MEKONG-LANCANG COOPERATION: TOWARDS PEACE AND PROSPERITY

Under Mekong-Lancang Peace Boat Project
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FOREWORD

I am pleased that the Mekong-Lancang Cooperation has reached to the vast population of the Mekong region through various initiatives aimed at ensuring the prospect for peace, prosperity, and sustainable development. This publication is essential for potential readers to gain a profound understanding of the Mekong-Lancang region, its key opportunities, and challenges. It emphasises the importance of regional cooperation and the needs for collective actions to continue nurturing mutual understanding and interest in the management of our shared resources.

Peace and prosperity in the Mekong-Lancang countries are inextricably linked, without which we could not hope to achieve our economic growth and secure our social development. A close cooperation among Mekong countries and China will further enhance a deeper dialogue that is so necessary to understand the multitude of regional challenges as well as the various ways to mitigate them.

This publication is also a timely reminder of the need to draw the global community to pay its attention to the rapid growth prospects and the enormous potential for development of the Mekong-Lancang region. Within less than a decade, the Mekong-Lancang Cooperation framework have brought together the Mekong Countries and China to transform that initiative into a comprehensive cooperation mechanism that can address common concerns in order to move towards a more peaceful and prosperous sub-region.

I believe that many ideas embedded in this publication can provide a solid foundation to guide future research and inspire many more scholars to delve deeper into these encompassing subject matters. Their perspectives as articulated in different chapters are thought-provoking and enlightening, and I am certain that they will stimulate the interest of researchers, academics, policy advisors and the private sector practitioners alike to further explore and to gain a better understanding of the intricacies of the Mekong region and its people.

H.E. Bundit Sapheacha Dr. SOK Siphana
Senior Minister in charge of Special Missions
Chairman Emeritus of AVI

FOREWORD

Lancang-Mekong region, blessed with immense potential for growth and development, is the most dynamic and a vibrant part of the world. Through my years in Cambodia and Laos, I have witnessed first-hand the transformative power of multilateral partnerships in uplifting communities and driving economic progress. Under the visionary leadership of President Xi Jinping, China has been consistently working to catalyse regional cooperation through initiatives such as the Belt and Road Initiative and the Lancang-Mekong Cooperation. Aligning these efforts with the needs and aspirations of regional partners, China is committed to working together to build a community with a shared future of peace and prosperity among Lancang-Mekong countries.

Lancang-Mekong Cooperation features extensive consultation, joint contribution and shared benefits among all six riparian countries. The timely publication of this book offers valuable insights into the diverse perspectives and experiences of the participating countries, highlighting the critical role of regional cooperation in various domains such as connectivity, economy, climate, and social development. Moreover, while the world is undergoing a time of change, it is imperative to redouble collective efforts to address common challenges through knowledge sharing and closer collaboration.

I hereby extend my heartfelt appreciation to the Asian Vision Institute as well as the authors and editor for their contributions. The publication of this book will undoubtedly enable further discussions and cooperation among stakeholders. I encourage scholars and academia, particularly the younger generation, to further research regional and global cooperation at large, to inspire a brighter future.

I recommend this book to all who wish to understand the Lancang-Mekong region, and even better, join us in building upon the close partnership to unlock and fulfil its full potential.

WANG Wentian
Ambassador Extraordinary and Plenipotentiary of the People's Republic of China to the Kingdom of Cambodia (2018 – 2024)

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The book project "Mekong Lancang Cooperation: Towards Peace and Prosperity" would not have met its success without the solid commitment and steady support from our authors, editorial team, and everyone involved. Hence, we would like to convey our appreciation for their contributions.

We wish to express our deepest gratitude to the Mekong-Lancang Cooperation Special Fund 2022, the Embassy of China in Phnom Penh, and the Ministry of Foreign Affairs and International Cooperation of Cambodia, particularly former Deputy Prime Minister Prak Sokhonn, H.E. Dr. Sok Siphana, and H.E. Sok Soken for their generous support and guidance to make this project a reality.

In addition, we would like to convey our utmost appreciation to Dr. Chheng Kimlong, Dr. Cheunboran Chanborey, Dr. Nguonphan Pheakdey, Dr. Sok Serey, Mr. Lim Menghour, and all members of the Mekong Centre for Strategic Studies of AVI, as well as other AVI colleagues whom we could not mention individually by name. Their hard work and creative input were instrumental in ensuring the excellent delivery of the project.

Finally, we wish to express our admiration for our 30 trainees from the six Mekong-Lancang countries for participating in the Mekong-Lancang Peace Boat Cruising Programme. Their enthusiasm and active engagement are the backbone of such an impactful outcome.

NOTES ON CONTRIBUTIONS

EDITOR

CHOU Vithoureakborndidh, a J. William Fulbright scholar, focuses his research on foreign policy analysis, small-state diplomacy, and US foreign policy. He earned a master's degree in International Affairs from Texas A&M University, specialising in National Security and Diplomacy. Prior to his graduate studies, he completed his undergraduate degree in International Relations in Vietnam. His work has been published in outlets such as Asia Times and East Asia Forum, and he has been involved in various scholarly projects with the Asian Vision Institute.

REVIEWER

Dr. SOK Serey is a vice head of the research office at the Royal University of Phnom Penh (RUPP). He also works as a deputy director at the Centre for Culture and Peace Studies (CCPS) of the Asian Vision Institute in Cambodia. On 20 July 2023, the Royal Decree granted Serey the full professor position at the Royal University of Phnom Penh. Serey completed his PhD in human geography at Hong Kong Baptist University (Hong Kong) in 2013 and his MSc in regional and rural development at the Asian Institute of Technology (Thailand) in 2015. Since 1999, he has worked with various NGOs and UN agencies in Cambodia and Thailand. He began working in an academic position in 2008 but is still involved in NGO work through consultancy and research. Internationally, Serey was a senior visiting fellow at the Academy of Korean Studies (South Korea) and a visiting scholar at the University of Washington (USA), the Massachusetts Institute of Technology (MIT), the University of Technology Malaysia (UTM), Malaysia, and the Central European University (CEU), Hungary. Serey has conducted extensive, Cambodia-based research on agrarian communities' socio-economic development, migration, rural livelihood strategies, climate risk adaptation, and participatory river systems and fisheries co-management. He has also conducted fieldwork on Cambodians in the United States of America, France, South Korea, Malaysia, and Thailand. He is an author and co-author in top journals, including Communications Medicine (Nature), Bulletin of the World Health Organisation, International Journal of Disaster Risk Reduction, BMJ Open, Asia Pacific Education

Review, International Journal of Water Resources Development, Singapore Journal of Tropical Geography, Sustainability, Regional Sustainability, Water, Forum for Development Studies, Journal of Asian Public Policy, Journal of Development and Migration, and World Development Prospective. Serey has various academic positions such as Editor-in-Chef at the Cambodia Journal of Basic and Applied Research (Cambodia), an Associate Editor at Cambodia Education Review (Cambodia), an editor at the Cambodian Journal of Natural History (Cambodia), and an editor at Journal of Chakrabongse Bhuvanarth International Institute for Interdisciplinary Studies (Thailand). He is also on the international editorial board at Pacific Geographies (Germany).

LIM Menghour is the Director of the Mekong Centre for Strategic Studies (MCSS) of the Asian Vision Institute in Phnom Penh, Cambodia. Mr. Lim obtained a Bachelor of Arts in International Studies from the Royal University of Phnom Penh (RUPP) in Cambodia in 2013, a Master of Science in International Relations from the University of Bristol in the United Kingdom in 2017, and a Master of Public Administration from Tsinghua University, Republic of China in 2023. As a researcher, he has written several articles on international relations, foreign policy, security and great power politics in the Mekong region and Southeast Asia.

AUTHORS

Dr. CHHENG Kimlong holds a PhD in Economics from the Australian National University, a master's in economics from Kobe University, and a master's in business administration from Preston University. Currently, Dr. Chheng is the president of the Asian Vision Institute (AVI) and a senior researcher at the Centre for Policy Studies (CPS), Cambodia. He has had over 12 years of practical experience in quantitative and qualitative research and consultancy for local research think tanks and international development agencies. He has tracked and researched on key areas of Cambodian economy, including agriculture, trade, investment, financial sector, garment and footwear industries, oil and gas sectors, and real estate sector. He was an economic-commercial specialist for the United States Embassy in Phnom Penh from 2008 to 2012. Prior to that, he was research consultant at Cambodia Development Resource Institute (CDRI), research assistant in charge of private sector and economic development at Japan International Cooperation Agency (JICA), and socio-economic specialist for aid-funded rural community development projects.

He has been working extensively with the Cambodian government ministries and institutions at national and subnational levels, foreign governments, international development agencies, civil society organisations, and private sector. In addition, he has had many years of teaching economics and business classes and supervising undergraduate and post-graduate students at several private and public universities in Cambodia.

Dr. NGUONPHAN Pheakdey is the vice president of the Asian Vision Institute (AVI). His fields of research are computational architecture, computational geometry and image processing with the main application in Cultural Heritage. After earning a bachelor's in architecture and urban planning from Royal University of Fine Arts, he pursued doctoral research on 3D computer modeling for Khmer historic architecture preservation. In 2009, he received his Ph.D. in Science from the Interdisciplinary Centre for Scientific Computing (IWR), Heidelberg University, Germany. His PhD thesis is entitled "Computer Modelling, Simulation and Visualisation of Angkor Wat Style Temples in Cambodia." Until 2013, he was active in postdoctoral research on computational scientific and cultural heritage at IWR in collaboration with the Global Heritage Fund (GHF) to support the preservation and restoration of Banteay Chhmar temple complex in Banteay Meanchey province, Cambodia. His research projects include 3D laser scanning and virtual 3D reassembly of Khmer temple stone blocks, 3D scanning and preservation of ancient Khmer inscriptions, virtual 3D modelling and simulation in architecture, and computational methods of Khmer arts. In 2013, he became dean of RUPP's newly established Faculty of Engineering. Since then, he has also been active in design and construction consultation for RUPP, Ministry of Education Youth and Sports (MoEYS), Ministry of Defense, Ministry of Land Management Urban Planning and Construction and Ministry of Environment. In 2017, he was appointed a member of the Education and Research Council (ERC), MoEYS, and a technical committee member of the National Council for Khmer Language, Royal Academy of Cambodia, Council of Ministers. In 2018, he became a Board member of Techo Startup Centre, Ministry of Economy and Finance.

CHEN Tepsam Ol is the executive director of the Child Rights Foundation (CRF), in Phnom Penh, Cambodia. He is also a project researcher at the Research Office of the Royal University of Phnom Penh (RUPP). Tepsam Ol completed his MSC in Climate Change from the Royal University of Phnom Penh in 2019 with various international experiences, including the USA, China, Nepal, Sweden

and Thailand. He is a highly skilled professional with extensive experience in climate change, disaster risk management, community organising, and programme development and management. With over 10 years of experience in leadership and programme management related to disaster risk reduction and climate change adaptation, school safety promotion, and child protection policy development. Tepsam Ol has various academic positions. He is an editorial manager at the Cambodia Journal of Basic and Applied Research (CJBAR) of the Royal University of Phnom Penh (RUPP). He is also now involved in various projects carried out by the research office of the RUPP. They include (1) Johns Hopkins University (USD 113,996, Jan 23-Dec 23) and (2) Rutgers School of Public Health (31,460.00 USD, Oct 23-March 2024). Tepsam Ol has been an author and co-author in national and international journals. His latest papers included: 1.) Chet, C., Sok, S., Chen, T. O., Sou, V., & Chey, C. O. (2023). Pupil participation in the comprehensive school safety framework at primary schools in Stung Streng province, Cambodia. International Journal of Disaster Risk Reduction, 96, 103932. 2.) Tepsamol, C. H. E. N., Sokkalyan, T. H. A. U., & Piseth, P. E. L. (2021). Safe school programmemes and disaster risk reduction in hazard-prone primary schools in Cambodia. Cambodia Journal of Basic and Applied Research, 3(2), 204-239. 3.) CHEN, T. O. (2022). The impacts of climate change on food consumption, household income, and child nutrition in Boseth District, Kampong Speu Province, Cambodia. Cambodia Journal of Basic and Applied Research, 4(1), 19-30.

THOU Punleu is a researcher at the Research Office of the Royal University of Phnom Penh (RUPP). Ponleu is currently doing his Master of Science at Centre for Biodiversity Conservation (CBC) at RUPP. He earned his undergraduate degree from the Department of Economic Development, Faculty of Development Studies at the RUPP. Punlue is a young, dynamic researcher who has made significant contributions to academia through active research and publications. He has excellent experience in managing fieldwork, data management and analysis. In particular, he has been an author and co-authors in various scholarly and peer-reviewed publication including (1) Remittance and Migrant Workers in Thailand: A Case Study of Parents in Sangke District of Battambang Province, Cambodia, (2) the Impact of Financial Education for Kinds at Primary School, Cambodia: Practice and Policy Implication; (3) Fisher Folk Making Circular Economy Work for the Western Tonle Sap Lake, (4) Girls' Leadership and Participation in the School Safety Programme: Practices and Policy Recommendation, (5) Community Empowerment for Sustainable Natural

Management, and Securing Forest and Land Tenures, and (6) Promoting Agricultural Cooperative for Livelihood Development among Smallholder Farmers in Cambodia.

Dr. Khaysy SRITHILAT is a distinguished Assistant Professor and the Deputy of the Post-Graduate Division at the Faculty of Economics and Business Management, National University of Laos. Specialising in monetary policy, he earned his Ph.D. in Economics from Dongbei University of Economics and Finance in China. Dr. Khaysy's research portfolio is extensive, with numerous publications on monetary policy transmission mechanisms, foreign direct investment, and environmental issues. His commitment to academic excellence has led him to broaden his international experience, as an exchange researcher at Tallinn University of Technology, Estonia and Hunan University of Science and Technology in China.

Beyond academia, Dr. Khaysy has significantly influenced economic policy in Laos through his consultancy work for the Ministry of Commerce and Industry and the National Assembly of the Lao PDR. His expertise in economic analysis and policy formulation has been instrumental in shaping key policy decisions, contributing to the country's economic development. Additionally, Dr. Khaysy serves as the managerial editor of the Lao Journal of Economics and Business Management and is a reviewer for several international journals, ensuring the dissemination of high-quality research within the global academic community.

Dr. Riccardo CORRADO is an associate professor at the School of Digital Technologies, at the American University of Phnom Penh. He is also an advisor to the Cambodian Ministry of Post and Telecommunications, and a BoD member of the Italian Cambodian Business Association. Riccardo received his bachelor’s degree, master’s degree, and Ph.D. from the University of Trieste, Italy, in respectively electronics, telecommunications, and information engineering. He also holds a master’s degree in education from the University of Johannesburg, South Africa, and an MBA from Abertay University, UK. Besides his positions, Riccardo serves as a senior research fellow in the Cambodian think tank Asian Vision Institute (AVI).

OUCH Richard is a research fellow at the Centre for Inclusive Digital Economy (CIDE) at the Asian Vision Institute (AVI). His experiences and expertise lay both in public, and private sector, authoring several publications within AVI and Konrad-Adenauer-Stiftung, and assisting professors and policymakers by

reporting on topics ranging from the digital economy to transnational security and water diplomacy. He received his master's degree in Global Affairs at New York University (NYU), engaging in coursework under the guidance of esteemed professors with expertise spanning counterterrorism, intelligence, sustainable development, and global economics. He also holds a bachelor's degree in business administration from the University of New Hampshire.

Dr. DUT Van Vo is an associate professor of business and is the dean of the Faculty of International Business, School of Economics, Can Tho University. He received his PhD degree in business from the University of Groningen. His works appeared in the Journal of Asia Business Studies, Asia Pacific Business Review, International Business Review, Asia Academy of Management Journal and amongst others. He is also an associate editor of Asia Pacific Business Review. His research interests include SMEs, international business strategy, innovation, institution and sustainable development.

Dr. TU Thien Tran completed BSCs in international business at the School of Economics, Can Tho University. Currently, he works as a sales supervisor at Unilever of Vietnam, mainly in the Long An district of the Mekong Delta.

LI Mingze is a research associate of Shanghai Institutes for International Studies, specialised in global climate governance, energy politics and international organisations. He has participated in many academic programmes initiated by government, including research on China-US Carbon Diplomacy, research on achieving China's "Carbon Peaking and Carbon Neutrality" Goals, etc. With personal experience in United Nations Headquarters, he has addressed on ECOSOC conference, led Chinese delegations in UN-related activities and founded the National Platform for International-Organisation Association in Colleges. Besides, he was also a tutor of IO-talents training for college and a co-author of Shanghai Manual: A Guide for Sustainable Urban Development in the 21st Century-2023 Annual Report (Supported by Ministry of Housing and Urban-Rural Development of the PRC, UN Habitat, BIE and Shanghai Government).

YU Hongyuan is a professor and director of the Institute for Public Policy and Innovation at the Shanghai Institutes for International Studies, the vice president of the Shanghai Association of Ecological Economy, a Ph.D. Supervisor at Shanghai University of Finance and Economics (SUFE) and

2010 “Shanghai Social Science Newcomer”. He is also an academic member of the Foreign Exchange and Cooperation Centre of the Ministry of Ecology and Environment, member of the Special Committee on Climate Change and Low Carbon Development of the Chinese Meteorological Society, member of the China Committee of the Future Earth Project, Distinguished Researcher of the Xi Jinping Centre for Socialist Thought with Chinese Characteristics in the New Era of Shanghai Municipality, Researcher of the Centre for Ecological Civilisation Innovation of the Chinese Academy of Social Sciences

SOK Khieu Rosette is the director of the Centre for Advanced Research and Legal Studies at the Asian Vision Institute. She obtained her Juris Doctor degree from the University of Sydney in 2022 and her Bachelor of Arts, with a concentration in Communications, from McGill University in Montreal, Canada in 2018. In 2022, she received her Certificate of Practical Legal Training from the College of Law in New South Wales, Australia and was qualified as an Approved Person by the Trust Regulator of the Kingdom of Cambodia in 2023. Apart from her work at AVI, Rosette is an associate at Sok Siphana & Associates - a prominent commercial law firm in Phnom Penh, Cambodia. Her practice focus is on Corporate M&A and she has advised domestic and international clients on local regulatory frameworks relating to share transfers, mergers, asset acquisitions, initial public offerings, cement plant production, mining activities, foreign exchange control regulations, facility agreements and secured transactions, amongst others. Prior to re-joining Sok Siphana & Associates, she was a short-term paralegal at Baker McKenzie (Sydney) in the Corporate Markets and Financial Services team in 2022. Her areas of research interests include international and comparative law, and commercial and corporate law. In 2023, Rosette was appointed as an advisor to the President of the National Assembly of the Kingdom of Cambodia (with the rank of Secretary of State).

NORN Samnangseymony affiliates with the Asian Vision Institute as a programme coordinator at the Centre for Advanced Research and Legal Studies, and a research fellow at the Centre for Culture and Peace Studies. He was also a young research fellow at the Centre for Sustainable Water. In 2023, he was appointed as the Chief of the Cabinet of Senior Minister (in charge of multilateral trade and economic affairs) based at the Office of the Prime Minister. At present, Mony is pursuing a Dual master’s degree in public and international law (LL.M.) from the Université Paris Vincennes – Saint-Denis and

the Royal University of Law and Economics. In 2021, he earned his Bachelor of Arts in International Studies (BA-IR) from the Institute of International Studies and Public Policy, Royal University of Phnom Penh. In tandem, he also completed his Bachelor of Law in English (LL.B.) from the English Language Based Bachelor of Law Programme of the Royal University of Law and Economics, in conjunction with graduating (with honours) from Airlangga University, focusing on international trade law and cyber law.

OUNG Sivven is a recent graduate in international cooperation from the Institute for International Studies and Public Policy at the Royal University of Phnom Penh. She is currently a Programme Officer in charge of International Relations at the Mekong Centre for Strategic Studies at the Asian Vision Institute. Her research interests include foreign policy, small-state diplomacy, and cultural diplomacy.

TON Linasopharith is a programme officer at the Mekong Centre for Strategic Studies (MCSS) of the Asian Vision Institute (AVI). He holds a bachelor's degree in international relations from the Royal University of Law and Economics (RULE). His research areas focus on Indo-Pacific strategy and security, ASEAN complexity and Mekong sub-regional cooperation.

BOOK OUTLINE

The book "**Mekong-Lancang Cooperation: Towards Peace and Prosperity**" provides profound insights into the significance of cooperation among Mekong countries. It unravels the intricacies of policy and diplomacy, all working towards harmonious development. With thorough research and experiential knowledge, the book will serve as a guide to the socioeconomic characteristics of the Mekong-Lancang region.

Chapter 1 presents the MLC's context by looking at its multi-layered structure of the framework, strategic objectives, and the mechanisms that have been put in place to ensure its efficacy. This strategic cooperation among the six countries is the strength, offering a platform for them to voice their perspectives and take part in decision-making processes that are geared towards inclusive growth and prosperity.

Chapter 2 highlights the importance of water governance and regional cooperation in the Lower Mekong River Basin since the 1940s, using Maarten Hofstra's three-layer water governance model to emphasise the significance of institutional support, legal arrangements, and regional dialogues in ensuring sustainable water management practices.

Chapter 3 illustrates the importance of multilateral cooperation in mitigating risks faced by communities along the Mekong River Basin (MRB). Cooperation mechanisms like the Mekong River Commission and the MLC framework, in which China plays a key role, aim to promote sustainable development and transboundary water management. The chapter also highlights the need for collaboration to effectively address risks and foster sustainable development in the Mekong region.

Chapter 4 discusses the current status of digital transformation in GMS by exploring its challenges and recommends strategies to foster regional development. Some of the promising strategies include a coordinated GMS digital platform, common digital payment systems, the development of transportation infrastructure, a policy drafting study group, and a network of universities for research and collaboration. Each of these initiatives holds a promise of transforming the region to be a part of a thriving society and digital world economy.

Chapter 5 explores various aspects – geographical, economic, cultural, and institutional – of the performance of Vietnam's agricultural exports. Utilising data from 36 trade relationships between 2015 and 2020, the study discovered that cultural, economic, and institutional distances positively drive export performance, while geographical distance became a challenge due to transportation costs. This chapter concludes that agricultural exports are a viable strategy for Vietnam because the country has good trade partners, and exporting is low-risk and does not require a lot of resources.

Chapter 6 illustrates that climate governance in the Mekong-Lancang region faces substantial challenges due to complex socio-political situations and fragmented regional climate mechanisms. This chapter highlights China's key roles in the region. It underscores three priorities: disaster early warning system, climate investment with green finance, and private sector involvement to navigate these obstacles successfully.

Chapter 7 underscores the significance of the MLC framework and its synergy with the Regional Comprehensive Economic Partnership (RCEP) in fostering economic growth in the Greater Mekong Subregion. This chapter highlights China's role, Cambodia's participation, and the benefits of the MLC Special Fund. The chapter also explores how the RCEP can facilitate trade and suggests initiatives to enhance the MLC-RCEP linkage, emphasising the potential for the MLC to contribute to a Community of Shared Future of Peace and Prosperity in the subregion.

Chapter 8 provides a comprehensive summary including its opportunities, challenges, and current state of affairs within the MLC framework. It also provides an array of recommendations — proposals that promise to elevate the cooperation's efficacy, and long-term sustainability for the people in the Mekong-Lancang region.

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CHAPTER 1
AN OVERVIEW OF MEKONG-LANCANG COOPERATION FRAMEWORK: POTENTIAL TO ADDRESS CHALLENGES

Dr. CHHENG Kimlong and OUNG Sivven

BACKGROUND

The Mekong River and Lancang River differ in name but are the same river whose water source originates in the Qinghai-Tibet Plateau in China, with its waterway crisscrossing the Yunnan Province before flowing to the downstream community of five countries, namely Cambodia, Laos, Myanmar, Thailand, and Vietnam. The Mekong-Lancang River represents a major hallmark of social, political, cultural, economic, and environmental interests to the riparian states in the Mekong subregion. It signifies an important body of water resources with significant geopolitical implications that serve as a vital connection between the six culturally diverse nations that share many similarities and historical connections. Home to approximately 75 million people ("Sustainable Livelihoods - Lancang-Mekong Cooperation" n.d.), these countries of shared waters recognise the critical role of economic development in achieving stability and security. The Mekong-Lancang Cooperation (MLC), an initiative aimed at harnessing the potential of the Mekong countries and driving regional integration, was launched in 2016 following the proposed establishment of the Mekong-Lancang Cooperation Framework by Premier Li Keqiang in 2014 at the 17th China-ASEAN Summit. The six nations utilise the framework to foster cooperation and nurture a sub-regional agreement that transcends national boundaries. However, the extent to which the framework can successfully drive regional connectivity remains to be seen, as challenges such as economic disparities and educational access among member countries may hinder progress.

Despite its potential, the MLC faces significant challenges including budget constraints, workforce limitations, technological gaps, and inadequate institutional cooperation. These issues hinder efforts to address both shared

and unique problems within and across member countries. The establishment of the MLC Special Fund in 2016 has seen the MLC growing into a coordinated cooperation mechanism based on mutual respect, balanced dialogues, consensus-driven decisions, and shared accountability. The shared aspirations of fortifying peace, cultivating friendly relations, promoting impactful cooperation, and building diverse and interactive people-to-people and cultural exchanges form the foundation of the MLC's progress and forward-looking future. The framework serves as a model for cooperative partnerships and creates a more prosperous future, but its success in navigating geopolitical complexities and fostering collaboration among diverse nations will determine its long-term effectiveness.

NAVIGATING THE GREAT-POWER CHESSBOARD

The resurfacing of great-power politics has intensified the rivalry between the US and China, with the Mekong-Lancang region becoming a strategic battleground for power competition and strategic influence. The significance of the region has been amplified by the changing geopolitical, geo-security and geo-economic landscapes and the increasing need for strategic partnerships that feature soft and hard power projection. With its abundant natural resources, growing economies, and strategic location, the region has become a hotspot of strategic competition among major powers, with greater involvement of middle powers and other external emerging powers, seeking to expand their influence and secure access to critical assets and resources.

China, the architect of the MLC, has leveraged the platform to expand its influence through the Belt and Road Initiative and substantial investments in regional infrastructure, expanding regional development, as evidenced by the surge in China's trade with Mekong countries, reaching USD 416.7 billion in 2022 — a twofold increase within seven years ("The Eighth MLC Foreign Ministers' Meeting Held in Beijing" 2023). However, critics argue that China's increasing dominance could lead to economic dependence and political influence over the region, potentially undermining the MLC's goal of fostering balanced cooperation (Poonkham 2022). This growing concern over China's influence in the region has not gone unnoticed by other major powers. In response, the US has launched initiatives such as the Lower Mekong Initiative and the Mekong-US Partnership to counter China's growing presence and provide alternative avenues for cooperation. While these efforts aim to support good governance,

regional connectivity, and sustainable development, they also risk polarising the region and compelling countries to choose sides in a growing geostrategic rivalry.

To ensure its long-term success, the MLC shall carefully navigate the complex dynamics of major powers. This requires establishing crisis management mechanisms that foster open communication and commit to peaceful dispute resolution, thereby reducing the risks of member countries having to choose sides between China and the US. The MLC should also promote inclusive and balanced cooperation that addresses the diverse interests and needs of member countries, rather than allowing itself to be used as a tool for great-power competition. Ultimately, the effectiveness of the MLC framework in achieving its goals will depend on its ability to serve as a model for regional cooperation and contribute to a more stable and prosperous future for the region and beyond.

MAKING SENSE OF REGIONAL COMPLEXITIES

The Mekong-Lancang region faces a multitude of regional issues that pose significant challenges to its development and prosperity. From the pressing threat of climate change to digital transformation to the critical issue of water scarcity and management, the MLC shall consistently navigate a complex landscape of adversity.

Climate change, for instance, has been a pressing issue for the region as it undermines the ecological system and threatens regional food security. The Mekong River Basin is particularly vulnerable to the consequences of climate change, with projections indicating that by 2060, the average annual basin-wide temperature could increase between 0.4˚C and 3.3˚C, depending on global greenhouse gas emissions. Additionally, rainfall patterns are expected to change drastically, with a potential decrease of 16 per cent under a dry climate scenario or an increase of 17 per cent under a wet climate scenario (Mekong River Commission n.d.). These climate-related challenges jeopardise the livelihoods of millions of people who depend on the river for agriculture, fishing, and other essential needs. The MLC recognises the urgency of this issue and has taken steps to enhance regional cooperation on climate change mitigation and adaptation. Through joint efforts in areas such as disaster risk reduction, sustainable water management, and green finance, the MLC aims to

build resilience against the impacts of climate change.

Furthermore, the region also faces significant challenges in its digital transformation, as the widening digital divide between urban and rural areas exacerbates inequalities and limits access to education. Despite the global digital transformation market's expected growth to USD 1,009.8 billion by 2025 (Research and Markets 2020), the region's rural communities lack adequate digital infrastructure due to budget constraints and limited technical support. The rapid pace of digital transformation also poses challenges for policymakers in balancing innovation and citizens' capacity towards digital adoption. Substantial investments, strategic planning, and regional cooperation are necessary to bridge the digital divide, create inclusive policies, and ensure equitable access to modern education. Without such efforts, the region risks leaving a significant portion of its population behind in the digital age.

Meanwhile, as the region prospers, sustainable water management becomes crucial, especially as the Mekong River faces pressures from population growth, economic development, and climate change. The MLC has taken approaches to strengthen regional cooperation through initiatives such as the Mekong-Lancang Water Resources Cooperation Centre and the Mekong-Lancang Water Resources Cooperation Information Sharing Platform. These aim to enhance data sharing, capacity building, and joint research. However, the long-term prosperity of the region relies on its member countries upholding feasible solutions that balance economic growth with environmental sustainability and tailoring projects to local needs such as access to clean water and sanitation.

In the face of these challenges, the MLC can adopt a bottom-up approach to ensure it has the necessary capacity and expertise to address the issues promptly and effectively. While there may be significant differences in policy focus and needs among member countries, the MLC shall find common ground and develop a unified strategy that prioritises the most pressing concerns. By engaging with local communities and civil society organisations, the MLC can gain valuable insights into the unique challenges faced by each country and develop tailored solutions. However, the MLC shall ensure that this bottom-up approach does not lead to an inconsistent response to regional issues and maintain a strong leadership role in coordinating these efforts.

THE EXISTING MLC MECHANISMS

The MLC is a multi-layered cooperation framework which lays out humble objectives and mechanisms to ensure practicality, functionality and efficacy in the implementation of intersectional and cross-cutting areas. This strategic cooperation among the six countries is the strength, offering a platform for them to voice their perspectives and take part in decision-making processes that are geared towards inclusive growth and prosperity.

