Chapter 13

Multilateral Cooperation for Sustainable Development: Water Management in the Mekong and Danube Regions

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Multilateral Cooperation for Sustainable Development

WATER MANAGEMENT IN THE MEKONG AND DANUBE REGIONS

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Introduction

The Danube and Mekong rivers are two of the world's longest rivers, and play a crucial role in supporting the livelihoods of people and other species living in the river basins. The Danube is Europe's second longest river, with a total length of 2,857 kilometres (km). Its basin, which extends for approximately 817,000 square km (about 10% of the European continent), is shared by 19 countries (Shepherd, 2018: 2). The river is one of Europe's main sources of hydropower, agriculture, recreation, water supply, and access to the natural environment. The river flows through four national capitals – Vienna, Bratislava, Budapest, and Belgrade – and nearly 20 million people depend on it for their daily water needs.

The Mekong River is nearly 5,000 km long and flows across six countries: China, Myanmar, Thailand, the Lao People's Democratic Republic (Lao PDR), Cambodia, and Viet Nam. Seasonal variations in water level and the wide range of wetland habitats have made this river a great source of agricultural production, energy, and tourist attractions in Asia. Its rich biodiversity is crucial to the livelihoods of the 60 million people who live in the river basin. The fishery sector alone brings about $17 billion in annual revenues: approximately 3% of the GDP of Cambodia, the Lao PDR, Thailand, and Viet Nam; and 13% of the total value of the world's fisheries (about $130 billion) (VietnamNet, 2016).

Due to the extreme significance of the two rivers, several multilateral mechanisms have been created in these regions to ensure the sustainable use of water and related resources. While these regional mechanisms have overall contributed to peaceful relations amongst countries in these regions, some challenges remain. For example, over the years, tensions have simmered amongst the countries in the Mekong River basin, particularly between the upstream and the downstream countries. To tackle outstanding water problems more effectively, countries in Asia and Europe have been working together through a new intercontinental mechanism known as the Asia–Europe Meeting (ASEM).

Water Resources Management Mechanisms and Interstate Relations in the Danube Region

Water resources management in the Danube region encourages countries in the region to cooperate collaboratively, such as by agreeing to be bound by certain legal mechanisms intended to bring these countries into ultimately peaceful relations with one another. The first and foremost legal tool created to manage water resources in the region was the 1994 Danube River Protection Convention (DRPC), signed by 15 entities in the Danube river basin (DRB), which covers more than 2,000 square km. These signatories were Austria, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Serbia, Slovakia, Slovenia, Ukraine, and the European Commission (International Commission for the Protection of the Danube River [ICPDR], 2013a: 4). The parties to the DRPC agreed to cooperate on key water management problems, such as conserving surface and ground water, controlling risks from accidents and flooding, and minimising pollution discharge from DRB sources into the Black Sea (ICPDR, 2013a: 4).

Subsequently, the ICPDR was established in 1998 to coordinate water management issues, and facilitate agreement amongst the signatories on legal, administrative, and technical measures to preserve and enhance the quality of the Danube River and its tributaries. The ICPDR was managed by an ordinary meeting group in charge of formulating policy and strategy, and a standing working group responsible for providing guidance and preparing decisions. Moreover, expert groups, task groups, and representatives of stakeholder groups support the ICPDR's scientific and technical work (ICPDR, 2018: 6).

Another powerful legal tool to regulate DRB water issues is the Water Framework Directive (WFD) adopted by the European Union (EU) in 2000. The WFD is regarded as one of the strongest legally binding water protection documents in the world, and one of the highest priorities for all DRB countries. Interestingly, its implementation has become one of the key selection criteria for EU membership (Masliah–Gilkarov, 2019). In this regard, the ICPDR is tasked with developing the capacity of DRB countries to meet the EU's accession criteria. The DRB countries have been very cooperative in meeting the requirements set out in the WFD, as well as the 1994 DRPC. Another interesting aspect of the WFD is the adoption of the 'polluter pays' principle, which demands that individual countries (e.g. the hydropower plant operator) pay for any damage that they have done to the environment. This principle generally applies to acts of hydropower construction that may adversely affect aquatic ecology (e.g. habitats and species) or hydromorphology (e.g. runoff, water balance, sediment transport, and river morphology) (ICPDR, 2013b: 15).

Another strong legal tool governing water-related issues in the DRB is the European Flood Directive (EFD) that became effective in November 2007. The EFD demands that member states implement adequate and coordinated policies to mitigate flooding hazards.

This directive also enables the public to access information on flood risks and related measures. Under this directive, member states are expected to coordinate their flood risk management practices with all countries sharing an international river basin, including non-European members (ICPDR, 2012: 5).

