

In this scenario, six mainstream dams above Vientiane are added to the previous scenario. This will not materially change the water quantity regime and thus the planned irrigation within the 20-year Scenario can still proceed.

The flow regime will be similar to that without mainstream dams and only marginally different from the Definite Happening Scenario with on average a 12% increase in dry season flows and a 3% reduction in wet season flows compared to the DHS. However, the conversion of the mainstream in the Northern part of Lao PDR into series of slow-moving waters between run-of-the-river hydropower schemes would create localised impacts for people dependent on the river system for their livelihood.

This scenario would put another five out of 32 environmental hotspots highly impacted, compared with the Definite Happening Scenario.

Capture fisheries production would be further declined compared to the Definite Future Scenario (11% in Cambodia, 7% in Viet Nam, 1% in Lao PDR and 2% in Thailand). The impacts on the flagship species, the Giant Catfish numbers, are expected to be severe.

An additional 1,128 million vulnerable resource users would be affected in addition to those impacted by the Definite Future Scenario. The figure is highest in Lao PDR (485,000 people), followed by Viet Nam (328,000) and somewhat less in Thailand (155,000 people) and Cambodia (160,000).

The NPV of LMB benefits will increase to US\$ 26,728 million NPV relative to the baseline, of which US\$ 17,636 million will accrue to Lao PDR.

LMB 20 Year Plan Scenario (with all mainstream dams):

This scenario adds the five lower mainstream dams in Lao PDR and Cambodia to the previous scenario that included only the dams above Vientiane. The net economic benefits of the hydropower sector is large (US\$ 32,823 million out of total US\$ 33,386 million NPV of the scenario). As in all Foreseeable Future Scenarios, new irrigation contributes US\$ 1,659 million of these net benefits (offset partially by losses to recession rice).

The benefits are unevenly distributed. Lao PDR invests and benefits most: US\$ 22,588 million NPV) compared with US\$ 4,410 million NPV of Thailand, US\$ 4,151 million NPV of Viet Nam and US\$ 2,237 million NPV of Cambodia.

The 11 mainstream dams will have little effect on the flow regime created by the Definite Happening Scenario. However, the conversion of large reaches of the mainstream to a series of slow-moving waters between run-of-the-river hydropower schemes will create localised impacts for people dependent on the river system for their livelihoods.

Sixty percent of the ecologically valuable river channel between Kratie and Houei Xai would change to a series of connected impoundments. Important habitats like deep pools, rapids and sandbars would be lost largely, resulting in severe loss of biodiversity. Two of the four flagship species would be very severely impacted, even to the point of extinction.

Fourteen out of the 32 environmental hotspots would be highly impacted and another 9 moderately impacted; some of these sites are listed under the Ramsar Convention. The scenario could also result in significant changes in the ecology and primary productivity of the Tonle Sap system.

Capture fisheries production would be severely affected in both Cambodia (37% decline) and Viet Nam (28% decline). This decline is much less in Lao PDR (6%) and Thailand (2%).

The reduction in fisheries and the creation of impoundments on vast reaches the Mekong mainstream will have substantial negative social consequences in the affected areas, especially in Cambodia where conservatively the livelihoods of up to 1.2 million people would be put at risk over and above the Definite Future Scenario. Similar numbers would be affected in Viet Nam although arguably less severely. The number of people at risk of loss of livelihood in Lao PDR is potentially 600,000 and in Thailand some 470,000.

The large reduction of capture fisheries production may be partly offset by increases in aquaculture (including rice field and reservoir fisheries). However, increases in aquaculture are unlikely to benefit the poor people, many of whom would lose their wild fishing and who have no access to land, water and capital to fall back on.

LMB 20-Year Plan Scenario without Cambodian Mainstream Dams:

This scenario contains 9 mainstream dams but excludes the two dams in Cambodia (Stung Treng and Sambor) from the previous scenario.

Fish migration up the Mekong into the 3S Basin would still be possible and the ecologically very valuable stretch between Kratie and the Cambodia-Lao border would maintain its natural character. Only one of the four flagship species would be severely impacted, and the highly impacted environmental hotspots would reduce from 14 to 11.

When compared to the baseline condition, fisheries losses in Cambodia would reduce from about 37% reduction with all mainstream dams constructed to about 18% for this scenario. There would also be a significant reduction of fish losses in Viet Nam (14%) and a small 3% reduction in fish losses above the Lao/Cambodian border compared with all mainstream dams scenario.

For Cambodia, if this smaller reduction in fish production is simply proportioned amongst vulnerable resource users then the number of users affected would drop from about 1,200,000 for the 'all mainstream dams' case to about 350,000. Also, the number of vulnerable resource users in Viet Nam would reduce by 637,000 or 50%.

This scenario results in an NPV US\$ 31,739 million which is a drop of US\$ 1,652 million compared to the 'all mainstream dams' scenario. The new job opportunities in Cambodia would also reduce from 271,000 to 156,000 while those of the other countries would not change significantly.

LMB 20-Year Plan Scenario without Thai Mainstream Dams:

This scenario includes 9 mainstream dams excluding the two in Thailand. In most respects, the impacts are similar to those with all eleven mainstream dams as the two Cambodian dams and the Don Sahong dam in Lao PDR will already be impacting on fisheries and other environmental values. The scenario has an NPV of US\$ 29,277 million compared to US\$ 33,386 million for the 'all mainstream dams' case.

Mekong Delta Flood Management Scenario:

This scenario is separate from the 20 Year Plan Development Scenarios in that it does not involve water consumptive projects (irrigation) nor mainstream and tributary hydropower developments. It relates to managing floods in the delta reaches of the lower basin (Viet Nam and Cambodia) and assesses the impacts and benefits of various flood reduction measures over the next 20 years. There are no direct implications for Lao PDR and Thailand as any impacts from this scenario are kept within the delta reaches and downstream of Khone Falls.

These planned flood risk reduction measures in the foreseeable future (10-20 years) in the Mekong Delta would have marginal positive and negative transboundary impacts. However, in the longer term, severe negative transboundary impacts could occur if large areas of presently flooded areas are developed for more intensive agriculture, and are protected from flooding to provide greater protection levels for communities in the delta. All of these impacts could be increased by impacts of climate change and rising sea levels.

A basin-wide and multi-sector study needs to be initiated to study the long-term flood management options for the Mekong Delta to respond to growing pressures from land development, sea level rise, climate change, and upstream development plans.

4. Preferred scenarios by the LMB countries

Based on the summarized results of the Basin-wide development scenarios in Table 3.1 which provides summary of the impacts by each scenario, the LMB country select their preferred scenarios based on the notion of the national interests as well as the basin interests. From Table 3.1, the country ranks all scenarios in a simple matrix (see Table 4.1), for easy decision-making. This matrix provides an overall assessment of the negative trans-boundary impacts of 20 Year Plan Scenarios. The discussion for the preferred scenarios focused just for the 20 Year Plan Scenarios because the Definite Future Scenario is outside the control of the LMB countries and all infrastructures in the Lancang will be happening anyway. For the Long-Term Scenario, we only describe the situation rather than concrete assessment because they are very long term and could be inappropriate to assess this scenario in detail as many uncertainties remain ahead of time.

Table 4.1: Overall assessment of the negative trans-boundary impacts of 20 Year Plan Scenarios

Scenario	Thailand	Lao PDR	Cambodia	Vietnam
2015-DF	Medium	Medium	Medium	Low
2030-20Y-w/o MD	Low	Low	Low	Low
2030-20Y-w/o LMD	Low	Low	Low	Low
2030-20Y-w/o CMD	Low	Medium	Medium	Low
2030-20Y-w/o TMD	Low	Medium	High	Medium
2030-20Y	Low	Medium	High	Medium

Through intensive stakeholder consultation mechanism at the national level on the results of scenarios and the discussion on the preferable scenarios that could serve the national and basin interest, the LMB countries choose scenarios as reflected in

Table 4.2. For the basin picture and based on the preferred scenarios, it is likely that “20 Year Plan w/o MD, and 20 Year Plan w/o LMD” scenarios are the negotiable scenarios in the LMB to reflect the economic, environment and social interests.

Table 4.2: Preferred scenarios

Scenario	Lao PDR	Thailand	Cambodia	Vietnam
BS				
2015-DF				
2030-20Y-w/o MD		1 st Priority		
2030-20Y-w/o LMD	2 nd Priority	3 rd Priority		1 st priority
2030-20Y-w/o CMD			2 nd priority	2 nd priority
2030-20Y-w/o TMD		2 nd Priority		
2030-20Y	1 st Priority		1 st priority	

5. Major trans-boundary issues related to water resource development in possible preferred scenarios

Based on the preferred scenarios of “20 Year Plan w/o MD, and 20 Year Plan w/o LMD”, there are trans-boundary trade-offs, even though these two scenarios are likely to have the less negative impacts compared to rest of 20 Year Plan Scenarios. Major trans-boundary impacts are:

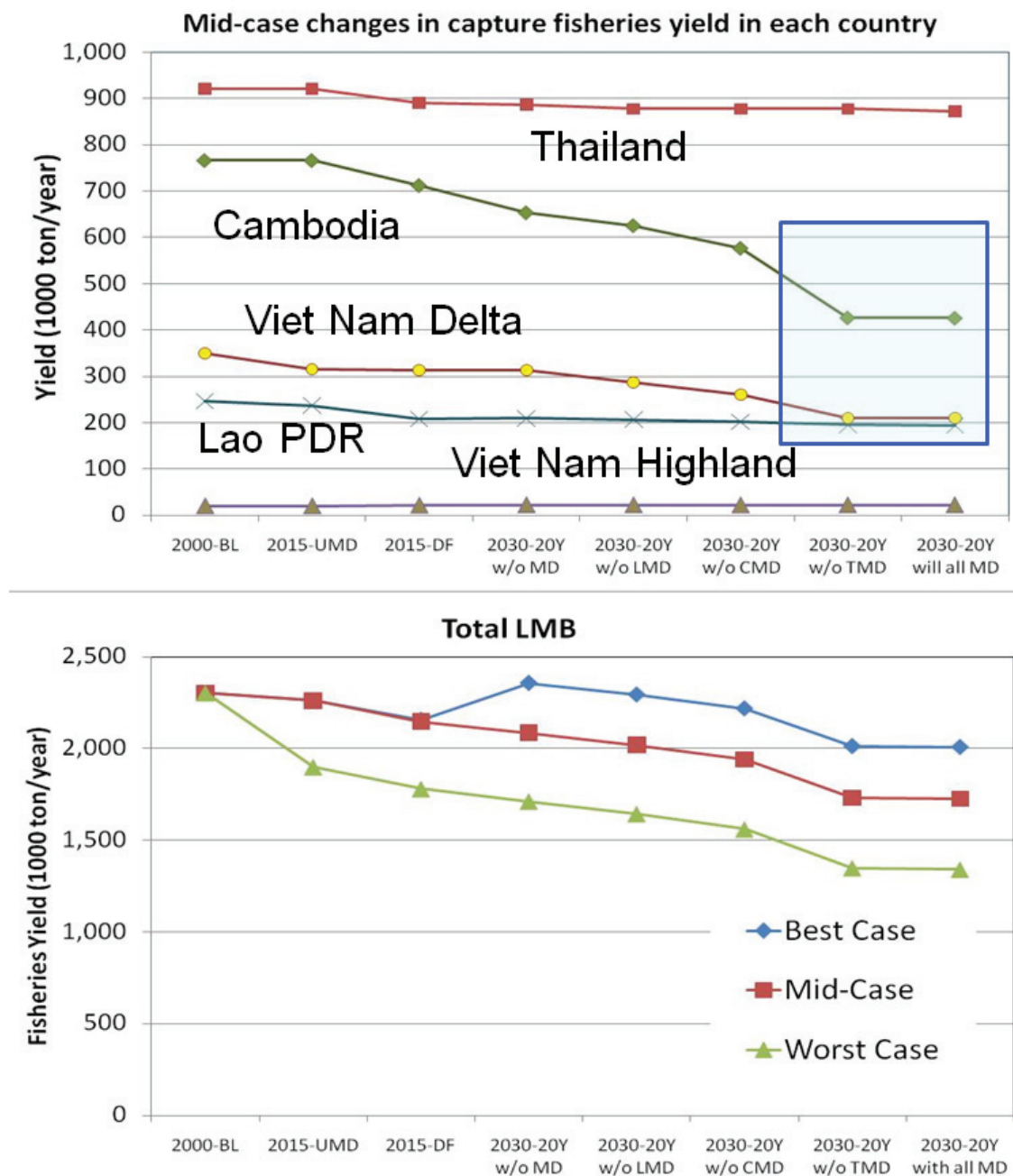
5.1 Fishery losses

According to the report of fishery assessment (BDP, Technical Note 11, 2010), in the Lower Mekong Basin and by 2030 the scenarios lead to net capture fisheries losses of 13-42% (best-case to worst-case), representing a lost yield of a 295-964 kt/year, which is by any measure a very significant cause for concern. If the losses could be spread evenly through the LMB population and if everyone could either grow or pay for other substitutes, the impact could be lessened. However, it is more likely that the losses will tend to fall disproportionately on certain groups who depend upon river-floodplain fisheries. At current mean rates of consumption of 45.5 kg/person/year, the total capture fisheries loss would represent the equivalent of between 6.4 and 21.1 million people (or about 12-38% of the year 2000 LMB population) completely losing their main protein source.

Lao PDR: there will be an overall loss of about 13-35% of capture fisheries yield by 2015, primarily caused by a major impact on River Flood Plain (R-FP) fisheries, which is partly offset by gains in rice-field and reservoir fisheries. There will be a possible increase in fisheries yield by 2030 if rice-field irrigation and reservoirs are managed to promote fisheries yield. Although the total impact might be judged acceptable at a national level, the losses to R-FP fisheries would impact many thousands of people who live along rivers; these contain a high proportion of people from relatively disadvantaged ethnic minorities who are very vulnerable to losses, as they have limited capacity to adjust. The gains in fisheries (as in other areas) will tend to benefit the dominant group of lowland rice farmers.

Thailand: there would be losses to fisheries along the Mekong River and some tributaries, and further significant losses if rice farming continues to be intensified without taking fisheries into account; conversely the possible fisheries increases in the best case depends upon managing irrigation and rice farming in a fish-friendly manner. The people who currently depend more heavily on fisheries (mainly along the Mekong and Songkhram Rivers) will not necessarily receive any benefit from irrigation and possibly increased rice-field fisheries. Figure 5.1 provides overview of the capture fisheries yield in LMB countries by scenario.