The MLC operates within a robust institutional framework that consists of a 3+5 cooperation mechanism, high-level meetings, and joint working groups ("Lancang-Mekong Cooperation" n.d.). Fortifying this system are joint working groups diligently working on six priority areas: production capacity, connectivity, cross-border economic cooperation, water resources, agriculture, and poverty reduction. Among these priority areas, the MLC has demonstrated particular expertise in managing water resources, an issue of growing global importance.

The MLC also serves as a collaborative platform to discuss crucial issues concerning the region's future as well as leverage regional potential to safeguard its interests. Topics ranging from pressing environmental concerns to economic partnerships are open for discussion, offering a space for nations to convey their distinct viewpoints. When observed in a broader regional context, the MLC embodies successful collaboration in the region, as evidenced by its tireless efforts to bolster regional cooperation. In the global context, the MLC's undertakings augment the achievement of the United Nations' 2030 Sustainable Development Goals. By strongly propelling economic growth, championing environmental sustainability, and increasing the quality of life, the contributions of the MLC are indeed paramount in this universal pursuit.

As the region is facing critical challenges of climate change, including the El Nino and El Nina effects, the Mekong-Lancang countries have begun to focus on green, sustainable development using technologies, aided by science and innovation. It is worth noting that in the Lower Mekong River Basin, water resource governance and practical regional cooperation, which are supported by institutional frameworks, legal arrangements, and ongoing regional dialogues, have been established to ensure the implementation of sustainable water management practices. Such cooperation mechanisms like the Mekong

River Commission and the MLC framework, in which China plays a key role, aim to promote sustainable development and transboundary water management.

Similarly, the Greater Mekong Subregion (GMS) economic cooperation framework encompasses the five Mekong countries, namely Cambodia, Laos, Myanmar, Thailand and Vietnam and the two provinces of China, Yunnan Province and Guangxi Zhuang Autonomous Region. Geographically, the Mekong-Lancang subregion is a vital geostrategic area within Southeast Asia due to its proximity to China's border in East Asia and its abundant maritime trade routes, which provide access to the Asia-Pacific region. The GMS has also embraced a fast digital transformation to foster regional connectivity and linkages. Some of the promising strategies include a coordinated GMS digital platform, common digital payment systems, the development of transportation infrastructure, a policy drafting study group, and a network of universities for research and collaboration. Each of these initiatives holds a promise of transforming the region to be a part of a thriving society and digital world economy.

Much of the Mekong-Lancang region is blessed with geographical, economic, cultural, and political relations that foster trade in goods and services, including the growing agricultural and mineral exports to China from most of the lower Mekong countries. To address some of the challenges in transportation connectivity, Laos and China undertook a mega railway project that links both countries and by far turns Laos from a landlocked country to a land-linked economy. In fact, additional projects under the Belt and Road Initiative (BRI), which are incorporated under the Global Development Initiative (GDI), Global Security Initiative (GSI), and Global Civilisation Initiative (GCI), can be synchronised with the Mekong-Lancang Cooperation projects to better serve the interests of the people in all six nations.

The current Five-Year Plan of Action on Mekong-Lancang Cooperation (2023-2027) adopted in December 2023 supersedes the previous five-year Plan of Action (2018-2022). It expands the scope, scale and magnitude of comprehensive cooperation among the six countries to cover areas such as (i) political and security, including high-level exchanges and political dialogue and cooperation, justice and law-enforcement, public health, combat of transnational crimes, and disaster management; (ii) economy and sustainable development, including connectivity, production capacity, trade

and investment facilitation, energy, agriculture, poverty reduction, digital economy, scientific and technical innovation, state-owned enterprises, micro-, small and medium enterprises, banking and finance, water resources, climate change response and adaptation, ecological conservation, environmental protection and forestry sector; (iii) social and cultural cooperation, including culture and sports, tourism, education and human resources development, press and media, ethnic community welfares, religions, people-to-people exchanges and relations; and (iv) practical projects and funding supports by China for the five Mekong countries in the implementation of development, institutional, legal, capacity-building projects, to name just a few.

According to this updated Plan of Action, if all the milestone activities and projects are implemented effectively, they add tremendous value and provide a strong impetus to expedite the deepening of good neighbourliness, friendship and practical cooperation among the six MLC countries, drive the economic and social development, develop and enhance a more robust and resilient Mekong-Lancang Economic Development Belt, advance peace, security, sustainable and inclusive development and prosperity for the peoples of the six nations. Importantly, they will strengthen the pace of ASEAN Community Building, promote the participation and utilisation rates of the Regional Comprehensive Economic Partnership, and revitalise the intraregional trade and connectivity with ASEAN member states with those countries in the Asia Pacific.

EXAMPLES OF CAMBODIA-CHINA BILATERAL COOPERATION

To highlight some of the existing cooperation mechanisms, Cambodia and China launched in January 2024 the Cambodia-China People-to-People Exchange Year to foster their cultural ties by all means to a higher level. Of particular interest, Cambodia and China have established the Comprehensive Strategic Partnership signed in 2010 and Cambodia is the first country to sign the 2019-2023 Action Plan on Building a Cambodia-China Community with a Shared Future in 2019, now updated into the 2024-2028 Action Plan on Building a China-Cambodia Community with a Shared Future in the New Era, which places a greater importance to building high-quality, high-level, high-standard community with shared future.

Under the MLC Special Fund, the Asian Vision Institute (AVI), a research think tank based in Cambodia, is implementing the Mekong-Lancang Peace Boat Project that augments the spirit of the Mekong-Lanang Cooperation and unites members of the Mekong-Lancang countries under one roof to drive an open dialogue, enhance skills and knowledge, and foster connections and friendships. Under the theme "Mekong for Peace," the Peace Boat Project has provided training and organised youth exchange activities to cultivate friendships, relations, leadership, awareness and understanding through mutual respect, recognition, and collaborative learning. Such initiative is an incisive insight into the MLC's workings, demonstrating the remarkable potential to steer the Mekong River Basin towards a brighter future. In addition, AVI has also received funding from the MLC Special Fund to implement MLC Improved Food Security in the Greater Mekong-Lancang Community for 2024-2025. These projects are examples of how practical projects can be developed and implemented to contribute positively to the building of the MLC community with a shared future in the new era.

In summary, the MLC was designed to bolster the economic and social development of the sub-regional countries, enhance the well-being of their people, narrow the development gap among regional countries and support ASEAN community building as well as promote the implementation of the UN 2030 Agenda for Sustainable Development and advancing South-South cooperation that fosters the pace toward building a community of shared future for the six nations.

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CHAPTER 2
WATER GOVERNANCE AND REGIONAL COOPERATION IN THE LOWER MEKONG RIVER BASIN (LMB)

Dr. NGUONPHAN Pheakdey, Dr. SOK Serey, THOU Ponleu,
and CHEN Tapsam Ol

ABSTRACT

Since the 1940s, the Lower Mekong Basin (LMB) has adopted water governance to manage and sustain water-related resources. This chapter aims to examine water governance and regional cooperation in the Lower Mekong River Basin (LMB). We adopted a three-layer water governance model, coined by Maarten Hofstra in 2013, as an analytical framework. The chapter covers (1) the content layer of water governance, (2) the institutional layer of water governance, and (2) the relational layer of water governance. The chapter thus finds that (1) The content layer of water governance is the institutional support for water governance in the Mekong River. (2) The Institutional layer of water government is identified as legal arrangements and procedures. (3) The relational layer of water governance has established institutional support for regional dialogues. Regional cooperation has been vital for water governance and management in the LMB.

Keywords: Water governance, regional cooperation, Mekong River Commission (MRC), riparian countries, the Lower Mekong River Basin (LMB)

BACKGROUND

The Mekong River, which ranks as the world's tenth longest and Asia's seventh longest river (Liu et al. 2009), originates from China and flows through Myanmar, the Lao PDR, Thailand, Cambodia, and Vietnam over a distance of approximately 4,909 km before entering the South China Sea (Campbell 2007). With a total drainage area spanning 795,000 square kilometres (MRC 2005), the river plays a crucial role in shaping the region's ecosystems, population dynamics, economic activities, and political landscape (Kaosa-ard and Dore 2003).

The Mekong countries recognised the crucial role of water-related resources, such as the Mekong River, the Tonle Sap Lake's unique hydrology, and the extraordinary flood pulse system, in shaping the region's development and supporting the diverse geographic, cultural, economic, and political aspects of local communities (MRC 2003). Water-related resources have provided great economic growth and social development for more than 60 million people in the LMB. People in riparian countries use the Mekong River's water resources to support their livelihoods (MRC 2019).

Maintaining political and social stability is essential for sustaining the ongoing economic changes and social progress in the region (Dosch and Hensengerth 2005). As a result, the region has undergone a transformation characterised by economic expansion, human development, and the adoption of market-driven economic policies. However, diverging economic strategies pursued by Mekong countries have led to a significant increase in the demand for water-related resources (Ringler et al. 2004), resulting in heightened competition and contestation over these resources (Sneddon and Fox 2006). This competition is particularly evident between upstream and downstream countries of the Mekong River, with conflicts easily escalating (Sadoff and Grey 2002). Furthermore, the construction of infrastructure projects, such as hydropower dams, has raised concerns about their impact on the environment and the additional pressure they place on water-related resources in the region (Middleton and Allouche 2016).

Effective water governance is crucial for the optimal management of the Mekong River, serving as a vital instrument in preventing catastrophic floods, alleviating water pollution, and efficiently tackling periodic water shortages while adeptly handling water scarcity (Hofstra 2013). In the 1940s, the Mekong region first adopted water governance to implement UN-funded development projects for flood control. Moving forward, the international stakeholders first introduced water governance in the Mekong region in 1957 through the establishment of the Mekong Committees, which later evolved into the Mekong River Commission (MRC) in 1993. The MRC's role is to provide scientific analysis for the sustainable management and development of the region. Riparian countries view water governance as an environmental reform agenda (Kaosa-ard and Dore 2003) and have applied it in the context of hydrological position (Kummu et al. 2006), catchment management (Ratner 2003) as well as political and economic development (Nguyen, 1999). To achieve these goals,

the implementation of Integrated Water Resources Management (IWRM) is essential. IWRM provides a comprehensive framework that ensures the efficient, equitable, and sustainable management of water resources, taking into account the diverse needs of all stakeholders and the ecological integrity of the river basin.

In this chapter, we examine water governance and regional cooperation in the Lower Mekong River Basin (LMB) using Maarten Hofstra's three-layer water governance model as a framework. The analysis focuses on three key aspects: (1) the content layer of water governance (2) the institutional layer of water governance and (3) the relational layer of water governance.

RESEARCH METHODOLOGY

This chapter is the result of a comprehensive desk review that analysed various sources, including academic papers, research reports, policy papers, regulations as well as statements, and speeches delivered by leaders in the Lower Mekong Basin (LMB) during high-level meetings and forums. The analysis and structure of the chapter were based on Maarten Hofstra's three-layer water governance model, which served as a guiding framework for the study. In addition, the chapter also incorporated first-hand data obtained from key informants and experts in Cambodia, Thailand, Laos, and Vietnam (Appendix 1 and Appendix 2). Content analysis was employed to examine patterns in communication in a replicable and systematic manner, proving valuable in analysing social phenomena without requiring the simulation of social experiences or the collection of survey responses. By combining insights from the desk review, first-hand data, and content analysis, this chapter provides a comprehensive and well-structured examination of water governance in the Lower Mekong Basin based on Hofstra's three-layer model.

RESULTS AND DISCUSSION

THE CONTENT LAYER OF WATER GOVERNANCE

The Mekong River is a vital lifeline that sustains the lives of millions in the region. It serves as a critical resource for food and energy production, supporting the daily needs of the population. The river's rich biodiversity provides invaluable

ecological assets, playing a crucial role in the economic growth, cultural heritage, and environmental preservation of the riparian countries [Meeting Speech 1]. At the 4th Mekong River Commission Summit held on 5th April 2023, the Prime Minister of the Lao People's Democratic Republic recognised the importance of regional economic growth and socio-economic development and called for attention to water governance and cooperation. He suggested that "the Mekong has long been the river of friendship, facilitating people-to-people contact, especially regarding economic, social, and cultural exchanges among countries in the region. Therefore, we call upon all Mekong Basin states to join hands in managing the Mekong River Basin based on mutual respect for sovereignty and shared benefit with the slogan 'One Mekong One Spirit'" [Meeting Speech 2].

Table 1. describes the content layer of water governance, focusing on institutional support by key stakeholders. The MRC was established to implement the 1995 Mekong Agreement through regional dialogue and cooperation. Moreover, the intergovernmental organisation is a knowledge hub and a platform for water diplomacy regarding water resources management. The organisation has operated through three main bodies: (1) the MRC Council, (2) the MRC Joint Committee, and (3) the MRC Secretariat. The Council, the highest-making body in the MRC, is responsible for approving the regional strategic plan and making policy-related decisions. The Council also provides strategic guidance to set priorities and approves multi-year work plans and annual budgets. These plans and budgets are first endorsed by the Joint Committee and recommended by the Budget Committee. Therefore, the MRC has implemented strategies and techniques for water governance based on integrated water resource management [Meeting Speech 4]. Since 1995, the four riparian countries have adopted and implemented the Mekong Agreement, which is crucial for protecting the river ecosystem. The riparian countries have worked together to sustainably manage and use water resources [Meeting Speech 3].

The MRC has hosted the Summit of Heads of Government every four years since 2010, with the first summit held in Hua Hin, Thailand. The Summit is the MRC's highest political forum, setting cooperation and direction for the organisation. Subsequent summits took place in Ho Chi Minh City, Vietnam (2014), Siem Reap, Cambodia (2018), and most recently, in Vientiane, Lao PDR (2023). The 2023 Summit invited the heads of governments of the

riparian countries, political leaders from dialogue partners (including China and Myanmar), and development partners to provide strategic direction and review Mekong cooperation. This gathering also attracted global and regional experts in water and related resources, river basin management, governance, and transboundary rivers to present and discuss the most updated knowledge and innovative solutions for the Mekong region and other basins .[1]

Table 1. Institutional support for water governance in the Mekong River.

Institutions	Description
The 1995 Mekong Agreement	• The governments of riparian nations, including Cambodia, Lao PDR, Thailand, and Vietnam, signed the 1995 Mekong Agreement. • The agreement established the MRC for sustainable development and managing water-related resources in the MRB.
Mekong River Commission (MRC)	• The MRC is an intergovernmental agency promoting regional cooperation and dialogue based on the 1995 Mekong Agreement. • The MRC established a regional platform for water diplomacy and a knowledge hub for sustainable water resource management.
Council of Ministers	The Council, the highest decision-making body in the MRC, makes policy-related decisions and approves the strategic plan.

Source: *Authors' compilation*

Regional cooperation is crucial to the effective governance and sustainable utilities of water-related resources to support political contexts and national interests (Sok et al. 2019; Sok et al. 2023). The MRC has worked with its

1 See detail at https://www.mrcmekong.org/news-and-events/consultations/summits/.

riparian countries to promote better cooperation for water governance. The regional experts agreed that the MRC had played an important role in developing and implementing key legal frameworks, including the 1995 Mekong Agreement, the Basin Development Strategy 2021-2030, the Strategic Plan 2021-2025, and the Vientiane Joint Declaration of the 4th MRC Summit. The success of water governance helps increase the efforts to promote socio-economic development and ensure the Mekong region's balance of growth and sustainability. The MRC also has the important tasks and responsibilities to clear underwater unexploded ordnance (UXO) left over in the Mekong River from wars. All the riparian countries are working to search and destroy all those ordnances for the safety of the Mekong people [Meeting Speech 5].

A well-functioning Mekong River Commission (MRC) is essential for fostering effective regional water governance. The first step in strengthening regional cooperation in data sharing and prior consultation is to build trust in the MRC Secretariat. This must be accomplished by the riparian countries, particularly through the efforts of each National Mekong Committee (NMC). Second, the MRC Secretariat must demonstrate impartiality towards all stakeholders, including the four riparian countries, while striving to maintain a balance between the development and conservation of the Mekong River. Third, consider empowering the MRC and its secretariat further, while enhancing communication about current activities and expected outcomes in line with the 1995 Mekong Agreement's spirit. [Personal communication P1].

THE INSTITUTIONAL LAYER OF WATER GOVERNMENT

Since its inception in 1995, the MRC has formulated five versions of the MRC Strategic Plan and three versions of the Basin Development Strategy (BDS), each with a five-year timeframe. The main purpose is to promote regional cooperation among the riparian countries. The decision to adjust the BDS to a 10-year timeline was made to align with the United Nations' Sustainable Development Goals (SDGs), address the region's sustainable development requirements, and tackle the pressing water security challenges faced by the Mekong River Basin. The MRC Strategic Plan (SP) 2021-2025 is a unified corporate plan that is fully aligned with the IWRM-based Basin Development Strategy (BDS) 2021-2030. This revised Strategic Plan demonstrates the MRC's contribution to the implementation of the BDS (2021-2030). Unlike the previous version, the Basin Development Strategy (BDS) for 2021–2030

has been prepared and agreed upon for a ten-year period and emphasises the comprehensive development of the entire Mekong River Basin. The BDS 2021–2030 guides all key actors involved in water-related issues, aiming to enhance the environmental, social, and economic conditions of the Mekong River Basin, which are periodically documented in the State of Basin Report (SOBR). The BDS (2021–2030) operates within the Mekong River Commission (MRC) cooperation framework. Table 2 offers a detailed overview of the legal framework and procedures.

Table 2. Legal arrangement and procedures.

Institutions	Description
The MRC Strategic Plan (SP) 2021-2025	• The strategic plan guides the activities of the MRC Secretariat to enhance the sustainable development of the Mekong River Basin. • This plan is an incorporated plan that is fully in sync with the IWRM-based Basin Development Strategy (BDS) 2021-2030.
Procedures	• Procedures for Data and Information Exchange and Sharing (PDIES) (2001) • Procedures for Notification, Prior Consultation and Agreement (PNPCA) (2003) • Procedures for Water Use Monitoring (PWUM) (2003) • Procedures for Maintenance of Flows on the Mainstream (PMFM) (2006) • Procedures for Water Quality (PWQ) (2011)

MRC Joint Committee Members	• Implementing the MRC strategic plan • Delivering technical input and advice on institutional, technical, and policy-related issues. • Setting guidance on the delivery of activities and reviewing and endorsing policy-related resolutions for submission to the Council for approval. • Guiding the preparation of the multi-year work plans (i.e., the definition of activities, and annual budget allocation)

Source: *Authors' compilation*

The 1995 Mekong Agreement delivers a legal framework for riparian countries to cooperate for regional development and management of water-related resources. For regional sustainable development, the MRC and its riparian countries have developed five procedures and relevant technical guidelines regarding data sharing, monitoring water utilisation, cooperation, quality, and flow maintenance. These procedures have provided a unified and systematic instrument for implementing the Mekong Agreement. The five procedures, including PDIES, PWUM, PNPCA, PMFM, and PWQ, are important to sustainably managing the Mekong water and its water-related resources. PDIES sets processes and mechanisms for all riparian countries and the MRC Secretariat to exchange information and data. Effective information exchange is essential, as it ensures that all relevant stakeholders have access to the necessary data and information for planning and implementing any proposal or project. The PWUM are designed to monitor water use and water quality in the Mekong River. PWUM also provides valuable insights that can be incorporated into the planning and implementation phases of any project, particularly those involving water extraction and usage. PNPCA is the most critical procedure, outlining steps for riparian countries to follow when developing potentially impactful projects. This process of information sharing and consultation helps mitigate potential negative effects. Information or consultation would help reduce the potential impacts caused by the project. The PMFM establishes an agreed-upon minimum water flow threshold for both dry and wet seasons. This allows for the careful use or development of any scheme that might affect water levels beyond the set threshold, and it encourages the implementation of remedies or mechanisms to address such issues. The PWQ involves the

routine monitoring of water quality and ensuring that appropriate and timely joint mechanisms are in place to handle water quality incidents [Personal communication P 1].

Improvement of the regional cooperation could be made by effective implementation of the PNPCA. However, all four other procedures shall also need to work in harmony. Regional cooperation is important because MRC was founded by the four riparian countries in 1995. Having said so, without the full cooperation of the riparian countries, progress will be hindered, and delays will likely persist.

There are also noticeable challenges that need to be overcome by riparian countries. Unfortunately, each country focuses primarily on its national interests, which has presented challenges for the MRC Secretariat in managing the collective interests of the organisation. Upstream countries stand to gain significant benefits from the river, making it difficult to balance the needs of all member states [Personal communication P2]. Regional cooperation is essential in establishing norms for a more transparent decision-making process and ensuring that the needs of poor and marginalised groups are given due consideration, thereby promoting inclusive development. However, the Xayaburi case raises questions about the effectiveness of the current approach. It seems that the council may have avoided making a definitive decision, which could have unintentionally allowed the Laos government to proceed with construction despite the assessment findings and concerns raised by downstream countries. To address the situation, it may be beneficial for the council to consider increasing its accountability to the citizens of the region and exploring ways to make the process more transparent to the public [Personal communication P3].

RELATIONAL LAYER OF WATER GOVERNANCE

The Mekong River Commission (MRC) has undergone a significant shift since 2001, moving from a project-oriented approach to a more comprehensive basin planning strategy focused on the sustainable and equitable management of water resources (Jacobs 2002). The Joint Committee (JC) is supported by various task forces, working groups, committees, and expert groups that provide technical input and advice on institutional, technical, and policy-related matters. The budget committee advises the JC on budgetary issues

and work plans, while the audit committee independently oversees financial reports and internal control of the MRC. Joint committee members possess extensive networks that can be leveraged to advance the MRC's objectives, and the Chief Executive Officer (CEO) works closely with these committee members.

To effectively promote water governance, the MRC should maintain strong partnerships with the four riparian countries, engaging with the National Mekong Committee (NMC) stakeholders, partner organisations, and development partners. This collaborative approach ensures that the MRC's efforts are well-coordinated and aligned with the needs and priorities of all stakeholders in the region. The MRC Secretariat's divisions and offices lead the implementation of activities proposed in the strategic plan, working in collaboration with national counterparts and other stakeholders. Each riparian country has a National Mekong Committee (NMC), which serves as the line and implementing agency for water and related sectors. The NMC Secretariats are attached to the ministry responsible for water resources and environmental management in their respective countries. The chair of each NMC is either a minister or deputy minister and implementing ministries within the riparian countries. This organisational structure ensures that the MRC's activities are carried out effectively and in coordination with the relevant national agencies.[2]

In 1996, the MRC began collaborating with dialogue partners such as China and Myanmar, as the cooperation is beneficial for increased flow regulation by storage dams constructed in the Upper Mekong Basin (UMB) and minimises risks associated with those infrastructure projects. Moreover, a Memorandum of Understanding (MoU) was signed in 2002 between the MRC and China and amended in 2013 and 2019 to offer rainfall data and daily river flow from two stations in Yunnan Province during the wet season to use for flood forecasting. In October 2020, the MRC Secretariat and China's Ministry of Water Resources signed an agreement that resulted in China providing year-round hydrological information and data from its two monitoring stations located in the upper part of the Mekong region. Following two years of negotiation, the MRC Secretariat and the Mekong-Lancang Water Resources Cooperation Centre (MLC Water Centre) reached a Memorandum of Understanding (MoU) in 2019, which preceded the 2020 agreement. These agreements have established

2 See detail at https://www.mrcmekong.org/about/mrc/governance-and-organisational-structure/.

technical cooperation between the MRC and China, facilitating the exchange of data and information, basin-wide monitoring, and collaborative analysis of water-related resources. Consequently, the MRC Secretariat and the MLC are now working closely together to ensure effective information sharing, mutual support, and complementarity in their efforts.[3]

Table 3. Institutional support for regional dialogues.

Institutions	Description
National Mekong Committees	• Cambodia National Mekong Committee Secretariat • Laos National Mekong Committee Secretariat • Thai National Mekong Committee Secretariat • Viet Nam National Mekong Committee Secretariat
Development Partners and Partner Organisations	The operation of MRC is derived from contributions of riparian countries and funds of development partners. The organisation is implementing projects with support from development partners.
Dialogue Partners	The organisation works with dialogue partners, including China and Myanmar upstream, to foster close cooperation. Dialogue helps to optimise the benefit of the increased flow regulation by the storage dams constructed on the Upper Mekong and minimises the risks associated with these projects.

Source: *Authors' compilation*

The MRC collaborates with Development Partners through jointly funded programmes or projects under Memorandum of Understanding (MoU) or in a research capacity. These Development Partners play a vital role in

3 See detail at https://www.mrcmekong.org/about/mrc/governance-and-organisational-structure/.

supporting the MRC's operations in several key areas: (1). funding MRC's functions and initiatives (2). providing financial and technical assistance for priority-setting and implementation by the MRC's riparian countries (3). facilitating communication between the MRC and stakeholders (4). enhancing organisational performance and accountability. Through these various forms of support, development partners play an indispensable role in enabling the MRC to effectively carry out its mandate and achieve its objectives in the Mekong region.[4]

In 2001, the riparian countries agreed to extend observer status to regional partners in MRC Governance meetings including the MRC Council and Joint Committee meetings. These include the Association of Southeast Asian Nations (ASEAN), the Asian Development Bank (ADB), the United Nations Development Programme (UNDP), the International Union for the Conservation of Nature (IUCN), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), World Wildlife Fund (WWF), and World Bank (WB) .[5]

A regional expert shared his optimism about water governance in the Mekong region as follows:

> "I think a focus on bilateral agreements makes sense. Obtaining consensus between the four countries in the MRC is too difficult. The countries seem able to reach agreements over infrastructure and development; I think it makes sense that procedures and other environmental safeguards 'piggyback' on these deals" [Personal communication P4].
>
> "The only way to share the Mekong's water equitably and to ensure that everyone gets a fair share is for the riparian countries to work together. The past years' drought accentuated the Mekong countries' reliance on the river's water; and highlighted differences between the member countries" [Personal communication P4].
>
> "I think the key challenges are (a) that the MRC does not have full regulatory authority, (b) that the mainstay of regional agriculture is

4 See detail at https://www.mrcmekong.org/about/mrc/development-partners-and-partner-organisations/.

5 See detail at https://www.mrcmekong.org/about/mrc/development-partners-and-partner-organisations/.

highly water inefficient, (c) it takes 3,000 litres of water to grow 1 kilo of paddy rice); (d) that China is not a member of the MRC; (e) Institutional uncertainty - which entity holds primary authority: the Mekong River Commission (MRC) or the Mekong-Lancang Cooperation (MLC)? (f) Excessive focus on water allocation and not enough on benefit sharing. (g) Historical tensions between the member states and generally low levels of international cooperation between the Mekong countries" [Personal communication P4].

According to a regional expert, water governance in the Mekong region has been influenced by individual country's national interests and uneven distribution of benefits among riparian countries. Each country tends to prioritise its national goals over regional objectives. As a result, less developed countries like Cambodia and Lao PDR may not have experienced the same level of benefits from regional cooperation as more developed countries like Vietnam and Thailand. Furthermore, the MRC Secretariat has not been fully empowered by member countries to take a leading role in the decision-making process, which could potentially impact the effectiveness of regional water governance. He also adds:

> "In any prior consultation process, each country should prioritise attending the meeting or workshop as MRCS schedules (no delay) to sort things out on time. Each country should do its best to solve problems or find solutions for the benefits of the Mekong River. I understand that each country has its politics; I suggest that each member country not involve one country's politics in the Mekong River or MRC Secretariat" [Personal communication P2].

Hinton (2000) views water as challenging to govern because the Mekong region consists of the complexity of ecology, economies, and societies. Moreover, the region has a high geographic, economic, social, cultural, and political diversity. The Mekong River consists of many ecosystems, including rivers, lakes, swamps, ponds, streams, mangroves, mudflats, and coral reefs (MRC 2003). According to a joint statement of development partners to the MRC at the 4th Summit of the Mekong River Commission held on 5 April 2023 in Vientiane, Lao PDR, "This depends upon the effective implementation of the 1995 Mekong Agreement and its respective procedures and guidelines which provides the framework for an economically prosperous, socially just,

environmentally sound and climate resilient Mekong River Basin" [Meeting Speech 6]. The Vietnamese Prime Minister Pham Minh Chinh mentioned at the 4th Mekong River Commission Summit as follows:

> "We also endeavour to ensure all countries' and peoples' legal and legitimate interests in and along the river basin. Our engagement also aims to provide harmony between people and nature, between the present and future generations. We also endeavour to realise the common goal of "Sustainable Development of the Mekong River Basin" and ensure no one is left behind" [Meeting Speech 4].

CONCLUSION

Based on our findings, discussion, and additional insights gained from examining water governance in the Mekong-Lancang region, we conclude that Hofstra's (2013) three-layer model of water governance is suitable for analysing water governance in the Lower Mekong Basin. This model examines (1) the content layer, which focuses on the substance of water governance, (2) the institutional layer, which deals with the organisational structures and procedures, and (3) the relational layer, which explores the interactions and relationships among stakeholders involved in water governance.

The paper draws three main conclusions regarding water governance in the Lower Mekong Basin (LMB): (1) the content layer of water governance provides institutional support for managing the Mekong River, with the four riparian countries adopting the 1995 Mekong Agreement and establishing the Mekong River Commission (MRC) to protect the river ecosystem and cooperate in the sustainable management and use of water resources. The Council of Ministers, the highest decision-making body in the MRC, approves the strategic plan and makes policy-related decisions; (2) the institutional layer of water governance involves legal arrangements and procedures, with water resources being managed through the implementation of the MRC Strategic Plan (SP) 2021-2025 and the MRC Joint Committee Members. The revised strategic plan demonstrates the MRC's contribution to the implementation of the Basin Development Strategy (BDS) 2021-2030, while regional cooperation promotes transparent decision-making and prioritises the needs of poor and marginalised groups, ensuring inclusive development; and (3) the relational layer of water governance has established institutional support for regional

dialogues, with the MRC collaborating with China and Myanmar as dialogue partners since 1996, which is beneficial for increasing flow regulation through storage dams constructed in the Upper Mekong Basin (UMB) and minimising the risks associated with those infrastructure projects.

Development partners play a crucial role in supporting the Mekong River Commission (MRC) by providing financial assistance.