Figure 5.1: Capture fisheries yield in LMB countries



Cambodia: in the LMB, Cambodia will suffer the greatest losses, mainly because of impacts to the R-FP fisheries of the Tonle Sap-Great Lake and elsewhere in Cambodia. Even in the best case, with full development by 2030 there will be an approximate 40% loss to Cambodia’s LMB fishery catch and in the worst case there will be a 57% loss. While the magnitude of this loss is uncertain, there is little doubt that in both absolute and percentage terms Cambodia will suffer major fisheries impacts from the proposed scenarios. There is some opportunity to lessen impacts (the worst-case to best-case range) by increasing fisheries production from rain-fed areas through better management, but this will not directly compensate for impacts on many fisheries-

dependent people, including those who are landless and have no viable alternatives. Whether impacts on the R-FP habitat class can be mitigated directly has not been assessed due to the complexity of the issue, and it would be worthwhile to examine this possibility in detail. The simplest way to reduce the risk of these major negative impacts is to not build the mainstream dams, and it is those in Cambodia that cause the highest impacts.

Viet Nam: the scenarios impact negatively on the capture fisheries yield, and the modest gains from possible rice-field fishery improvements compensate little for lost R-FP yield. In the delta however, the yield is relatively small per capita (much consumption derives from Cambodian production), and as discussed below may be offset by aquaculture production.

5.2 *Environmental losses*

The Lower Mekong River Basin harbors a number of unique ecosystems, exceptionally rich in biodiversity. They form habitats for a wide range of globally threatened and endemic species, by providing water and primary productivity upon which people and numerous species of plants and animals depend for survival and completion of their life cycle. Wetland ecosystems support high concentrations of birds, mammals, reptiles, amphibians, fish and invertebrate species. Many of these species can only live in wetlands and loss of wetlands will eliminate part of the wetland-dependent species.

Construction of the mainstream dams under the LMB 20-Year Plan Scenario will heavily affect sandbars, rapids and deep pools. This will have very significant negative impacts on the species diversity. Fish and water birds will be affected most. These impacts will affect the 'river bank dwellers' that rely on the river and the fertile banks for livelihood values.

Sediment flows and the nutrients associated with these are expected to reduce noticeably in less than a decade due to sediment trapping by the mainstream dams in China and the tributary dams in Lao PDR. Additional mainstream dams will further reduce floodplain sedimentation and sediment inflow in the Tonle Sap. In the longer term, sediments and nutrients may well reduce as a consequence of the storage introduced during the Definite Future Scenario with only marginal reductions attributable to subsequent developments in the Foreseeable Future Scenarios.

The total area inundated by the mainstream flooding (see Table 5.1) in an average hydrological year reduces from 4.76 million ha to 4.45 million ha going from the Baseline to the LMB 20-Year Plan Scenario.

Table 5.1: Inundated areas in the 4 LMB countries under the various scenarios in an average hydrological year

Inundated area	Lao PDR	Thailand	Cambodia	Viet Nam	LMB
Baseline	405,026	368,701	2,182,958	1,802,226	4,758,911
Definite Future	341,231	300,151	2,077,205	1,791,590	4,510,177
Change from baseline (ha)	-63,794	-68,550	-105,753	-10,636	-248,734
20 Year Plan	329,837	288,231	2,041,083	1,786,089	4,445,240
Change from baseline (ha)	-75,189	-80,470	-141,876	-16,136	-313,671
20 Year Plan WMD	330,679	288,331	2,053,921	1,786,195	4,459,126
Change from baseline (ha)	-74,347	-80,371	-129,037	-16,031	-299,785
20 Year Plan + CC	399,518	341,769	2,469,421	1,854,221	5,064,929
Change from baseline (ha)	-5,508	-26,933	286,463	51,995	306,018
Long-Term Development	330,593	291,078	2,015,002	1,774,312	4,410,984
Change from baseline (ha)	-74,433	-77,623	-167,956	-27,914	-347,927
Long-Term Development + CC	460,309	423,421	2,300,224	1,855,619	5,039,574
Change from baseline (ha)	55,284	54,720	117,266	53,394	280,663
Very High Development	327,478	288,285	1,980,985	1,770,689	4,367,437
Change from baseline (ha)	-77,547	-80,417	-201,973	-31,537	-391,474

In total 32 environmental 'Hotspots' (see Table 5.2) that are likely to be directly affected by the hydrological changes under different scenarios have been identified within the LMB. Selected as hotspots were: protected/sensitive areas with local/national/regional/global conservation management status, containing a rich biodiversity, a large number of important species at risk (threatened or endemic species), as well as areas important for migrating species, or supporting key ecological processes. Included are designated Ramsar Sites, Biosphere Reserves, Protected Areas, Important Bird Areas (IBA's) and Greater Mekong Subregion (GMS) Hotspots.

Table 5.2 gives the location and status of the identified Hotspots. Table 5.3 summaries the impact on hotspots in LMB countries. Map 5.1 provides the locations of the Hotspots.

Table 5.2: Location and status of the 32 identified environmental Hotspots

Country	Number	Status				
		RS	BR	PA	IBA	GMS
Shared by >1 country	4			1	2	1
Lao PDR	5			1	4	
Thailand	4	2		2	2	
Cambodia	13	2	1	5	13	3
Viet Nam	6			1	6	
TOTAL	32	4	1	10	27	4

RS = Ramsar Site, BR = Biosphere Reserve, PA = Protected Area, IBA = Important Bird Area, GMS = GMS Hotspot

Table 5.3: Summarized impacts on the hotspots in the LMB countries and the basin as a whole

Scenario	Lao	Thailand	Cambodia	Viet Nam	Basin
BL	0	0	0	0	0
BL + CC	0	-1	0	0	0
Definite Future scenario	0	-1	-1	0	-1
20 Year Plan scenario	-3	-3	-3	0	-2
20 YP + CC	-4	-3	-3	-2	-3
20 YP w/o MDs	-2	-2	-2	0	-2
20 YP LMD	-2	-3	-2	0	-2
20 YP w/o TMD	-3	-3	-3	0	-3
20 YP w/o CMD	-2	-3	-3	0	-2
LTD	-4	-4	-3	-2	-3
LTD + CC	-4	-4	-3	-5	-4
VHD	-5	-5	-5	-5	-5

0 = no change compared to Baseline, -1 = mildly negative, -2 = negative, -3 = severely negative, -4 = extremely negative, -5 = catastrophic

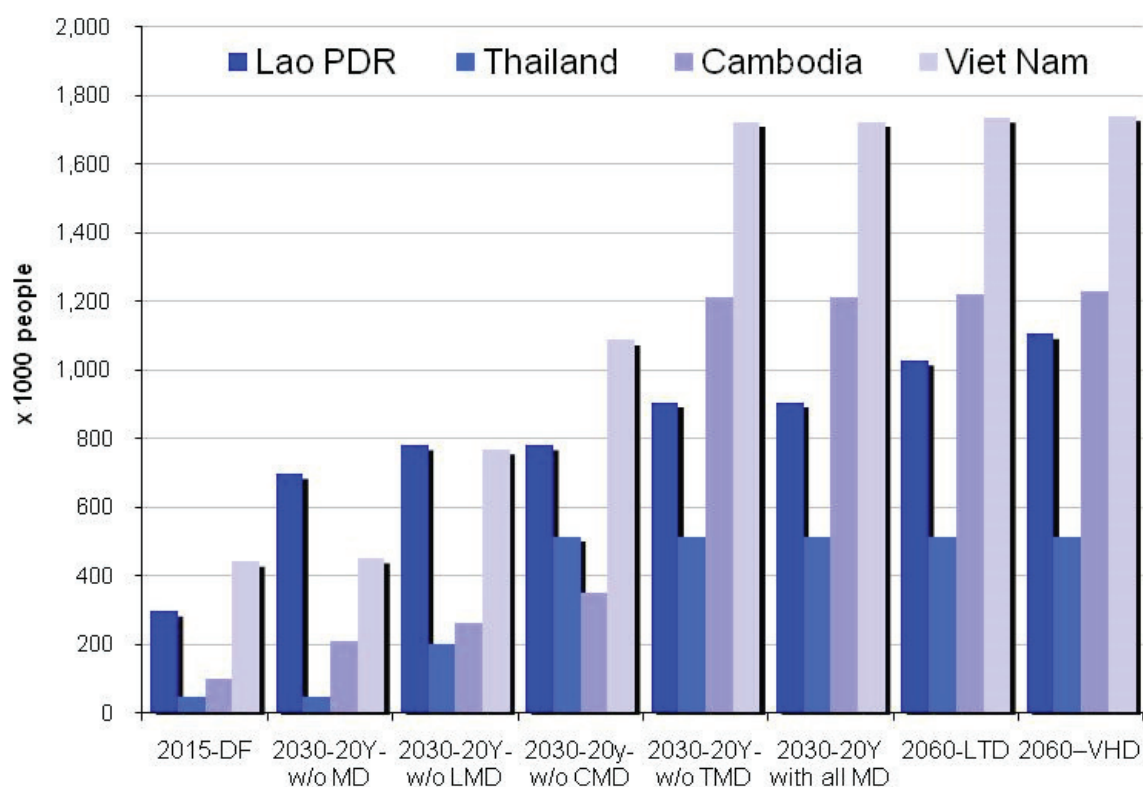
Map 5.1: Location of the environmental Hotspots



5.3 Livelihood at risks

The assessment of social impacts has been made in terms of the number of people exposed to changes in the river water resources and connected wetlands, and the number of people who are dependent on these resources for their livelihoods. The overall findings for LMB countries of livelihoods that would be affected by different scenarios are shown below. Figure 5.1 provides overview of the vulnerable resource users by countries and by scenario.

Figure 5.1: Summary of exposed vulnerable resource users by country and scenario



The Definite Future Scenario will put about 0.9 million rural people at some risk of loss of livelihood in near future. The 20-Year Plan Scenario w/o MD will further impact people at risk about 0.5 million.

6. Possible conflict-resolution mechanism for the preferred scenarios

The 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin signed by the four lower riparian states in 1995 led to the “evolution” of Mekong Committee into the Mekong River Commission (MRC). The 1995 Agreement has been hailed as a landmark achievement, adopted by the four lower riparian states in the “Spirit of Mekong Cooperation.” The Agreement seeks to promote “sustainable development in the utilization, management and conservation of the water and related resources of the Mekong river basin, such as navigation, flood control, fisheries, agriculture, hydropower and environmental protection.”

The Mekong River Commission provides a framework for all developmental work related to the Mekong River with an emphasis on the protection of the environment and ecological balance, based on principles of sovereign equality and reasonable and equitable utilization of the Mekong River.

Furthermore, the Agreement includes provisions for resolving possible riparian disputes and is open to all the riparian states. Hence this framework can be argued to have answered the environmental policy question of managing the Mekong as a trans-boundary river, or at least this international mechanism is the closest framework available to the riparian states that could be viewed from this perspective.

In theory, conflicts or trans-boundary water issues could be looked upon as consisting of three key spheres: hydrosphere, economic, and political (Le-Hu, 2001). Differences in the levels of economic development may also be hindrances to conflict resolution of water uses. More developed riparian state may have better options for maximizing uses of water by their developed infrastructures. Water conflicts resulting from human-initiated developments such as dams and diversions are more likely to be severe than those resulting from natural events like floods and droughts.

However, in the context of Mekong River and with the preferred scenarios, there seem to be an additional trans-boundary conflict as dam in one location have direct effect on the fish catch production over the places and these impacts are unevenly distributed in the LMB countries. These conflicts are seen as “food security” for the poor rather than an economic problem, because all scenario yields profitable NPV to all countries, but the question is how those benefit will be redistributed to the vulnerable resource users.

The Definite Future scenario and the 20 Year Plan Scenarios will bring enough water for dry season demands; however, it also brings negative impacts to environment such as nutrition reduction, water quality, sedimentation, flagship species and other environmental hotspots of the Mekong River. Therefore, it is clearly that the changes of hydrological regime have impact on environmental sphere and could also lead to political sphere if conflicts over resources uses and “food security” are not well addressed locally and regionally.

There are large bodies of literature explaining the problems in the economic and political spheres caused by a lack of detailed information on good management of water resources or by differences in the perception of a fair and equitable share of the water resources. Among other obstacles to cooperation there are the potential for socioeconomic political disturbances and poverty and socioeconomic underdevelopment. Other challenges are lack of information, inequalities in existing water allocation procedures, knowledge, or military force, geographic advantages, and the weakness of globally ratified laws and conventions, especially enforcement mechanisms.

Luckily, the 1995 Agreement laid out foundation for cooperation amongst riparian states of the LMB countries and China and Myanmar are observers. Currently, LMB countries through supports of the MRC Secretariat have procedure on water uses and monitoring, procedure on

water quality, procedure on monitoring and flow maintenance, procedure on notification and prior consultation for mainstream dams, and procedure on data and information exchange. If these procedures are well implemented, trans-boundary conflicts shall be minimized.

With clear understanding of trans-boundary issues of the preferred scenarios, below are some suggestions for way out of conflicts:

- Trans-boundary issues/conflicts should not be looked upon as always negative. It can be healthy when effectively managed. Healthy conflict management can lead to growth and innovation, new ways of thinking, and additional management options. But, it is important to understand trans-boundary conflict clearly, i.e. the fish loses and environmental damages which impinge on the “social and food security”. Then it could be effectively managed by reaching consensus that meets the needs of all stakeholders. The goal is for all to “win” by having at least some of their needs met. Recognition of this fact undoubtedly led to the Mekong Vision with the sharing of benefits.
- It is clearly noted in the 1995 Agreement on the dispute resolution where it opens to all riparian state. Trans-boundary issues in the preferred scenarios required mechanisms suitable to develop trust through MRCS as an honest broker that secure cooperation. Some activities are related to improving processes of conflict avoidance and resolution through informal dialogues with a trusted broker or facilitator. In this regards, it is important to make sure that the riparian state or group to make the negotiations have equal capacity and skills to understand the trans-boundary issues well.
- Transparency and providing for public consultation are amongst the keys to the success of trans-boundary issues. This would help to create an enabling environment for community participation and especially to enhance the role of women. This service could be extended to the coordination of identifying and monitoring hotspots so that mediation services may be offered early in the process to prevent tensions from leading to conflict.
- Negotiation committee (through Joint Committee Working Group) has been created through the BDP process to analyze the trans-boundary issues in the preferred scenarios in order to foster cooperation among stakeholders using common shared water resources. The agreed scenarios will be used to formulate the IWRM-based Basin Development Strategy. Areas of trans-boundary issues and experiences could serve as a nexus for education, research, technical expertise and the development of dispute resolution techniques for integrated water resources management, incorporating a multi-disciplinary approach.