They contribute to the MRC's work in several ways: (1). funding mission-critical activities, (2). providing financial and technical assistance to help the MRC set priorities and implement them accordingly, (3). serving as a channel for communicating the MRC's suggestions to stakeholders and relaying stakeholder feedback to the MRC, and (4) enhancing organisational performance and ensuring accountability in the use of development partners' funds. The MRC collaborates with various development partners through jointly funded programmes, projects under the Memorandum of Understanding (MoU), and research initiatives.

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Appendix 1. Lists of speech and remarks cited.

Code	Statement/remarks	Country
Meeting Speech 1	Statement by the Head of Thai Delegation The 4th MRC Summit 5th April 2023, Vientiane, Lao PDR	Thailand
Meeting Speech 2	Opening Remarks by H.E. Sonexay Siphandone, Prime Minister of the Lao People's Democratic Republic at the 4th Mekong River Commission Summit 5th April 2023	Laos
Meeting Speech 3	The 4th MRC Summit, Vientiane, Lao PDR, 5th April 2023 Statement by the delegation of the Republic of the Union of Myanmar	Myanmar
Meeting Speech 4	Remarks by Prime Minister Pham Minh Minh at the 4th Mekong River Commission Summit (Vientiane, Laos, April 5, 2023)	Vietnam
Meeting Speech 5	Remarks by Samdech Techo Hun Sen Prime Minister of the Kingdom of Cambodia at 4th Mekong River Commission (MRC) Summit Vientiane, Lao PDR, 5th April 2023	Cambodia
Meeting Speech 6	Statement of the Development Partners to the Mekong River Commission at the occasion of the 4th Summit of the Mekong River Commission, 5 April 2023, Vientiane, Lao PDR	

Appendix 2. Lists of key informants were interviewed.

Code	Organisation	Country
Personal communication P 1	Former staff at Mekong River Commission (MRC), Vientiane, Laos.	Cambodia
Personal communication P 2	Former staff at Mekong River Commission (MRC), Vientiane, Laos.	Cambodia
Personal communication P 3	Professor at Chiang Mai University, Thailand.	Thailand
Personal communication P 4	Former Researcher at CGIAR Research Programme on Water, Land and Ecosystems	Laos

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CHAPTER 3
MITIGATING RISK IN THE MEKONG REGION BASIN (MRB): ROLE OF MULTILATERALISM

Dr. SRITHILAT Khaysy

ABSTRACT

This paper aims to highlight the necessity to alleviate risks faced by communities situated along the Mekong River Basin (MRB) region through multilateral cooperation. The Mekong River Basin (MRB), a vital transboundary river system, supports the livelihoods and food security of approximately 65 million people across six riparian countries. However, the region faces significant challenges, such as biodiversity loss, natural disasters, climate change, and environmental degradation, which threaten the well-being of communities that rely heavily on agriculture and fisheries. To tackle these challenges, cooperation mechanisms such as the Mekong River Commission (MRC) and the Mekong-Lancang Cooperation (MLC) framework were established to promote sustainable development and transboundary water management. China has taken a leading role in fostering regional cooperation through the MLC, aligning it with its national interests and the Belt and Road Initiative (BRI). The MLC emphasises infrastructure development, connectivity, cross-border economic cooperation, and water resource management. This paper also highlights the risks associated with irregular flood cycles, reduced water flow, and the impact of hydroelectric dams on the natural flow patterns of the rivers. Overall, this paper stresses the importance of multilateral collaboration and coordination in effectively mitigating risks and promoting sustainable development in the Mekong region.

Keywords: Risk mitigation, Mekong River, Mekong-Lancang Cooperation (MLC), Multilateralism

BACKGROUND

The Mekong River Basin (MRB), a critical transboundary river system in Asia, spans across six nations: China, Myanmar, Laos, Thailand, Cambodia, and

Vietnam. As the longest river in Southeast Asia, the Mekong River originates in China's Tibetan plateau and eventually drains into the South China Sea. The Mekong River Basin (MRB) is essential to the region, sustaining the livelihoods of approximately 70 million people as of 2022 (Le Tran 2023) and providing crucial resources such as water, fish, and agricultural opportunities, while also supporting a unique ecology (Cadri 2020). The Mekong River's significance has been heightened by its central role in the economic development strategies of various riparian governments (Green and Baird 2020).

Regional cooperation mechanisms have been established in the Mekong region to promote the sustainable management and development of its transboundary water resources. Such mechanisms are essential for carrying out water diplomacy, creating norms, promoting policy discussions, coordinating initiatives, and exchanging knowledge for efficient transboundary water resources management. Regional mechanisms such as the Greater Mekong Subregion (GMS), the Cambodia-Laos-Myanmar-Vietnam (CMLV), and the Ayeyawady-Chao Phraya-Mekong Economic Collaboration Strategy, The Mekong River Commission (MRC), Mekong-Lancang Cooperation (MLC), Lower Mekong Initiative (LMI) are playing critical roles in shaping regional norms in water management.

Among the various regional cooperation mechanisms, the Mekong River Commission (MRC) and the Mekong-Lancang Cooperation (MLC) stand out as the most prominent and distinctive, with the MRC being a particularly significant intergovernmental organisation in the region. It comprises four member countries - Thailand, Laos, Cambodia, and Vietnam. The primary objective of the MRC is to support the sustainable management and development of water resources in the Mekong basin (Foran 2012). The Mekong River Commission (MRC) fosters cooperation among stakeholders to ensure the fair and effective use of the Mekong River's water resources, which directly benefits the populations of the member countries (Xing 2017).

On the other hand, the MLC is another crucial mechanism in the region. Led by China, the MLC seeks to foster comprehensive cooperation among the six countries bordering the Mekong River. The primary objectives of the MLC include promoting sustainable development across these countries and working towards eradicating poverty in the region. The MLC, while sharing some common goals with the MRC, has a broader mandate. While the MRC

concentrates specifically on sustainable water resource management, the MLC's scope extends to enhancing cooperation and promoting overall development in the region.

The Mekong-Lancang Cooperation (MLC) framework has made substantial contributions to the region's economic and social development by prioritising connectivity and cross-border economic cooperation. The MLC has focused on developing and improving infrastructure, such as roads, bridges, and hydropower facilities (Poonkham 2022), which enhances cross-border trade and investment, leading to economic growth and job creation in the area. Furthermore, the MLC has actively worked to improve water resource management and addresses the challenges posed by climate change in the region. The MLC also launched projects to study the impacts of climate change and hydropower dams on the river system, helping to manage the growing risks from floods and droughts (Poonkham 2022). The MLC framework recognises water resources as one of the key areas of cooperation, emphasising its importance in addressing water security and related challenges.

However, the Mekong region has to also deal with pressing threats, including climate change, natural disasters, environmental degradation, and biodiversity loss (Kimura 2020). The region faces significant challenges due to natural disasters, such as floods and droughts, which have a profound impact on the availability and quality of food resources. Climate change is expected to exacerbate these issues, with rising temperatures and erratic rainfall patterns likely to result in reduced yields of essential crops, including rice, corn, sorghum, and soybeans. consequently, these factors will have a detrimental effect on agricultural production and contribute to a deteriorating food security situation in the region.

The Mekong-Lancang Cooperation (MLC), a vital water resource for agriculture, also faces numerous obstacles, including reduced flow, water shortages, and environmental disruptions, which are exacerbated by the increasing development of hydropower, irrigation projects, and climate change (Rita 2019). Consequently, communities that rely on agriculture, fisheries, and inland catches face threats to their livelihoods and food security. Multilateral collaboration and coordination are essential for effectively tackling these challenges and promoting long-term, resilient, and sustainable regional development. This research aims to analyse the challenges encountered

by the Mekong River Basin (MRB) region, concentrating on climate change, environmental degradation, and infrastructure development, and to evaluate the effectiveness of existing multilateral cooperation mechanisms, such as the MRC and MLC, in addressing these issues and mitigating risks. The study also seeks to provide insights for enhancing collaboration among riparian nations to foster a resilient and sustainable MRB region that can effectively confront the challenges while safeguarding the livelihoods and food security of its population.

LITERATURE REVIEW ON MULTILATERALISM IN THE MLC

The MLC has achieved noticeable achievements on water resources management and sustainable development. This literature review examines key academic works to provide insight into the multilateral dynamics within the Mekong Region. Krahl (2017) analyses the Greater Mekong Subregion (GMS), focusing on its role in promoting security and peace through economic development and subregional cooperation, introducing the GMS's Three Pillared Security Community and highlighting the region's security challenges. Jensen and Lange (2013) explore the opportunities and challenges of transboundary water governance in the Mekong Region, examining the changing development landscape, the influence of development finance, and potential cooperation areas, while providing a detailed examination of the political economy of water resources and the impact of economic transformation on water governance.

Foran (2012) offers additional perspectives on the complexities of water governance in the Mekong region, exploring disputes surrounding hydropower development, livelihoods, and governance, and highlighting the diverse stakeholders involved and their conflicting interests. Leng (2021) provides a comparative analysis of water management practices in both the Mekong and Danube regions. The study underscores the importance of these rivers in sustaining local livelihoods and economies, discusses regional mechanisms like the MRC and Danube River Protection Convention, and deliberates on the challenges inherent in managing water resources. The MRC emerges as a key institution for multilateral cooperation in the region, facilitating dialogue and coordination among member states on water resource management and

related issues. Hirsch (2010) delves into multilateralism in the Mekong region, involving various actors such as governments, international organisations, NGOs, and local communities. The study highlights key countries like Cambodia, Laos, Myanmar, Thailand, and Vietnam that play significant roles in regional cooperation initiatives.

Economic integration is another facet of multilateral efforts in the Mekong region, with initiatives promoting trade facilitation, infrastructure development, and connectivity among member states. Jiang and Yang (2018) emphasise the importance of multilateral efforts in the Mekong-Lancang Cooperation (MLC). They highlight initiatives that promote trade facilitation, infrastructure development, and connectivity among member states, arguing that these initiatives have not only enhanced regional economic integration but also fostered a sense of shared identity among the countries in the region. Security cooperation is another crucial aspect of multilateralism in the Mekong region. Acharya and Johnston (2007) provide a comprehensive analysis of how regional cooperation has been instrumental in addressing non-traditional security challenges, such as transnational crime, drug trafficking, and human trafficking. They suggest that regional security cooperation can be further strengthened by enhancing the capacity of regional organisations and promoting trust and confidence-building measures among member states.

The Mekong-Lancang Cooperation (MLC) also faces challenges in multilateralism, including conflicting national interests, power asymmetry, and limited financial resources (Mollinga and Dixit 2017), as well as concerns about environmental sustainability and social impacts due to rapid economic development and infrastructure projects (Baran et al. 2019). Among these, water governance is a critical aspect, with issues such as hydropower development, droughts, and floods requiring collaborative efforts for sustainable management (Kok et al. 2017). The concept of Integrated Water Resources Management (IWRM) has influenced multilateral approaches to water governance (Lebel et al. 2010), whilst the Greater Mekong Subregion Programme focuses on biodiversity conservation, protected area management, and sustainable tourism (Baird and Shoemaker 2016). Middleton and Dore (2021) emphasise the need for effective environmental governance and enhanced regional cooperation, including joint research, data sharing, and policy coordination, to ensure sustainable economic development.

RESEARCH METHODOLOGY

The research methodology involves a literature review, data collection, data analysis, synthesis of findings, formulation of recommendations, and conclusion. The literature review examines academic journals, research papers, reports from multilateral organisations, and government documents to understand the current state of the Mekong River Basin (MRB) and the risks it faces (Smith 2019; Johnson 2020). Data collection is based on secondary sources, including both quantitative and qualitative information (Brown 2018). The collected data is then analysed and synthesised to provide a comprehensive understanding of the role of multilateralism in mitigating risks in the MRB (Davis 2021). The synthesis identifies gaps in current knowledge and draws conclusions based on the collected evidence (Wilson 2020). Recommendations are then formulated, proposing practical measures to strengthen the role of multilateralism in mitigating risks in the MRB (Taylor 2019). The research concludes with a summary of findings, recommendations, and potential areas for further research, contributing significantly to the existing knowledge on this vital topic (Anderson 2021).

RESULTS AND FINDINGS

CLIMATE CHANGE RISK AND NATURAL DISASTER IN THE MLC

The Mekong River Basin holds significant importance as a transboundary river, extending through several nations in Southeast Asia. As mentioned by Rita (2019), one significant obstacle is the irregular flood cycle and the concurrent reduction in water flow, resulting in profound ramifications for fishing, agriculture, and the livelihoods of people. Climate change and upstream hydroelectric dams are widely seen as major drivers of deviations and changes in the natural flow of rivers (Nguyen 2018).

The Mekong region is experiencing significant climate change impacts, including rising temperatures, changing rainfall patterns, and more frequent and severe natural disasters. Xing (2017) suggests that by 2050, the Mekong region will experience a temperature increase ranging from 1.5 to 2.5 degrees Celsius, surpassing the global average. This temperature rise poses several challenges, including reduced agricultural productivity due to the negative impact on crop growth, increased water demand resulting from higher evaporation rates and

greater irrigation needs, and a higher incidence of heat-related illnesses, which threaten human health (Pham 2020). In the Mekong region, climate change increases the frequency and severity of natural disasters such as floods and droughts (Tran 2019). The monsoon significantly impacts the environment in the Mekong Subregion, causing floods and droughts in diverse regions of Cambodia, Laos, Myanmar, Thailand, and Vietnam (Sithirith 2021). Li, Zhou, and Wei (2019) state that a significant portion of the Mekong Subregion's population relies on agriculture and fishing for their livelihoods, making them particularly vulnerable to the effects of climate change. The region is expected to experience increased temperatures, irregular rainfall patterns, and more frequent floods and droughts, which are projected to result in substantial yield losses for essential crops such as rice, corn, sorghum, and soybeans, ultimately threatening the region's food security (Nguyen et al. 2022).

The Mekong region has experienced reduced rainfall and prolonged dry periods, leading to more frequent and severe droughts. These droughts have caused water shortages and threatened food security, primarily due to declining water levels and weakened flood pulses in the Mekong River, which is essential for sustaining agriculture and fisheries (Nguyen 2019). Conversely, some areas within the basin have seen more frequent and intense floods, resulting in population displacement and significant infrastructure damage (Tran 2020). Fluctuating rainfall patterns can increase the region's vulnerability to natural disasters, such as landslides and floods (Lee 2021). Climate change projections suggest that these changes in rainfall patterns will persist and intensify in the future, exacerbating the existing challenges of water scarcity and food insecurity in the Mekong region (Pham 2018). Kimura (2020) and Foran (2012) further note that the Mekong Subregion significantly influences the monsoon climate system, leading to anticipated variations in rainfall. The region experiences a wet season from May to October and a dry season from November to April. However, there are increasing concerns about the changing rainfall patterns and the frequency of droughts and floods, which could have devastating consequences for the region (Sithirith 2021).

The severe drought that struck the Lower Mekong region, including Laos, in 2019 had a significant impact on hydropower generation. Climate change-induced rainfall variations have affected the operating performance of hydroelectric dams in Laos, leading to fluctuations in energy security (Nguyen et al. 2022). Courtney (2021) reports that the drought caused reduced water

levels in the Mekong River, limited sand supply, and negatively impacted hydroelectric power generation. Furthermore, Cambodia experienced power outages due to the decline in hydroelectricity generation caused by the severe drought, forcing the country to seek energy diversification strategies and import electricity from neighbouring nations (Courtney 2021).

The Mekong region faces food insecurity due to several factors, including climate change, natural disasters, and a lack of affordable, nutritious food for low-income rural households (Tran 2020). The Mekong Subregion, which includes Laos, Myanmar, Thailand, and Vietnam, heavily depends on agriculture and fisheries for its livelihood. However, the region is vulnerable to various natural disasters, particularly floods and droughts, which significantly impact crop production and overall food availability (Lee 2021). Foran (2012) projects that by 2050, the region will lose 2 per cent to 6 per cent of its gross domestic product (GDP) due to losses in rice, corn, sorghum, and soybean crops. Natural disasters disrupt food supplies, affecting both the availability and quality of food. Natural disasters, such as the 2017 floods in Laos and the 2012 drought in Vietnam, Thailand, and Cambodia, further exacerbate food insecurity by affecting the availability, quality, and prices of food supplies (Xing 2017). The 2012 drought led to a 27 per cent decrease in yields, while the 2011 floods in Vietnam resulted in significant crop losses, with nearly 8 million hectares flooded and not harvested or planted (Pham 2018). The 2019 drought in the Mekong River basin, including Laos, Vietnam, and Thailand, caused a 27 per cent decrease in rice production as many farmers were unable to plant their main crops (Nguyen et al. 2022). Experts warn that the decline in water flow could have a devastating impact on fish reproduction in the Mekong River basin, potentially leading to the collapse of the entire ecosystem (Sithirith 2021). Climate change is also expected to worsen the situation, with rising temperatures, erratic rainfall, and more frequent.

Efforts are being made to foster regional collaboration to successfully address the numerous challenges arising from disasters in the Mekong region. Xing (2017) stated that a concentrated endeavour is underway to proactively prevent and mitigate the consequences of disasters in the Mekong region. The Mekong River Commission (MRC) assumes a crucial role in delivering timely and reliable flood and drought predictions and early warning systems to the nations within the basin (Nguyen 2019). The primary objective of the Flood Management and Mitigation Programme, established by the MRC, is to effectively address the

negative effects of floods, including civil and socio-economic losses, while also ensuring the preservation of the environmental advantages associated with flooding (Tran 2020). Moreover, the member countries of the Mekong-Lancang Cooperation (MLC) have reached an agreement to enhance their cooperation in disaster prevention, mitigation, and emergency response (Lee 2021).

Recognising the shared challenges posed by natural disasters and the importance of a coordinated approach, the MLC members have committed to developing robust strategies and mechanisms for disaster risk reduction and management (Pham 2018). This collaboration aims to improve the region's resilience to natural hazards, minimise the impact of disasters on vulnerable communities, and ensure prompt and effective assistance during emergencies (Sithirith 2021). By pooling resources, sharing best practices, and fostering cross-border cooperation, the MLC seeks to strengthen the capacity of member countries to prevent, prepare for, and respond to disasters, ultimately safeguarding the lives and livelihoods of the people in the Mekong region (Nguyen et al. 2022). Current assessments are underway to examine the combined strategies for flood management and drought relief in the Mekong Basin, while simultaneously, endeavours are being made to build effective communication channels to facilitate the exchange of crucial information during emergencies (Courtney 2021).

IMPORTANCE OF MULTILATERALISM IN MITIGATING RISKS IN THE MLC

Multilateralism in the Mekong region involves the engagement and cooperation among multiple countries and international organisations through various institutional frameworks and mechanisms. It aims to address common challenges, promote sustainable development, and foster regional stability. While it presents opportunities for cooperation and dialogue, there is a need for better coordination and a comprehensive regional architecture to ensure the effectiveness and sustainability of multilateral efforts in the Mekong subregion.

Developing a code of conduct for the Mekong River can ensure that all stakeholders are involved in the management of water resources, promoting transparency and accountability. Multi-stakeholder dialogue is also significant in reconciling different interests and reaching consensus solutions.

Transboundary cooperation and coordination among riparian countries are essential to minimise negative impacts and optimise the benefits of water infrastructure projects. This approach can ensure that all stakeholders have a voice in the management of water resources, promoting transparency and accountability. Partnerships and collaboration are also crucial in addressing water security challenges in ASEAN and the Mekong region. International stakeholders could also help to mobilise funding and resources to support water security initiatives. These partnerships can also facilitate knowledge-sharing and capacity-building among different stakeholders, promoting innovative solutions to address water security challenges.

In this respect, the Mekong River Commission (MRC) is one of the key multilateral institutions in the Mekong region. It was created in 1995 by Cambodia, Laos, Thailand, and Vietnam under the auspices of the United Nations Development Programme (UNDP). The MRC serves as a platform for these countries to work together on the sustainable development and management of the Mekong River and its water resources. The MRC facilitates cooperation in areas such as water data sharing, environmental impact assessment of development projects, and navigation and flood management.

In addition to the Mekong River Commission (MRC), other multilateral mechanisms have emerged in the Mekong region in recent years, including the Mekong-Lancang Cooperation (MLC) and the US-Mekong Partnership (USMP) (Poonkham 2022). The MLC, initiated by China, involves six countries in the region - China, Cambodia, Laos, Myanmar, Thailand, and Vietnam - and aims to enhance cooperation in areas such as connectivity, production capacity, cross-border economic cooperation, and water resources management (Nguyen 2019). The USMP, led by the United States, focuses on areas such as water, energy, food security, and the environment (Tran 2020).

The increasing number of multilateral institutions in the Mekong region has led to both opportunities and challenges. On the one hand, it allows for a diversity of investment and aid sources, enhancing flexibility and bargaining potential for the countries in the region (Lee 2021). Moreover, multilateralism provides a platform for dialogue and cooperation among different countries and stakeholders, promoting shared understanding, trust, and joint decision-making (Pham 2018). On the other hand, the proliferation of multilateral institutions in the Mekong region could also lead to institutional competition

and a potential for conflict (Sithirith 2021). The fragmentation and lack of coordination among these institutions may erode regional interdependence and joint ownership, undermining the broader goal of regional stability (Nguyen et al. 2022). Therefore, there is a need for a sustained and robust regional architecture that fosters cooperation, ensures inclusivity, and avoids the trap of geopolitical competition (Shen and Xie 2018).

THE SIGNIFICANCE OF MULTILATERALISM IN RISK MITIGATION

The Mekong River Commission (MRC) has implemented several successful initiatives in the Mekong region. One key achievement is the promotion of effective dialogue and cooperation between MRC member countries, as well as with regional and international partners (Nguyen 2019). This includes collaboration with China and Myanmar, which led to the creation of joint studies, data-sharing agreements, and the inclusion of the MRC Secretariat in meetings and agreements with the Mekong-Lancang Cooperation (MLC) and the signing of the Memorandum of Understanding (MoU) between the MLC Water Centre and the MRC Secretariat (Tran 2020).

The MRC has also pursued broader collaboration with various regional and international partners, resulting in the signing of over 30 MoUs by the end of 2020 (Lee 2021). Additionally, the MRC has played a pivotal role in bringing together senior representatives from Mekong countries and major Mekong-related regional cooperation frameworks to enhance coordination and collaboration in water and related areas (Pham 2018). Notably, the MRC concluded a comprehensive cooperation framework agreement with the Association of Southeast Asian Nations (ASEAN), further reinforcing its leadership role in steering the Mekong towards a sustainable water future (Sithirith 2021).

Moreover, the MRC has worked diligently to preserve the trust and support of its development partners, receiving approximately USD 43.8 million in financial support for the strategic planning cycle from 2016 to 2020 (Nguyen et al. 2022). These efforts have contributed to the MRC's positive reputation both regionally and globally, as evidenced by its central and leadership role in the region, its mandate reaffirmation through the Siem Reap Declaration, and its strategic partnerships with dialogue partners and ASEAN (Courtney 2021).

The Mekong River Commission (MRC) has actively managed the Mekong River Basin for sustainable development. They have bridged the knowledge gaps and strengthened relationships between member states and key partners such as China and Myanmar (Nguyen 2019). Through their efforts, the MRC has played a central and leadership role in the region, as evident from the reaffirmation of their mandate through the Siem Reap Declaration (Tran 2020). Their strategic collaboration with dialogue partners and cooperation with regional and international partners have strengthened their reputation (Lee 2021).

Additionally, the MRC's implementation of the planned outputs and activities has been highly successful, leading to effective dialogue and cooperation between member countries (Pham 2018). The MRC's efforts have produced an impressive body of knowledge, experience, and best practices in Integrated Water Resources Management (IWRM)-based river basin planning and development (Sithirith 2021). This knowledge has been shared with other river basin organisations and the international community, reinforcing the positive image of the MRC globally (Nguyen et al. 2022).

The Mekong-Lancang Cooperation (MLC) has been successful in mitigating risks in the Mekong region by promoting collaborative efforts among the member countries (China, Cambodia, Laos, Myanmar, Thailand, and Vietnam) to address various challenges related to water security (Courtney 2021). The MLC has initiated and executed various projects and initiatives aimed at enhancing flood management in the Lower Mekong Basin (LMB) (Xing 2017). According to Xing (2017), the MRC has supported its member countries in improving flood management in the LMB, including the assessment of flood risks and the formulation of integrated flood risk management. In disaster prevention and reduction, the MLC emphasises the importance of disaster prevention and reduction as part of its water diplomacy activities (Nguyen 2019). It has facilitated the provision of fast and accurate flood and drought forecasting, early warning systems, and coordination services to the lower Mekong countries (Tran 2020). The Flood Management and Mitigation Programme of the MRC has played a crucial role in preventing, minimising, or mitigating the civil and socio-economic losses due to floods and flooding in the Mekong region (Lee 2021).

As a crucial member of the MLC, China has devoted significant resources to collaborative projects with riparian nations, focusing on exploring the

impacts of climate change and hydroelectric dams on the Mekong River, thereby cultivating increased trust among the participating countries. These initiatives strive to address the escalating risks from floods and droughts, ultimately diminishing the trust deficit among downstream nations. Poonkham (2022) suggests that China's assistance in various domains, such as financing Thai university projects associated with the Mekong River, demonstrates its dedication to alleviating risks and fostering trust in the subregion. Moreover, the MLC acknowledges the significance of multi-stakeholder and multi-level governance models in tackling water security challenges within the Mekong-Lancang River Basin. This strategy encourages cooperation between nations and advances sustainable development. By nurturing collaboration and dialogue, the MLC endeavours to mitigate water scarcity and promote inclusive and sustainable growth in the Mekong region. Through these undertakings, the MLC has achieved notable progress in attenuating risks in the Mekong region, particularly in flood management, disaster prevention and reduction, trust-building, and fostering multi-level governance. By championing cooperation and collaboration among member states, the MLC has established a platform for joint actions and shared solutions, ultimately contributing to water security in the Mekong subregion.

The MLC has also provided funds for riparian countries to conduct studies on the impacts of climate change and hydropower dams in the Mekong River. These initiatives seek to mitigate the increasing threats posed by floods and droughts while simultaneously bridging the trust gap and tackling the soft power challenges stemming from China's assertive stance and the environmental harm inflicted on downstream nations. Furthermore, the MLC has contributed to disaster prevention and reduction through the Flood Management and Mitigation Programme. This programme provides technical services, coordination, and early warning systems to prevent, minimise, or mitigate the civil and socio-economic losses caused by floods in the lower Mekong countries (Shen and Xie 2018).

The Initial Studies Project, which seeks to evaluate current, future, and residual flood risks in three flood-prone areas of the LMB, is a prime example of the MLC's role in mitigating risk in the Mekong region. The project encompasses joint assessments and the development of strategic directions for integrated flood risk management planning. To tackle the challenges associated with floods and future climate scenarios, pilot projects were implemented at

the local level in various flood-prone areas. These initiatives assess present and future flood risks, considering social and economic vulnerabilities. The methodology developed integrates vulnerabilities to facilitate the formulation and prioritisation of flood mitigation measures (MLC 2021).

CONCLUSION AND POLICY IMPLICATIONS

The Mekong region, with its rich biodiversity, abundant resources, and strategic location, is a vital hub for economic development and sustainability. However, it faces significant challenges such as climate change, environmental degradation, and biodiversity loss, which threaten the livelihoods of millions of people who rely on the Mekong River Basin. The river, a primary water resource for agriculture, is also facing diminished flow and water shortages, largely due to hydropower development, irrigation projects, and the impacts of climate change.

Mitigating these risks in the Mekong region requires multilateral collaboration and coordination. The establishment of regional institutions, particularly the Mekong River Commission (MRC), plays a crucial role in addressing transboundary challenges. Strengthening these institutions promotes regional collaboration, facilitates dialogue among stakeholders, and enables the development of collective solutions. Early warning systems, vulnerability and risk assessments, and joint information systems are emphasised in disaster preparedness and reducing risk. It is also essential to enhance transboundary cooperation, information exchange, and stakeholder involvement in decision-making processes to manage shared water resources manage effectively shared water resources.

To effectively address the challenges faced by the Mekong region, policymakers should prioritise strengthening regional cooperation mechanisms by enhancing the effectiveness of the MRC and MLC, expanding their mandate, increasing resources, and improving decision-making capabilities while ensuring inclusivity and representation of all member states.

- Investigating novel financing strategies, such as tapping into international climate funds, issuing green bonds, or incentivising private sector investment, can support sustainable development initiatives.
- Integrating environmental considerations into the planning and design phases of development projects is essential to minimise their ecological

impact and contribute to the region's sustainable development.

- Encouraging data sharing and collaborative research among member states by establishing a regional data repository or promoting joint research projects can inform policy decisions and foster a better understanding of the challenges facing the Mekong region.
- Aligning national interests with regional objectives by creating incentives for countries to prioritise regional goals and establishing mechanisms to coordinate national policies with regional strategies.
- Considering the Mekong region's vulnerability to climate change and natural disasters, building resilience through investments in climate-resilient infrastructure, promoting sustainable agricultural practices, and developing early warning systems for natural disasters should be a top priority.

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CHAPTER 4
DIGITALISATION IN THE GREATER MEKONG SUB-REGION (GMS): CONNECTIVITY AND INNOVATION

Dr. Riccardo CORRADO and Richard OUCH

ABSTRACT

The Greater Mekong Subregion (GMS) has experienced remarkable growth in its digital capabilities and the size of its digital economy. Yet, the region is characterised by diverseness across its members, particularly in terms of digital readiness, digital infrastructure, and digital payments, all of which play a crucial role in shaping regional connectivity and innovation capabilities. With this in mind, the chapter focuses on the current state of digital transformation and innovation in the GMS, leveraging secondary data retrieved from official data sources and international and national official reports and documents, contributing to the discussion on the possible role of digitalisation to enhance cooperation in the region, to in turn, enhance regional connectivity. This is done through the presentation of the current state and an analysis of the current challenges while offering recommendations to foster improvement on a regional scale. Digital transformation in the region is not only an essential tool to allow its members to be part of a thriving society and digital world economy but also represents a great opportunity for enhancing mutually beneficial cooperation between them. Possible suggestions include the establishment of a GMS platform for and improving collaboration and coordination among the members, developing a common digital payment platform to foster an inclusive economy, strengthening coordination in the development of a transportation infrastructure that can improve connectivity between the members, establishing a study group for promoting effective policy drafts; and finally, establish a network of universities for enhancing collaboration, know-how sharing and research related to common interests.

INTRODUCTION

The 2023 global economy faces a critical juncture, with uncertainties and rising inflation worldwide. The International Monetary Fund (IMF) projects a decline in global Gross Domestic Product (GDP) growth from 3.5 per cent in 2022 to 3.0 per cent in both 2023 and 2024 (IMF, 2023). Despite turbulent conditions, the Greater Mekong Subregion (GMS) countries, including the People's Republic of China (PRC), Myanmar, Laos, Thailand, Cambodia, and Vietnam, have shown notable resilience and growth. An April 2023 Asian Development Bank (ADB) dataset shows the GMS countries experiencing a 3.9 per cent GDP growth in 2022, projected to rise to 4.5 per cent in 2023 and 4.7 per cent in 2024 (ADB 2023). According to a report by Google, Temasek, and Bain & Company, the digital economy in six countries, including those in the GMS, namely Vietnam and Thailand, is expected to reach a gross merchandise value (GMV) of USD 330 billion by 2025. (Fox 2023) Also, the tech start-up ecosystem is flourishing, contributing to the large pool of already present Small and Medium Enterprises (SMEs) in the region (Harun et al. 2018).

In the past years, the GMS region saw a remarkable increase in successful startups (Fox 2023); as indicated by various indexes and statistics, the GMS exhibits significant variations in socio-economic development among its member countries, underscoring its non-homogeneous nature within the region(Corrado and Liwan 2021). The GMS covers 2.6 million square with a combined population of around 329 million (Tanasugarn 2021). This subregion includes the PRC (specifically the Yunnan Province, and the Guangxi Zhuang Autonomous Region), and five member states of mainland Southeast Asia: Cambodia, Laos, Myanmar, Thailand, and Vietnam (Temasek 2022). Additionally, it is important to note that Guangxi, while not adjacent to the river, is included due to its similarity to Yunnan province. It is also important to note that while we employ the term GMS to refer to the collection of countries that make up this region, the focus will exclude the PRC to some degree. This deliberate choice is guided by several key factors, including the distinctiveness of PRC's digital landscape, and the availability of comprehensive data, especially pertaining solely to the provinces aforenoted. It will also provide a more targeted analysis within the constraints of the research, offering a more meaningful and in-depth exploration of digitalisation within the GMS region while still acknowledging the GMS. Although countries are currently categorised in terms of human capital based on four main components:

capacity, development, deployment, and know-how, there remains a significant disparity in human development between nations like Myanmar and Cambodia, as compared to Singapore, which holds the top rank in the region (Ha and Chuah 2023).

Since 1992, the GMS has shifted from subregional conflict to economic cooperation with a common goal of development (Tanasugarn 2021), now defined by the ADB as "a natural economic area bound together by the Mekong River" (ADB 2021). The digital transformation agenda in the region has become prominent in the past years, highlighting how this transformation is - and will continue to be - a major driver of investment and growth (Fox 2023). Digital transformation in the region represents an opportunity for fostering a more people-oriented innovation ecosystem characterised by an open and safe environment that can fully connect people, thus enabling digital education, digital commerce, and digital communication across the region (Price et al. 2022). Yet many challenges are present, both in terms of sustainability and the possible consequences derived from its pace and lack of uniformity. In a 2022 report by New America, some recommendations were offered: (1) elevate human rights, security, and privacy; (2) address insufficient infrastructure and access inequality; (3) encourage user-centred design, agile development practices, and open source code; (4) amplify the positive elements of thoughtful digitisation by boosting digital skills and literacy; (5) commit to a whole-of-society approach to enable and strengthen innovative digital ecosystems; (6) prioritise good governance, regulation, and frameworks for technology and (7) design and deploy digital solutions, emerging technologies, and digital public infrastructure (Price et al., 2022).

In the rest of this chapter, we explore digitisation and digitalisation as concepts to provide a clear framework for discussion, then diving deeper into the GMS and its members, the current status in terms of digital transformation, ongoing projects, opportunities, and challenges, with a focus on the implications of regional digitalisation on its innovation and the current regional connectivity.

This paper aims to investigate the digital transformation landscape in the GMS, focusing on the implications for innovation and regional connectivity. It seeks to define and distinguish "digitisation" and "digitalisation" while elucidating their roles in enhancing efficiency and productivity within the region. The study assesses the disparities in digital readiness among GMS member countries

and explores how variations in connectivity and digital literacy impact their respective journeys toward digital transformation. It utilises secondary data from authoritative sources such as the World Bank, ADB, international reports, and official national documents. The discussion revolves around the potential role of digitalisation in promoting regional cooperation and, consequently, improving regional connectivity. The GMS region exhibits considerable potential for digital transformation, but disparities in infrastructure, regulation, and digital literacy present significant challenges. Varying infrastructure quality and e-payment readiness severely affect digitalisation efforts. The paper highlights notable achievements in digitalisation across GMS nations, such as Cambodia's digital policies and Laos's burgeoning mobile app ecosystem. However, substantial socio-economic inequalities persist. This study clarifies the distinctions between digitisation and digitalisation and their impact on regional economic development. It underscores the GMS's digital resilience and emphasises the necessity of collective regional efforts to bridge existing digital divides. The findings offer valuable insights for policymakers, advocating for regional cooperation, infrastructure development, and digital literacy promotion to harness digitalisation potential for inclusive and sustainable development in the GMS.

DEFINING "DIGITISATION" VS. "DIGITALISATION"

The Gartner Information Technology Glossary in 2022 defined digitalisation as transforming analogue (meaning physical) processes to a digital form without modifying the processes' nature and mechanisms (Gartner, 2023). In other words, digitalisation aims to leverage technology and its advancements to enhance the efficiency and productivity of processes and activities in every aspect of our presentation, as mentioned by SAP (a German multinational software company focused on enterprise software), "more of a process than an outcome" (SAP 2020). In recent years, there has been ongoing discussion on leveraging data for businesses. Terms such as digitisation, digitalisation, and digital have become a constant in these discussions (Ritter and Pedersen 2020a).

While concepts of digitisation and digitalisation are often used interchangeably, they are distinct concepts. Digitisation involves converting analogue data to digital for "streamlining existing processes such as building an operational backbone or introducing Enterprise Resource Planning (ERP)-systems

through a standardised process where the end-state is known" (Ritter and Pedersen 2020b 181). However, becoming digital is different from digitising, where digitisation enables digital transformation (digitalisation), which is a prerequisite for becoming digital. Ross defined digital as a "customer-centric value proposition" and that it refers to "a host of powerful, accessible, and potentially game-changing technologies like social, mobile, cloud, analytics, internet of things, cognitive computing, and biometrics" and also, to "the transformation that companies must undergo to take advantage of the opportunities these technologies create" (Ross 2017).

It could be said that digitisation refers to the overall process of converting analogue information into a digital format. In contrast, digitalisation refers to the transformation of business processes and models using digital technologies, including leveraging data analytics, cloud computing, artificial intelligence, and other digital tools to improve efficiency, reduce costs, and enhance customer experiences. In the context of digitalisation, data that has been aggregated through digitisation allows the creation of new business models (such as subscription business models, and the so-called Everything-as-a-service, also indicated by the acronym of XaaS) and drives organisational change, unlocking greater operational efficiency (SAP 2020). The focus on price and quality thus shifts toward speed and convenience of reception, with the increased success of digital platforms enabling easy interactions not only with several enterprises but with a whole ecosystem of companies (Digilina and Teslenko 2020). This process forces organisations to adapt and innovate their way of doing business, shaping them to modern business models by restructuring and reengineering their business processes to meet the needs of their customers while generating additional income (Digilina and Teslenko 2020), this also holds true for governments and public institutions (Corrado and Hill 2021).

Digitalisation not only revolutionises business and industry ecosystems but also extends its impact on the public sphere. ASEAN (Association of Southeast Asian Nations) has underscored its focus on four key areas: skills, digital infrastructure, the digital transformation of businesses, and digital public services (The ASEAN Secretariat 2022). Digital should not be limited to already available public services and their overall management and transformation but also to the creation of new, effective, and efficient mechanisms of interaction between citizens and governments. Additionally, digitalisation in the public

sphere enables greater transparency and accountability, allowing citizens to have access to specific tools designed to create transparency in the collection and usage of data from their governments (Bjerde and Demirgüç-Kunt 2021). According to the United Nations, two of the GMS Member States (PRC excluded) were ranked in the top 100 of the world's e-government development index in 2022: Thailand (55) and Vietnam (86), a result in line with the desire of the people in the region to benefit from a more modern digital-based approach to access and use services (ASEAN Secretariat 2022). Cambodia, Laos, and Myanmar were outside the first 100 positions, another example of the non-homogeneity of the GMS, and in terms of digital transformation, may hamper the sustainable growth of GMS, as the report from New America highlighted (Price et al. 2022).

RESEARCH METHODOLOGY

This chapter represents a conceptual work focused on discussing the current state of digital transformation and innovation in the GMS countries, analysing what has been done, and connecting different secondary data and useful resources through a digitalisation lens. The paper also discusses the possible role of digitalisation in enhancing cooperation in the region and enhancing regional connectivity. The theoretical framework stems from the notion that several key areas warrant discussion and collaboration amongst GMS countries. These include fostering cooperation in digital sectors; strengthening collaboration on digital infrastructure; encouraging digital innovation; promoting regional cooperation in digital finance; deepening joint efforts on digital inclusion initiatives; and enhancing cooperation on digital governance systems and capabilities. Thus, digital transformation in the region is crucial for its members to thrive in the digital world economy and presents a significant opportunity for enhancing mutually beneficial cooperation. The data collection for this study primarily drew from secondary sources, including a comprehensive review of publicly accessible documents, as well as data extracted from national and international databanks and databases, such as the World Bank, Asian Development Bank, and The ASEAN Secretariat, the GMS Secretariat, and national repositories.

RESULTS AND FINDINGS

THE GREATER MEKONG SUBREGION (GMS) AND ITS DIGITAL TRANSFORMATION

If it is true that GMS's digital journey has started recently, it becomes imperative to ensure its sustainability. Digital transformation in the GMS has enormous potential, allowing its citizens to be an integral part of commercial and non-commercial online transactions, reducing operational costs, expanding business opportunities across borders, and fostering innovation in every sector (Ha and Chuah 2023). Yet, it could also create additional divisions between countries, driven by differences in development, readiness, infrastructure, and regulations. (Ha and Chuah 2023). The success of the GMS's economic development is also characterised by an uneven increase in socioeconomic vulnerabilities (Tanasugarn 2021). Countries like Vietnam have emerged as hot spots for growth and investments, driven by "heightened digital savviness and affluence" and a growing attention to nascent sectors like SaaS and Web3 (Temasek 2022). SaaS and Web3 applications are especially useful in applications related to education services, healthcare management, and agriculture-related solutions such as crop management, and weather forecasting. They can also support financial inclusion, and e-governance, and enhance the supply chain.

DIGITAL SAVVINESS AND OVERALL CONNECTIVITY

One aspect to consider is connectivity and digital savviness, mostly because the level of readiness largely differs across GMS members. Thailand and Vietnam represent the largest digital economies in the region, together with PRC's regional parts of the GMS (Suruga 2022). Considering the growing digital economies in ASEAN, under the Joint Statement Initiative on E-Commerce, a group of now World Trade Organisation (WTO) Members have been discussing issues related to digital trade, including digital transactions, consumer protection, and privacy, but not all members of the GMS are actively engaged in the discussion (Gonzalez 2020). Even if the overall quality of internet infrastructure in ASEAN can be considered satisfactory when compared to the world average, great gaps are still present in several areas, mostly for some of the members of the GMS, like Cambodia, Myanmar and Laos (Chen 2020a),

with internet penetration varying widely (Park, 2020). Chen noticed how the development of 4G infrastructure and access to electricity is still lagging in the previous countries, with large differences in terms of quality of service and internet speed across the region (Chen 2020a). For instance, according to the Speedtest Global Index by Ookla, Vietnam is the highest-ranked GMS member (excluding PRC) in terms of median mobile speed (ranked 52nd in the world), with Thailand holding the highest rank (6th) between the GMS (PRC excluded) for Fixed Broadband. Vietnam and Thailand are the top-ranking countries in the GMS (excluding PRC), with other members ranking lower, mostly in fixed broadband (Ookla 2023). Analysing the statistics by cities, Ho Chi Minh City is ranked 65th worldwide for median mobile speed, and Bangkok 5th for fixed broadband (Ookla 2023).

Table 1 - Ookla Speedtest Index (Ookla 2023)

GMS	Mobile	Fixed Broadband
	World Rank	World Rank
Cambodia	96	127
Laos	68	111
Myanmar	75	133
Thailand	54	6
Vietnam	52	39

Source: Ookla (2023)

By analysing the Oolka Speedtest Index, we notice a disparity among GMS members (excluding PRC). Similar observations are also highlighted by the GSMA Mobile Connectivity Index, which is an index developed by the GSMA (a global trade association representing the interests of mobile network operators) to gauge the level of mobile connectivity in countries (GSMA 2022). This composite index comprises four key components of mobile connectivity: infrastructure, affordability, consumer readiness, and content and services.

Table 2 - GSMA Mobile Connectivity Index 2022

GMS Countries	GSMA Mobile Connectivity Index	GSMA Level
Cambodia	55.7	Transitioner
Laos	53.3	Transitioner

Myanmar	52.1	Transitioner
PRC	79.1	Leader
Thailand	77.7	Leader
Vietnam	72.7	Advanced

Source: GSMA (2022)

The diversity within the region demands immediate attention, particularly for countries currently classified as 'Transitioners' by GSMA. It is important

Table 3 - Selected indicators on financial access by GMS state (ASEAN 2021)

Country	Bank branches per 100,000 adults	ATMs per 100,000 adults	Account holders at a financial institution or e-money service provider, per cent age 15+	Made or received digital payments in the past year, per cent age 15+				
	2010	2019	2010	2019	2011	2017	2014	2017
Cambodia	4.1	8.3	5.3	23.3	3.7	21.7	17.6	15.6
Laos	2.5	3.2	8.7	25.7	26.8	29.1	-	13.3
Myanmar	1.5	5.6	0.1	6.9	22.8	26.0	3.9	7.7
Thailand	11.0	11.2	81.9	115.1	72.7	81.6	18.1	22.7
Vietnam	3.2	4	17.0	25.9	21.4	30.8	17.6	15.6

Source: ASEAN (2021)

to understand that the process of improvement takes time and can't happen overnight. Some members, such as Cambodia, have already shown commitment and positive results, but there's still a long journey ahead. Collaboration with partners and a strong focus on digital transformation are crucial to ensure that digitalisation becomes more even across the region, promoting a unified approach to digital connectivity, including digital payments.

E-PAYMENT READINESS

Another challenge in the GMS lies in the considerable gap in e-payment readiness. This disparity encompasses not only regulatory and policy environments but also extends to innovative products and services. Additionally, it affects the interoperability of different payment platforms across countries, which remains a persisting issue in the region. (Chen 2020a). The 2022 Temasek report emphasised the significant growth of digital financial services (DFS) adoption in the region. This expansion is driven by a consistent shift from offline to online services, coupled with favourable conditions in the financial market over recent years and with banks and insurance companies digitising their services. (Temasek 2022). Another report from December 2022, published by the World Economic Forum (WEF), highlighted how digital payment (e-banking and e-wallets) apps were the most widely used applications, after social media, in the GMS region (Lee et al. 2022). As stated by Lee et al. (2022) "being digitally savvy and having a solid understanding of financial products correlate with strong adoption of financial services" (Lee et al. 2022). Yet, there are still significant gaps in financial and digital literacy among the population in the GMS.

The lack of interoperable international payment solutions, as mentioned before, limits MSMEs and others from international trade (Lee et al. 2022). To address this issue, the ASEAN Working Committee on Payment and Settlement Systems' Implementing Policy Guidelines (IPG) was introduced in 2020 (Lee et al. 2022). The Implementing Policy Guidelines is a set of guidelines created to facilitate cross-border retail payments within the ASEAN region. It outlines the principles, standards, and best practices that should be followed by payment service providers (PSPs) and other stakeholders involved in cross-border real-time retail payments, thus generating a more seamless and integrated payments landscape in ASEAN. Yet, the growth of digital payment in the GMS remains uneven.

The heightening of e-payments and e-commerce operations also depends on other factors, including: "consumers' digital literacy, the propensity to adopt new technologies, and to spend; market size which depends on population, demographics, and income; availability of quality information and communications technology (ICT) infrastructure; regulatory landscape; among others" (ASEAN 2021). The digital landscape in the GMS region, as illustrated in Table 3, exhibits disparities. These variations pose a potential obstacle to achieving a consistent and sustainable digital transformation throughout the region and establishing an inclusive regional digital economy that encompasses all member states.

Table 3 - Status of Digital Development in the GMS (ADB 2023a)

	Cambodia	Laos	Thailand	Vietnam
Mobile-cellular network coverage (per cent)	99 (2020)	95 (2020)	99 (2020)	100 (2020)
Households with Internet access at home (per cent)	21 (2017)	2 (2017)	85 (2020)	76 (2020)
Mobile-cellular subscriptions per 100 inhabitants	126 (2020)	56 (2020)	167 (2020)	143 (2020)
Individuals using the Internet (per cent)	33 (2017)	34 (2020)	78 (2020)	70 (2020)
Individuals with basic ICT skills (per cent)	29 (2017)	NA	17 (2019)	17 (2019)
Individuals with standard ICT skills (per cent)	3 (2017)	NA	8 (2019)	8 (2019)

Source: Asian Development Bank (2023)

Varying levels of infrastructure and the absence of a shared regulatory framework across the Greater Mekong Subregion (GMS) countries hinder the development of a uniform digital transformation, a common regional digital economy, and sustainable digital growth. In this regard, the ADB specifically stated how "financial regulations and risk mitigation measures must transform along with the digital transformation of financial services," with technological innovation in the financial services free to evolve in a free and competitive environment (ADB, 2023a).

In summary, from both a digital infrastructure and regulatory framework, the digital and financial readiness in the GMS remains uneven across its member states. To tackle these issues, cooperation was identified as the key enabler. Each GMS member should prioritise enhancing collaborations with fellow members, to establish a shared regulatory framework that promotes and facilitates cross-border digital payments within the GMS.

ACHIEVEMENTS AND PROGRESS OF SOME SELECTED GMS COUNTRIES FOR DIGITALISATION

ACHIEVEMENT AND PROGRESS OF CAMBODIA

The Royal Government of Cambodia (RGC) introduced the Cambodia Digital Economy and Society Policy Framework 2021-2034 as a key initiative to promote digital transformation and establish a thriving digital economy and society in the country. The framework was ideated with a three-pillar structure, where each pillar represents a fundamental component of a digital Cambodian ecosystem: digital citizens, digital business, and digital government.

In terms of digital citizens, the RGC adopted numerous policies to strengthen its education system, aligning it to the needs of a digital society, including the Science, Technology, Engineering & Mathematics (STEM) Education Policy 2016, the Technical and Vocational Education and Training (TVET) Policy 2017-2025, the Modernised TVET Strategic Action Plan 2019-2023, the Education Strategic Plan 2019-2023, the Cambodian Higher Education Roadmap 2030 and Beyond, and the STI Policy 2020-2030.

In terms of digital business, besides the initiatives regarding boosting

the telecommunications infrastructure by the Ministry of Posts and Telecommunications and the Telecom Law introduced in 2015, the E-Commerce law was adopted in 2019. Additionally, ongoing work includes the development and revision of regulations pertaining to cybersecurity and Information Technology Crimes. These efforts have been accompanied by remarkable growth and development of the digital payments ecosystem, with digital payments reaching nearly 1000 per cent of the national gross domestic product in 2022 (Kang 2023). This was also achieved through the creation of the KHQR code to promote Quick Response (QR) code adoption for payments (Kang 2023). Finally, an important step was also taken by the National Bank of Cambodia with the introduction of Bakong, "a peer-to-peer fund transfer service available to retail customers of local banks, financial institutions, and payment services providers in Cambodia" (NBC n.d.).

As for the third pillar of the framework, digital government is still in its early stages in the Kingdom. The process of digitalising ministries and, more broadly, public institutions is yet to achieve full harmonisation (RGC 2022). The absence of a national data centre, gaps in digital connectivity infrastructure across the country, and issues with the quality of service and financial resources have negatively impacted the speed of transformation in Cambodia (RGC 2022). To answer this, the RGC developed the Cambodia Digital Government Policy 2023-2035, providing ten clear strategies and 83 priority actions, including several projects to be conducted, with the vision to achieve success in its mission to a full digital transformation of itself. Also, a Digital Government Committee was established to ensure an effective setting and implementation of priority actions and mechanisms for this policy implementation across the nation.

ACHIEVEMENT AND PROGRESS OF LAOS

Regarding Laos, a list of Digital Government services for the government sector has been launched, including an E-Government platform with several services and mobile applications. Examples of mobile applications are the LaoKYC, the first digital ID service developed to support the track and trace operations during the pandemic, together with the Lao SUSU mobile applications for preventing and containing COVID-19 (Luanglath 2021).

In terms of policies, the Government of Laos introduced the National Digital Economic Development Vision for 2021-2040, the 10-year Digital Economic

Development Strategy 2021-2030, and the 5-year National Digital Economy Development Plan 2021-2025. Currently, the digital economy in Laos is estimated at roughly 3 per cent of its GDP and is forecasted to grow at 10 per cent by 2040. Yet, a 2022 World Bank report mentions that the digital economy and ecosystem in the country are lagging (The World Bank 2022; Tran, Phan, and Nguyen 2022). 94.2 per cent of enterprises are microbusinesses with low levels of digitalisation, and only 1 out of 7 households own a computer. Laos scores relatively common in the B2C e-commerce Index and the World Intellectual Property Organisation (WIPO) Global Innovation Index (117 out of 132 economies), ranking 131 out of 182 in Cybersecurity and 167 out of 193 in e-Government Development Index (The World Bank 2022).

In terms of digital payments, the national market for payments is widely served by the main commercial banks, with a still nascent Fintech ecosystem, two active mobile money providers, and a payment system infrastructure that has greatly improved in the past years, with several laws and provisions passed to boost the development of a financial ecosystem (The World Bank 2022). Yet, the interoperability of ATMs is still limited, with only 15 banks being connected to the Laos National Payment System (LAPNet) (The World Bank 2022). Also, in terms of education, there are significant socioeconomic inequalities among Laotian children, with large disparities between the capital, Vientiane, and the other provinces (Kamiya and Nomura 2023). To enhance education and align it with the current objectives of digital transformation, the 9th Five-Year National Education Plan for 2021-2025 aimed to improve teachers' performance. This was to be achieved through the development of pedagogical curricula customised to innovative digitalisation (Onphanhdala and Philavong 2022), Furthermore, this initiative was intended to support the ongoing digital transformation of the labour market, which currently has a significant focus, approximately 40 per cent, on the agriculture sector (Carbonero et al. 2023).

ACHIEVEMENT AND PROGRESS OF MYANMAR

The government of Myanmar has set the vision for achieving its digital transformation with the development of the Framework for Economic and Social Reform 2012-2015, the release of the e-Government Master Plan 2016-2020, and the 2019 Digital Economy Roadmap. In 2019, to improve its situation on ICT development and e-government development, the Government released the Myanmar Digital Economy Roadmap 2018-25, striving to facilitate

the integration of digital technology in government, trade, and investment, promote the growth of digital competencies and cybersecurity, and simultaneously stimulate innovation (OBG 2020). Furthermore, acknowledging the significance of cybersecurity in a digital economy, the government has also been working on vital enabling legislation related to cybersecurity, digital documents, signatures, and payments. (Hoem et al. 2021). Yet, according to the ITU ICT development index, Myanmar was one of the weakest countries in ASEAN, with challenges related to poor telecommunications infrastructure and a lack of digital talent. In 2000, the Government initiated an ICT masterplan, which underwent several renewals (Machmud, Widiyan, and Ramadhani 2021), resulting in overall improvements. However, these advancements have been periodically hindered by internal political instability. Consequently, the progress achieved in the past decade has been significantly hampered. It remains under threat due to ongoing restrictions and a series of partial or total internet shutdowns following the military coup in 2021. These disruptions have had adverse effects on household welfare, organisational operations, and investor confidence (Srinivasan, Singh, and Aliyev 2022).

ACHIEVEMENT AND PROGRESS OF THAILAND

Digital transformation in Thailand has been moving faster than expected, in accordance to a 2022 Survey from Deloitte, with 56 per cent of companies included in the study having already transitioned to a digital adoption stage, compared to the 12 per cent figures reported pre-pandemic (Chutijirawong, Ekviriyakit, and Hora 2022). Except for Robotics, other prominent technologies, such as the Internet of Things (IoT), cloud technology, and mobile applications, have seen a sharp increase in their applications in the Kingdom.

In 2016, Thailand 4.0 was launched, placing a marked focus on innovation and high-level services, fuelled by advanced digital technologies (MFA 2016). Innovative and advanced technology areas, such as artificial intelligence, aerospace, electric vehicles, and smart farming, have seen an increase in startups in the country, fostering investments and aligning with the nation's efforts to gain technological capabilities (Alita 2019b). This approach is outlined in the country's economic model, which also focuses on attracting large investments from commercial giants across the world and providing continuous support to its organisations in their digitalisation journeys (Alita 2019a). These initiatives, driven by Thailand 4.0, have aimed to advance the

Thai economy by leveraging technology and innovation based on smart city, smart industry, and smart people and focusing overall investments on productivity enhancement and development of targeted areas, including the Eastern Economic Corridor and border special economic zone (Thailand Board of Investment 2017). An investment policy framework was created by the Thailand Board of Investment, including policies on foreign ownership, and import-export regulations, facilitation on work permits, visa, and land ownership, and tax incentives on research and development, innovation and technology-oriented programmes (Thailand Board of Investment 2017).

Also, a strong focus is placed on e-government. Specifically, the Thailand Digital Government Development Plan was created in two phases: the first one, called the Three-year Digital Government Development Plan (2016-2018), focuses on building up 18 capacities, and the second phase, ranging from 2017 to 2021, which adds 8 accommodations (EGA 2017). In the first phase, focus was placed on four macro areas, namely government integration, smart operations, citizen-centric services, and driven transformation. Also, for 2023, Thailand remarked its commitment to pursue a steady development of its digital economy and society, approving a Long-Term Plan (2023-2027) including the Fund's Operational Plan and Budget for the fiscal year of 2023 as a guide for future operations, and highlighting areas such as health technology, security, digital government, education and agri-tech as important focus areas (Ocampo 2022).

ACHIEVEMENT AND PROGRESS OF VIETNAM

Vietnam stands out as a remarkable success story in development, transitioning from a low-middle income country with a socialist-oriented market economy in 2009 to becoming one of the world's prominent emerging markets, where it is currently advancing through the first phase of industrialisation (Anh 2021). In terms of policies, in October 2017, the Vietnam E-commerce and Digital Economy Agency was established, followed by the 2020 release of the national digital transformation strategy, representing a year of deep and comprehensive national digital transformation (Anh 2021). This strategy opened the doors to the National Digital Transformation programme, initiated with a focus on fostering the development of digital government, digital economy, digital society, and thus "forming Vietnamese digital technology enterprises with global capacity" (Anh, 2021 p. 68).

The country has experienced a sharp acceleration of digitalisation among its enterprises, with a jump from 48 per cent to 73 per cent of them having a digital presence in only six months from June 2020 to January 2021 (SoA 2022). In the same period, an increase in expenditure from organisations on software and hardware was recorded (SoA 2022). Additionally, the government of Vietnam pushed forward its digital transformation process, increasing the rate of service offered to citizens in digital means, and in January 2022, 47.78 per cent of the administrative services provided to Vietnamese were conducted online, an increase forecasted to grow in the following years, as suggested by Vietnam's Prime Minister (SoA 2022).

Following the Ministry of Information and Communications of the Socialist Republic of Vietnam, almost half of the total enterprises in the country carried out digital transformation during the pandemic. Still, many have stopped doing so due to a lack of skilled personnel, unsuitable applications, and no demand for them, and only roughly 2 per cent reported to have mastered the usage of digital technologies for their business processes (MIC 2023). Yet, in 2022, Vietnam ranked 63rd out of 113 global economies in the global ranking of digital environments and support mechanisms for entrepreneurs (Samaya 2023). To ensure the continuation of such digitalisation processes, the Prime Minister called for "fundamental and comprehensive reforms in digital transformation to enhance labour productivity and the competitiveness of both enterprises and the nation," aiming to foster the development of "an independent and self-reliant economy that can integrate extensively and effectively with the global economy" (Samaya 2023). Yet, at this stage, the secondary sector is still facing challenges, as pointed out by a report from RMIT University, where the authors found that the secondary sector of State-Owned Enterprises and SMEs is lagging compared to the first and third sectors in terms of a perceived readiness for digital transformation, highlighting challenges in poor oriented strategy within the enterprise, and negative perception of digital competencies between the employees and somewhat negative perception of data-oriented technology investments (Walkins et al. 2021).

COOPERATION TO ENHANCE REGIONAL CONNECTIVITY AND INNOVATION

Regional cooperation in the GMS is not a recent development. With assistance from the ADB, the 6 GMS countries joined a programme of subregional

economic cooperation to enhance regional economic relations, known as the GMS Economic Cooperation Programme (GMS Secretariat 2021). With the support from several donors, including the ADB, the programme supports the implementation of high-priority subregional projects in several areas such as agriculture, energy, environment, health, information and communication technology, and tourism, to name a few (GMS Secretariat 2021).

In this context, the Greater Mekong Subregion Secretariat highlights digitalisation as a critical, cross-cutting enabler that underpins all three pillars: connectivity, competitiveness, and community (GMS Secretariat 2022b). Accounting for the importance of cooperation to ensure a more inclusive and connected region, digital infrastructures (including access to electricity and mobile and fixed broadband internet connection) and a common regulatory framework for digital payments, the Greater Mekong Subregion Secretariat (GMSS) called for regional cooperation across the spectrum of digital transformation: "We emphasise the need to cooperate in the digital economy under GMS Programme by accelerating digital connectivity in the subregion, enhancing digital competitiveness to maximise the benefits of the Fourth Industrial Revolution, and promoting digitalisation for sustainable and inclusive national and subregional economic growth" (GMS Secretariat 2022a). Regions like the GMS face numerous challenges in the digitalisation sphere, including the need to improve logistics, connections, skills, and accessibility to the digital world, all while tackling an increasing threat of widening inequalities in the region (Chen 2020b). These same challenges are exacerbated by the pressure placed on countries to embrace this fast-paced digital transformation.

The objectives of the Digital Economy Cooperation Initiative have been to promote trade facilitation, expedite digital connectivity, encourage digital technology innovation, accelerate digital finance development, improve digital inclusiveness, and advance digital governance (GMS Secretariat 2022a). These goals could be achieved through collaboration between the involved stakeholders, namely cooperation in the digital sectors, on digital infrastructure, in digital innovation, regional digital financial cooperation, digital inclusion, and in digital governance systems and capabilities (GMS Secretariat 2022a).