The series of MRCS’s Stakeholder Forum raised many questions of trans-boundary issues as well as the local concerns. However, the main concern is about “*what will the future hold?*”

It is not difficult to see that future changes will have significant impacts on the management of water. But what will these be? What will be the size and location of population growth? What are the likely patterns of spatial distribution and settlement patterns of populations? To what extent will the availability of water determine settlement patterns? How will land use evolve? What will be the roles of state, community, private sector action to response to food security of the poor, of

women that are affected by level of managing and water resources development? How much regulation is required? And so on so for.

New attitudes and behaviors are needed among individuals and society everywhere. Resource management principles increasingly recognize that human activity is determining or co-creating future ecosystems. The design of institutions should reflect a shift from developing new water resources to demand management and sharing water, as well as from issues of quantity only to one of quality-quantity.

Therefore, the Mekong water management now and in the next 20 or 30 years should occur through planning at the level of river basins, with the designing, implementation, operation, decommissioning, and financing. Therefore, it is the question of *“how evolving design of institutions would reflect this?”*

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FRAGMENTATION OR CONSOLIDATION? RECONSIDERING INSTITUTIONS AND GOVERNANCE OF THE MEKONG

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The challenges confronting the long-term sustainability of the Mekong River appear to correlate closely with the number of institutions established to resolve them. As threats to the Mekong increase, we see a concomitant increase in the number of mechanisms seeking to resolve them. At present, fourteen different, Mekong-oriented multilateral institutions exist, each of which claims a role in either the direct governance of the river or support for the governance thereof. Unfortunately, measurable improvements to the river's sustainability have not resulted from this situation – nor should we expect them to.

The basic challenges that we see in contemporary development practice, as noted in the work of William Easterly, also exist in the governance and protection of the Mekong. The sheer number of institutions existing at present, on their own, depicts the severity of fragmentation in terms of developing effective policies. Many of these entities maintain overlapping programming that require effective coordination yet such coordination, despite constant statements from all sides praising that goal and regular calls for “increased cooperation,” remains elusive. In practice, the existence of such a large number of institutions ultimately undermines any genuine collective accountability as no single entity is ultimately responsible for the future of the Mekong and can always claim “lack of capacity” or “limits to its purview” when asked about the efficacy of its programming to protect the river. At the same time, no real accountability exists for the national governments of the Mekong states, as each state is able to place the blame on other parties for their respective actions concerning the use of the river and claim the role of “victim” of the “irresponsible” behavior of other state actors. The Mekong states remain trapped in a classic collective action problem, namely that set out by Elinor Ostrom in her classic work on the management of common pool resources, *Governing the Commons*.

The situation is exacerbated by genuine differences in national interest as regards usage of the river itself. Laos and China both have strong interests in the development of hydropower. Thailand sees the Mekong as essential for agricultural irrigation. Cambodia has serious energy needs that have resulted in the growth of hydropower, but requires maintenance of fish stocks and strong downstream flow for its own food security. The absence of real accountability and the

presence of conflicting national interests strongly disincentives both state and multilateral actors from an agenda of fundamental, root and branch reform of the river's complex institutional governance system. Absent some sort of severe exogenous shock, there is no reason to believe that the sub-optimal, status quo equilibrium will shift in the foreseeable future. It is necessary to move beyond the assumption in some schools of thought in international relations that inter-state cooperation will follow naturally from increased development and national incomes. After thirty years of improved development outcomes for the region, the Mekong's current reality and the state of collaboration and coordination have in no way improved.

The institutions established to support governance of the river have made cooperation much more complex by introducing secondary and tertiary issues to their respective agendas. While working to improve regional economic integration, filling the infrastructure funding gap, improving soft connectivity and many other topics are essential for the development of the Greater Mekong Subregion, they can also serve to distract from the primary goal of ensuring the sustainability in the long term.

This situation is made even more complex by the addition of two other aspects. First and foremost, there is the question of intra-regional power asymmetries. China, owing simply to its sheer size, is a daunting actor with which other states need to engage. Still, Beijing has sought to improve its collaboration with other states through the establishment of the Lancang-Mekong Cooperation (LMC) mechanism and its approach, at this stage, appears to be significantly more pro-active as regards building trust and gaining stakeholder inputs than has been the case with other China-led initiatives (e.g., the Belt and Road Initiative). However, China is still outside of the one institution with an actual remit for governance of the river, i.e., the Mekong River Commission (MRC). The absence of Beijing from the MRC seriously limits that institution's effectiveness and undermines its ability to ensure coordination and collaboration as regards usage of the river.

Second, there is the role of extra-regional actors that have established their own Mekong-oriented institutions or support other institutions (e.g., ADB's Greater Mekong Subregion program). The United States, Japan, South Korea, and India are all active in the region. While laudable, this adds another layer of political complexity to river governance and institutional reform. The United States' Lower Mekong Initiative and its long-term support for the Mekong River Commission has been impressive. At the same time, in light of heightened tensions between the US and China – the governance of the river is increasingly framed through a lens of the Sino-American competition for regional hegemony and the worsening relationship between the two states.

A practical path forward for the governance of the river is to recognize such an entity not as simply an institution but an international regime." Krasner defined this as: "'Implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations.'"¹⁸ The present mix of state actors and

¹⁸ Krasner, Stephen D. 1983. "Structural Causes and Regime Consequences: Regimes as Intervening Variables," in *International Regimes*, edited by S. D. Krasner. Ithaca, NY: Cornell University Press.

institutions do not appear to meet that definition. While shared principles are set out across myriad documents, there exists no single set of universally agreed on principles around which actors can converge in order to facilitate cooperation. Most importantly, rules and decision-making procedures remain fragmented. In light of this reality and recognizing the urgent challenges confronting the future of the river, it's necessary for a "reset" and streamline.

The natural place to begin is with the Mekong River Commission in light of its existing mandate. As noted above, the MRC has confronted issues of capacity as well as the challenge of China's lack of participation. At this stage, it is essential for China – if Beijing is to be viewed as a responsible power – to join the MRC. Chinese Minister of Water Resources E Jingping stated at the Third Mekong River Summit in Siem Reap in April 2018 that China is willing to work with the MRC and all riparian countries under the existing cooperation mechanism.¹⁹ Absent Chinese participation, it is likely that the MRC will continue in a process of institutional drift and its efficacy will not improve. China's LMC itself sees itself, in practice if not necessarily in declaration, as essentially an alternative to the MRC and owing to the funding that Beijing has made available for that institution. However, it is highly unlikely that downstream states would accept a Beijing-led initiative to act as a neutral arbiter over usage of the river, no matter how many millions of development funds are made available as part of the program.

To move forward – actors within the region and outside (including ASEAN) need to recognize that existing arrangements are not fit for purpose and that fundamental reform is required. That reform requires commitment to the MRC as an institution by all actors such that MRC can serve as the core of a new Mekong governance regime with a revised mission and purview. Collective support by all actors for the MRC is essential if sufficient pressure is to be brought to bear on China to finally accept the MRC's role and for Beijing to begin genuine cooperation in the governance of the Mekong. Absent such a shift, in thirty years we will be asking the same questions – but while confronting an ecological disaster for all parties.

¹⁹ Mekong River Commission press release, April 5, 2018. <http://www.mrcmekong.org/news-and-events/news/media-release-mekong-leaders-reaffirm-the-mekong-river-commissions-primary-and-unique-role-in-sustainable-development-of-the-mekong-river-basin/> (Downloaded June 2, 2019).

MEKONG RIVER MANAGEMENT THROUGH UNMANNED SYSTEMS

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River management is a complex business and spans the 'physical, environmental, ecological, social, economic, cultural, and political parameters of water use, availability, and accessibility'¹ matrix. It involves a number of activities such as measuring water flow, monitoring changes in the properties of water including flood patterns, shifting course, etc., and finding solutions. These operations are dependent on several hydrological data sets which are diverse and complex, and require technological sophistication to arrive at good predictions for river management.

The complexity of river water management is compounded in the case of trans-boundary rivers in which case data is sourced first at the national level and thereafter shared among upstream and downstream countries of the entire river basin. States develop institutional mechanisms through bilateral treaties, multilateral river management agreements and river commissions to facilitate data exchange among multiple stakeholders. However, there are a number of technical and technological issues such as accuracy of data, diverse measuring and accounting systems, and 'common data sets' and in some cases reluctance to share data which is often labeled as 'sensitive' can potentially preclude accurate assessments and predictions thus impacting on river management.

Mekong River Commission

The Mekong River Commission (MRC) is an inter-governmental body constituted by the governments of Cambodia, Lao PDR, Thailand and Vietnam to jointly manage the water resources of the river.² It is a mechanism for regional cooperation and water diplomacy and its mandate spans several sectors.³ The MRC has instituted several procedures for the management of the river.⁴ It therefore is an important multilateral arrangement for 'facilitating dialogue among governments, the private sector, and civil society.'

Data and Information Exchange

In 2001, under an agreement, the MRC member states agreed to 'Procedures for Data and Information Exchange and Sharing (PDIES)⁵, and the MRC-Information System (MRC-IS) was set up 'to receive, enter into datasets, store and make accessible data and information for the MRC'. The Guidelines on Custodianship and Management of the MRC-IS under the PDIES were announced next year. The MRC-IS is repository of diverse information on the river such as water

availability, water use, water quality and water extremes such as drought and flood monitoring. It 'collects and manages a range of data and information with its Member Countries and other regional stakeholders', and disseminates through its website and the MRC Data and Information Services Portal.⁶ The Portal provides information on the Mekong River and offers a number of services which in some cases, it claims, is 'near-real time' (15 minutes), which is noteworthy.

It is argued that integration of modern technologies to support MRC-IS for data acquisition, analysis, visualization and dissemination among its many users and stakeholders could be an important next-step. Furthermore, these technologies can help predict dangerous climate-hydrological events such as floods and droughts, as also support response services for delivery of humanitarian assistance.

Harnessing Technologies

Satellites pictures, instrument-physical measurements and visual pictures are the primary means for river monitoring and its management. These enable river scientists to monitor and collate various hydrological conditions of the river and then use various prediction tools to forecast the river water patterns. Besides, many of these activities involve human involvement in the form of data collection, tabulation and collation.

In recent times, Unmanned Aerial Vehicles (UAVs) are finding relevance in the tool kit of surveyors and hydrologists who are beginning to use these game changing technologies for river water monitoring and its management. These can also perform a number of remote control hydraulic functions in inaccessible regions, cover large areas, and perform multiple tasks related to river water management and support river scientists.

The use of UAVs in commercial, military and humanitarian operations is well established. Although drones fall in the same category, these are smaller, cheaper and commercially available. Significantly, these can also be carried on person and lunched from different terrains thereby offering attractive options. The effectiveness of drones is further augmented when they are operated in swarms which can be programmed to follow very simple commands that do not require advanced computers and sensors, and therefore their collective numbers could be of the order of hundreds and potentially thousands. These can collect a variety of data for used by multiple agencies engaged in river monitoring and its management. Some of the important tasks UAVs and drones can perform in the domain of river management are below:

Bathymetry is the science for the study of depth of water bodies such as oceans, seas, bays, lagoons, lakes and rivers/streams. It also helps to determine topographical data, preparation of navigation charts, river bed surveys to determine pattern of siltation, pollution, and obstructions. Further, it is possible to carry instruments measuring for obtaining data of various other physical properties of rivers for biological research, underwater obstructions, wrecks, or other stockpiles. Bathymetry can also support monitor water flows, water temperature, turbidity, rapidity, and physical levels.

(a) Photogrammetry is closely associated with bathymetry and involves preparation of **3D pictures through measurements** (lengths, areas, volumes) to ensure **precision** mapping.⁷

(b) UAV, when combined with LiDAR (Light Detection and Ranging) technology, offers an innovative remote sensing technique that maps an environment in 3D using accurate direct georeferencing. Bathymetric LiDAR sensors mounted on UAVs would be game changers.

(c) River traffic monitoring and safety of vessels is important in river management. Congestion, accidents and rescue of persons are some of the common occurrences and require timely response. Under usual circumstances, updates on such events are slow and cause immense pressure on river management authorities who have to provide updates to the affected parties. Similarly, traffic of river cruise vessels requires management and response in case of accidents and emergencies. These require an efficient traffic monitoring to ensure regular flow and safe navigation by obtaining information about the traffic through technical means. The UAVs fitted with cameras and drones with other monitoring sensors are most suitable for efficient management of river traffic. The UAVs/drones can collect multiple high-resolution images by overflying and documenting any vessel congestion and prevent traffic delays.

(d) River pollution is a widespread problem and is caused by indiscriminate sewage, garbage and liquid waste discharge from households, harmful chemical effluents and toxins from industry/factory, agricultural waste, etc. These require constant monitoring by collecting water samples and subjecting these to laboratory tests. UAVs/drones are the cheapest and most effective methods over motorboats to visit different sites which is both time consuming and expensive.

(e) River bank erosion is a natural phenomenon and is caused due to the nature and strength of soil. It can also result from floods which now appear to be getting more frequent and hazardous due to climate change. These occurrences result in damages to adjacent lands, farms and infrastructure including human habitation. River bank erosion therefore is mapped and measured in minute detail and studied. For instance, UAVs were deployed to obtain multi-temporal images of select sites in parts of the floodplain of the river Buëch in south-eastern France.⁸ It was assessed that UAVs 'are valuable products to monitor rivers and control them.

(f) The efficacy and successes of UAVs in flood response has been proven in many instances of flooding. In a pioneering operation in India, these were first put to use in 2013 in the flood-hit Himalayan foothills in Uttarakhand.⁹

Conclusion

The increasing role and use of UAVs and drones for faster delivery of services in river management is a significant factor for enhancing the efficiency of the MRC. This paper offers three key suggestions. First, the MRC-IS can potentially upgrade its functioning by using new technologies and systems for robust information and credible predictions for the Mekong River Basin management ecosystem. Second, UAVs/drones can perform a number of tasks in support of river water management goals and enhance the efficiency of the MRC-IS as also make available accurate spatial coverage. Finally, an App can be designed to provide stakeholders information

on handheld devices which submits photo/information of any abnormal event/activity in the river to the MRC-IS.