Table 4 - Areas of Cooperation under the Digital Economy Cooperation Initiative (GMS Secretariat, 2022a)

Areas of Cooperation	Aims
Advancing cooperation in digital sectors	Promotion of digital industrialisation and industry digitisation, leveraging innovation and digital models (e-invoices, e-payments, e-authentication, e-signatures, online payments, and consumer protection).
Enhancing cooperation on digital infrastructure.	Promotion and prioritisation of common projects to enhance the digital infrastructure (5G, optical fibre broadband, and data centres) in the region.
Promoting digital innovation.	Promotion of digital software to use the current infrastructure and foster cooperation on the usage of emerging technologies.
Advancing regional digital financial cooperation.	Cooperation and communication between national, regional, and international financial institutions to foster the development of a regional digital economy.
Deepening cooperation on digital inclusion projects.	Supporting each other's capacity-building processes, offering technical assistance, and sharing experiences.
Strengthening cooperation on digital governance systems and capabilities.	Strengthening communication and discussion on policies and international rules.

Additionally, on the GMSS website, it is possible to see a map of current projects' results of the cooperation between countries (GMS Secretariat 2023). Filtering by area of interest in Information Communications Technology, six projects emerged: (1) Cross-border International Interconnected Bandwidth Expansion Project, (2) Workshop on International Roaming for all Operator/ Regulators in GMS Countries, (3) Broadband Development Strategies and

Implementation Programmes of the GMS (TA), (4) Training in Quality of Experience (QoE) in Voice/Data Services over Communication Network Monitoring, and (5) Workshops on E-Commerce Cooperation and Exchanges in GMS (GMS Secretariat 2023). However, the latest input on the website is dated 5 July 2021.

Even with IT infrastructure and regulatory framework in place to facilitate international digital payments, enhancing the capacity to transport goods and enable personal mobility across the GMS remains crucial. Chen (Chen 2020b) highlighted that the GMS currently has three major economic corridors: the North-South Corridor, the East-West Corridor, and the Southern Corridor, where priority has been placed on improving logistic linkage, including roads and rails. Logistics network design is a fundamental aspect of enhancing the efficiency and effectiveness of the trading and transportation of goods in a region (Wang et al. 2021). The ASEAN logistics network, which includes some of the GMS members, is evenly distributed with five hub cities (Nguyen, Nguyen, and Zhang 2021). Among them, Singapore serves as the central hub city, thanks to its notable geographical advantage and advanced and comprehensive infrastructure, supported by strong overall economic development. This places Singapore as the top-ranked city in the ASEAN region, primarily due to its highly effective logistics services. (Nguyen, Nguyen and Zhang 2021). Analysing the Logistic Performance Index, Laos (2.44) and Cambodia (2.15) are ranked as countries with significant challenges, and Myanmar (2.00) scores even lower, falling in the category of the country with major challenges (SDG n.d.). Of the GMS members, only PRC (3.75), Thailand (3.14), and Vietnam (3.01) fall in the category of "on track" in terms of the achievement of the Sustainable Development Goal Nine, namely Infrastructure, Industry, and Innovation (SDG, n.d.).

The European Central Bank (ECB) defines innovation as an element that describes "the development and application of ideas and technologies that improve goods and services or make their production more efficient" (ECB 2021). Innovation can foster higher productivity, which in turn has positive effects on economic growth (ECB 2021). Barrichello et al. (Barrichello, Santos, and Morano 2020) found that factors such as Capacity for Innovation, Quality of Scientific Research Institutions, Company Spending on Research and Development (R&D), University-Industry Collaboration in R&D, Government

Procurement of Advanced Technology Products, Availability of Scientists and Engineers and PCT Patent Applications are fundamental for countries in their development process, adding the necessity to include them in their public policy and enterprises' strategic planning. However, examining the United Nations (UN) WIPO Global Innovation Index (GII) reveals a distinct division within the GMS, mirroring the situation observed in infrastructure and digital connectivity.

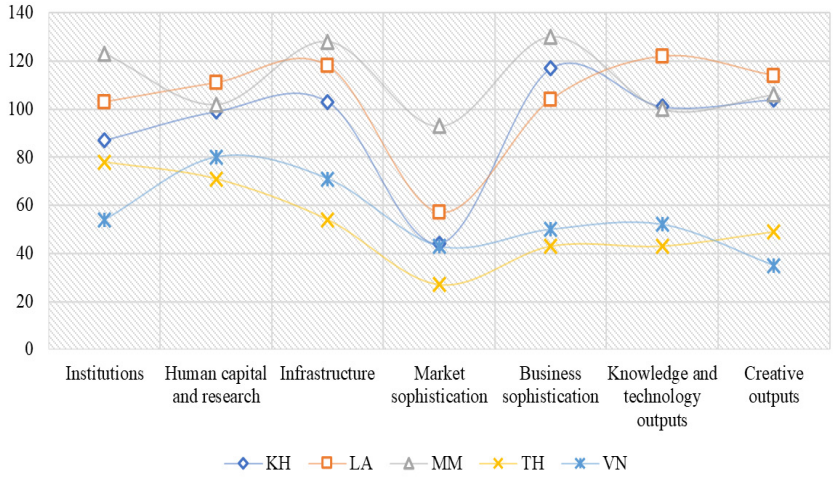

Figure 1 – Global Rank of GMS Countries in the Seven GII Pillars. Data Source: (WIPO 2022)

For instance, in PRC (no data specific to the two regions included in the GMS is available), Thailand scored 43rd in the world rank for innovation, excelling in market sophistication, knowledge, and technology output. Their strengths are in human capital and research (expenditure on education and overall analysis), whereas their institutions (political, regulatory, and business environment) are presented as their weaknesses (WIPO 2022). Following Thailand, Vietnam scored 48th, with an overall positive relationship between innovation and its development. Their strengths lie in their creative output and market sophistication. Cambodia scored 97th in the world, 17th among 36 lower-middle-income group economies, and 15th among 17 economies in SEA, East Asia, and Oceania (WIPO 2022). The country shows strong levels of market

sophistication and institutions; however, it has weaker levels in business sophistication, creative outputs, and infrastructure, with low expenditure in education and research output, and producing a lower degree in innovation-related production when compared with the degree of innovation-related investments (WIPO 2022). Laos performed below expectations in terms of innovation concerning its development, particularly in infrastructure, knowledge, and technology outputs. (WIPO, 2022). Myanmar ranked 116th among 132 economies featured in the GII 2022, with major weaknesses in institutions, infrastructure, and business sophistication, staggering the country's innovation capabilities (WIPO 2022).

The Organisation for Economic Co-operation and Development (OECD) defines innovation collaboration as the active involvement with other organisations in joint innovation projects, excluding the practice of outsourcing innovation-related work. It can also "involve the joint implementation of innovations with customers and suppliers, as well as partnerships with other firms or organisations" (OECD 2017). Furthermore, the OECD defines international collaboration on innovation as active cross-border participation in innovation collaborations (OECD 2017). Collaboration, when facilitated through knowledge management processes, enables knowledge transfer and can greatly benefit organisations. As mentioned by Bai and Li (2020), collaborative knowledge innovation management is correlated with the ability of organisations to promote innovation and effectively manage it (Bai and Li 2020). Collaboration between government, industry, and universities is a known recipe for effective innovation. Governments can promote innovation by fostering an 'innovation state,' cultivating collaborative relationships that enhance productivity in science and technology (Etzkowitz 2015). In his work, Etzkowitz (2015) highlighted how empirical studies have demonstrated the effectiveness of the Triple Helix framework in examining the governance and coordination of innovation processes, particularly in transforming knowledge into technology and innovation. However, the collaborative approach to promoting innovation is not a one-size-fits-all solution and entails several challenges that must be addressed to ensure its effectiveness. For instance, realising the need to collaborate and acknowledge the benefits, identifying and assessing the right partners, and implementing the partnership in an effective way to promote innovation are common issues faced by small and medium enterprises (Akinremi and Roper 2021).

Collaboration plays a pivotal role in fostering a sustainable digital

transformation throughout the GMS, ensuring a consistent and effective approach across all stakeholders. Key areas for consideration and joint efforts within the GMS include the advancement of digital sector cooperation, improvement of digital infrastructure collaboration, promotion of digital innovation, bolstering regional digital financial cooperation, the expansion of digital inclusion projects, and enhancing cooperation on digital governance systems and capabilities.

CONCLUSIONS AND POLICY IMPLICATIONS

To summarise, before discussing digitalisation in the GMS, a distinction must be made between digitisation and digitalisation. Where digitisation, the process of converting analogue data to a digital format, serves as a precursor to digitalisation, the transformation of business processes using digital technology.

Digitalisation has significant potential in the GMS; however, there are notable disparities. These disparities in digital literacy, economic well-being, and infrastructure present a considerable challenge, impeding progress and the full realisation of digitalisation's advantages. For example, rural villages face constraints in accessing education and training, exacerbated by economic inequalities and hindered by unreliable internet and electricity access, creating barriers to adopting digital services and technology. To tackle these issues, there is a need for investment and improvement in infrastructure, where both connectivity and the power needed to run digital devices are readily available. Additionally, the promotion of digital literacy and further harmonisation of e-payment systems will set a foundation for a more sustainable and inclusive digitalisation in the region. The harmonisation relies on two key factors: the state of digital infrastructure and digital readiness among citizens in each member state, as well as the establishment of a shared regulatory framework across all countries, addressing both cross-border and domestic digital payments.

- In terms of policy implications, it is recommended GMS members initiate the creation of a direct and efficient discussion and collaboration platform between the members to foster collaboration and exchange of data and better coordinate for common policies and timeline, ensure that digital development can move forward more coherently across the

members. This would be the starting point to foster the achievements of the following suggestions.

- To enable digital payments to cross borders, a common platform for digital payments should be developed to foster economic collaboration and investments and enhance the market size for GSM member states, supporting those countries which, per se, may represent a small market, like Cambodia or Laos.
- GMS could largely benefit from an increased collaboration on the creation of a transportation infrastructure that may benefit all the countries through an enhanced ability to move goods and people. A coordinated action should be prioritised for the creation of a common roadmap that would support not only the infrastructure at a national level but, rather, the development of an infrastructure that could efficiently connect the GMS countries for an overall enhanced movement of people and goods.
- To foster digital development and technological spillover, GMS could establish a study group for the draft of possible common programmes, to adhere to all the members for the development of technological spillover, know-how sharing, and facilitation in terms of investments across borders in the fields related to advanced technology and innovation.
- Since higher education institutions would play an essential role in this process, GMS should consider the establishment of a network of universities and companies across the members for facilitating student exchange and internship programmes, thus fostering knowledge sharing.

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CHAPTER 5
DO NATIONAL DISTANCES MATTER TO THE AGRICULTURAL EXPORT PERFORMANCE OF VIETNAM?

Tu Thien Tran and Dut Van Vo

ABSTRACT

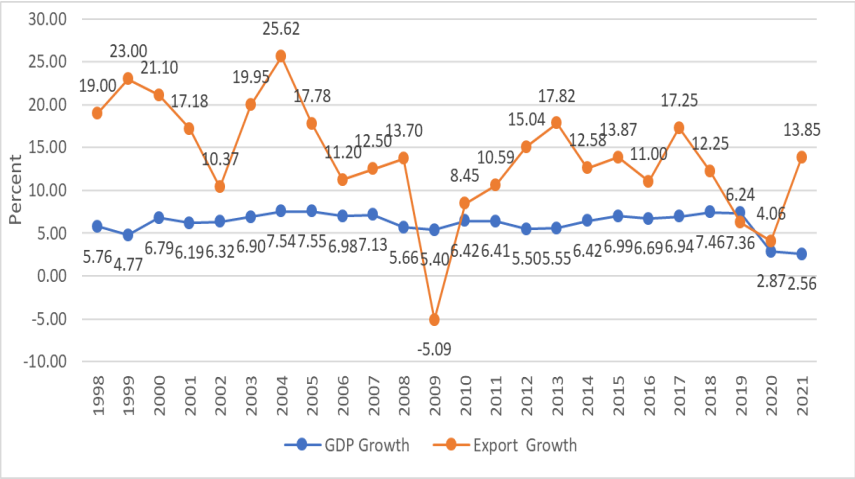
The majority of trade literature illustrates that the performance of a nation's agricultural exports is likely to depend on national distances between home and host countries, including geographical, economic, cultural, and institutional distances. This study aims to estimate the effects of these distances on the agricultural export performance of Vietnam. Panel data were collected from 36 trading partners with Vietnam in 2015 and 2020, and random effects regression models were employed to estimate the impact of multidimensional distance on Vietnam's agricultural export performance. The results revealed that economic, cultural, and institutional distances were positively and significantly associated with Vietnam's agricultural export performance. However, geographical distance significantly hindered Vietnam's agricultural trade due to persistent transportation costs. The study concludes that exporting is the most advantageous strategy for Vietnam's agricultural products due to the scale and complementary nature of international trade. Moreover, exporting is a low-risk and low-resource-commitment approach in the short term. This conclusion is supported by the implementation of policies that promote export activities and assist agricultural producers in adapting to increasingly stringent international standards regarding quality and public health.

Keywords: Agricultural export performance; multidimensional distance; Vietnam

BACKGROUND

Since the introduction of the "Doi Moi" reform policy in 1986, Vietnam's economic development and trade expansion have become closely intertwined (Nguyen and Wu 2020). This reform saw Vietnam transition from a centrally planned economy to a "socialist-oriented market economy" (Vo et al. 2018, 2021). Over the past three decades, Vietnam's reforms have placed a strong emphasis on expanding exports (Athukorala 2009), as rapid export growth is crucial for the sustainability and economic benefits of these reforms. From 1998 to 2021, Vietnam's average export growth rate was approximately 13.72 per cent, while its average GDP growth was around 6 per cent (Figure 1). Exports of agricultural products are vital for economic growth, especially in emerging countries like Vietnam. These exports provide significant benefits to developing nations by increasing income for domestic agricultural businesses and traders, improving the quality of agricultural production

Figure 1. Annual GDP growth and annual export growth of Vietnam from 1998 - 2021



Source: Authors' calculation from GSO Database, from 1998 to 2021.

decades, Vietnam's reforms have placed a strong emphasis on expanding exports (Athukorala 2009), as rapid export growth is crucial for the sustainability and economic benefits of these reforms. From 1998 to 2021, Vietnam's average export growth rate was approximately 13.72 per cent, while

its average GDP growth was around 6 per cent (Figure 1). Exports of agricultural products are vital for economic growth, especially in emerging countries like Vietnam. These exports provide significant benefits to developing nations by increasing income for domestic agricultural businesses and traders, improving the quality of agricultural production throughout the cultivation, storage, and transportation stages, boosting foreign exchange reserves, and stimulating overall economic growth (Xu and Nam 2023). Furthermore, Export is the most prevalent form of engagement in international trade due to its low business risk, minimal resource commitment, and high degree of flexibility (Dunning 1993; Uner et al. 2013).

There are various studies (Nguyen 2022; Vu et al. 2019; Linh et al. 2019; Bui and Chen 2017) investigating Vietnamese agricultural exports, and most of them applied the gravity model to indicate determinants of Vietnam's agricultural trade. Although distance is a key factor affecting international trade in agricultural products (Wu et al. 2020), prior studies (Nguyen 2022; Thuong 2018; Vu, et al. 2019) mostly focused on geographical distance, which is the only distance presented for the whole distance dimension in Vietnam's agricultural trade. However, this paper will investigate multidimensional distance (geographical, economic, cultural, and institutional) to explore the distance puzzle in Vietnam's agricultural export performance.

This study aims to develop and empirically test a theoretical framework that examines the influence of geographical, economic, cultural, and institutional distances on Vietnam's agricultural export performance by applying trade policy theory and transaction cost theory (Linders et al. 2005; Xing et al. 2022). The research will analyse data from six years (2015-2020) and focus on Vietnam's 36 main trading partners, selected based on the export value of ten key agricultural products. The empirical findings are expected to provide new insights that illustrate the relationship between the four core distances and Vietnam's agricultural export performance. The study also aims to address two critical questions that could provide valuable insights for policymakers and business leaders to make informed decisions, particularly concerning the selection of export markets for Vietnam's agricultural products. The first question seeks to understand the current state of Vietnam's agricultural export performance. The second question investigates whether Vietnam's agricultural export performance is influenced by multinational distances, such as economic, cultural, and institutional distances, in addition to the conventional geographical distance in international trade.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Agricultural products are defined by the Food and Agriculture Organisation (FAO) and the World Trade Organisation (WTO) as any commodity, whether raw or processed, that is offered for human consumption (apart from water, salt, and additives) or for feeding livestock (FAO and WTO 2006). Additionally, based on the WTO's Agreement on Agriculture (AoA), agricultural products include all goods listed in Chapters I to Chapter XXIV (except fish and fish products) and some products of other chapters of the Harmonised System (HS) Code Tax System. The HS code tax system classifies all remaining products as non-agricultural (sometimes known as industrial) products. Consequently, a wide variety of items resulting from agricultural operations are included in the term "agricultural products," such as (i) basic agricultural products, including rice, wheat, flour, milk, livestock, coffee, pepper, cashew nuts, tea, and fresh vegetables; (ii) derivative products, such as meat, butter, oil, and bread; and (iii) agricultural products that have been processed into sweets, dairy, sausages, soft beverages, alcohol, tobacco, cotton fibres, etc. (FAO and WTO 2006).

However, Vietnam's definition of agricultural goods differs from that of the World Trade Organisation (WTO) and the Food and Agriculture Organisation (FAO). While the FAO and WTO do not classify products from agriculture-forestry-fishery processing industries as agricultural, Vietnam considers these industries part of its agricultural sector. Decree 57/2018/ND-CP outlines processes and policies to encourage agricultural investment in Vietnam and identifies the country's key agricultural products, which include rice, coffee, rubber, cashew, pepper, tea, vegetables, cassava and its derivatives, fishery products (mainly from catfish and shrimp), wood, and wood products.

Our decision to analyse Vietnam's agriculture industry in the context of international trade was driven by two key factors. First, the series of "Doi Moi" (renovation) reforms launched by Vietnam in 1986 aimed to gradually transition the country's economy from central planning to a regulated market-based system, with the ultimate goal of achieving economic prosperity (Vo et al. 2021). As a result of these reforms, the agriculture sector has become a dominant force in the Vietnamese economy (Wo et al. 1997; Hoang 2018; Young et al. 2002; Van de Walle and Cratty 2004). Furthermore, Vietnam's agricultural sector has experienced rapid growth, making it a significant player in the global agricultural market. The country boasts the fastest pace of

agricultural land expansion in Southeast Asia (Hall 2009) and has transformed its agricultural exports from being threatened by hunger to ranking second in Southeast Asia and fifteenth worldwide (World Bank 2016). Vietnam's plant-based agriculture is thriving, and the country's selection by the United Nations (UN) to host the 4th Global Conference of the One Planet Network's Sustainable Food Systems Programme in 2023 further underscores its importance in the global agricultural landscape. Over the past 40 years, the agricultural sector has played a crucial role in Vietnam's industrialisation, modernisation, and economic stability, particularly by providing a layer of protection for the entire economy during recessions (Ha 2021).

Second, despite Vietnam's efforts and successes in integrating its agricultural exports into the global market, the country faces numerous challenges, particularly in terms of the various "distance" dimensions between Vietnam and its import partners. This perspective aligns with the transaction cost theory applied to international trade. According to den Butter and Mosch (2003) and He et al. (2016), establishing economic links between two countries can be challenging due to differences in language and cultural norms. Moreover, disparities in legal and governmental operational systems can make it difficult for parties to commit to their business activities. Consequently, distance factors influence transactions between countries through trade costs, which, as a source of comparative advantage, can impact the structure of a country's exports. Although several studies have examined Vietnam's bilateral agricultural trade at both the aggregate and commodity levels (Bui and Chen 2017; Nguyen 2022; Tran et al. 2019; Linh et al. 2019), these studies have primarily considered geographic distance, which is the traditional distance factor in international trade (Anderson and van Wincoop 2003; Eaton and Kortum 2002; Chany 2008).

However, it is essential to define and measure cross-national distance along various dimensions in international trade (Berry et al. 2011), beyond traditional factors such as geographic and economic distance, to determine the effects of distance variables on agricultural exports and explore ways to optimise Vietnam's agricultural exports. It is widely recognised that each country has a unique institutional framework that imposes legal and unofficial constraints on individual and organisational behaviour (North 1990; de Jong et al. 2015). Drawing on this institutional perspective, this paper argues that the differences in regulatory (formal institutional distance) and cultural (informal institutional

distance) frameworks between Vietnam (the exporter) and its trading partners (the importer) have a profound influence on the bilateral agricultural trade between Vietnam and other countries. Geographical distance is a fundamental element of international trade (Anderson and van Wincoop 2003; Hummels 2007) that indirectly impacts bilateral trade by increasing transportation and other trade costs. As the distance between two countries grows, difficulties in transporting goods arise, such as risks in transportation and the need for cargo insurance, which increase trade friction. Conversely, a shorter physical distance results in lower transportation costs, thereby promoting agricultural export activity (Xing et al. 2022). Based on this understanding, the following hypothesis is proposed:

HYPOTHESIS 1: GEOGRAPHICAL DISTANCE UNDERCUTS THE AGRICULTURE EXPORT PERFORMANCE OF VIETNAM

The economic distance among various nations and its impact on inter-country trade is significantly influenced by the wealth or income streams among consumers, a factor that has been brought up by numerous international business scholars (Caves 2007). As globalisation continues to expand, economic distance has progressively become a key factor in determining trade costs (Zheng and Zhuang 2020). GDP per capita is typically used to assess economic distance. The results obtained through the application of the gravity model suggest that a higher GDP or GDP per capita will promote international trade, including the trading of agricultural products (Nguyen 2022; Dascal et al. 2002; Pietrzak and Łapińska 2015). Consequently, a larger income disparity between countries is likely to increase the volume of agricultural product trade.

HYPOTHESIS 2: ECONOMIC DISTANCE HAS A POSITIVE EFFECT ON THE AGRICULTURAL EXPORT PERFORMANCE OF VIETNAM

According to North (1990), informal institutions, or codes of behaviour, can correspond to culture within the Hofstede framework. Differences in religion, beliefs, race, social norms, and language (Hofstede 2001; Kogut and Singh 1988) can increase the distance between two countries, increasing the cost of transactions (Fratianni and Kang 2006). To account for these factors, numerous studies (Bui and Chen 2017; De Groot 2004; Doanh and Heo 2009) have incorporated dummy variables into the fundamental trade-flow gravity

equation, indicating whether trading partners share a common language, religion, or colonial history. Vietnam is a culturally diverse country, but the role of cultural diversity in bilateral trade has not been fully explored. Most scholars analysing bilateral trade flows in Vietnam, particularly in the agricultural sector, have relied on conventional dummy variables in the gravity model. In contrast, China, a nation with numerous cultural distinctions, has attracted more attention to the cultural components of international trade. The majority of findings suggest that trade costs often increase as cultural distance grows, indicating that cultural distance can have a detrimental effect on commerce. To better understand the impact of cultural distance on bilateral trade, it is essential to move beyond simple dummy variables and adopt more nuanced measures of cultural distance. This approach can provide a more comprehensive understanding of how cultural differences between trading partners influence trade flows. By considering the specific cultural characteristics of Vietnam and its trading partners, researchers can gain valuable insights into the role of culture in shaping bilateral trade patterns, particularly in the context of agricultural products. This understanding can help policymakers and businesses develop strategies to navigate cultural barriers and foster more effective trade relationships.

HYPOTHESIS 3: CULTURAL DISTANCE HAS A NEGATIVE EFFECT ON THE PERFORMANCE OF VIETNAM'S AGRICULTURAL EXPORT

Institutional factors, alongside cultural variations, significantly influence global trade flows. A nation's formal institutions, such as its legal system and legislature, play a crucial role in determining trade security (de Jong et al. 2015; Vo et al. 2018). The efficiency of a nation's formal regulations directly impacts interpersonal trust and commercial practices. Regional differences in the enforcement of property rights and trade agreements can create environmental uncertainty, leading to tensions between trading partners. Poorly established institutions increase transaction costs and hinder international trade (Wei 2000; Linder et al. 2005). Consequently, the institutional distance between nations and the quality of their institutional environments are significant determinants of bilateral commerce. Countries with better institutional quality have fewer trade barriers, which is advantageous for international commerce (Bojnec and Fertő 2009). However, Vietnam's institutions differ substantially from those of established Western nations, creating challenges for international trade, particularly in agricultural products. In this respect,

Vietnam must focus on improving its institutional framework, aligning it with international standards, and reducing the institutional distance between itself and its trading partners. By taking proactive steps to bridge the institutional gap, Vietnam can unlock the potential for increased international commerce in the agricultural sector.

HYPOTHESIS 4: INSTITUTIONAL DISTANCE HAS A NEGATIVE EFFECT ON THE PERFORMANCE OF VIETNAM'S AGRICULTURAL EXPORT

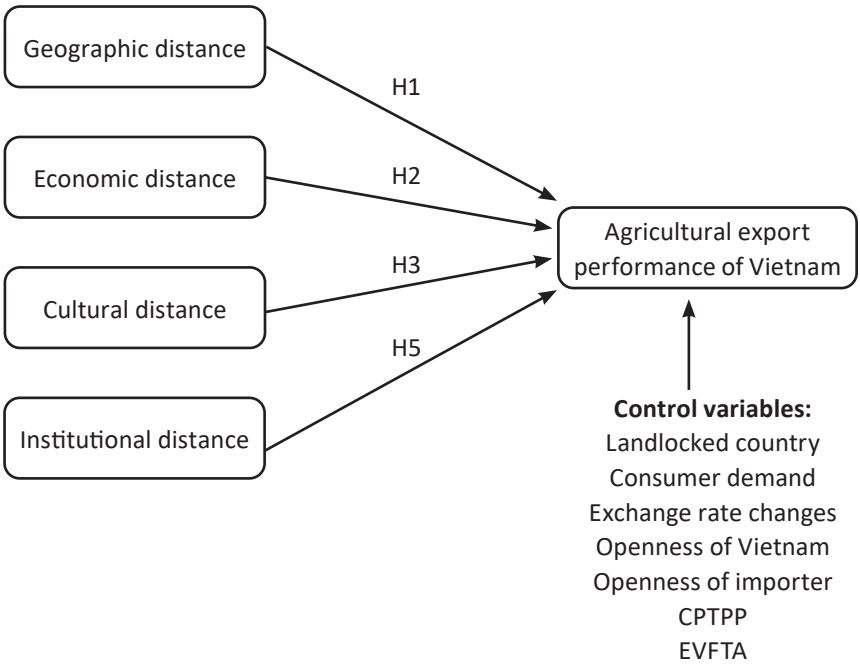


Figure 4. Theoretical model of the effects of national distances on agricultural export performance of Vietnam

RESEARCH METHODOLOGY

To test the hypothesis, we utilised a diverse range of data sources, including the General Statistics Office (GSO), World Development Indicator (WDI), and CEPII. The data for the dependent variable, agricultural export performance, was obtained from the national-level dataset on Vietnam, collected and organised by the GSO in their annual Vietnam International Merchandise Trade survey from 2015 to 2020. The GSO database's advantage lies in its systematic data collection using standardised methods, ensuring representative coverage for the investigated merchandise trade and enabling relatively large sample sizes for statistical analysis. Data for the four core independent variables and a set of control variables were extracted from the WDI and CEPII databases.

These databases provided information on 36 trading nations, allowing us to calculate the geographical, economic, formal, and informal institutional distances between Vietnam (the home country) and its 36 trading partners (host countries). By combining data from these reliable sources, we were able to construct a comprehensive dataset that captures the various dimensions of distance and their potential impact on Vietnam's agricultural export performance. The large sample size and the longitudinal nature of the data (2015-2020) allow for robust statistical analysis and the identification of trends over time.

However, it is important to acknowledge potential limitations, such as the reliance on secondary data sources and the possibility of missing or incomplete data for some variables or countries. Despite these challenges, the careful selection and integration of data from reputable sources ensure that our analysis is based on the best available information and provides valuable insights into the relationship between distance factors and Vietnam's agricultural export performance. The number and distribution of these 36 countries are represented in Table A1 (see Appendix). Asia accounts for the largest proportion of Vietnam's agricultural trade (16 countries, 44.44 per cent), followed by Europe (14 countries, 38.89 per cent), America (3 countries, 8.33 per cent), the Pacific (2 countries, 5.56 per cent), and Africa (1 country, 2.78 per cent).

The study has certain limitations that present opportunities for future research. One of the main limitations is that the data used in this study only

allows for an overall assessment of Vietnam's agricultural export performance, without providing a detailed breakdown of the regional distribution of export values within the country. The results indicate that the export values are not evenly distributed across Vietnam, with the Mekong Delta and the Red River Delta regions accounting for a significant portion of the country's agricultural exports (GSO 2020). To gain a more comprehensive understanding of Vietnam's agricultural export performance, future research could focus specifically on these key regions or the main agricultural-producing provinces. By conducting a more targeted analysis of the Mekong Delta and the Red River Delta, researchers can delve into the specific factors that contribute to the concentration of export values in these areas.

Furthermore, given the persistent challenges posed by distance effects in international trade, future research could explore the impact of advancements in domestic production technology on Vietnam's agricultural exports. As the country invests in improving its agricultural production capabilities through technological innovations, it would be valuable to assess how these developments influence the competitiveness and performance of Vietnam's agricultural exports in the global market (Nguyen et al. 2019). By examining the interplay between regional dynamics and technological progress, future studies can provide a more nuanced understanding of the factors that drive Vietnam's agricultural export success, informing targeted policies and strategies to support the growth and competitiveness of the country's agricultural sector.

The dependent variable of our study is the agricultural export performance, which is defined as the primary agricultural products of Vietnam according to Decree 57/2018/ND-CP, including rice, coffee, rubber, cashew, pepper, tea, vegetables, cassava and products from cassava, fishery (mainly from catfish and shrimp), wood, and wood products (Government of Vietnam 2018). The combined value of all these goods corresponds to the value of Vietnam's agricultural exports.

Geographical Distance (GD) refers to the straight-line distances from 36 capitals to Ha Noi (the capital of Vietnam). The bigger the value of the factor, the further away Vietnam is from the country importing agricultural products from Vietnam.