Notes

¹ Melinda Laituri and Faith Sternlieb, "Water Data Systems: Science, Practice, and Policy", *Journal of Contemporary Water Research & Education Universities*, Council on Water Resources, Issue 153, pp 1-3, April 2014.

² The Mekong Agreement was signed in 1995 and in 1996; People's Republic of China (China) and the Union of Myanmar (Myanmar) joined the MRC as Dialogue Partners.

³ Fisheries sustainability; identification of opportunities for agriculture; freedom of navigation; sustainable hydropower; flood management; and preservation and conservation of important ecosystems. It also helps its member states face the future effects of more extreme floods, and prolonged drought and sea level rise associated with climate change.

⁴ Procedures for Water Quality, Procedures for Data and Information Exchange and Sharing, Procedures for Water Use Monitoring, Procedures for Notification, Prior Consultation and Agreement, and Procedures for Maintenance of Flows on the Mainstream,

⁵ "MRC Procedures" <http://portal.mrcmekong.org/mrc-procedures> accessed 03 May 2019. The PDIES identifies 12 major groups/types of data and information to be gathered and shared with the MRC-Information System (MRC-IS). Its ultimate goal is to support the activities (planning, development, decision making, and monitoring) in the framework of the Mekong Agreement.

⁶ "MRC Data and Information Services Portal" <http://portal.mrcmekong.org/index#> accessed 03 May 2019.

⁷ "Drone Photogrammetry", <http://www.heliceo.com/en/industries/drone-photogrammetry/> (accessed 07 May 2019). Sven Hemmelder, WouterMarra, Henk Markies Steven M, De Jong,

⁸ "Monitoring river morphology & bank erosion using UAV imagery - A case study of the river Buëch, Hautes-Alpes, France", *International Journal of Applied Earth Observation and Geoinformation*, Volume 73, December 2018, pp. 428-437.

⁹ Neha Sethi, "Drones scan flood-hit Uttarakhand", <https://www.livemint.com/Politics/ZDib5YWR1G2Mcuth1kbwyO/Drones-scan-floodhit-Uttarakhand.html> (accessed 04 May 2019).

EVOLUTION OF BIG POWER RIVALRY IN THE MEKONG REGION

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Escalating rivalry between big powers for economic and political influence in Southeast Asia has driven significant shifts in the nascent Mekong region, with a new range of multilateral and bilateral initiatives competing for projects and special relationships with member countries. While some see growing international pressure to “choose sides” as a negative in the region’s crucial development phase, the overall impact has been positive, moving regional governments from a position of weakness to one of greater strength.

The intensifying competition reflects broader geo-strategic rivalry exemplified by China’s Belt and Road Initiative,²⁰ on one side, and the U.S. and Japan-led Free and Open Indo-Pacific strategy,²¹ on the other. Further afield, this intensifying stand-off is being described as a new “Cold War 2.0” with sweeping political, economic and security dimensions. But nowhere is it as localized and divisive as in the Mekong region where international rivalry is also forging improbable alliances.

Within the Association of Southeast Asia, leaders have increasingly expressed concern that trade frictions and political tensions are forcing small nations to choose sides – a concern evident in ASEAN’s move in June 2019 to launch its ASEAN Outlook on the Indo Pacific (AOIP).²²

Shortly before, at the IISS Shangri-La Dialogue in June 2019, Singapore’s Prime Minister Lee Hsien Loong urged the U.S. and China to co-exist peacefully, without forcing exclusive choices on smaller states. Days later, the Australian Prime Minister Scott Morrison told Lee that the US-China confrontation should not represent a “binary choice” for the rest of the world.

Indeed as the US-led Indo-Pacific strategy gains momentum, it has brought a wave of competing initiatives and overlapping projects into China’s perceived “backyard,” the Mekong region, No other region for example has the equivalent of China’s Lancang-Mekong Cooperation

²⁰ :What’s in China’s New BRI Recalibration?,” Prashanth Parameswaran: The Diplomat 07 May 2019: <https://thediplomat.com/2019/05/whats-in-chinas-new-belt-and-road-recalibration/>

²¹ “Indo-Pacific Strategy Report 2019,” U.S. Department of Defense: 01 June 2019: https://media.defense.gov/2019/May/31/2002139210/-1/-1/1/DOD_INDOPACIFIC_STRATEGY_REPORT_JUNE_2019.PDF

²² ASEAN Outlook on the Indo-Pacific: ASEAN Secretariat, June 23 2019: <https://www.asean2019.go.th/en/news/asean-outlook-on-the-indo-pacific/>

mechanism²³ - a localized form of BRI, which has spawned a network of programs and institutions including regional think tanks and grassroots organizations.²⁴ The US has also revived region-specific programs including the Lower Mekong Initiative, while Japan has merged its Japan Mekong Cooperation program into a broader outline of its own Free and Open Indo-Pacific concept.

Overall, rather than entrapping the region in a web of conflicting interests among key donor countries, the rise of new initiatives has given more voice to the five key Mekong region states (Cambodia, Laos, Myanmar, Thailand and Vietnam) -- and even opportunities to shape -- donor programs and policies. Competition between China on one side and the U.S. and Japan -- alongside growing involvement from South Korea, as well as EU, Australia, New Zealand and others - to finance and implement development projects is also seeing new flows of funds into assistance programs, more transparency in delivery mechanisms, better financial terms and higher standards in the execution of projects.

At the same time, a growing backlash against China's BRI, and by extension, its LMC offshoot -- including concerns about unsustainable debt loads, environmental damage, and lack of consultation -- has prompted Beijing to rethink past policies and practices. Chinese President Xi Jinping effectively acknowledged widespread criticism of China's approach at the second BRI summit in Beijing in April, telling the conference that "everything should be done in a transparent way, and we should have a zero tolerance for corruption." Furthermore, Xi said, his government would adopt a "debt-sustainability framework" to encourage compliance with international standards in infrastructure contracting.²⁵

Beijing's efforts to project a gentler approach feature its climb down in April 2019 over a signature multibillion dollar rail project in Malaysia, when it slashed the overall cost by about one third, and subsequent backtracking on key projects in Africa and elsewhere. Such moves have resonated in the Mekong region -- where Laos, for example, has put its relentless dam-building drive on virtual hold, and neighboring countries have expressed more concern about environmental impacts of infrastructure projects.

China's new efforts to modify its approach has also seen a slew of more inclusive programs in the Mekong region including new spending on health, education, poverty alleviation and the launch in 2018 of a \$300 million "special fund" for small and medium sized cooperation projects. These and other programs have seen China step up consultation with local communities and provide grassroots assistance in agriculture and skills training, among other measures.

²³ "A Brief Introduction of Lancang-Mekong Cooperation," Lancang-Mekong Cooperation (website); Dec. 13, 2017: http://www.lmcchina.org/eng/gylmhz_1/jj/t1519110.htm

²⁴ <https://www.voacambodia.com/a/regional-think-tank-launched-to-advise-on-china-mekong-initiative/4050041.html>

²⁵ Key Takeaways from the Second BRI Summit: China-US Focus, Ben Reynolds: May 10, 2019: <https://www.chinausfocus.com/finance-economy/key-takeaways-from-the-second-belt-and-road-initiative-summit>

It has also opened a wider window for civil society, exemplified by the landmark victory for local activist groups along the Mekong River in early 2019, when China abandoned an earlier agreement with Thailand and Laos to blast rocky outcrops in the river. And it has seen the rise of homegrown initiatives by regional countries, particularly Thailand's revival of ACMECS (the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy), a regional body established in 2003 and relaunched with much fanfare in 2018 with the eighth ACMECS summit.²⁶ Since then, Thailand has established the ACMECS special fund and master plan for projects and lobbied Japan, the US and other countries to sign on as development partners. In an early sign of support, Tokyo moved more than 100 official aid projects under the ACMECS "master plan" title and at least four or five other countries are expected to join an ACMECS leaders' meeting in late 2019.

Decision-makers in regional organizations and governments have expressed varying degrees of approval for China's development approach. While they acknowledge well-publicized issues including debt sustainability and consultation mechanisms, many privately praise Beijing's top-down approach of speedy decision-making, lack of bureaucracy and rapid implementation. Few regional officials however seem prepared to publicly address accusations of corruption and secrecy that accompany some of the larger BRI infrastructure projects.

NEW MOMENTUM IN MEKONG PROGRAMS

More significantly, Beijing's shift has no doubt helped accelerate efforts by the U.S. and other donor countries efforts to respond to the rapid progress of BRI and LMC through enhanced engagement in the region -- for example through the revival in 2018 of the U.S.-led Lower Mekong Initiative, which is focusing initially on programs that span digital, infrastructure and energy sectors, among related regional initiatives.²⁷

On a broader level, the US is laying plans to facilitate tens of billions of dollars of development finance and private sector investment across the Indo-Pacific region, following passage in late 2018 by the US Congress of the BUILD Act (Better Utilization of Investments Leading to Development), which is set to double the U.S. government's development-finance capacity to \$60 billion by the end of 2019 to support U.S. private investment in "strategic opportunities" abroad. In related legislation the Congress passed the ARIA Act (Asia Reassurance Initiative Act) focused on the Indo-Pacific region in December 2018, which sets out new US initiatives including specifically for Lower Mekong countries. Among other programs, in July 2018, US Secretary of State Mike Pompeo announced \$113 million for new economic and energy initiatives to flesh out the administration's Indo-Pacific Strategy. These include nearly \$50 million for Asia EDGE (Enhancing Development and Growth through Energy), an initiative to promote energy security and develop energy markets, and a \$30 million program known as ITAN (Infrastructure Transaction and Assistance Network) to boost infrastructure investment through financial and

²⁶ "Declaration of 8th ACMECS Summit," Ministry of Foreign Affairs of the Kingdom of Thailand: 16 June, 2018: <http://www.mfa.go.th/main/en/news3/6886/90570-BANGKOK-DECLARATION-OF-THE-8TH-AYEYAWADY-%E2%80%93-CHAO-PH.html>

²⁷ "About the Lower Mekong Initiative," Lower Mekong Initiative official website; last updated May 2019: <https://www.lowermekong.org/about/lower-mekong-initiative-lmi>

technical assistance to partner countries, and its Digital Connectivity and Cybersecurity Partnership to focus on promoting the region's digital connectivity.²⁸

It is useful in the regional context to examine the evolution of region-specific organizations. Key is a new of "minilateralism," with various configurations of donor countries and organizations expanding the range of funding mechanisms and development options -- for example through the Thai-led ACMECS and new cooperation programs built into recent Japanese and U.S. initiatives. The US for example through its new Asia EDGE scheme is leveraging Japanese funds pledged for energy infrastructure, by promoting its Japan-U.S. Strategic Energy Partnership (JUSEP) established in late 2018, under which the US and Japan will facilitate investment in projects to supply liquefied natural gas (LNG) or build LNG infrastructure -- based on Japan's \$10 billion fund for public and private investment and capacity building training for energy infrastructure.

Tokyo is also heightening its regional engagement. In response to China's BRI and its newer LMC mechanism, Japan in late 2018 moved to expand its Mekong-Japan Cooperation program, subsuming its existing "New Tokyo Strategy" into its broader FOIP vision.²⁹ Like Japan, the US, since reviving its Lower Mekong Initiative (initially launched in 2009 by US Secretary of State Hillary Clinton), has attempted to link some of its new LMI programs with the Thai-led ACMECS.

Ultimately, no single country can match China's vast, top-down approach to a global infrastructure initiative on the scale of BRI. But in the Mekong region, the convergence of interests between the U.S., Japan and other donor countries and organizations would suggest that bodies such as ACMECS and the U.S.-dominated LMI will have larger roles to play in future.

Such moves have brought fresh momentum to regional development efforts alongside more than 10 other major Mekong-focused cooperation frameworks and various bilateral initiatives.³⁰ They have also shifted the focus of Washington's FOIP strategy -- initially seen as a China-containment mechanism focused on security aspects -- to a multi-layered approach targeting economic development across the Indo-Pacific region, particularly through infrastructure, social programs, capacity building.

In this respect, international rivalry in the Mekong region will fundamentally shape regional engagement strategies and empower Mekong countries in their dealings with external powers.

²⁸ US Mission to ASEAN: Fact Sheet: Advancing a Free and Open Indo-Pacific Region Nov. 18, 2018: <https://asean.usmission.gov/advancing-a-free-and-open-indo-pacific-region/>

²⁹ "The New Tokyo Strategy 2018 for Mekong Cooperation," Ministry of Foreign Affairs of Japan, Oct. 9, 2018: <https://www.mofa.go.jp/mofaj/files/000406731.pdf>

³⁰ "Can ASEAN Play a Greater Role in the Mekong Subregion?," Shawn Ho and Kaewkamol Pitakdumrongkit, 30 Jan. 2019, The Diplomat: <https://thediplomat.com/2019/01/can-asean-play-a-greater-role-in-the-mekong-subregion/>

At the same time, this new phase is affecting big powers particularly an unexpected divergence between the US and Japanese approach, within their broader joint advocacy of a general FOIP strategy.

With its own evolving FOIP framework for regional cooperation, Japan has signaled new efforts toward a more flexible approach to regional engagement. On one hand, as a staunch U.S. ally with shared interests in checking China's advance in the Mekong region, Tokyo clearly supports the U.S.-led FOIP strategy with compatible regional initiatives. On the other hand, wary of the Trump administration and reluctant to adopt Washington's human rights-linked funding constraints on some regional countries, Tokyo is discreetly broadening its path – including the launch in 2018 of “third-country cooperation” with China. Among factors driving this initiative is Japan's clear desire, under Prime Minister Shinzo Abe, to enhance its regional leadership role. Also, Tokyo, a staunch US ally but wary of the Trump administration, is hedging its bets on its long-standing US relationship. In essence, Japan is increasingly trying to delineate its own FOIP strategy, distinct from the US, even as it cooperates with -- or in some cases funds -- some programs associated with the US version.

The most striking illustration of Japan's changing view is Tokyo's unprecedented third-country cooperation with China, even as it challenges Beijing on other policy and security fronts.

CHINA-JAPAN COOPERATION

The China-Japan cooperation move follows a landmark agreement between the two countries in 2018 on Third-Country Business Cooperation. The agreement provided for joint Sino-Japanese financing and implementation of 52 projects, mainly infrastructure initiatives, including a project with Thailand to develop an industrial zone into a “smart city” south of Bangkok, and a high-speed railway linking three major airports as part of Thailand's Eastern Economic Corridor scheme.³¹ Despite teething problems including differences over project specifications and timetables, Japanese officials frequently stress the symbolism of such cooperation.³²

Yet, just across the border in the southern Cambodian coastal city of Sihanoukville, Sino-Japanese rivalry looks sharper than ever, particularly on Cambodia's southern coast where the two countries are involved with competing port and special economic zone projects.³³ Other examples of Japan's more diversified approach including new openness to minilateral security and development arrangements including Australia and now, increasingly, India.

³¹ “The EEC: Showcase of China-Japan Third Country Business Cooperation”; EEC website, 21 May, 2019: <https://www.eeco.or.th/en/pr/news/china-japan-forum-third-country-business-cooperation>

³² “Is This a True Thaw in Sino-Japan Relations?,” Trissia Wijaya and Yuma Osaki; *The Diplomat*, 16 Feb., 2019: <https://thediplomat.com/2019/02/is-this-a-true-thaw-in-sino-japanese-relations/>

³³ “Cambodia's biggest port sees China coveting Japan's dominant role,” Kenji Kawase; 03 Aug. 2018; *Nikkei Asian Review*: <https://asia.nikkei.com/Business/Company-in-focus/Cambodia-s-biggest-port-sees-China-coveting-Japan-s-dominant-role>

Overall, Japan could be establishing a new model for constructive engagement with the region. By articulating new principles for investment, enlisting new partners and participating selectively in other countries' aid initiatives, Japan seems to be developing an alternative to China's BRI that could limit developing countries' dependence on Chinese lending – while broadening the US FOIP model.

As for China, as Xue Gong of RSIS notes: “Beijing has toned down the exaggeration of the BRI as a powerful tool. Inside China, there is a growing interest in exploring more explicit and defined rules and higher standards for China-funded infrastructure projects in the BRI participating countries. The Chinese government is also considering the possibility of redefining BRI projects to improve levels of transparency. This is because China increasingly realizes that it alone cannot carry out this large-scale initiative. We have seen some positive signs of growing collaboration between China and other major powers. China and Japan, for instance, have tentatively agreed to cooperate on infrastructure investments in Thailand.”³⁴

But even with a fresh, collaborative approach and the rise of new donor mechanisms, there is still a vast infrastructure gap facing developing Asia, estimated by the ADB at \$26 trillion in infrastructure investments that will be needed from 2016 to 2030 simply to maintain growth momentum, more than double the estimate in 2009. The needs of the five Lower Mekong countries alone are estimated at \$29.9 billion up to 2020, and \$51.3 billion beyond 2020, while the private sector will need to increase infrastructure investments from \$63 billion in 2017 to \$250 billion by 2020.³⁵ No country however, even China, is capable of single-handedly filling the gap. It is partly this realization that is driving the push among donors to collaborate, to more effectively address the infrastructure gap and, in the case of the U.S. and its allies, counterbalance the Chinese leviathan.³⁶

³⁴ Xue Gong: “The Belt & Road Initiative and China’s influence in Southeast Asia”: 14 Nov. 2018: <https://www.tandfonline.com/doi/abs/10.1080/09512748.2018.1513950?journalCode=rpre20>

³⁵ “Meeting Asia’s Infrastructure Needs,” ADB, (2017): <https://www.adb.org/sites/default/files/publication/227496/special-report-infrastructure.pdf>

³⁶ “Challenges for US-Japan Collaboration on Southeast Asia’s Energy Infrastructure,” Courtney Weatherby: Asia Pacific Bulletin, No. 466 Publisher: Washington, DC: East-West Center, April 2, 2019.

ANNEX II

Cooperation with Whom and for What?

Historical Review of Japan's Mekong Development Policy

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Outline

- Regional stability and prosperity through involving CLMV in the regional production network has been the cornerstone of Japanese Southeast Asia strategy since the 1990s.
- However, recent emergence of China in the Mekong as a new donor swayed Japanese policymaker's confidence in her relations with five Mekong countries.
- On the other hand, coordination among Japan-China and Japan-US has started.
- FOIP could be the platform for Sino-Japan-US cooperation on Mekong development but it strongly depends on the relation among three parties.

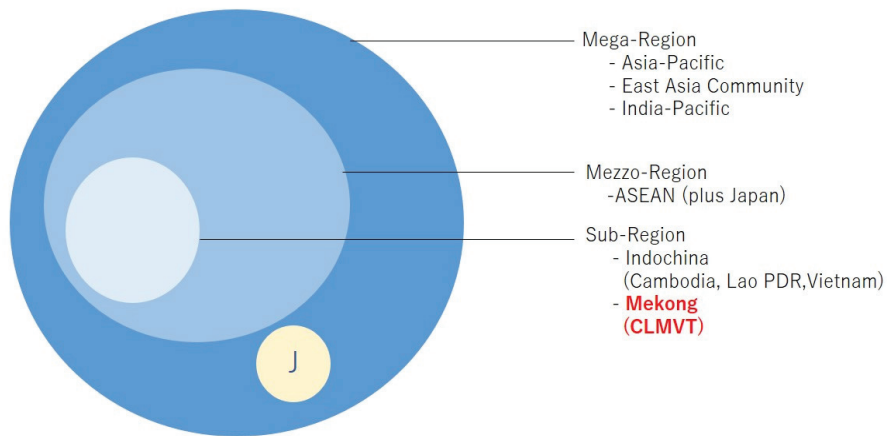
“Mekong Congestion”?

Framework	GMS	MRC	AMBDC	AMEICC	IAI	MGC	ACMECS	Japan-Mekong Cooperation	LMI	LMC
Inaugurated in	1992.10~	1995.4~	1995.12~	1997.11~	2000.11~	2000.11~	2003.11~	2006.12~	2009.1~	2015
Proposed by	ADB	UNDP	Malaysia	Japan (METI)	Singapore	India / Thailand	Thailand	Japan	the US	China
m	Thailand	○	○	○	○	○	○	○	○	○
e	Cambodia	○	○	○	○	○	○	○	○	○
m	Laos	○	○	○	○	○	○	○	○	○
b	Vietnam	○	○	○	○	○	○	○	○	○
e	Myanmar	○	observer	○	○	○	○	○	○	○
r	Indonesia	x	x	○	○	○	x	x	x	x
	Singapore	x	x	○	○	○	x	x	x	x
s	Malaysia	x	x	○	○	○	x	x	x	x
t	Philippines	x	x	○	○	○	x	x	x	x
a	Brunei	x	x	○	○	○	x	x	x	x
t	China	○	observer	○	x	x	x	x	x	○
e	Japan	x	x	x	x	x	x	○	○*	x
s	the US	x	x	x	x	x	x	x	○	x

Source: by author

* Japan is the member of Lower Mekong Friends meeting.

Japanese multilayered-partnership with SE Asia



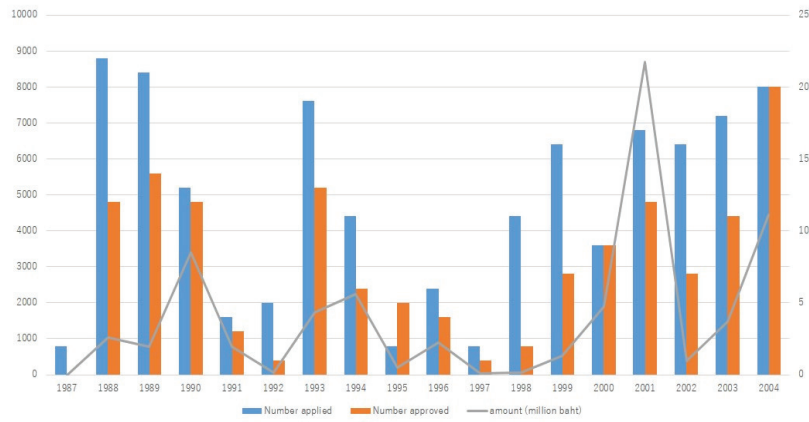
Japan as a “true friend of Southeast Asia”

- 1978 Premier FUKUDA’s visit to SE Asia
 - promised to stay as a non-military power.
 - expressed the will to support peace-building (between ASEAN and Indochina)
 - pledged to increase ODA (including establishment of ASEAN Development Fund)
- “Further **economic development** and **regional integrity** will lead to political stability in the region”

“Bridging the mainland and the maritime SE”

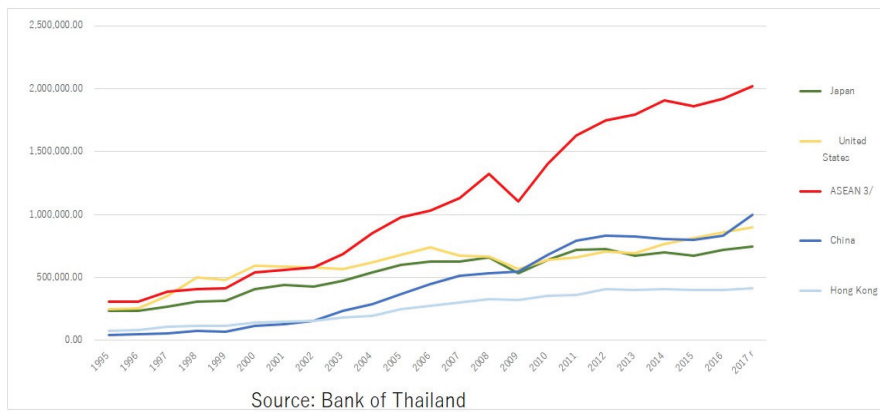
- 1991 Peace Pact between the parties of Cambodia
 - Initiative by MOFA
 - 1993 Forum for Comprehensive Development of Indochina (FCDI) → dissolved
 - Initiative by MITI (METI)
 - 1994 Working Group for CLM Industrial Cooperation
→ 1997 **ASEAN**-METI Economic and Industrial Cooperation Committee (AMEICC)
- 2000 Support for Initiative for ASEAN Integration
- 2004 Support for Cambodia-Laos-Vietnam Development Triangle (CLV-DT)
→ 2007 **Japan-Mekong Cooperation (CLV+M, T)**

FDI from China to Mekong (e.g. Thailand)



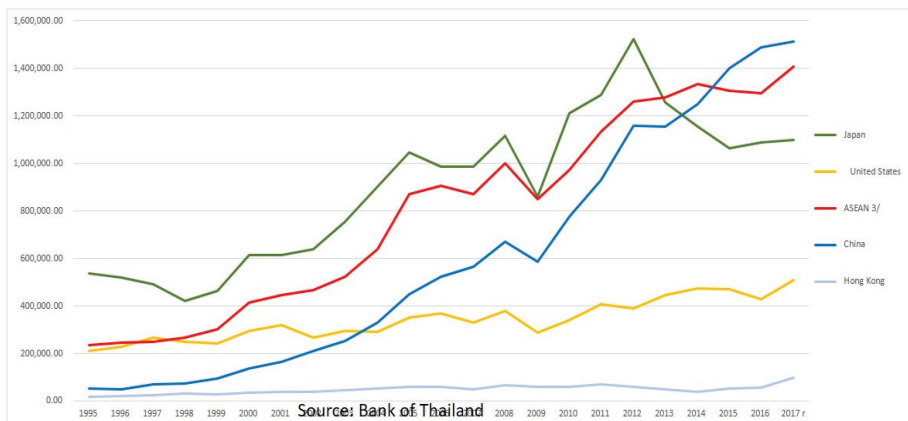
Sompop, M. (2009). Thailand-China cooperation in trade, investment and official development assistance. (URL: http://www.ide.go.jp/English/Publish/Download/Brc/pdf/01_thailandandchina.pdf. Last accessed 12 July, 2018)

Exports from Thailand (million baht)



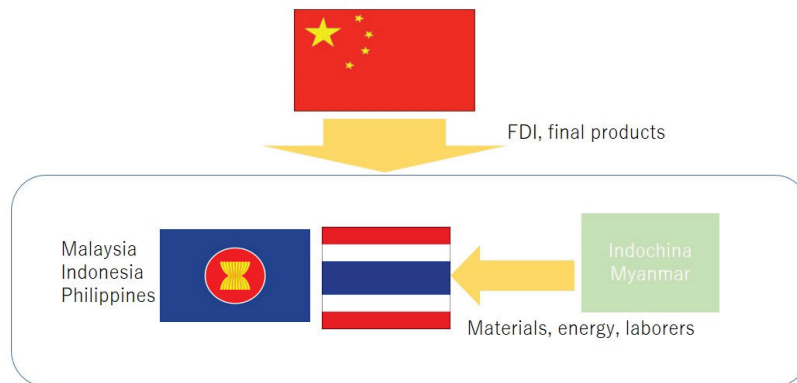
Source: Bank of Thailand

Imports to Thailand (million baht)



Source: Bank of Thailand

Competition over “Special Relationship”?