Economic distance (ED) indicates the gap in per-capita income between Vietnam and the nation importing Vietnam's agricultural exports. The data was gathered from WDI, and the economic difference between Vietnam and the importing nation widens as the value rises.

Cultural distance (CD) is the cultural distance between the home (trading partner) and host (Vietnam) countries (Slangen and Beugelsdijk 2010; Vo et al. 2018; Vo et al. 2021). The difference between the six cultural dimensions defined by Hofstede (1980) is employed to determine this variable: power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence. To assess the cultural gap between Vietnam and its agricultural trading partners, Kogut and Singh's (1988) approach is adopted:

$$CD_{ij} = \frac{\sum_{i=1}^{6}\{\frac{(I_{ij} - I_{iv})^2}{V_i}\}}{6}$$

Where CDvj is the index of cultural difference between Vietnam and the agricultural trading partner, Iij is the ith cultural aspect of jth agricultural trading partner; Iiv is the ith cultural aspect of Vietnam, V is the abbreviation of Vietnam; Vi is the variance of the ith cultural aspect.

Institutional distance (ID) is represented by six dimensions: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption (Kaufmann et al. 2006; Vo et al. 2018; Vo et al. 2021). The institutional distance between Vietnam and its agricultural trading partners is determined using the following equation of Kogut and Singh (1988).
Where IDvj is the index of institutional difference between Vietnam and

$$ID_{ij} = \frac{\sum_{i=1}^{6}\{\frac{(I_{ij} - I_{iv})^2}{V_i}\}}{6}$$

the agricultural trading partner, Iij is the ith institutional dimension of jth agricultural trading partner; Iiv is the ith institutional aspect of Vietnam, V is the abbreviation of Vietnam; Vi is the variance of the ith institutional aspect.
This study incorporated various control variables related to international

agricultural trade between Vietnam and its partners. Firstly, we examined whether Vietnam's trading partners are coastal or landlocked, as coastal countries have a natural trade advantage (Xing et al. 2022). This was measured using a dummy variable, with coastal countries assigned a value of 1 and landlocked countries a value of 0. Secondly, we examined the consumer demand of Vietnam's trading partners, which reflects the consumption level of Vietnamese agricultural products in global markets and influences Vietnam's agricultural export performance (Bui and Chen 2017). Thirdly, we accounted for the impact of VND fluctuations in the world market on trade costs and flows, noting that when the VND appreciates against foreign currencies (USD was used as the common international trade currency), Vietnam's export volume declines, and vice versa. Fourthly, we investigated the openness of Vietnam and its agricultural importers, measured by the ratio of a nation's exports and imports to its GDP, as trade openness facilitates information diffusion, efficient resource allocation, and technology transfer (Wang 2016; Semančíková 2016). Lastly, we included Free Trade Agreements (FTAs) to assess their role in Vietnam's agricultural trade, focusing on two new-generation FTAs: CPTPP and EVFTA. These Agreements significantly impact Vietnam's socio-economic activities and serve as crucial economic links between numerous Asia Pacific and European nations (Nga 2020). FTA membership was measured using dummy variables, with a value of 1 assigned if Vietnam and its trading partner are official members of the agreements, and 0 otherwise. Table 1 summarises the measurement of variables used in the model.

Table 1: Measurement of Variables in the Model

Variable	Measurement	Expectation	Data Sources
Dependent variable			
Agricultural export performance (EX)	The total value of key agricultural products from Vietnam to each trading partner		GSO
Independent variable			

Geographical distance (GD)	The distance in kilometres between the two countries' capitals	-	CEPII database
Economic distance (ED)	The difference in income per capita (dollars)	+	WDI
Cultural distance (CD)	Six cultural dimensions introduced by Hofstede (1980); and applied by Kogut and Singh (1988)	-	WDI
Institutional distance (ID)	Six institutional dimensions introduced by Kaufmann et al. (2006); and applied by Kogut and Singh (1988)	-	WDI
Control variables			
Landlocked country	Dummy (1: Landlocked country, 0: coastal country)	-	CEPII database
Consumer demand	Total population of Vietnam's trading partner	+	WDI
Exchange rate changes	the fluctuation changes of VND against to USD	+	WDI
Openness of Vietnam	Vietnam's exports and imports as a percentage to its gross product (GDP)	+	WDI

Openness of importer	the trading partner's exports and imports as a percentage to its gross product (GDP)	+	WDI
CPTPP	Dummy (1: Vietnam and its trading partner are official members of the agreements; 0: otherwise)	+	Authors' calculation
EVFTA	Dummy (1: Vietnam and its trading partner are official members of the agreements; 0: otherwise)	+	Authors' calculation

A regression equation for the measurement model can be written as:

$$lnEX_{it} = \alpha + \beta_1 lnGD + \beta_2 lnED + \beta_3 lnCD + \beta_4 lnID + \sum \beta_n X_{it} + \varepsilon_{it}$$

Where $lnEX_{it}$ denotes the natural logarithm of Vietnam's agricultural exports to country I in year t, α is constant, $\beta_{1\to4}$ is the coefficient of independent variables, β_n is the coefficient of control variables, and $\mathcal{E}_{it}$ represents the error term of the model. *lnGD, lnED, lnCD, and lnID* are independent variables standing for the natural logarithm of geographical distance, economic distance, cultural distance, and institutional distance, respectively; X_{it} is a set of control variables (i.e. Landlocked country, consumer demand, exchange rate changes, the openness of Vietnam, openness of importer, CPTPP, and EVFTA).

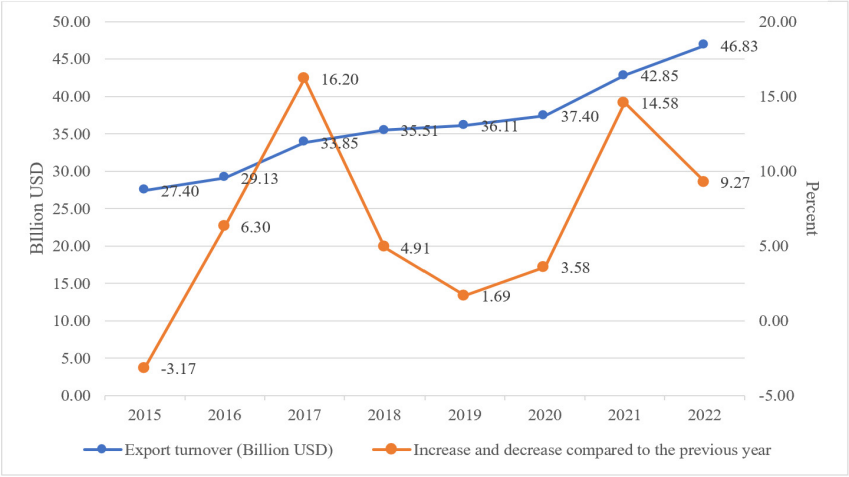
A Hausman test is conducted to explain whether a fixed effect or random effect is appropriate. The Hausman test result reveals that random effect is preferred ($p > 0.05$). Hence, we used random effect models (REM) to analyse in our study.

RESULT AND FINDING

AGRICULTURAL EXPORT TURNOVERS FROM VIETNAM

Agricultural products have been outstanding export items in Vietnam's total export turnover in recent years, setting a new record with an export value reaching USD 46.83 billion in 2022 and USD 42.85 billion in the previous year (Figure 2). Despite the emergence of the COVID-19, notably during the epidemic peak in Vietnam in 2021, the export turnover of Vietnamese agricultural goods has been rising over time. Additionally, export turnover rose by 14.58 per cent in 2021 compared to 2020.

Figure 2. Agricultural export turnover (Billion USD) and annual percentage change of Vietnam from 2015-2022

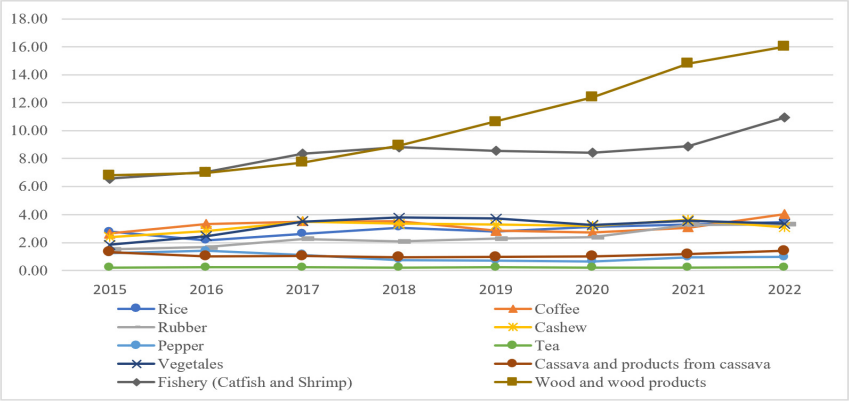


Source: Authors' calculation from GSO Database.

Figure 3 shows that the export value of nearly all key agricultural products, as defined by Decree 57/2018/ND-CP, grew over the past decade. Among these key agricultural products, wood and wood products, along with fishery products, achieved the highest export values, with export values of USD 16.01 billion and USD 10.92 billion in 2022, respectively. The remaining products also contribute greatly to the export value of Vietnam in general and Vietnamese

agricultural products in particular (in 2022, rice made up USD 3.45 billion, coffee produced up USD 4.06 billion, rubber made up USD 3.32 billion, cashew made up USD 3.09 billion, pepper produced up USD 0.97 billion, tea made up USD 0.24 billion, vegetables made up USD 1.41 billion, and cassava and products from cassava produced up USD 1.41 billion).

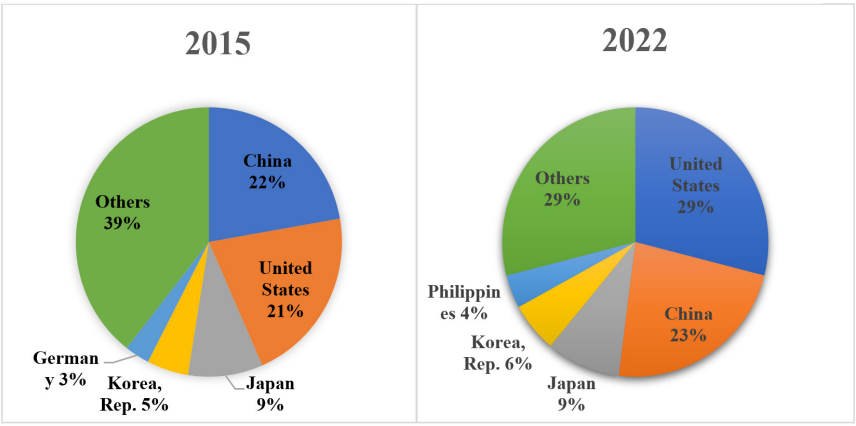
Figure 3. Key Agricultural products export of Vietnam from 2015 to 2022



Source: Authors' calculation from GSO Database.

The distribution of the major export markets for agricultural goods from Vietnam between 2015 and 2022 is shown in Figure 4. China accounted for 22 per cent of Vietnam's agricultural exports to the globe in 2015; it was followed by the USA and Japan, whose respective percentages were 21 per cent and 9 per cent. The Republic of Korea and Germany are two more significant export destinations for Vietnamese agricultural products. Significant changes were noticed in 2022. By accounting for 29 per cent of Vietnam's agricultural exports to the global market, the USA overtook China. Japan, the Republic of Korea, and the Philippines, each accounted for 9 per cent, 6 per cent, and 4 per cent of Vietnam's agricultural exports, ranked second, third, and fourth, respectively. These figures demonstrate a higher diversification of export markets for agricultural products in Vietnam. These figures show a greater variety of Vietnam's agricultural export markets.

Figure 4. Vietnam's agricultural exports to the global market by major destinations



Source: Authors' calculation from GSO Database.

In Conclusion, Vietnam has remarkably increased its agricultural export performance both in terms of value and share to the world over time. The significant growth in export value can be attributed, in part, to the government's policy efforts to stimulate investment in the agriculture sector through Decree No. 57/2018/ND-CP, which outlines the procedures and incentives designed to attract investment into agricultural and rural development projects, contributing to the overall performance of the sector. Additionally, Vietnam is a party to numerous free trade agreements (FTAs), which have facilitated smoother trade activities, including the easier access of agricultural products to consumers in developed nations. Agricultural exports play a crucial role in the economic development of countries like Vietnam. They boost the income of domestic agricultural businesses by providing access to international markets. The demands of the export market drive improvements in the quality of agricultural production processes, enhancing the sector's competitiveness. Moreover, agricultural exports serve as a valuable source of foreign exchange, supporting the country's economic stability. By generating income, promoting quality enhancements, and attracting foreign currency, agricultural exports accelerate economic growth in developing nations such as Vietnam.

VIETNAMESE AGRICULTURAL EXPORT PERFORMANCE

Mean, standard deviations and correlations are provided in Table 2. The highest correlation coefficient was 0.522, significantly below the cutoff point of 0.80, showing that multicollinearity was not a problem (Hair 2010). By computing the variance inflation factors (VIFs) for each of the regression coefficients, we also checked for any potential biases brought on by collinearity among the variables. All model variables' VIF values are below 3, much below the cut-off value of 10 recommended by Hair (2010), indicating no multicollinearity issues in the data. Finally, to avoid heteroskedasticity and autocorrelation regularly happening in the panel data, we conducted REM regression with a robust cluster.

Table 2. Statistical description and correlations (n = 216)

Variables	VIF	Mean	S.D	1	2	3	4	5	6	7	8	9	10	11	12
1.	lnEX		12.37	1.69	1										
2.	lnGD	1.81	8.48	0.89	-0.055	1									
3.	lnED	2.52	9.32	1.71	0.256***	0.423***	1								
4.	lnID	2.56	1.02	1.01	0.172**	0.389***	0.749***	1							
5.	lnCD	1.13	0.50	0.40	0.123*	-0.000	-0.157***	-0.208***	1						
6.	Landlocked country	1.73	0.11	0.31	-0.244***	-0.491***	-0.151**	-0.173**	-0.217***	1					
7.	Consumer Demand	2.14	17.53	1.49	-0.522***	0.027***	-0.376***	-0.379***	0.149**	-0.343***	1				
8.	Exchange Rate	1.30	0.02	0.01	0.004	0.000	-0.005	0.000	0.000	-0.000	-0.005	1			
9.	Openness of Vietnam	1.21	1.49	0.09	-0.05	-0.000	0.011	0.000	- 0.000	-0.000	0.009	-0.389***	1		
10.	Openness of importer	2.09	0.76	0.61	0.016**	-0.358***	0.191**	0.183*	-0.182**	0.530***	-0.507***	0.010	0.003	1	
11.	CPTPP	1.14	0.04	0.20	0.05	0.065	0.172**	0.211***	0.031	-0.073	-0.126*	-0.094*	0.179***	-0.004	1
12.	EVFTA	1.20	0.11	0.22	-0.06	0.1539**	0.154**	0.162**	-0.079	-0.014	-0.101	-0.304***	0.229***	0.022	-0.048

*p < 0.1, ** p < 0.05, *** p < 0.01

Table 3 presents factors influencing Vietnamese agricultural export performance through REM estimate. The REM results offer two conclusions. First, the various fit parameters show that our models fit the data increasingly well. Model 1 is a model with control variables and a constant only. The core explanation was added in Model 2.

Table 3. Estimated results of the effect of distances on Vietnamese agricultural export performance (REM estimate)

	Model 1	Model 2
Constant	-0.869 (2.072)	-5.609 (1.832)***
Independent variables		
Geographical distance (GD)		-0.578 (0.131)***
Economic distance (ED)		0.374 (0.0388)***
Cultural distance (CD)		0.588 (0.0980)***
Institutional distance (ID)		0.597 (0.144)***
Control variables		
Landlocked country	-0.975 (0.374)***	-0.301 (0.00499)***
Consumer demand	0.780 (0.143)***	1.075 (0.0453)***
Exchange rate	-0.0125 (0.0148)	-0.00424 (0.00280)
Openness of Vietnam	0.347 (0.275)	0.232 (0.341)
Openness of importer	0.968 (0.626)	0.780 (0.187)***
CPTPP	0.0289 (0.0257)	0.0123 (0.0314)
EVFTA	-0.256 (0.507)	-0.265 (0.504)
R2	0.33	0.67
N	216	216
Standard errors are listed in parentheses. *p < 0.1, ** p < 0.05, *** p < 0.01		

Regarding the Random Effects Model (REM) results in model 2, four hypotheses (H1, H2, H3, and H4) were supported significantly ($p < 0.01$). However, there were two findings contrary to the initial expectations: institutional distance (H4) ($b = 0.597$, $p < 0.01$) and cultural distance (H3) ($b = 0.588$, $p < 0.01$) positively affected Vietnamese agricultural export performance, suggesting that they are not barriers to Vietnam's agricultural trade. The significant results for the control variables align with expectations. Table 3 shows that higher consumer demand of importers has a significantly positive effect on Vietnamese agricultural export performance ($b = 1.075$, $p < 0.01$). Moreover, a higher level of openness of importers positively and significantly encourages Vietnamese agricultural export performance ($b = 0.780$, $p < 0.01$). Finally, being a landlocked country has negative impact on Vietnamese agricultural export performance ($b = -0.301$, $p < 0.01$).

DISCUSSION

This study advances our understanding of Vietnamese agricultural trade by building on multidimensional distance to predict relationships between the four core distances and Vietnamese agricultural export performance. Building on a dataset of 36 trading partners of Vietnam, the results show that cultural distance has a significant effect on Vietnam's agricultural exports indicating that culturally dissimilar countries trade more rather than less (Linders et al. 2005). The findings suggest that cultural distance may facilitate the trade of agricultural products between Vietnam and its trading partners. The accumulated data confirms that the consistent annual growth of Vietnam's agricultural exports has established the sector as a crucial component of the country's economy. Similarly, institutional distance appears to have a positive association with Vietnamese agricultural export performance. While these results seem to contradict theoretical explanations, they can be explained by the high costs and uncertainty associated with operating production facilities in culturally and institutionally distant countries. Firms expanding into such markets often opt for entry modes that require relatively fewer resources and commitments, such as exporting (Dunning 1993). If applied to the case of Vietnam, since SMEs make up more than 90 per cent of firms in Vietnam, exporting is often chosen as a strategy to enter foreign markets.

The first key finding was that Vietnam exported agricultural products of increasing value in recent years. The main target markets for Vietnam's exports

include the United States, China, Japan, and the Republic of Korea. Wood and wood products and fish are two stable-grown products. Even the COVID-19 pandemic, drought, and saline intrusion in southern Vietnam in 2019 and 2020 had a significant impact on agricultural output and exports (Ngo-Thi-Ngoc et al. 2021). This result reinforces the fact that agrarian export products play a vital role in the backbone of Vietnam's economy, especially in hardship periods (Linh et al. 2019; Xu et al. 2023).

The second key finding, based on the regression result, is that Vietnam's agricultural exports are significantly restricted by geographical distance. The impact of geographic distance on Vietnam's agricultural exports has not been demonstrated to be altered by transportation development, which is a persistent issue (Xing et al. 2022). Therefore, Vietnamese businesses should develop stronger logistic systems, storage facilities, and agricultural product transportation machinery to mitigate the negative effects of geographic distance in the short term. For long-term benefits, attention should be paid to improving product quality and shifting the production of final products to exporting countries to minimise costs. Evidence for this is provided by the results of Vietnam's export assessment, such as the Ministry of Industry and Trade of the Socialist Republic of Vietnam, which states that although Vietnam is a large exporter of agricultural products, the value is still low, and most agricultural export products are raw and semi-processed. In addition, Vietnam's agricultural exports significantly benefit from economic distance. The demand for agricultural products varies depending on the economic condition of the various nations, resulting in complementarity and promoting Vietnam's agricultural exports. Therefore, to increase the market for Vietnamese agricultural goods, Vietnam should seek trading partners with greater GDPs (i.e., larger economic scales) (Bui and Chen 2017). This is also the foundation for the global demand for Vietnamese agricultural goods.

Core explanatory variables aside, several factors influence agricultural trade. Firstly, coastal nations enjoy reduced trade costs by combining land and water transportation, giving them a commercial advantage over interior nations. Secondly, the population of importing countries drives Vietnam's agricultural exports, reflecting the increasing global significance of agricultural goods and the growing worldwide demand for Vietnamese produce. Thirdly, trade openness facilitates information dissemination, efficient resource allocation, and technology transfer (Nguyen 2022). Thus, increased trade openness in

importing nations may further Vietnam's trade objectives by providing foreign firms access to Vietnamese technology and intermediate inputs, encouraging long-term production shifts to foreign countries to minimise costs and enhance the value of agricultural products

CONCLUSION AND POLICY IMPLICATIONS

This study explored how geographical, economic, cultural, and institutional distances, as well as macroeconomic factors, influenced Vietnam's agricultural export performance. The research analysed data from 36 of Vietnam's agricultural trading partners between 2015 and 2020 using the Random Effects Model (REM) estimation technique. Economic, institutional, and cultural distances significantly and positively affected Vietnam's agricultural exports, with institutional distance being the most influential, followed by cultural and economic distances. Conversely, physical distance had a significant negative impact on exports. These findings align with transaction cost theory, trade policy theory, and previous research, except for the positive influence of cultural and institutional distances, which may be attributed to the uncertainty and risk Vietnamese firms face when entering international markets.

On the other hand, the macroeconomic control variables align with the theory. Coastal countries are more attractive for Vietnam's agricultural trade due to lower transportation costs compared to inland nations. Moreover, the increasing global demand for agricultural products boosts the value of Vietnam's agricultural exports. The trade openness of importing countries presents Vietnam with an opportunity to diversify its international market strategies, moving away from short-term exporting options.

To bolster Vietnam's agricultural exports, the central government should prioritise developing policies and institutions that create optimal conditions for export enterprises to invest in production, preservation, and post-harvest technologies. This will enable Vietnam's agricultural exports to increase market share in the USA, Japan, and the Republic of Korea. As for the Chinese market, Vietnam's largest export market, recent technical requirements and health safety demands for Vietnamese agricultural imports have become more stringent. Furthermore, the Vietnamese government should provide up-to-date market guidance to help businesses operate more efficiently.

Second, enterprises need to adapt their business strategies to the new context, taking competition as the driving force for innovation and development. Simultaneously, it is necessary to actively seek cooperation with enterprises within their potential markets (e.g., European countries, and Northern and Southern American countries). This is also a good opportunity for Vietnamese businesses to participate more broadly in regional and global supply chains.

Third, a focus on high-value official export products to the USA, Japan and the Republic of Korea would be beneficial for Vietnam. In addition, it is necessary to restructure agricultural fruit products in the direction of being more environmentally friendly and sustainable products. Moreover, it would be advantageous to understand the changes in the technical requirements of the Chinese market to minimise the phenomenon of exported agricultural products being blocked at the borders, causing significant losses to the export enterprises.

Lastly, export-oriented strategies remain vital for Vietnam's economy in the short term, facilitating quicker penetration into diverse international markets (e.g., the USA, Japan, the Republic of Korea, European countries, Singapore, India, Taiwan, and Southeast Asian nations). This forms the foundation for long-term development when shifting production bases, thereby increasing the value of Vietnam's agricultural products. Policies should focus on enhancing support for Vietnamese enterprises in export activities, such as price support and support services. Additionally, supporting agricultural producers is crucial for ensuring the quality of Vietnamese agricultural products in a world where developed nations are increasingly focusing on the quality of agricultural goods.

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Appendix

Table 4. Countries included in the sample

Order	Countries
1	Angola
2	Australia
3	Belgium
4	Brazil
5	Cambodia
6	Canada
7	China
8	Czechia
9	Denmark
10	France
11	Germany
12	Hong Kong
13	India
14	Indonesia
15	Italy
16	Japan
17	Republic of Korea
18	Kuwait
19	Lao PDR
20	Malaysia
21	Netherlands
22	New Zealand
23	Norway
24	Pakistan
25	Philippines
26	Poland
27	Russian Federation
28	Singapore

29	Spain
30	Sweden
31	Taiwan
32	Thailand
33	Turkey
34	Ukraine
35	United Kingdom
36	United States

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CHAPTER 6
BUILDING A COMMUNITY WITH A SHARED FUTURE FOR CLIMATE GOVERNANCE IN THE MEKONG-LANCANG REGION: MULTIDIMENSIONAL OBSTACLES AND THREE PRIORITIES

LI Mingze, YU Hongyuan

ABSTRACT

Building a community with a shared future for climate governance in the Mekong-Lancang region is a crucial aspect of China's diplomatic initiative of "building a community of common destiny". The region is one of the most vulnerable areas in the world, and the complex political, economic, and social situations further complicate collaborative climate governance efforts. The iterative power structure of the international community, political instability in the region, and the fragmentation of regional climate governance mechanisms have significantly hindered the creation of a cohesive climate action network among the six countries in the region. This article emphasises three key priorities for coordinating climate governance in the Mekong-Lancang region: establishing a disaster early warning system, promoting climate investment and green finance, and engaging the private sector. China plays four essential roles in Mekong-Lancang region governance, contributing to its proactive stance in the construction of the "Mekong-Lancang Community with a Shared Future for Climate Governance".

Keywords: Mekong-Lancang region; Climate governance; Building a community with a shared future

INTRODUCTION

The Mekong River, also known as the Mekong-Lancang, is a vital international waterway in the Indochina Peninsula, serving as a crucial economic resource

for mainland Southeast Asian countries (Van Zalinge et al. 2004). Its governance involves the political, economic, and security interests of several regional nations, including China, Thailand, Vietnam, Cambodia, Laos, and Myanmar. The Mekong-Lancang region holds strategic importance due to its abundant water resources, economic potential, and geopolitical position at the intersection of the Eurasian, Pacific, and Indian tectonic plates. Consequently, the comprehensive governance of the region has consistently been a focal point of diplomatic activities among the countries in the area (Shixin 2019). The Mekong River Commission (MRC) currently represents the cooperation mechanism among Lower Mekong Basins or LMB, including Cambodia, Laos, Thailand, and Vietnam (Jacobs 2002). It was jointly established by the four riparian countries in 1995, thus opening a new channel of Mekong-Lancang cooperation and sustainable development. Furthermore, there are other several cooperation and governance mechanisms among countries in the region, including Greater Mekong Subregion Cooperation (GMS), Mekong-Lancang Cooperation (MLC), Cambodia-Laos-Myanmar-Vietnam Cooperation (CLMV) (Krongkaew 2004; Daitong and Dekai 2021; Harnphattananusorn 2018).

The pace of global climate change has surpassed human expectations, and extreme weather is becoming increasingly frequent in the Mekong-Lancang region. The basin is primarily situated in the subtropical monsoon climate zone, where seasonal changes in precipitation are pronounced, making the climate in this area unstable and susceptible to drought and flood disasters. Since 2000, the Mekong-Lancang region has been struck by 393 natural disasters, resulting in 257,948 deaths, affecting 147,494,057 people, and causing economic losses of approximately USD 9.153 billion.[6] Meanwhile, the absence of a climate resilience network in the region has led to extremely serious disaster risks. Myanmar and Thailand were listed as the second and ninth of the top ten countries most vulnerable to climate change events from 2000 to 2019. The average annual climate risk index (Climate Risk Index, CRI) is 10.00 and 29.83, respectively (Eckstein et al. 2021). The region is facing a severe climate change crisis, and it requires us to collectively address the risk of climate change and build a community with a shared future.

This study's findings suggest that the current disaster reduction and prevention measures in the Mekong-Lancang region are inadequate, and the

6 The data is compiled by the author, and the original data source is https://public.emdat.be/data

existing governance mechanisms remain ineffective. It is crucial to identify the root causes and provide solutions to address these issues. The introduction section emphasises the region's existing cooperation mechanism and climate vulnerability, while the literature review section provides an overview of recent academic research on joint governance in the Mekong-Lancang region and highlights its shortcomings. The results and findings section presents the study's outcomes, and the discussion section offers a detailed description of the research process. The conclusion and policy implications section describe how the study's results should be applied to the policy-making process of climate governance cooperation in the region.

Throughout this article, the term "Mekong countries" refers to Thailand, Vietnam, Cambodia, Laos, and Myanmar, while "MLC countries" include China in addition to the aforementioned Mekong countries. The "Mekong-Lancang region" and its "regional governments" refer to the entire territory and the six countries mentioned above: China, Thailand, Vietnam, Cambodia, Laos, and Myanmar.

CONCEPTUALISING WATER GOVERNANCE IN THE MLC

Global climate governance now focuses on the commitments to materialise the climate change goal, address adaptation and loss damage issues, provide financial, technological, and capacity building, ensure transparency of actions and support, and maintain a global inventory of implementation processes (Gupta and Mason 2016; Xingshu 2016; Hongyuan 2016). Currently, global climate governance is transitioning towards the Anthropocene era (Young 2017), and the structure of environmental governance is becoming more diversified, composite, and decentralised (Rietig and Laing 2017). There is an increasing number of emerging actors, new cooperation models, and innovative institutions in global environmental governance. The decentralisation and fragmentation of environmental governance have weakened its effectiveness (Biermann et al. 2009; Pinon and Carlarne 2008), and a fragmented leadership pattern has become a reality in global environmental governance (Hongsong and Xie 2019). At present, the global climate governance mechanism is weakened. Consequently, how should Mekong countries properly address the effects of climate change and improve climate adaptation capabilities? Specifically, how can the joint efforts of multiple actors in the Mekong-Lancang region be stimulated to build a new governance framework and interaction model?

Water governance is a crucial task for the Mekong-Lancang Cooperation (MLC) and countries in the region. Due to the diverse national interests of the countries involved, the development of water resources is vital for the region's economic and social development (Hirsch et al. 2006). A framework for cross-border water governance must be established to facilitate water resource sharing (Dore et al. 2012). Hydropower development, such as the construction of the Xayaburi Dam in Laos, significantly impacts the Mekong River's natural flow, reducing agricultural and fishery production and increasing the risk of waterborne diseases. Consequently, improving the quality of decision-making for water resource sharing in the region is essential (Grumbine et al. 2012). Furthermore, the unique national structures of MLC countries, such as Vietnam, can significantly influence their water resource management behaviour (Waibel et al. 2012). Previous studies have emphasised the importance of policy coordination for governance in the Mekong-Lancang region from a policy-making perspective. This study will delve deeper into the issues and solutions faced by governance cooperation in the region from a micro perspective.