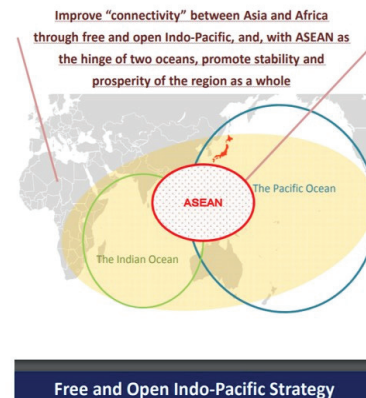


Coordination among China and Japan

- **Japan-China Policy Dialogue on the Mekong Region**
 - Annually held from April 25, 2008 until 2011 and resumed in 2014.
 - Exchanged views and information between SOM
- **Memorandum on Business Cooperation in Third Countries between Japan and China**
 - Concluded on 9th May 2018 between METI, MOFA of Japan and National Development and Reform Commission, Ministry of Commerce of China
 - *“there are strong complementarities in Japan-China economic relations”*
 - Set Thailand’s Eastern Economic Corridor as the first case

Tokyo Strategy 2018 for Mekong-Japan Cooperation

- Declared on 9th October 2018 at 10th Japan-Mekong Summit
 - “Leaders of the Mekong countries welcomed Japan’s policy to realize a **free and open Indo-Pacific** to contribute to the peace, stability and prosperity in the region and the world”
- Diplomatic Bluebook 2018
- PM Abe’s policy speech at the parliament (Jan. 2018)



Source: Mission of Japan to ASEAN(URL: https://www.asean.emb-japan.go.jp/itprtop_en/index.html)

Problems ahead of Mekong donors coordination

- Passive attitude of private sector (of Japan)
 - e.g. Airport link railways project in Thailand's Eastern Economic Corridor
- Sino-US rivalry may limit Japan's policy alternative,
 - while it urges China to go closer to Japan

Thank you for your attention



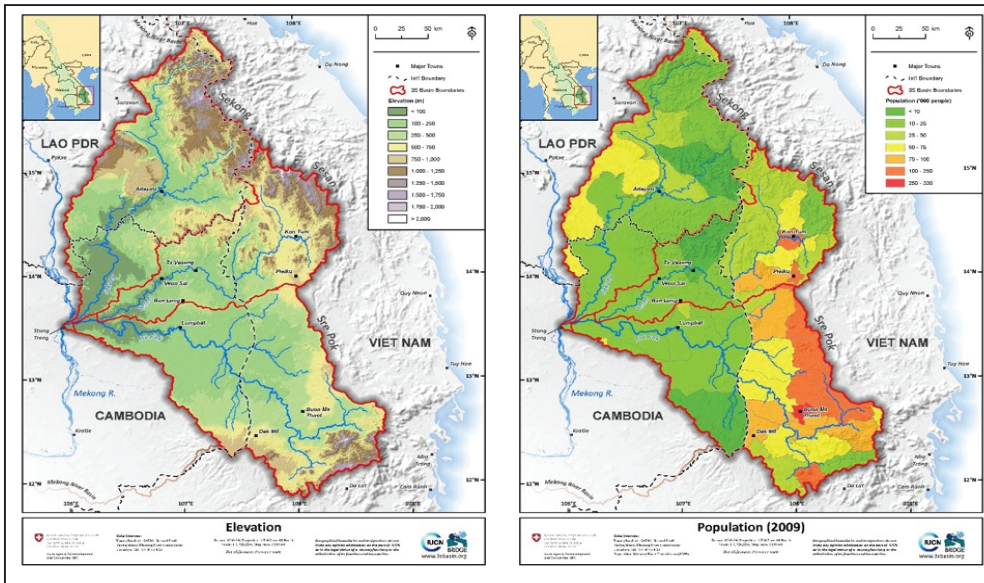
3S nexus assessment results

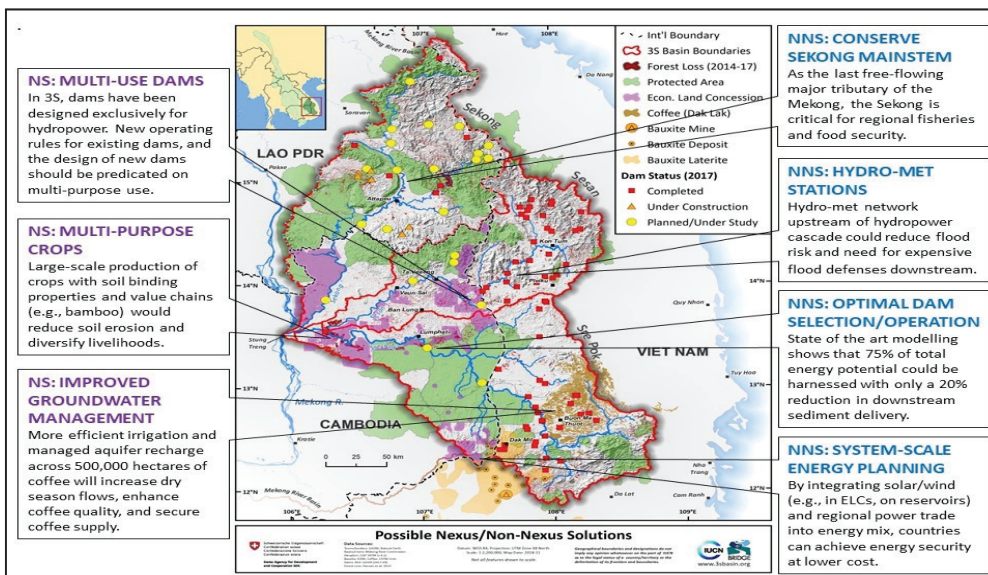
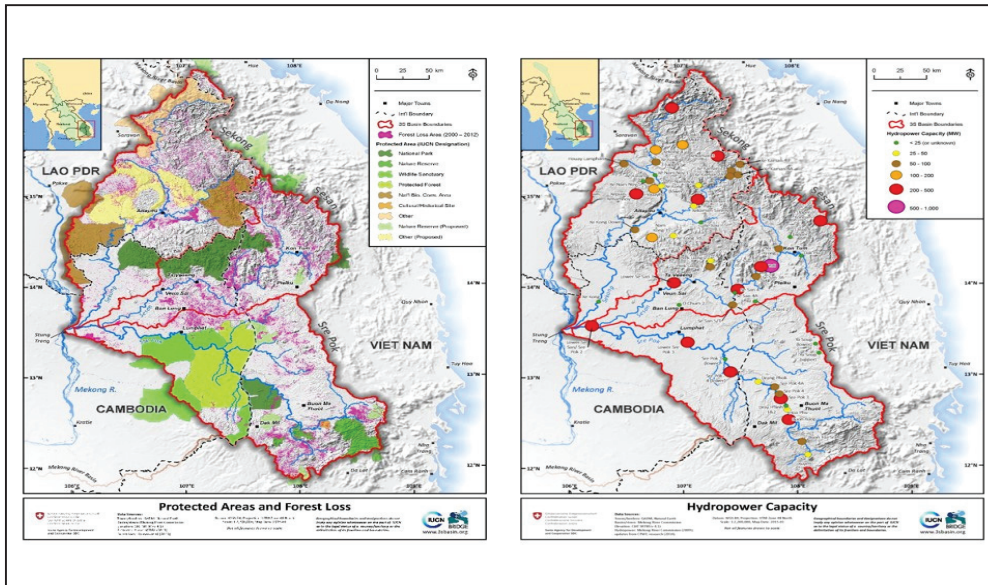
Jake Brunner, Head, Indo-Burma Group
Regional Workshop on Future of the Mekong
Phnom Penh, June 2019



What's nexus?

- At its simplest, it means making the best use of water in a river basin *irrespective of self-declared sectoral and administrative mandates*



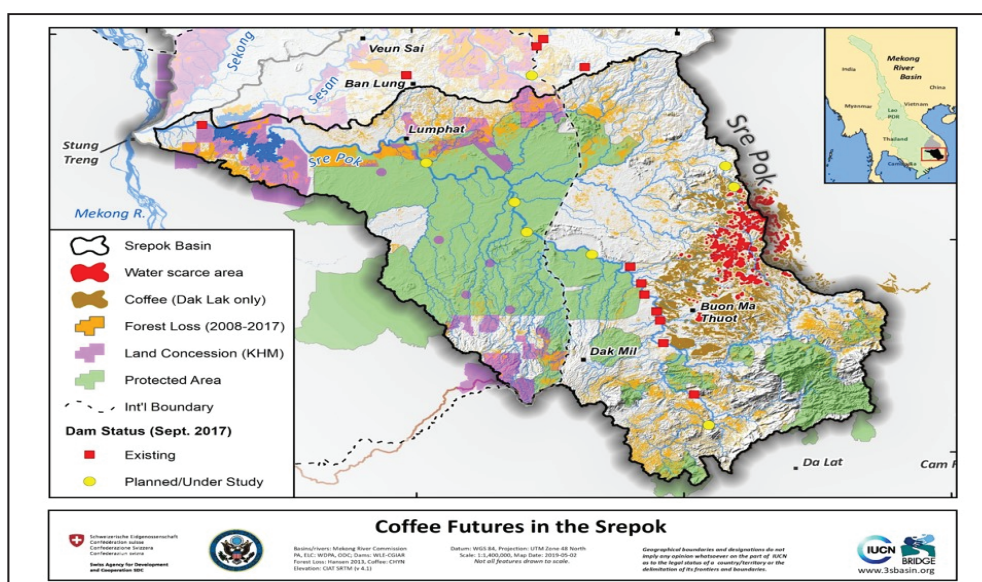


Messages: risks

1. Knowledge “asymmetry”
 - E.g., easy to quantify energy benefits vs. capture fisheries (10,000 tons vs. 89,000 tons/year from 3S)
2. Political economy not economics driving investment decisions
 - Construction of political monuments vs. electricity generation
3. Poorest suffer “negative externalities”
 - Particularly ethnic minorities that struggle to participate in new economy

Major nexus questions in 3S

1. How can coffee farming in **Central Highlands** be diversified to reduce unsustainable groundwater pumping and climate risks?
2. Now that LS2 is complete, how can development of **2S** be optimized for energy, irrigation, and fisheries? 1 ELC = 3GW
3. What arguments can be used to ensure that the **Sekong** mainstream remains free-flowing for regional food security benefits?



Central Highlands: by...

1. **Converting** 16,000 hectares of drought-prone coffee into pepper, durian, and avocado
2. **Rejuvenating** remaining coffee with new high yielding varieties
3. **Intercropping** remaining coffee with pepper, durian, and avocado

Over 10 years with a total investment cost of \$160 million:

1. Increases total crop value by factor 3.6 vs. present (\$4.3 billion vs. \$1.2 billion)
2. Maintains current coffee production at about 600,000 tons
3. Reduces dry season water use by 43% (saving 200 million m³/year)

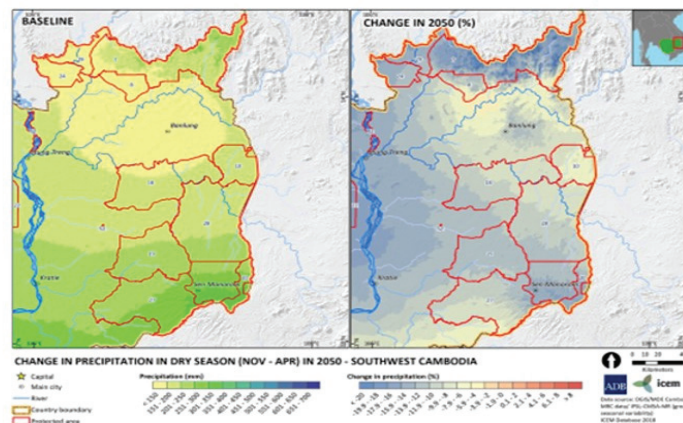
2S dry season flows

<i>Water saved equals one-third of combined average dry season flow of 2S</i>	Srepok Ban Don Station 1977-2015	Sesan Kon Tum Station 1980-2016
	Flow, m ³ /s	
Total average dry season flow	268	96
All time maximum	3,220	3,500
All time minimum	8	10
March-April average	79	36
As % of annual average	29%	38%
March-April maximum	334	113
March-April minimum	8	10

Downstream...

- What is the value of an extra 200 million m³ during the dry season?
- We will answer this question from perspective of energy, agriculture, drinking water, fisheries etc.
- Taking into account climate change...

Dry season rainfall down 4%-20%



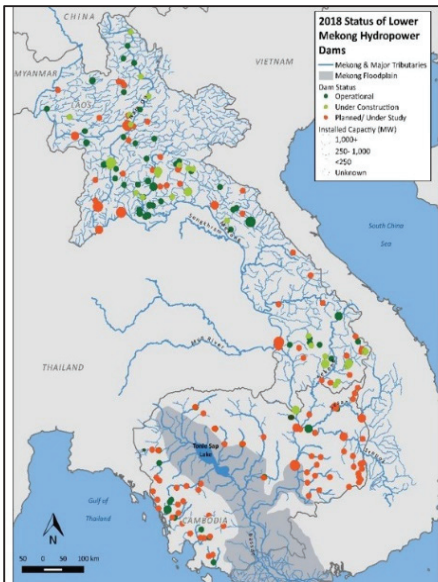
Next steps in 3S

1. Continue to research investment costs/options (Stimson will do the energy work downstream)
2. Reconvene regional TAG to update on progress and seek further input
3. Work with Vietnam's MPI to integrate into CLV planning
4. Next round of Stimson-IUCN-UC Berkeley nexus discussions in Vientiane and Phnom Penh in June

Our vision for the 3S is an institutional mechanism that facilitates joint planning and investment in ways that optimize river basin and national welfare across CLV

How Renewables Can Optimize Water-Energy-Food Tradeoffs in the Mekong Basin

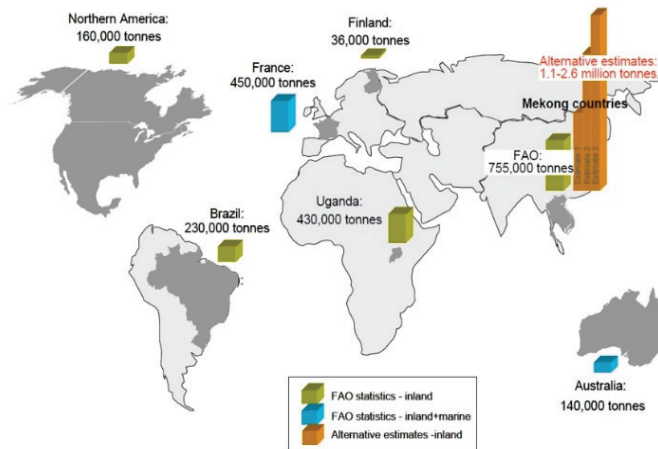
Brian Eyler
 Southeast Asia Program Director
 Stimson Center



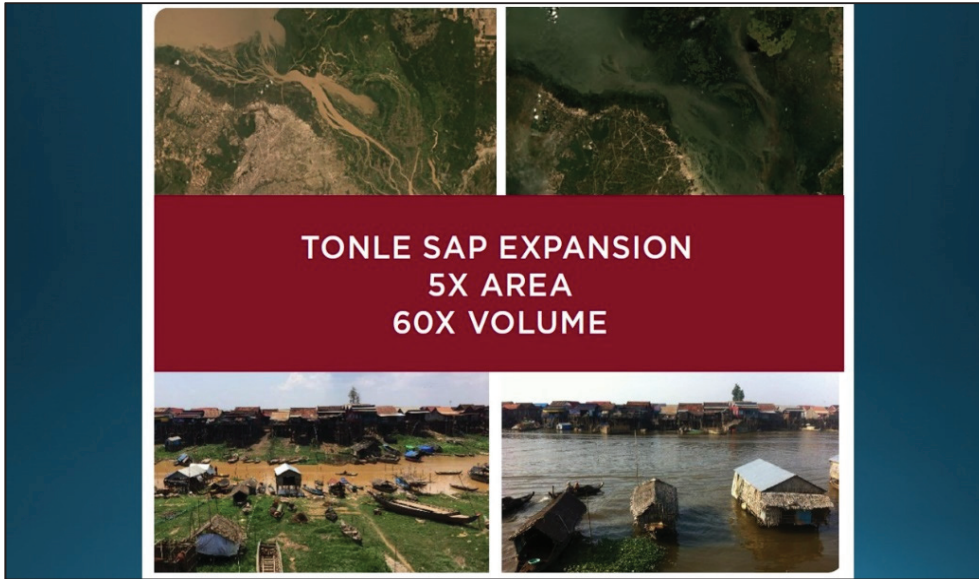
Map represents multiple futures

- Laos and Cambodia have no plan or strategy for basin-wide development
- Risks to dams are rising
- Project by project approach is problematic for all
- Power Sector Engagement:
 - Landscape vision vs. Pie Chart
- Need for a basin-wide, system scale vision
 - Mainstream + tributaries
 - Integrated water resource management
 - Hydropower + solar + wind + other

Figure 8: Comparison of fish production in the Mekong and in other countries worldwide.