However, cooperation in the Mekong-Lancang region still faces many challenges. Firstly, the Mekong-Lancang region is one of the most severely affected hotspots by climate change in the world, and its agriculture, livelihoods, infrastructure, and other aspects are very fragile (Manton and Stevenson 2013). In this region, the lack of political trust has impeded further enhancement of governance cooperation among regional countries (Laihui 2014). At the national level, due to different economic levels and development stages, various countries in the Mekong-Lancang region have established development strategies with other goals and ideas based on their national conditions, which has led to barriers in regional cooperation (Guangsheng and Huilin 2018). At the same time, during the author's interview, the respondents also pointed out other factors that hinder governance cooperation in the Mekong River region: the shortage of funds, low efficiency of cooperation mechanisms, competition among major powers, insufficient scientific and technological research and development, etc.

METHODOLOGY

This study employs three primary methods: desk review, interviews, and field investigations. The researchers have closely followed the progress of global climate governance and water governance in Southeast Asia, with literature analysis being the main method used in this study. The reviewed literature encompasses a wide range of sources, including reports from international organisations, government agencies, intergovernmental cooperation groups, and academic institutions. Key international organisations consulted include the United Nations Environment Programme, the World Meteorological Organisation, and the Intergovernmental Panel on Climate Change (IPCC), with a particular focus on the IPCC's Sixth Assessment Report. Government reports, such as those released by the United States Agency for International Development (USAID), provide valuable insights into the region's challenges and opportunities. Data and information from intergovernmental cooperation organisations in Southeast Asia, such as the Mekong River Commission and ASEAN, offer a regional perspective on the issues at hand. Lastly, the analysis draws upon relevant articles by experts from research institutions, private think tanks, universities, and academic departments in the Mekong-Lancang region, including Chiang Mai University in Thailand and Yunnan University in China, to provide a comprehensive understanding of the complex dynamics in the area. Additionally, this article references research from NGOs participating in climate governance in the region. The diverse literature sources provide rich research perspectives and reference texts, inspiring the author's research direction and contributing fundamental academic data to the article.

Interviews and personal surveys constitute the second largest research method employed in this study, primarily utilising the Delphi method for investigation. The author's institution has a long-standing interest in governance issues in Southeast Asia and has collaborated on projects and academic conferences with institutions in countries such as Thailand, Cambodia, Laos, Vietnam, and Myanmar. To gain a deeper understanding of climate governance, particularly the development of water governance processes in the region, the author conducted interviews with partners and participating experts. Previous interview experiences involved scholars from the six Mekong-Lancang region countries, foreign scholars who have closely followed the region's development, experts in global climate governance and negotiations, water resource governance specialists, and geopolitical scholars. The interviewees

provided valuable guidance on the author's research approach, shared the latest academic findings in climate governance within the Mekong-Lancang region, and facilitated field investigations in Southeast Asian countries by the author's team. It is important to emphasise that all interviews were conducted under the Chatham House Rule, ensuring that only the interviewees' perspectives are cited while maintaining strict confidentiality regarding their personal information.

Thirdly, the author's field research experience in Southeast Asia is also one of the foundations of this study. The author and team members have conducted field investigations in Southeast Asian countries, such as Thailand, to examine various aspects of the Mekong-Lancang region, including livelihoods, economic recovery, the functioning of climate governance cooperation mechanisms, and the role of civil diplomacy among the six Mekong-Lancang countries. During these field surveys, the author also interviewed citizens from Southeast Asian countries to gather insights that diverge from the fixed perspectives often found in academic research. By focusing on practical viewpoints, these interviews aimed to uncover genuine governance challenges and broaden the study's research scope and depth. The inclusion of local perspectives alongside expert opinions and academic findings enables a more comprehensive understanding of the complex issues facing the region and enriches the overall analysis.

RESULTS AND FINDINGS

This article explores the obstacles hindering the expansion of climate governance in the Mekong-Lancang region and provides an in-depth analysis of the underlying reasons for these challenges. The study identifies three key areas that should be prioritised for cooperation to overcome governance difficulties. Furthermore, considering China's significant role in the water governance process of the Mekong-Lancang region, the article examines the country's unique position in addressing these challenges from a state's perspective. The study also reveals that a community with a shared future for climate governance in the Mekong-Lancang region faces obstacles at the global, regional, and national levels. These obstacles include the international situation, regional instability, mechanism fragmentation, and geographical competition.

The main factors impeding climate governance coordination within the region can be categorised into three dimensions (1). The agenda dimension: external factors, usually related to security, economy, or regime, can suddenly occur and diminish the importance of climate governance on the Mekong-Lancang regional cooperation agenda. (2) The mechanism dimension: the theory of institutional competition suggests that the fragmentation and diversification of governance mechanisms in the region inevitably lead to competition between different mechanisms in terms of discourse systems and behaviour patterns. (3). The benefit dimension: Realist theorists argue that national interests determine national behavioural patterns, explaining why differences in regional countries' interests regarding water resources development and utilisation can hinder collective action.

Table 1. Different obstacles and classifications

Obstacle	Level	Dimension(s)	Example
International Environment	Global	Agenda	Ukraine Crisis
Regional Instability	Regional; National	Agenda; Mechanism; Benefit	Myanmar Coup
Mechanism Fragmentation	Regional; National	Mechanism	Various governance organisations in the region
Geographical Competition	Regional; National	Benefit; Mechanism	Thailand-Myanmar War

Source: Compiled by the Author.

Following the discussion, another crucial aspect to consider is how to synergise the climate governance efforts of the Mekong-Lancang Cooperation (MLC) countries with the promotion of a community with a shared future. In terms of policy formulation, collaboratively developing Early Warning Systems (EWS) is essential for enhancing climate resilience. As countries have extensive common interests in this field, policy coordination is more easily achievable. Moreover, green finance, an important financial tool for global climate governance, should be actively promoted in the Mekong-Lancang region. By leveraging

market mechanisms to regulate and allocate climate governance investments, countries can encourage infrastructure development and the establishment of carbon market mechanisms. Additionally, the private sector should be more fully integrated into the regional cooperation framework. Given its financial resources and expertise, increased private sector involvement could enhance interactions among regional actors and contribute to more effective outcomes. By focusing on joint policy formulation, green finance promotion, and increased private sector involvement, MLC countries can work towards synergising their climate governance efforts and fostering a community with a shared future, addressing the pressing need for climate action while strengthening regional cooperation and resilience.

Table 2: Three priorities of a community with a shared future for climate governance

Priorities	Field	Advantage(s)
Early Warning System	Policymaking	Easy to reach a consensus
Green Finance	Marketing Mechanism	Efficient; urgently needed
Private Sector	Actor System	Sufficient funds; benefit-oriented effectiveness

Source: Compiled by the Author

DISCUSSION

FACTORS HINDER CLIMATE GOVERNANCE IN THE MEKONG-LANCANG REGION

The governance cooperation in the Mekong-Lancang region encounters various obstacles, including increased instability and growing regional uncertainty, intensifying geopolitical competition, and the “fragmentation” of the cooperation mechanism among Mekong-Lancang countries.

The global landscape is characterised by the intertwining of traditional and non-traditional security issues, with the Russia-Ukraine conflict altering the global

power structure. Mekong-Lancang countries face a range of non-traditional security challenges, such as refugee crises, economic downturns, transnational crime, the COVID-19 pandemic, and climate change. Simultaneously, the weakening role of multilateralism in steering global cooperation has introduced significant instability and uncertainty for Mekong-Lancang countries engaging in international affairs. Moreover, the outbreak of the Russia-Ukraine conflict has diminished the international community's capacity to address security concerns. As rebuilding peace and safeguarding national security become paramount for all countries, international cooperation has been relegated to a lower priority. Consequently, the relative decline in the importance of climate governance on the global agenda has objectively hindered climate governance cooperation between states and non-state actors.

The instability in the Mekong-Lancang region has further delayed governance cooperation. The development priorities and interests of the Mekong-Lancang countries vary significantly, particularly in the management of water resources. Laos, situated in the upper reaches of the river, prioritises the establishment of hydropower stations to capitalise on its topography. Thailand, located in the middle and lower reaches, places equal emphasis on hydropower and agricultural irrigation, while Cambodia focuses primarily on the ecology and fisheries of Tonlé Sap Lake. These divergent interests have led to increased disagreements and contradictions among regional countries regarding dam construction, hindering the overall development of the Mekong-Lancang region. Moreover, the Mekong River Basin actors are undergoing a period of political transformation and replacement, resulting in domestic political instability. Since 2021, Myanmar has experienced political turmoil, with the military launching a coup and arresting Aung San Suu Kyi. Thailand has witnessed large-scale anti-government protests, jeopardising the ruling position of the Thai monarch. Additionally, countries are increasingly vying for regional leadership, with Vietnam strengthening its partnership with the United States and seeking greater influence in the region.

The fragmentation of cooperation among the Mekong-Lancang countries has resulted in a proliferation of overlapping and competing governance mechanisms, leading to inefficiencies and coordination challenges. Conflicts of interest or differences in climate vulnerability among countries like Vietnam, Thailand, and China have resulted in a lack of compatibility among different mechanisms or made them complex and difficult to implement due to

additional regulations. Consequently, the region's cooperation mechanisms have become fragmented. Relevant countries have proposed regional governance plans that align with their interests. Vietnam and other countries advocate for ASEAN as the coordinator of regional mechanisms (Binh and Thu 2020), while Thailand believes the Three River Basin Mechanism is a pillar for regional cooperation (Thailand International Cooperation Agency 2022; Penh 2020). Meanwhile, China attempts to be a regional coordinator by providing public goods. The significant differences in cooperation mechanisms, platforms, and development patterns among these blueprints fail to meet the development requirements of all countries in the region, resulting in a chaotic situation where each country pursues its path, making unification difficult.

The divergence in interests, climate vulnerability, and regulatory frameworks among countries such as Vietnam, Thailand, and China have resulted in regional cooperation mechanisms that are incompatible and fragmented. As a result, some countries proposed regional governance plans that only align with their interests. Vietnam and other countries advocate for ASEAN as the coordinator of regional mechanisms (Binh and Thu 2020), while Thailand believes the Three River Basin Mechanism is a pillar for regional cooperation (Thailand International Cooperation Agency 2022; Penh 2020). Meanwhile, China attempts to be a regional coordinator by providing public goods. These varied approaches differ significantly in their cooperation mechanisms, platforms and development patterns, failing to meet the development requirements of all countries in the region. This has led to a situation where each country pursues its own path, making regional unification challenging.

Geopolitical competition poses another obstacle to governance among Mekong-Lancang countries. The Mekong-Lancang region finds itself at the centre of the US-China rivalry, as it serves as China's "southern gateway" and is one of the key areas for the United States to implement its "Indo-Pacific Strategy" (Smith 2021). This strategic importance has intensified the competition between the two superpowers in the region, complicating the governance landscape. Moreover, historical disputes, conflicts over fisheries and territory, and refugee issues among regional countries have led to a lack of willingness to cooperate and insufficient motivation for common governance. The complex history involving Thailand and Myanmar spans centuries, with tensions only easing with the arrival of Western colonialists (Jie 2021). Similarly, Vietnam and Cambodia have long-standing and ongoing demarcation

over land and maritime boundaries. Fishery disputes still occasionally flare up, although Thailand, Vietnam, and Cambodia have reached temporary arrangements in the Gulf of Thailand (Shixin 2019). These unresolved historical and contemporary issues have created an atmosphere of mistrust and reluctance to engage in collaborative governance efforts, further exacerbating the challenges faced by the Mekong-Lancang countries in addressing their shared concerns.

THREE PRIORITIES FOR MEKONG-LANCANG COMMUNITY WITH A SHARED FUTURE FOR CLIMATE GOVERNANCE

Implementing the 1995 Agreement has promoted joint actions among countries in the region such as data sharing, technical support, and mechanism coordination. As a result, the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (1995 Mekong Agreement) is one of the milestones in regional cooperation. In 1995, Thailand, Laos, Vietnam, and Cambodia signed the agreement to establish the Mekong River Commission (MRC), hoping to "promote and coordinate the sustainable development and management of water resources and other related resources in the Mekong River Basin, to safeguard the common interests of coastal countries and the well-being of their people". Under this cooperation framework, MRC has continuously implemented multiple procedures: the Procedures for Data and Information Exchange and Sharing; the Procedures for Water Use Monitoring; the Procedures for Notification, Prior Consultation, and Agreement; the Procedures for the Maintenance of Flows on the Mainstream; and the Procedures for Water Quality (Mekong River Commission 2017). In this chapter, the author will discuss three key areas such as disaster early warning systems (EWS), green finance, and the private sector to continue to realise the goals as stated in the 1995 agreement.

CLIMATE RESILIENCE AND DISASTER EARLY WARNING SYSTEM (EWS)

Disaster early warning system (EWS) refers to a stable system with prediction and allocation functions established to prevent and reduce natural disasters. It is an effective way to respond to disasters, save disaster victims, and contain losses. In 2019, the Global Commission on Adaptation released its

flagship report, “Immediate Adaptation,” stating that as long as a hurricane warning is issued 24 hours in advance, losses can be reduced by 30 per cent; for developing countries, spending USD 800 million on early warning systems will reduce natural disaster losses between USD 300 to USD 16 billion annually (World Meteorological Organisation, 2022). An effective and efficient EWS plays an important role in disaster prevention and reduction in the region.

Scholars have researched the EWS in the Mekong-Lancang region. Lacombe et al. (2012) believe that the current flood warning mechanism in the Mekong River region has problems, such as large calculation errors and poor dissemination of forecast information. Plate & Insisiengmay (2005) conclude that the quality of the existing warning system in the Mekong-Lancang region depends on the database and needs to be optimised by establishing more refined models, equipping professionals, and emphasising the transmission of warning signals. Hoang et al. (2018) state that the imperfect governance system is the main challenge disaster management faces in the Mekong-Lancang region.

The existing Early Warning System (EWS) models in the Mekong-Lancang region can be categorised into four types: state-led type, multi-national type, state-non-state actors cooperation, and non-state actor-led type. The region’s current EWS landscape exhibits several distinct characteristics. Firstly, most of the EWS in the Mekong-Lancang region are built upon cooperation between state and non-state actors. This type of collaboration leverages the policy coordination capabilities of national governments while benefiting from the disaster reduction technology and experience of non-state actors. Such partnerships also actively introduce climate projects to enhance the research and development of a country’s disaster reduction capacity. Examples include Thailand’s ThaiAWARE disaster warning system, jointly established by the Thai government and the Pacific Disaster Centre (Royal Thai Embassy 2022), and Vietnam’s flash flood warning mechanism, developed in collaboration with the World Meteorological Organisation (Dan 2022).

Secondly, a composite type of EWS has emerged, incorporating local characteristics and the influence of major extra-regional countries through international organisations under the pretext of EWS aid. In the Mekong-Lancang region, multi-national joint projects and state-non-state actor cooperation partially overlap, giving rise to a new trilateral cooperative model

involving intra-regional countries, extra-regional powers, and non-state actors. For instance, Myanmar, in partnership with the Pacific Disaster Centre and the Association of Southeast Asian Nations (ASEAN), launched the creation of a new generation of disaster early warning systems, primarily funded by the United States Agency for International Development (USAID) (PDC 2019). Similarly, Thailand's ThaiAWARE system and Vietnam's Flash Flood Warning System receive financial support from USAID and Canada, respectively (Royal Thai Embassy 2022; Dan 2022).

Thirdly, the characteristics of different EWS vary greatly, with China being the region's leading builder of state-led early warning mechanisms. The Chinese government has developed a unique EWS, exemplified by the meteorological disaster prevention and mitigation mechanism in Yunnan's Xishuangbanna Dai Autonomous Prefecture (Office of Xishuangbanna Prefecture People's Government 2022).

Lastly, the extensive coverage of various regional EWS leads to overlapping systems. Small Southeast Asian countries allow a single early warning mechanism to easily extend beyond national borders, affecting other countries and resulting in redundant mechanisms and wasted resources. For example, Vietnam's Southeast Asian Flash Flood Guidance System (SeAFFGS) provides early warning information for Vietnam and serves as a regional centre covering Cambodia, Laos, and Thailand (Dan 2022), despite these countries operating their own EWS.

CLIMATE INVESTMENT AND GREEN FINANCE

On November 7, 2022, the Secretary General of the United Nations, António Guterres, announced at COP27 (the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change) that in the next five years, everyone on the earth will be provided with early warning to resist increasingly extreme and dangerous weather. The implementation of the early warning initiative requires an initial investment of USD 3.1 billion in new specialised investments between 2023 and 2027 to promote four key multi-hazard early warning system (MHEWS) pillars: disaster risk knowledge (USD 374 million), observation and forecasting (USD 1.18 billion), disaster preparedness and response (USD 1 billion), and distribution and communication (USD 550 million). It is estimated that between 2021 and 2025, the Mekong Delta region

needs at least USD 4.7 billion to USD 6.7 billion for climate-smart investment. According to statistics on climate-smart investment and the infrastructure investment included, the amount may be much higher (Vu 2020).

The cascading amplification effect of climate investment has been demonstrated in governance practices around the world: the valuation of hydrological and meteorological services has proved that an investment of approximately USD 100 million (basic cost) in hydrological and meteorological information will generate an annual net income of about USD 6.8 billion to USD 15.3 billion in the first seven years (Tsirkunov et al. 2004). Research from Mozambique suggests a cost-effectiveness ratio of 1:70 for investment in national meteorological services (World Bank 2008). A recent national survey found that the U.S. climate prediction system, which cost USD 5.1 billion, generated USD 31.5 billion in benefits (Weiher et al. 2002). If the early warning mechanisms of developing countries are upgraded to the level of developed countries, it is expected to reduce asset losses by USD 300 million to USD 2 billion annually, save 23,000, and bring additional economic benefits of USD 300 million to USD 30 billion (Hallegatte 2012).

Green finance, an emerging financial tool for addressing climate change, has garnered significant attention from both domestic and international academia. The effectiveness of green finance in the Mekong-Lancang region hinges on two main factors: the accessibility and feasibility of green finance programmes launched by relevant parties (the sender) and the comprehensive acceptance mechanism/policy of green finance products by Mekong-Lancang countries (the receiver). The primary senders are states and non-state actors who inject climate funds into the region through green aid, bond issuance, loans, and other means. Currently, the overall flow of climate funds in the international community is from developed to developing countries, with the main actors of green finance in the Mekong-Lancang region being countries such as the United States, the United Kingdom, Germany, and Japan. The receivers, namely China, Laos, Myanmar, Thailand, Vietnam, and Cambodia, strengthen their top-level design to provide preferential policies, legal support, administrative efficiency, and human resources to facilitate the implementation of green finance within their respective countries. These Mekong-Lancang countries have also made positive attempts in the field of green bonds, with Vietnam issuing USD 27 million and Thailand issuing USD 947 million in 2019, while Myanmar, Laos, and Cambodia have also taken steps towards green bond issuance (Rimaud et al. n.d.).

EXPANDING THE ROLE OF THE PRIVATE SECTOR

The private sector has advantages in technology and funding; particularly, its role in green finance and EWS should be valued. The private sector will strive to promote green programmes suitable for the target country. The advantage of the private sector lies in its ability to provide financial or technical support to achieve climate resilience in the Mekong-Lancang region for commercial purposes, including expanding company influence, obtaining government investment permits, and enjoying preferential policy. For instance, Allianz uses remote sensing technology to help rice farmers in Southeast Asia protect crops to prevent loss caused by diseases and pests (McCluskey et al. n.d.). Facebook has a crisis response function called Crisis Response. The crisis response function will automatically activate when enough users report events in a specific area. Therefore, all Facebook users in the region will receive alert notifications and encourage them to indicate whether they are secure (Brazzola and Simon n.d.). In the Philippines, the non-profit organisation Weather Philippines Foundation (WPF), funded by the Aboitiz Group, installed and maintained a modern network consisting of nearly 1,000 Automatic weather stations to monitor weather indicators for forecasting and damage control (Brazzola and Simon n.d.).

Financial and banking institutions are the leading stakeholders in the private sector, for they possess financial capabilities, investment experience, sufficient funds, and have advantages in developing green finance projects. Therefore, the Mekong-Lancang countries can start with green finance projects launched by financial companies and banking institutions and actively promote the participation of the private sector in disaster reduction and prevention in the region. On the one hand, such institutions can utilise mature investment and financial operation experience to provide accurate investment suggestions for regional countries to participate in building climate resilience through green finance to maximise the effectiveness of funds. On the other hand, such institutions usually concentrate industry resources in relevant fields, which can serve as a bridge for environmental programmes in the Mekong-Lancang region and provide additional benefits for the region in early warning technology or disaster reduction and prevention mechanism arrangements. Consequently, the Mekong-Lancang countries can make full use of green funds from major financial institutions worldwide. For example, the World Bank Group provided a record USD 31.7 billion in fiscal year 2022 to help countries

cope with climate change. The World Bank Group's private sector, the International Finance Corporation, has provided an unprecedented USD 4.4 billion in climate finance (World Bank 2022). In April 2021, Citibank committed to investing USD 1 trillion in sustainable finance by 2030, concerning renewable energy, clean technology, water conservation, sustainable transportation, education, affordable housing, health care, economic inclusion, community finance, international development finance, ethnic and ethnic diversity, gender equality and other fields (CITI Group 2021).

CHINA'S PARTICIPATION IN CREATION OF THE MEKONG-LANCANG COMMUNITY WITH A SHARED FUTURE FOR CLIMATE GOVERNANCE

China is one of the important actors in climate cooperation in the Mekong River region and plays a special role in collaborative management. This section will position China's multiple identities and discuss the roles that China should play in each identity in the Mekong River climate governance community with a shared future. In addition, we will highlight China's vision and plan for building the Mekong-Lancang Climate Governance Community in this section, which includes four "community" plans.

CHINA EMBRACES FOUR ESSENTIAL IDENTITIES IN MEKONG-LANCANG REGIONAL GOVERNANCE

China holds four essential roles in Mekong-Lancang regional governance, each contributing to the development of a shared future. As the largest trade partner and sharing land borders with most Mekong countries, China's strong economic ties have fostered closer cooperation in addressing natural disasters and global climate change. China has become the largest economic and trade partner of Mekong River countries in Asia. In 2020, in the context of the global pandemic COVID-19, the total import and export trade between the two sides still reached USD 322.9 billion. In 2021, the trade volume between China and the Mekong countries reached USD 398 billion year-on-year increase of 23 per cent (General Administration of Customs of the PRC, n.d.). The close trade exchanges have further enhanced the cooperative relationship between China and the Mekong River countries. The two sides jointly promote the response to natural disasters in the basin, work together to address global climate change,

and promote the creation of the Mekong-Lancang community with a shared future.

Despite being a victim of severe climate disasters, China's experience in managing complex natural disasters has provided valuable support and expertise to regional countries in establishing their disaster reduction mechanisms. In 2021, various natural disasters in China caused a total of 107 million people affected, resulting in direct economic losses of RMB 334.02 billion (Ministry of Emergency Management of the PRC 2022). The severe impact of natural disasters on China has fostered a sense of solidarity with other affected countries in the Mekong-Lancang region, reinvigorating efforts to establish joint disaster prevention mechanisms. Drawing from its own experiences in managing natural disasters, China has, in recent years, provided substantial support and shared its proven expertise to assist regional countries in developing and strengthening their disaster reduction frameworks.

As the only permanent United Nations Security Council member in the Mekong-Lancang Basin, China has a unique responsibility to bridge international mechanisms and promote the region's experiences in addressing climate change on a global scale. To foster new developments in the region, China should leverage its global influence to introduce green financial products and disaster reduction initiatives from international organisations. Given the Mekong-Lancang region's status as a globally renowned model for cross-border water governance, its development approach holds significant value for water governance cooperation in other regions. China should actively promote the region's successes and share its knowledge with countries in need, particularly those most vulnerable to the effects of climate change. Moreover, as the initiator and leader of the "Five Homes" concept in the ASEAN region, China has demonstrated its commitment to building a closer China-ASEAN community with a shared future. During the 30th anniversary summit of China-ASEAN dialogue relations in November 2021, President Xi Jinping advocated for joint efforts to build a peaceful, safe, secure, prosperous, beautiful, and amicable home (The State Council of PRC, 2021). This "Five Homes" initiative provides Mekong-Lancang countries with clear goals and pathways for governance cooperation, making a significant contribution to the development of a destiny-shared community in the region.

CHINA'S SCHEME FOR THE CREATION OF THE MEKONG-LANCANG COMMUNITY WITH A SHARED FUTURE FOR CLIMATE GOVERNANCE

The concept of a community with a shared future respects the sovereignty of countries in the Mekong-Lancang region and recognises that sustainable development cooperation can be achieved even in the face of differing political systems and disagreements (Andrews 2008). Implementing the 2030 Sustainable Development Goals in the region is a crucial step towards building a common community among Mekong-Lancang countries (Xinhua Net 2013). This can be accomplished by deepening a sustainable development community, where China's wisdom and know-how contribute to the development of partnerships among regional governments, promoting economic and social development through specific cooperation initiatives. Additionally, enhancing a community of environmental protection by integrating the environmental reservation plans of the six Mekong-Lancang countries and formulating a regional environmental cooperation strategy and Green Mekong-Region Plan is essential. The establishment of the Mekong-Lancang Environmental Cooperation Centre demonstrates the importance of regional coordination in this new type of sub-regional cooperation mechanism.

Furthermore, improving a community of governance by cultivating a distinctive culture of Mekong-Lancang cooperation and jointly building a community of shared future featuring solidarity, mutual assistance, equal consultation, mutual benefit, and win-win cooperation lays a solid foundation for building a Community of Common Destiny on a broader scale. Lastly, building a community of nexus security by adopting a common understanding of the similarities and differences in the security issues of the water-food-energy chain in the Mekong River Basin is crucial to improving the climate resilience of Mekong-Lancang countries. Nexus security has become a new trend in examining international affairs (Hongyuan 2016), and addressing these interconnected challenges is essential for the region's stability and prosperity.

CONCLUSION AND POLICY IMPLICATIONS

This article highlights three key tasks in building a community with a shared future for climate governance in the Mekong River region: strengthening

climate resilience, increasing climate investment, and expanding private sector participation. It also explores China's role in the region's governance, identifying four distinct identities: the largest country in the region, a country affected by climate disasters, the only permanent United Nations member in the region, and the advocate of a new cooperation vision. These identities shape China's behaviour across the region and the globe. Furthermore, the article provides a comprehensive analysis of the "China Plan" for fostering a community with a shared future for climate governance among Mekong countries.

The key findings of this article on building a community with a shared future for climate governance in the Mekong-Lancang region have significant policy implications for various stakeholders, including regional governments, financial agencies, the private sector, and international organisations. Firstly, the emphasis on strengthening climate resilience underscores the crucial role of adaptive management by local governments in protecting society, economy, and ecosystems from the impacts of climate change. To achieve this, regional governments must collaborate at both policy and practical levels, sharing best practices and facilitating the transfer of technology and knowledge.

Secondly, financial agencies must focus on increasing the policy impact of climate investment to ensure optimal resource allocation and sustainable development. This requires the introduction of international funding and public-private partnerships, as well as the development of financial policies related to climate financing and investment risk management. Mobilising and allocating funds effectively to support sustainable climate governance is a key challenge that demands in-depth exploration.

Thirdly, activating market mechanisms through private sector engagement is essential, given the sector's potential for technological innovation, resource allocation, and creative solutions. Researching ways to incentivise private sector investment in climate-related initiatives and exploring how public policies can guide market forces to promote private sector participation in climate governance are critical tasks.

Fourthly, international organisations, such as the United Nations and NGOs, must maintain their supervisory role in the region's climate cooperation efforts. They should ensure that the Mekong-Lancang countries meet the emission

reduction targets set by the Paris Agreement on schedule while promoting the flow of global governance resources to the region and upholding the principle of “common but differentiated responsibilities.”

Lastly, the article’s analysis of China’s multiple identities in the governance of the Mekong-Lancang region necessitates a thorough examination of the behavioural logic, motivations, and impacts of state actors under different identities. Understanding how these identities influence regional governance and international cooperation can provide valuable insights for the foreign policy formulation of countries in the region.

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CHAPTER 7
PROGRESS AND FUTURE DIRECTION OF MEKONG-LANCANG COOPERATION AND THE REGIONAL COMPREHENSIVE ECONOMIC PARTNERSHIP: A LEGAL PERSPECTIVE

SOK Khieu Rosette and NORN Samnangseymony

On March 23, 2016, the Head of Government of the Kingdom of Cambodia, the People's Republic of China, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, the Kingdom of Thailand and the Socialist Republic of Vietnam gathered in Sanya, China, and officially formulated a declaration that would formally launch the Mekong-Lancang Cooperation (MLC)[7] framework (Ministry of Foreign Affairs of the People's Republic of China 2016). The declaration, famously penned thereafter the Sanya Declaration, laid the grounds for a successful regional cooperation framework that would amongst others, "contribute to the economic and social development of the sub-regional countries, enhance the well-being of the people [and] narrow the development gap among regional countries" (Charadine 2018).

On March 22, 2023, during the 7th Anniversary of the Mekong-Lancang Cooperation (MLC) framework, His Excellency Prak Sokhonn, then Deputy Prime Minister and Minister of Foreign Affairs and International Cooperation of Cambodia, delivered an optimistic message about the future of this cooperation mechanism. In his speech for the annual "MLC Week 2023," he emphasised the MLC's role in promoting "peace, stability and a shared future of prosperity" (Minister of Foreign Affairs and International Cooperation of the Kingdom of Cambodia 2023) through close collaboration among the Greater

7 The term Mekong-Lancang Cooperation (MLC) or Lancang-Makong Cooperation (LMC) can be used interchangeably. The accepted practice is that the term MLC can be used when an event is taking place in a Mekong country and the term LMC is used when the event is held in China.

Mekong Subregion (GMS) countries[8] , which include Cambodia, the People's Republic of China, Laos, Myanmar, Thailand, and Vietnam (Asian Development Bank 2012).

In the seven years since its inception, the MLC framework has deepened connection and connectivity in the GMS. The GMS region is undoubtedly one of the fastest-growing economies in the Asia-Pacific region since 1990s (Nguyen, Duong, and Vo 2020, BP1–BP23). The mighty Mekong River, the 12th longest river in the world, connects six countries such as China, Laos, Myanmar, Thailand, Cambodia, and Vietnam, providing a source of livelihood for millions of people along its riverbanks and beyond (Sovachana, Pou, and Bradley 2019). The Mekong cooperation takes various forms, each embodies a distinct identity and unique attributes. They are comprised of six cooperation initiatives with major development partners. [9] In recent years, the MLC growth prospects and demographics have caught the interest of many investors from inside and outside the region, with its impressive high annual growth rate.

However, since the COVID-19 pandemic, global growth has been subdued and uneven across many economies. The International Monetary Fund (IMF) has labeled the world economy as entering a period of protracted, sluggish growth, with trade liberalisation appearing to have hit a wall, primarily aggravated by the tension between the US and China (Ahir, Bloom, and Furceri 2023). These regional geopolitical dynamics have also threatened to constrain the economic development of the GMS countries – unresolved maritime claims for instance (Ha 2023), have, in the past, threatened to disrupt supply chain and trade flows (KPMG 2016) and a general deficit in trust amongst global superpowers will certainly impact the general appetite of investors to flush money into the region and their risk perceptions related thereto (KPMG 2016).

As geopolitical rivalry intensifies, great powers have sought to leverage regional cooperation initiatives to exert their respective influences in the

8 Any reference to a GMS country will include references to Cambodia, People's Republic of China, Laos, Myanmar, Thailand and Vietnam.

9 They are, namely: (i) Mekong- Japan Cooperation; (ii) the Lower Mekong Initiative (LMI), and the Friends of the Lower Mekong (FLM) with the US; (iii) the Mekong-Ganga Cooperation (MGC) with India; (iv) the Mekong-Republic of Korea Cooperation; (v) the Mekong-Lancang Cooperation (MLC) with China; and (vi) the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS).

region (Siphana 2020). The GMS is one of the most important theatres of the US's Indo-Pacific Strategy and an integral part of its engagement policy with the Association of Southeast Asian Nations (ASEAN). Additionally, the trade war between the U.S. and China is pushing multinational companies to rethink their supply chains (Roy, Choudhury 2018). They started looking for alternative locations to offset costs and risks associated with tariffs. Rising geopolitical risks and labour costs have pushed certain companies, including but not limited to Samsung and Apple (Le, Xie, and Salaberria 2023) to shift some of their manufacturing facilities in China to ASEAN, particularly to the GMS countries. Countries such as Thailand and Vietnam, for instance, have benefited greatly from this industrial exodus and supply chain diversification, with Thailand strengthening its auto manufacturing sector (Yongpisanphob 2023), while Vietnam has excelled in electronics and other advanced manufacturing (Le, Xie, and Salaberria 2023). The shifting momentum from agriculture to manufacturing will certainly yield a more skilled labour force across all of ASEAN. The subregion also draws attention and interest from other regional and international powers, some of whom have politicised the water resource governance and management as well as other security needs of the lower Mekong countries.

However, the increasing engagement of external partners has given the region more value and importance. To efficiently respond to an increasingly complex and rapidly changing global and regional environment, these riparian countries have made adjustments to explore innovative ways to broaden cooperation, maximise the benefits, and minimise the negative impacts of their engagement with these external powers. The purpose of this chapter is to provide a comprehensive analysis of the progress and future direction of the MLC framework, as well as its interaction with the Regional Comprehensive Economic Partnership (RCEP), with a focus on legal perspectives. The chapter begins by exploring the central role of political leadership in driving the MLC's mission to foster GMS region development. The chapter then focuses on China's influence within the MLC and its implications for the region, shedding light on Cambodia's unique position and contributions within the MLC context. Moving forward, it examines the intersection between the MLC and RCEP, underlining how RCEP shapes the regional economic landscape. To strengthen the connection between these two frameworks, the chapter proposes a set of initiatives followed by policy implications drawn from these analyses.

POLITICAL LEADERSHIP OF THE MLC

An initiative introduced by Chinese Premier Li Keqiang in Nay Pyi Taw during the 17th China-ASEAN Summit has since successfully grown into a full-fledged comprehensive sub-regional cooperation mechanism in large part due to the strong political engagement of the leaders of the six riparian countries of the Mekong River, being China, Thailand, Cambodia, Laos, Myanmar and Vietnam (Charadine 2018). Within a short time, the MLC framework has made significant progress in politically binding these six riparian countries. The framework has gradually transformed into a multi-layered structure, which includes a Diplomatic Joint Working Group Meeting, a Senior Officials' Meeting, a Foreign Ministers' Meeting, and, at its apex, a Leaders' Meeting. Since its official launch in November 2015, there have been three Leaders' Meetings; one in 2016 in Sanya, China, one in 2018 in Phnom Penh, Cambodia, and the third done virtually in 2022.

Such a speed was a result of a strong sense of urgency driven by the rapidly evolving geopolitical context. Based on the principles of consensus, equality and shared benefits, the leaders of the GMS countries first adopted the "Sanya Declaration of the First MLC Leaders' Meeting" at the Inaugural Summit, which set a good direction as to how this cooperation mechanism will evolve, building on the ASEAN three key pillars of cooperation, namely (i) political and security; (ii) economic and sustainable development; and (iii) social, cultural and people-to-people exchanges (Ministry of Foreign Affairs of the People's Republic of China 2016).

The subsequent "Phnom Penh Declaration" further reinforced other priority directions: connectivity, production capacity, cross-border economic cooperation, water resources, agriculture, and poverty-reduction ("Phnom Penh Declaration" 2018). In such a short time, it is evident that the leaders of the GMS countries share a common objective of cooperating to realise and unleash the enormous development potentials of the sub-region, to help the GMS countries advance their industrialisation and move up their value chain (Lancang-Mekong Cooperation China Secretariat 2016).

THE INDISPENSABLE ROLE OF PROMOTING MEKONG DEVELOPMENT

The Mekong region has emerged as a potential growth centre, with the GMS countries becoming more and more interdependent. China has played a vital role in facilitating this trend by providing loans, grant aid, and technical expertise. China has been a long-standing and indispensable dialogue partner for the subregion, with its comprehensive support covering both the hard and soft connectivity aspects of development and a strong focus on industrial productive capacity. The construction of new regional highways, bridges, and other infrastructure facilities in the Mekong region has brought significant economic benefits and has directly impacted the future growth of the subregion. These infrastructure projects, including strategic north-south and east-west highways and economic corridors, have stimulated trade and investment, leading to economic regeneration and enhanced regional cooperation, and play a crucial role in the alleviation of poverty in the GMS countries (Stone, Strutt, and Hertel 2011, 95-138).

China's involvement in developing the Mekong region's infrastructure has been instrumental in creating a more connected and integrated subregion. The provision of financial resources has allowed for the construction of key transportation networks, including highways, bridges, and economic corridors. The construction of Cambodia's highway to Sihanoukville, for instance, serves as a good exemplification. These infrastructure projects have facilitated the movement of goods, services, and people within and across the member countries, promoting trade and investment.

This is to say nothing of China's technical expertise that contributed to these projects' successful implementation. The transfer of knowledge and skills in infrastructure development has helped enhance the capabilities of the member countries, enabling them to plan, construct, and maintain their transportation networks effectively. This technical collaboration has not only improved the quality of infrastructure but has also promoted sustainable development practices, taking into account environmental and social considerations.

The improved connectivity in the Mekong region has had positive spillover effects on various sectors. It has enhanced market access for businesses,

creating new opportunities for trade and investment. The efficient transportation networks have reduced logistics costs and travel time, boosting economic competitiveness. Moreover, the infrastructure development has promoted regional tourism, as it has become easier for travellers to explore the diverse cultural and natural attractions in the subregion.

As rural populations continue to move to cities in search of better job opportunities, the Mekong countries are improving their urban areas. We see an array of fastest-growing towns and cities grow bigger and larger over the years. Economically speaking, the important role of China in helping the subregion boost its competitiveness in the face of growing industrialisation is highly appreciated. Strengthening regional supply chains and capitalising on regional networks of Chinese enterprises are accelerating subregional economic growth, with cutting-edge technology companies migrating into the Mekong countries to take advantage of their cheaper skilled workforce.

Excluding China, all the MLC countries are ASEAN members, and the confluence of the MLC and ASEAN is obvious owing to the complementarity of their pillars of cooperation. Uniquely positioned as a riparian state and thus a stakeholder in Mekong issues, China's leadership in promoting the growth of MLC allows the Mekong countries to exercise greater focus in charting the subregion's development.

THE ROLE OF CHINA IN THE MLC

The rise of China as a global economic power along with its 'Belt and Road Initiative' and associated mechanisms, like the Asian Infrastructure Investment Bank (AIIB) and the Global Development Initiative (GDI), will continue to have profound implications on the regional and subregional development landscape for years to come.

As China continues supporting the ASEAN community-building efforts, the ASEAN-China Strategic Partnership will certainly boost the economic and social development of the GMS region ("Joint Statement of the 16th ASEAN-China Summit" 2013). The conclusion of the Regional Comprehensive Economic Partnership (RCEP) agreement certainly attested to ASEAN's vigorous contribution to promoting economic integration of East Asia, as exemplified by the significant involvement of Chinese central and local government officials

and businesspeople in taking advantage of the opportunities arising from the RCEP.

China's continued support in narrowing ASEAN's development gaps, specifically through the Initiative for ASEAN Integration (IAI) (Ha Noi Declaration 2020), will directly impact the GMS countries. Its contribution to the implementation of the Master Plan on ASEAN Connectivity (MPAC) will bring better connectivity whether by road, rail, air, and water. We can cite the recent commissioning of the high-speed train connecting China to Laos as a concrete example.

SPECIAL FUND OF MLC MECHANISM

China's leading role and active contribution to the GMS countries are highlighted in the establishment of a USD 300 million MLC Special Fund launched in 2016 (Minister of Foreign Affairs and International Cooperation of the Kingdom of Cambodia 2019) which supports small-and-medium scale projects in the form of technical exchanges, personnel training, seminars, joint research, platform building and infrastructure development. Aside from promoting friendly exchanges and cooperation for the six MLC member countries, it has thus far generated several tangible benefits to the region through infrastructure projects, industrial development, and human resources, just to name a few.

In addition to the tangible benefits of the MLC Special Fund, specific success stories exemplify the positive impact of China's contributions to the Mekong River region. For instance, infrastructure assistance for the construction of bridges and roads has significantly improved transportation and connectivity within and between member countries, facilitating the movement of goods and people. Furthermore, establishing industrial parks supported by the MLC Special Fund has attracted foreign investment and stimulated economic growth in the region. These success stories demonstrate the transformative power of China's financial support and technical expertise in fostering sustainable development and economic prosperity in the Mekong River basin.

The MLC Five Year Plan of Action provides a good long-term planning perspective. As they begin implementing the new Plan of Action (2023-2027), many prioritised development areas are packing their development agenda, like customs, product quality inspection, environmental protection, culture, tourism, education, health, and media (Minister of Foreign Affairs and International Cooperation of the Kingdom of Cambodia 2023).

Over the past seven years, from 2016 to 2023, the collaboration among the MLC countries, underpinned by the common aspirations to promote peace, stability, and a shared future of prosperity, remains as productive across all developmental spectrums, marked by a strong focus on sustainable growth. Cambodia has benefited so far from 80 Special Fund projects amounting to USD 31 million. The range of cooperation activities is rich and covers rural development, poverty alleviation, water resources, agriculture, air connectivity, health, education, tourism, cultural heritage preservation, and women empowerment, among many others (Minister of Foreign Affairs and International Cooperation of the Kingdom of Cambodia 2021).

CAMBODIA AND THE MLC

For Cambodia, the MLC is an important comprehensive sub-regional cooperation framework, whether looked at from the political, economic, or socio-cultural aspects. It has created to some extent the necessary environment conducive to laying the strong economic foundation and in-depth transformation for Cambodia to attain an upper middle-income country status and a high-income country by 2030 and 2050 respectively (Charadine 2018).

Cambodia's economic growth and development journey will be determined by its ability to tap new market access primarily under the RCEP and other bilateral free trade agreements. To receive the full dividends from these bilateral and regional agreements, Cambodia, like other GMS countries, must seek to further integrate itself into the wider Global Value Chains (GVCs). Quite obviously, in the age of the Fourth Industrial Revolution, digital technologies are an effective tool for transforming Cambodia from an agrarian economy into an industrial knowledge-based economy.

There is a significant need for the Mekong countries to upgrade their respective infrastructure to grab a larger share of the global manufacturing footprint and capture a greater share of these global flows. Promoting the free flow of goods, services, investment, and skilled labour among the Mekong countries could further support intra-regional trade.

This is where the RCEP becomes a legally binding agreement that provides the glue to support all the economic and development cooperation in the GMS region.

WHAT IS THE ROLE OF RCEP IN THE MLC?

The key question to consider is how the GMS countries fit into the larger RCEP framework. We argue that the GMS countries can look at the RCEP from the productive capacity perspective. Economically speaking, the MLC mechanism has played a vital role in helping to achieve the goal of building a closer Mekong sub-regional community for common interests. As an integral part of the ASEAN Community, these GMS countries can ride on the three pillars of cooperation.

The question is more on how the six individual countries can forge the synergy to promote their respective development and re-invigorate their sub-regional development in the face of a rising anti-globalisation trend. In other words, to withstand global downturns, they must be able to translate their economic complementarity into real development impetus and prosperity for their people.

To move up the value chains and narrow the intra-ASEAN development gap, Mekong countries will require an unprecedented level of synergy across these various frameworks, as well as sustained coordination and cooperation between key agencies and ministries, the private sector, development partners, the research community, and educational institution.

In recent years the GMS subregion has attained noticeable geopolitical significance on top of its vast potential to be a "global growth centre". The region has recorded impressive economic growth due in part to its location at the juncture of the enormous emerging markets of Asia. From a development perspective, some GMS countries have entered the post-industrial stage, some are still developing, and others have just opened their doors to modernisation.

China and Japan have similar comprehensive Mekong cooperation mechanisms that cover both soft and hard infrastructure. For the last several years, both have built the productive capacity of Mekong countries to be competitive in terms of attracting FDI (Siphana 2022). With the right capacity building and technology adaptation, companies in the GMS region could enhance their share of the global and regional supply chains.

KEY FEATURES OF RCEP AS A NEW GENERATION OF REGIONAL TRADE AGREEMENTS

In terms of geopolitics, for its part, the RCEP has emerged as a mega foreign trade agreement (FTA) centred on "ASEAN centrality". At a recent high-level panel discussion held in Phnom Penh, prominent panellists confirmed their perspectives on the genesis of RCEP – from conceptualisation to the negotiations to the conclusion of the RCEP Agreement. [10] They highlighted the central role of ASEAN as the driver of the process throughout the journey with ASEAN as the initiator and often as the mediator between ASEAN and its Development Partners. [11] Although ASEAN is the obvious driving force behind RCEP, the negotiations were influenced by Japan, China and other major players, and to the last moment, India. The negotiations are led by ASEAN, with individual chapters led by officials from both ASEAN and its Development Partners. Its structure was meant to benefit all participating countries subjecting them to the same trade rules.

The RCEP contains comprehensive trade facilitation measures that include paperless trading, electronic authentication, and additional clarity on border goods clearance procedures. More flexible rules of origin for companies to benefit from regional supply chains include the establishment of a single rule of origin criteria across all 15 countries. [12] RCEP calls for concrete timelines on several customs procedures such as customs clearance of goods within 48 hours of arrival; and a time limit to be reduced to six hours for perishable goods and express consignments. It contains improved advance ruling provisions and a time limit of 150 days for the issuance of advance rulings. [13] It introduces a mechanism for the issuance of a Declaration of Origin by approved exporters

10 Panelists include Prof. Mari Elka Pangestu, Han-koo Yeo, Iman Pambagyo, and ASEAN Secretary-General Dato Lim Jock Hoi

11 Ministry of Commerce hosted the RCEP Agreement Forum on 2-3 November to mark RCEP's ten-year journey.

12 Despite the different levels of development of the Parties, the RCEP builds on the commitments under the WTO Agreement on Trade Facilitation and in some parts goes further beyond these commitments, including provisions on time frames for the release of goods, perishable goods, and the issuance of advance rulings, time period for the customs clearance of goods.

13 The 6-hour limit on customs clearance of perishable goods is considered as a "CP-TPP-plus" provision.

and all exporters or producers which is an enhancement feature relative to the existing ASEAN + One FTAs.

The Mekong subregion is known for its strategic location, diverse strengths, rising economic potentials and a strong engine of global growth. Many economic, trade, and investment aspects to be implemented under the MLC can be supported by the mechanisms of the RCEP agreement. At the Seventh Mekong-Lancang Cooperation Foreign Ministers meeting held in Bagan, Myanmar in July 2022, the leaders agreed, amongst others, to deepen cooperation in areas that are conducive to strengthening economic resilience, including but not limited to, cooperating to improve cross-border trade facilitation and harmonisation of trade rules and regulations (Ministry of Foreign Affairs of the People's Republic of China 2022). Such measures would thereby improve cross-border trade and investment, which would then stimulate and accelerate the GMS region's industrialisation. We can thereby appreciate the important role of a legally binding and standardised RCEP agreement in linking and facilitating trade between ASEAN, which by default would be the GMS countries, with China, Japan, the Republic of Korea, and Australia-New Zealand.

To continue to act as a catalyst of growth, the MLC also calls for enhancing hard and soft infrastructure connectivity and facilities, deepening intra and inter-regional connectivity to spur more trade, investment, tourism and people-to-people linkages in complementarity with the MPAC. The RCEP is again a powerful instrument to build that linkage gap to promote cross-border economic cooperation in areas such as e-commerce, economic and technical cooperation, industrial parks, and trade facilitation. The "Plan of Action on Production Capacity Cooperation among Mekong-Lancang Countries" in line with the "Joint Statement on Production Capacity Cooperation among Mekong-Lancang Countries" has envisaged these aspects already (Ministry of Foreign Affairs of the People's Republic of China 2016).

In terms of bridging the gap in human resources development and building a future competitive workforce in the Mekong-Lancang region, the Trade in Services chapter under the RCEP is well endowed with service sector commitments to allow its members to work on key capacities like language skills, digital, financial literacy, technical, vocational and other soft skills.

The Mekong-Lancang region is rich in diverse traditions, cultures, and local values. This diversity offers opportunities for the countries in the region to combine their unique strengths and potentials in intellectual property (IP). The RCEP provides an important IP feature that includes international rules concerning the protection of Genetic Resources, Traditional Knowledge, and Folklore (GRTKF). By working together, these nations can harness their collective IP assets for the shared benefit of all Mekong-Lancang countries. This is the first time these issues have been addressed in an IP chapter of a trade agreement. Sufficient protection of IP of the Mekong-Lancang region through the setting of minimum standards is needed, amongst others, to promote technological innovation and cross-border dissemination of technology, knowledge, art and culture in a way that is conducive to social and economic welfare while maintaining an appropriate balance between rights-holders and users.[14]

In sustainable tourism development, one of the key agendas for socioeconomic rehabilitation and poverty alleviation, the services commitments made under the RCEP can generate job opportunities and support micro and small businesses to drive local development, thus further contributing to cultural and natural heritage preservation. The potential for poverty reduction and social impact at the grassroots level is enormous.

With this wide-ranging legal framework in place, the focus of the MLC should be on engaging more with the private sector, especially small and medium entrepreneurs (SMEs) and young entrepreneurs to look at potential investment and business opportunities in various Mekong-Lancang countries. To promote stronger connections among Mekong-Lancang businesspeople, establishing institutional links such as Mekong-Lancang business councils or chambers in each MLC country is crucial. These institutions can facilitate regular trade and investment promotion activities, including international trade fairs, investment roadshows, exhibitions, and business-matching sessions, fostering better interaction and collaboration within the business community. It is important to bear in mind that SMEs could face challenges in navigating through this complex regional free trade agreement which inhibits them from fully harnessing the trade and investment opportunities available to them.

14 Article 11.1 (2) of the Regional Comprehensive Economic Partnership (RCEP).

To place the RCEP at the heart of the MLC Economic Development Corridor, for instance, we believe there are a few tracks worth pursuing. Firstly, MLC can reinforce the capacity of SMEs and entrepreneurs in the Mekong countries through enhanced knowledge, skills, and access to information to enable them to expand their export markets and attract new investment. Information should have a strong focus on sector and product-specific market access opportunities. The MLC framework can also provide regular inputs of pertinent and valuable research findings, policy recommendations, and insights to inform policymakers and government officials to influence their decision-making processes in promoting this greater regional economic integration. Knowledge should be continuously disseminated and there should be high rates of engagement with partner institutions from each Mekong-Lancang country to contribute to the implementation of the RCEP for years to come.

SUGGESTED INITIATIVES TO ADVANCE THE MLC-RCEP LINKAGE

To quickly and effectively enhance connectivity within the Mekong-Lancang Cooperation (MLC) framework, digital-based initiatives offer the most promising opportunities. With this in mind, we suggest the following ideas for consideration by the Mekong countries: Establishment of a dedicated website or public database.

At some point, the soon-to-be-established RCEP Secretariat will be up and running and a dedicated website should be established to provide information about how to benefit from RCEP. The Mekong countries should start their collection process of the necessary information and data to contribute to the eventual establishment of an RCEP-wide website. Such a database and user interface should be established as soon as possible to provide accessible information on product-specific Rules of Origin and related certification procedures for the private sector, including product-specific rules of origin (PSROs) of existing FTAs to allow a fair comparison and the choice of the best route. This will permit and facilitate online access by the private sector and researchers of the tariff lines phaseout under RCEP and other existing FTAs. In the meantime, a few national websites should be updated with information on trade and investment information and procedures.

Concretely, Cambodia is required to promptly publish, on the Internet to the extent possible, the following information for the benefit of traders, and other interested persons to become acquainted with them (Siphana and Rosette 2023). This includes a detailed exposition of the procedures governing the importation, exportation, and transit of goods, encompassing processes at various entry points such as ports and airports. The publication should further encompass the requisite forms and documents integral to these procedures. Cambodia is also obliged to disclose the applied rates of duties and taxes applicable to imports and exports, ensuring clarity regarding financial obligations associated with international trade. Additionally, all fees and charges levied by governmental entities concerning importation, exportation, or transit must be transparently documented and accessible to interested stakeholders. The guidelines for product classification and valuation for customs purposes, as well as any pertinent laws, regulations, and administrative rulings on rules of origin, should be readily available for reference. Any import, export, or transit restrictions or prohibitions must be delineated, providing traders with a comprehensive understanding of regulatory constraints.

In the interest of legal compliance and awareness, Cambodia is obligated to publicise penalty provisions associated with breaches of import, export, or transit formalities, as well as the procedures for appeal or review in cases of dispute. Furthermore, the country is expected to make available any agreements it has entered into with other nations concerning importation, exportation, transit, or specific provisions thereof. Procedures relating to the administration of tariff quotas should be openly accessible. This commitment to transparency in disseminating crucial trade-related information contributes to a more equitable and predictable international trade environment, benefiting both traders and government agencies.

Additionally, Cambodia shall make available, and update to the extent possible and as appropriate, the following through the Internet: (1) a description of its procedures for importation, exportation, and transit, including procedures for appeal or review, that informs governments, traders, and other interested persons of the practical steps needed for importation, exportation, and transit; (2) the forms and documents required for importation into, exportation from, or transit through the territory of that Party; and (3) contact information for the enquiry points as well as information on how to make enquiries on customs matters.

DIGITAL ACCESS TO IP MATTERS

Cambodia must construct or have available online databases containing information on patents, industrial designs, and trademark applications and registrations. This makes registering IP easier and faster and publicly accessible IP databases will help businesses make more informed decisions and reduce costs (Siphana and Rosette 2023).

DIGITAL ACCESS TO LAWS AND REGULATIONS

In terms of transparency, there is a requirement that laws, regulations, procedures, and administrative rulings of general application are promptly published, including on the internet where feasible, or otherwise made available in such a manner as to enable interested persons and other Parties to become acquainted with them. To the extent possible and practicable, Cambodia shall publish in advance before their adoption to provide, where appropriate, a reasonable opportunity for interested persons to comment.

DIGITAL ACCESS TO INFORMATION TO SUPPORT SMES DEVELOPMENT

The RCEP Committee on Sustainable Development will eventually handle this initiative which will aim to provide easily accessible information on the RCEP Agreement to SME users, building up their knowledge capacity to be able to tap into the rules under the RCEP to ensure their sustainable development growth. In the meantime, some transitional measures may be taken at the national level to fill this gap through, for instance, the provision of public seminars or lectures aimed at SMEs on RCEP trade and investment rules. These seminars and lectures serve as a vital educational platform, aiming to equip SMEs with comprehensive insights into the provisions and regulations encapsulated within the RCEP Agreement. They may include expert presentations, practical case studies, and interactive sessions to foster a deeper understanding of how SMEs can effectively leverage the RCEP for their sustainable development and growth.

CONCLUSION AND POLICY IMPLICATIONS

The evolution of the MLC framework in transforming this Mekong-Lancang sub-regional mechanism is unstoppable. As the MLC framework continues to mature, it is poised to complement and synergise with other major initiatives, such as the Belt and Road Initiative and Global Development Initiatives. Ultimately, it will bring into reality the New International Land-Sea Trade Corridor. By fostering cooperation and coordination amongst the member countries, the MLC can effectively contribute to the realisation of the RCEP's objectives, promoting trade facilitation, investment flows, and economic growth across the subregion. Cambodia, as a steadfast advocate for the MLC, recognises the immense value and relevance of this subregional platform. It actively promotes the MLC's objectives, which align with the broader vision of building a Community with a Shared Future of Peace and Prosperity. By upholding the principles of multilateralism, inclusivity, and sustainable development, Cambodia seeks to harness the potential of the MLC to address common challenges, foster cooperation, and advance the collective well-being of the Mekong-Lancang subregion. In this connection, Cambodia will continue to promote the MLC as one of the most relevant sub-regional platforms to support multilateralism to realise our leaders' vision of building a community with a shared future of peace and prosperity.

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CHAPTER 8
"MEKONG-LANCANG COOPERATION: TOWARDS PEACE AND PROSPERITY" CONCLUSION AND WAYS FORWARD

OUNG Sivven and TON Linasopharith

The Mekong-Lancang Cooperation (MLC) holds remarkable transformative potential, bringing together nations united by a shared vision of sustainable development, bolstering regional connectivity, and nurturing mutual understanding and respect. This framework equips its members with the valuable tools of structured communication and robust cooperation. To ensure the Mekong-Lancang Cooperation (MLC) framework achieves its maximum potential and effectiveness, it is essential to comprehend how factors contributing to resilience may vary between urban and rural settings within the region. By identifying and addressing the varying factors that contribute to resilience in these distinct contexts, the MLC can develop targeted strategies to promote sustainable development and build resilient communities throughout the region. Moving forward, it is imperative to build upon the successes and milestones of the MLC to enhance its influence and broaden its impact, while simultaneously strategising and implementing measures to mitigate potential threats. The following recommendations and policy implications are proposed:

EXPANDING CROSS-BORDER CONNECTIVITY

Cross-border connectivity, encompassing digital interactions, economic activities, and cultural exchanges, is crucial for the success and prosperity of the Mekong-Lancang region. To enhance the resilience and effectiveness of these connections, MLC members should invest in telecommunications infrastructure, provide technical assistance, attract public and private investment, create mechanisms to support local authorities' decision-making and prioritise the safety and security of people involved in cross-border activities. Meanwhile, it is essential to facilitate seamless digital financial transactions, such as Cambodia's Bakong payment system, to further streamline cross-border economic activities. Doing so would enable

the members to benefit from globalisation while preserving their cultural identities, enhancing supply chains and virtual interactions, and ensuring the peoples of the Mekong-Lancang can navigate the challenges and opportunities of an increasingly interconnected world.

DEEPENING ECONOMIC EXCHANGES

Enhancing economic exchange necessitates improving customs procedures and facilitating trade through increased transparency of relevant laws and regulations, expanded electronic processing and acceptance of documents by customs authorities, and the implementation of trade facilitation measures. In addition, an inclusive, multi-faceted strategy that addresses key areas such as trade barriers, SME promotion, infrastructure investment, and collaboration among member nations is crucial for fostering robust economic interactions among the Mekong-Lancang countries. Strengthening the legal and institutional frameworks governing international economic activities and forging partnerships between government agencies and private sectors are also essential for creating transparent and efficient regulations that streamline economic processes while safeguarding stakeholders' interests. These initiatives will establish a more conducive environment for economic exchanges, streamline cross-border transactions, and ultimately contribute to the overarching objective of deepening economic integration and cooperation among member nations.

STRENGTHENING MECHANISM FOR ECOLOGICAL SUSTAINABILITY

The Mekong-Lancang region's economy heavily relies on its natural resources, which are essential for local livelihoods and regional development. However, the alarming state of ecological sustainability in the area demands urgent action, as deforestation, pollution, and climate change threaten the region's ecological balance and quality of life. To effectively address these challenges, a comprehensive approach is necessary. This approach shall include robust law enforcement, a centralised environmental agency, public awareness initiatives, international partnerships, innovative conservation financing, and transparent data systems. This multi-faceted approach, which combines regulatory action, community engagement, targeted funding, and evidence-based decision-making, will preserve the region's natural assets and biodiversity while

ensuring the well-being of local communities and fortifying the regional economy in response to environmental pressures.

ENHANCING KNOWLEDGE SHARING AND SKILL DEVELOPMENT

To foster understanding and enhance skills, member states shall invest in capacity-building programmes that offer training and knowledge sharing in critical areas such as trade, investment, water resource management, environmental protection, and disaster preparedness. This can be achieved by creating training centres, hosting workshops, and assessing programme effectiveness while prioritising practical needs and objectives. The current state of knowledge sharing and skill development in the region requires a holistic approach that caters to all age groups. Within the MLC framework, youth collaboration should be promoted to facilitate information exchange, research initiatives, and skill acquisition while also bridging the digital literacy gap for older adults. This strategy will develop a skilled labour force and drive economic growth and social progress, paving the way for a more thriving and sustainable future.

FOSTERING SHARED VALUES

The success in cultivating shared values, promoting development, and strengthening regional ties lays the foundation for a thriving and harmonious future, built on mutual understanding, respect, and a dedication to the well-being of all the people. The MLC framework is instrumental in nurturing shared values and a unified commitment to inclusive and sustainable development among the six culturally connected countries of the region. This collaboration framework enables innovative growth strategies, reinforces regional identity, and advocates for regional norms. The approaches serve as a model for other nations, showcasing the power of embracing common values and working together. As the framework evolves, evaluating its effectiveness in tackling challenges and capitalising on opportunities is crucial to optimise benefits for all stakeholders.

In conclusion, the MLC presents a promising path for dynamic development and shared prosperity among the participating states in the region. Member states are urged to come together to bolster collaboration and deepen

integration across various sectors. These concerted efforts will drive member nations toward the common objective of fostering development and well-being for the people of the region. By seizing this opportunity with unwavering determination and a unified vision, a lasting legacy of success can be ensured for generations to come.

Check Out the Mekong-Lancang Peace Boat Project
Via the QR Code Below