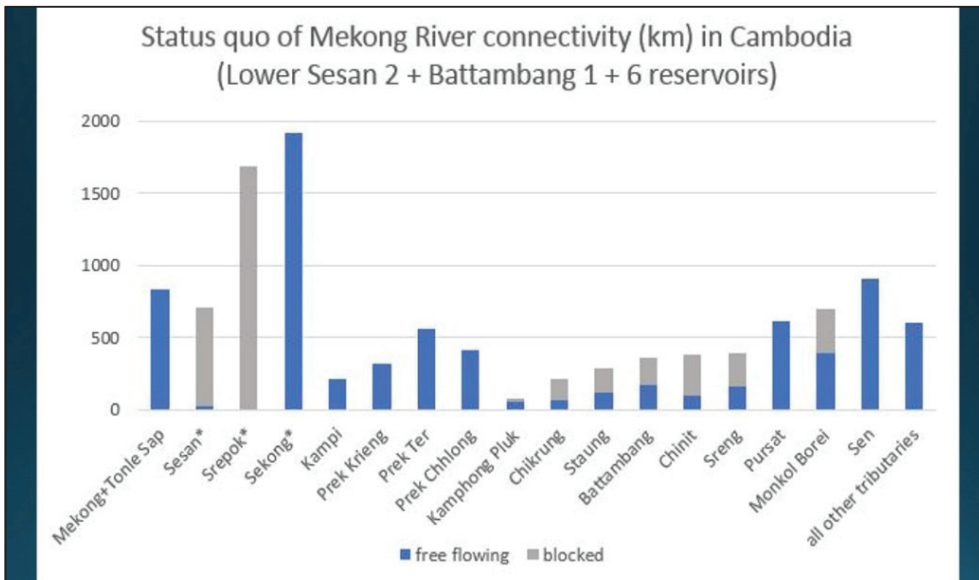
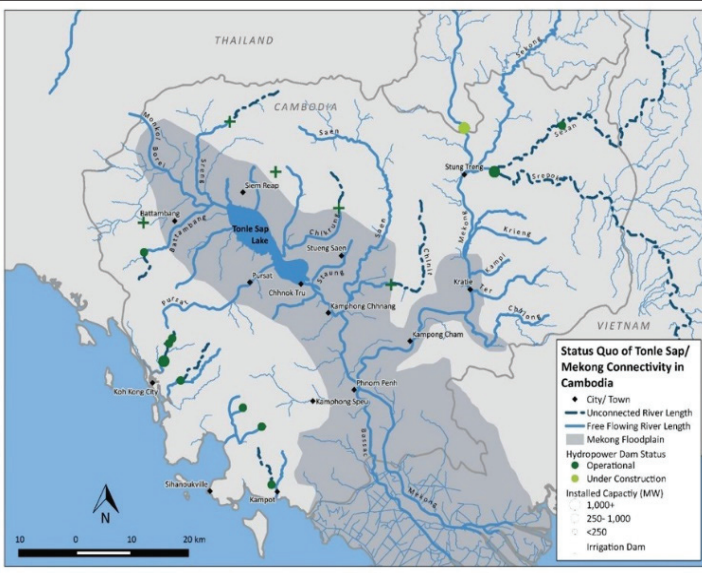


Source: FAO statistics: 2005-2007 average. Brazil, Uganda and Finland are the countries with the biggest inland fisheries in South America, Africa and Western Europe respectively. Alternative estimates for the Mekong correspond to the 3 main assessment approaches (wetland productivity, fish consumption and catch)



**TONLE SAP EXPANSION
5X AREA
60X VOLUME**

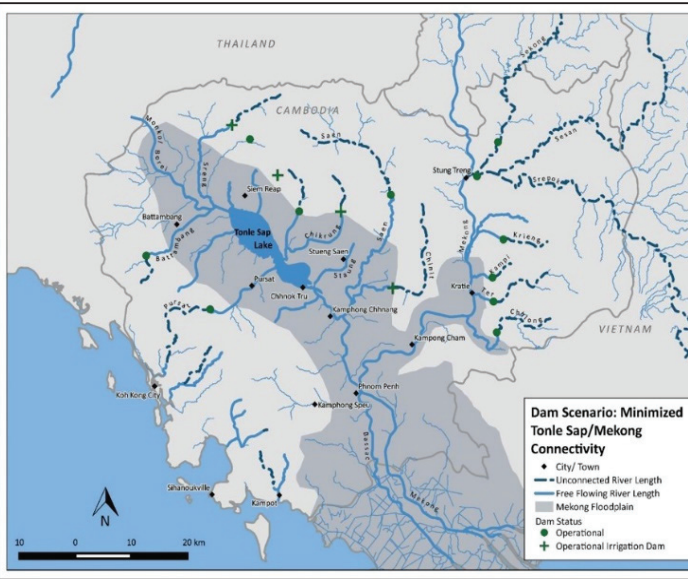
Status quo:
 + LS2 (400 MW power)
 + Battambang 1 (13 MW)
 + 6 Tonle Sap irr. dams
 = 413 MW
 = loss of 3535 km (32%)



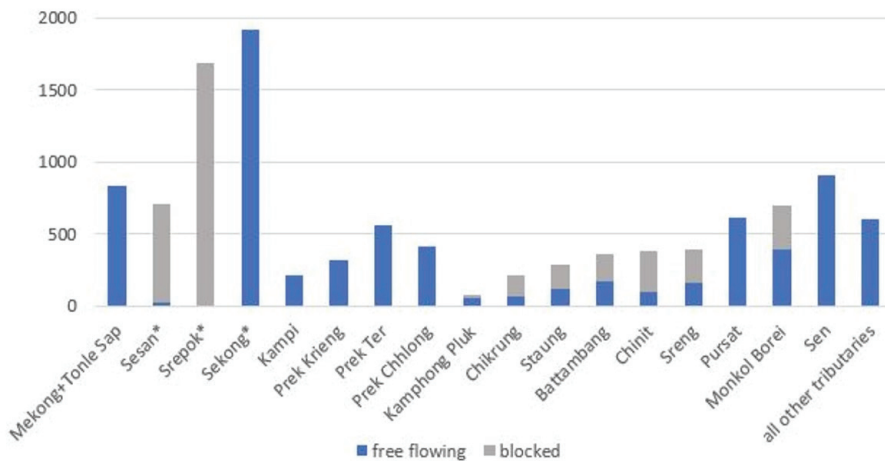
Minimized Connectivity Scenario

Adding most downstream dam

Status quo (413 MW)
 + 7 dams (237 MW)
 = 747 MW
 loss of 6655 km (61.83%)



Status quo of Mekong River connectivity (km) in Cambodia (Lower Sesan 2 + Battambang 1 + 6 reservoirs)

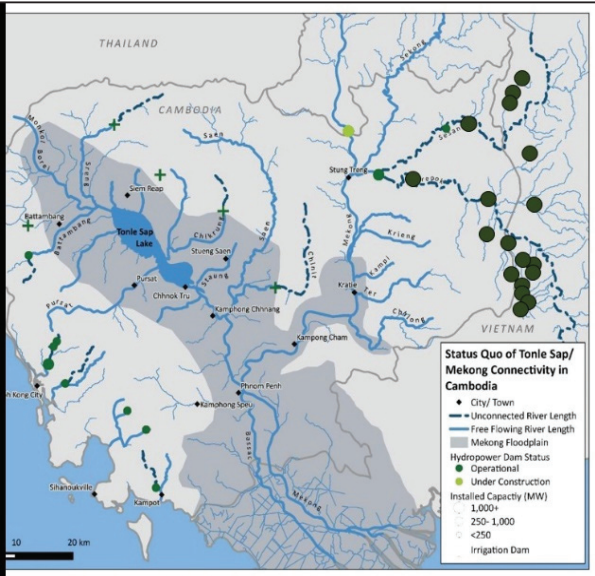


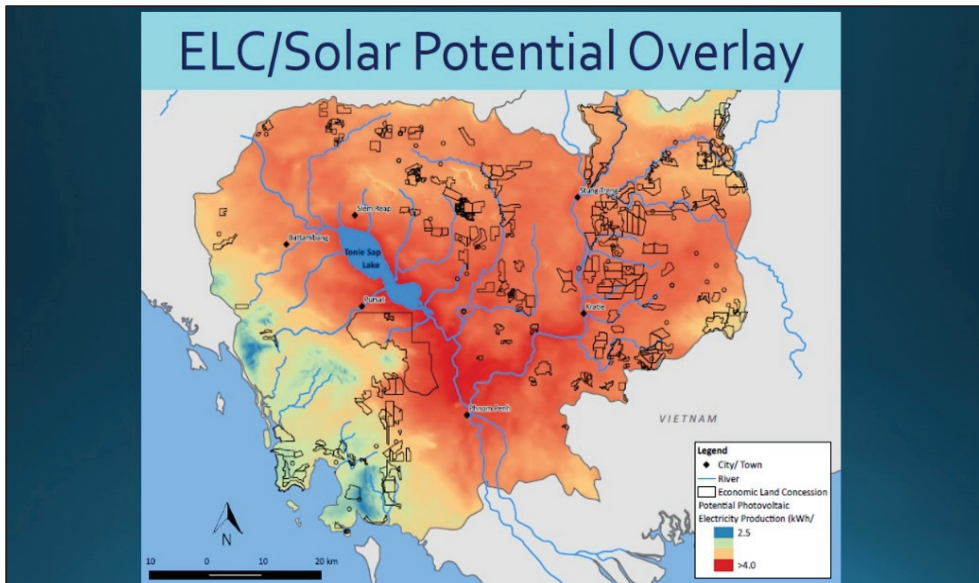
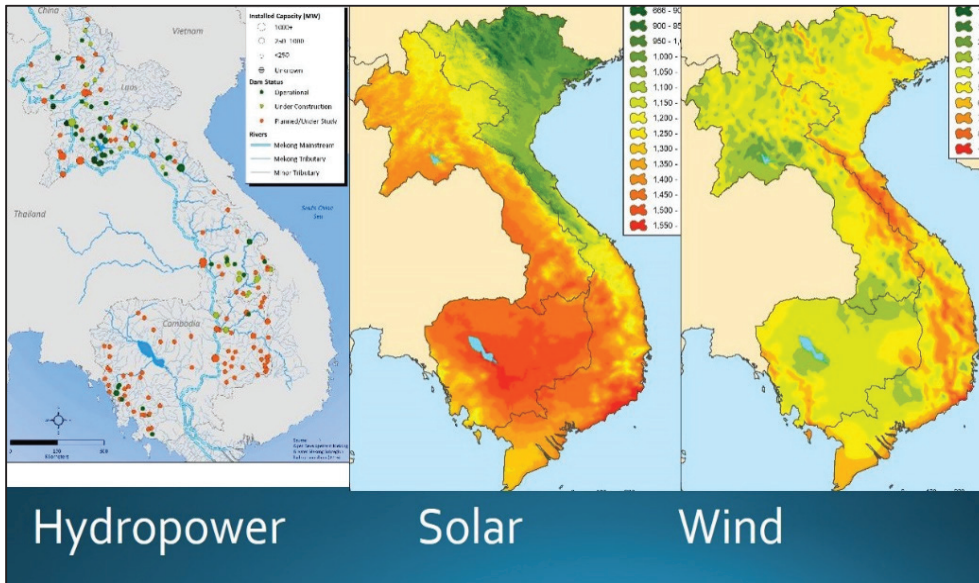
Maximize Connectivity Scenario

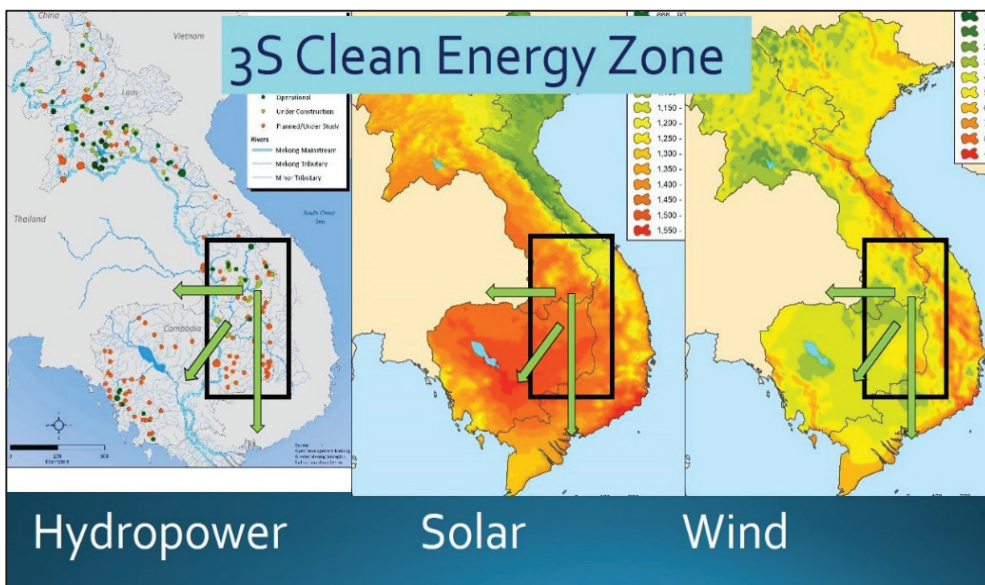
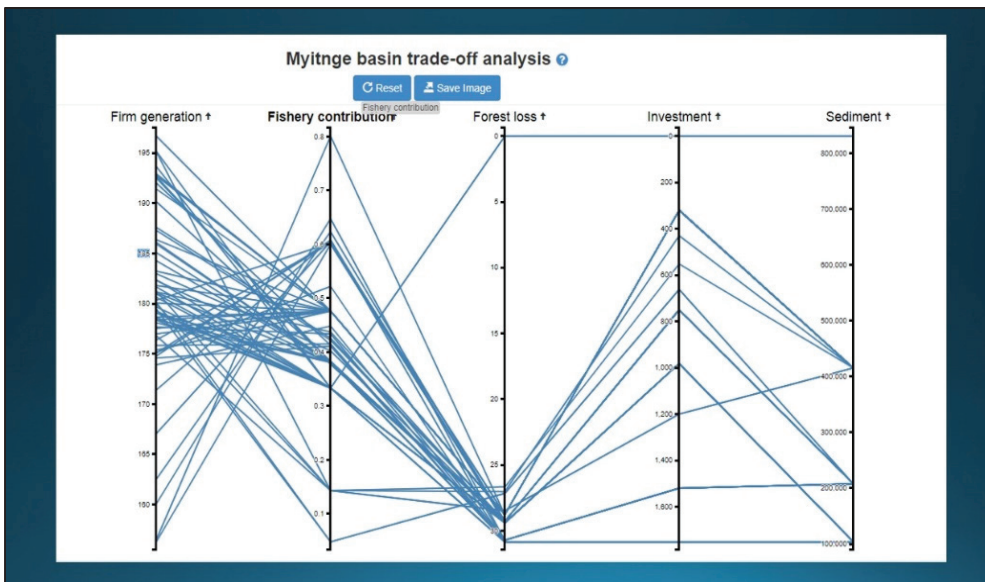
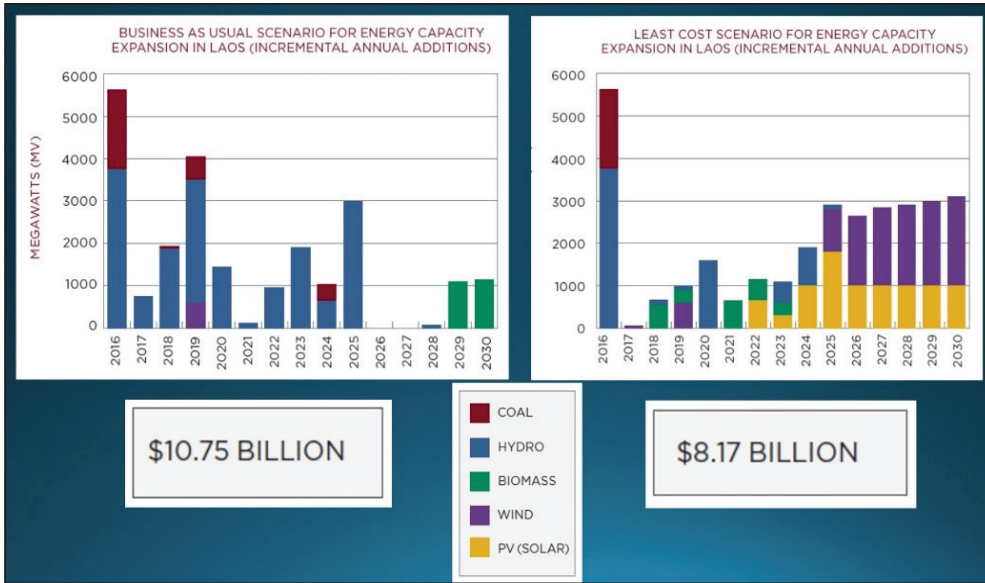
Develop all dams above Lower Sesan 2

Status quo (510 MW)
 + 23 dams (1775 MW)
 2285 MW (zero connectivity impact?)

- Managing upstream environmental flows
- Resettlement
- Transmission buildout (who invests)?







Recommendations

- Basin-wide, system-scale planning for Laos and Cambodia to quantify tradeoffs & develop scenarios including optimized cross-border power trade
- Maximize river connectivity:
 - Avoid the Sambor Dam and Stung Treng dams by offsetting capacity loss
 - Keep Sekong River free flowing through Laos
- Results of system-scale study are incorporated into MRC BDP₃ and/or CLVT PDP revisions
- Facilitate policy, regulatory, and physical infrastructure to support non-hydro RE investment
- Develop programmatic investment landscapes: 35 Clean Energy Zone

Future Prospects of Mekong Sub-regional Cooperation

Zhang Weiwei
*Research Fellow, China Institute of
International Studies*

Table of Contents

I Misperceptions

II Chinese Logic behind Lancang Mekong Cooperation

III Overcoming the Current Problems

I. Misperception No. 1

✘ China is engaging in a power competition game and tries to dominate the region

Facts:

* China has natural affinity to the Mekong countries stemming from geological and cultural linkages. Chinese influence is always here. For China, Lancang Mekong Cooperation is not a power game.

* China has every interest in the growth and development of the sub-region. The security/stability and prosperity of the region link very closely with China's own.

* The Mekong region is more than simply market places or raw material bases for China, therefore China offers a comprehensive package of development agenda.

I. Misperception No. 2

✘ China build dams to destroy the environment of region.

Facts:

- * People's perception of dams changed over time. Three Gorges Dam. More scientific way of constructing and using dams.
- * By starting cooperation on water resources under the Lancang Mekong cooperation mechanism, China is contributing actively to the green management of water resources in the region. China itself is bound by the mechanism. 1st Forum on Water Resource Cooperation under LMC was held in Nov. 2018.

I. Misperception No. 3

✘ China is carrying out the debt-trap diplomacy

Facts:

- * For those heavily indebted countries, China is not the only or even the major debt holder. Sri Lanka case, China holds only 10%. (Deborah Brautigam)
- * With the exception of Venezuela, financing from China alone is not driving borrowers above the IMF's debt-sustainability thresholds.
- * In the past 10 years, China has renegotiated a total of USD 50 billion due debts with debtor countries, the majority of which got extended or relieved.

II. Chinese Logic behind the Lancang Mekong Cooperation

What is LMC in essence?

- An offer of Chinese development experiences.
(Comprehensive Package)

Infrastructure
(hard & soft)

Reform on land
ownership
system

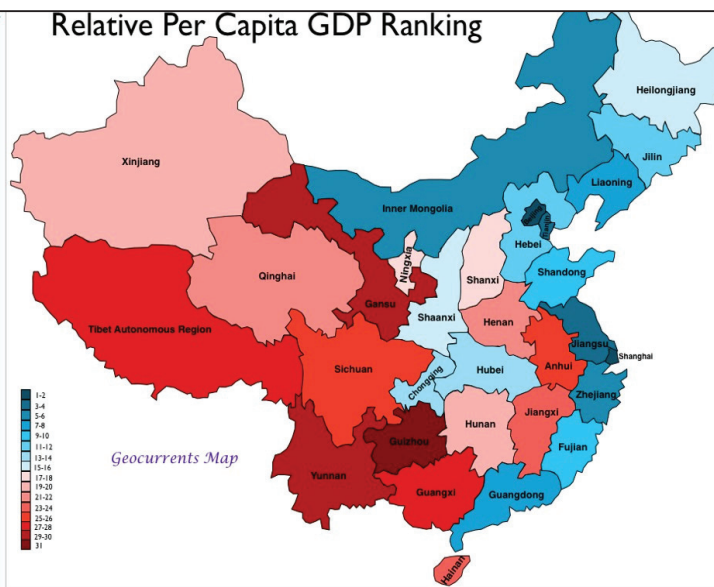
Industrialization

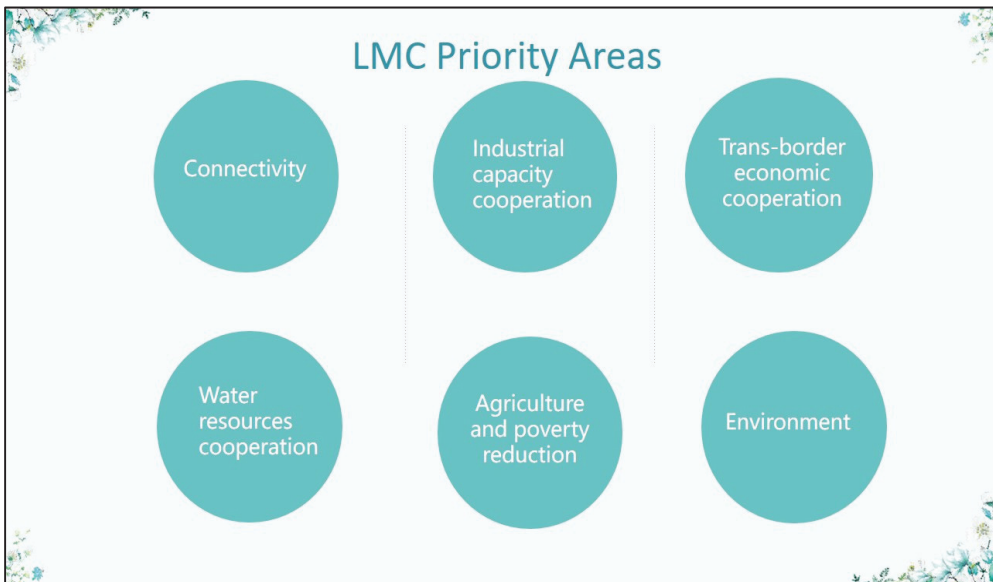
Foreign
direct
investment

Export-
oriented
production
(Trade)

Concerted
regional
development

Relative Per Capita GDP Ranking

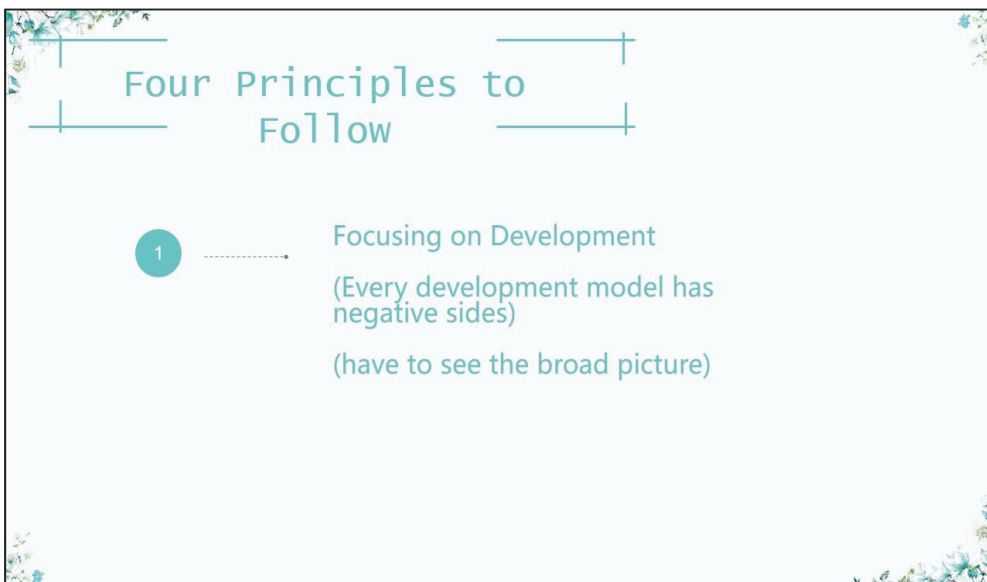




III. Overcoming the Current Problems

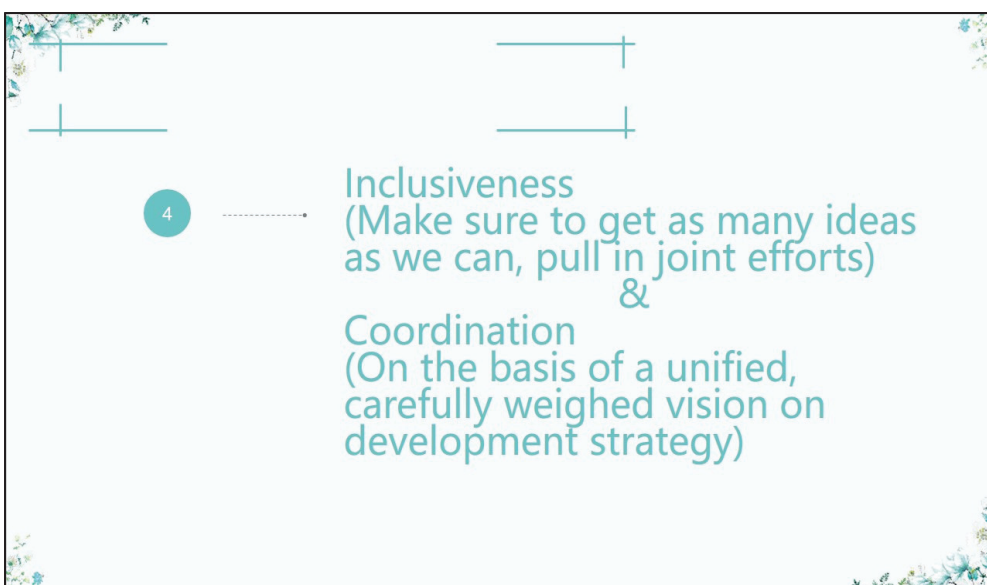


2 Equal Consultation
(Mekong countries
autonomy)



Four Principles to
Follow

1 Focusing on Development
(Every development model has
negative sides)
(have to see the broad picture)



4 Inclusiveness
(Make sure to get as many ideas
as we can, pull in joint efforts)
&
Coordination
(On the basis of a unified,
carefully weighed vision on
development strategy)















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