In 2000, the coordinated Danube River Basin District Management Plan for the whole DRB was developed in compliance with the EU WFD. This plan was adopted by the signatories of the ICPDR in late 2009. In October 2012, the Ministerial Council of the Energy Community decided to carry out the EU Renewable Energy Directive, which commits the EU Energy Community (including several DRB countries) to a binding share of renewable energy as part of their overall consumption in 2020 (ICPDR, 2013b: 11). This ensures that the water level and quality of the Danube River will not be compromised by the continuous construction of hydropower plants in the DRB countries, or in the European continent as a whole.

As outlined above, water management in the DRB is generally regulated by legally binding instruments, such as the DRPC, WFD, and EFD. This encourages the DRB countries, especially those that wish to be part of the EU, to adhere willingly to a set of binding rules that effectively help minimise their differences or conflicts over water usage. In the medium to long run, DRB countries are likely to continue to cooperate with one another and be less prone to open conflicts over the water.

Water Resources Management Mechanisms and Interstate Relations in the Mekong Region

Unlike the DRB, where water management is largely regulated by regional binding rules and regulations, water in the Mekong region is largely regulated by a number of non-binding regional initiatives, such as the Mekong River Commission (MRC), Greater Mekong Subregion (GMS), Lower Mekong Initiative (LMI), and Lancang Mekong Cooperation (LMC). These flexible regional initiatives have significantly benefited the Mekong countries, which include China, the Lao PDR, Myanmar, Thailand, Cambodia, and Viet Nam, with the goal of strengthening peaceful relations amongst them. The significance of these regional initiatives can be briefly described as follows.

Mekong River Commission

The MRC, whose antecedent was the Mekong Committee, is an intergovernmental organisation established in 1995. The MRC member states comprise Cambodia, the Lao PDR, Thailand, and Viet Nam, while China and Myanmar are dialogue partners (MRC). The MRC's main mission is to ensure mutual and efficient development of the Mekong River while mitigating the negative impacts on the peoples and environment in the Lower Mekong Basin (LMB). The MRC also plays an important role as a regional knowledge hub on water resources management.

Greater Mekong Subregion

The GMS was founded in 1992 with the aim of implementing high-priority projects in the six Mekong nations (Cambodia, China, the Lao PDR, Myanmar, Thailand, and Viet Nam) with the support of the Asian Development Bank. The GMS program has mainly concentrated on promoting and facilitating economic and infrastructure development by integrating the countries in the subregion via a transport system and several other economic networks and corridors, energy grids, and power interconnections to facilitate the interstate movements of goods and people as well as telecommunications linkups (GMS).

Lower Mekong Initiative

The LMI, officially proposed in 2009, is a multinational partnership between the United States (US) and the five lower Mekong countries, namely, Cambodia, the Lao PDR, Myanmar, Thailand, and Viet Nam. The LMI predominantly serves as a platform to address transnational development and policy challenges in the lower Mekong subregion. The LMI aims to promote trade, entrepreneurship, and innovation to support physical, institutional, and people-to-people links.

Lancang Mekong Cooperation

The LMC came into being after the first LMC Foreign Ministers' Meeting in China in November 2015 with the six participating member countries (China, Cambodia, the Lao PDR, Thailand, Myanmar, and Viet Nam). The LMC's main aims are to enhance the well-being of peoples, narrow development gaps between regional countries, and build a community of shared future amongst them. Supported by China, this initiative seeks to complement existing connectivity mechanisms, such as the Belt and Road Initiative and Association of Southeast Asian Nations (ASEAN) Master Plan of Connectivity 2025. These regional initiatives have enabled the Mekong countries (the lower Mekong countries in particular) to access various sources of funding for infrastructure development, mainly from the US, China, and Japan. This economic incentive has significantly contributed to improving relations between the lower Mekong countries and the donor partners.

Moreover, the creation of various regional initiatives in the Mekong region has not only helped manage water usage effectively, but also encouraged further economic integration amongst the member states, especially between the lower and upper Mekong countries. The MRC seems to be the best water data powerhouse, while the GMS is the best bridge linking across-the-board economic cooperation amongst the Mekong countries on a wide range of issues, including trade, investment, tourism, energy, and health.

Further, the LMC helps to accelerate ASEAN integration in two ways: (i) it gives a boost to the ASEAN Master Plan of Connectivity through its focus on infrastructure development and institutional coordination (Vannarith, 2018); and (ii) it seeks to narrow development gaps amongst the Mekong countries, the primary goal of the Initiative for ASEAN Integration. The initiatives mentioned above have significantly contributed to deepening economic integration in the Mekong region.

Problems in Water Management Mechanisms in the Danube and Mekong Regions

Water Management Problems in the Danube Region

Although the water management mechanisms in the Danube and Mekong regions have largely led the countries in these regions to work together peacefully, these mechanisms have still encountered certain problems. In the DRB, the water quality is still somewhat limited, and only 25% of the region's water can be regarded as meeting the necessary environmental standards (ICPDR, 2018: 2). Thus, the existing binding regulations have apparently not helped improve water quality in the region. More cooperation amongst DRB countries, as well as between the DRB and the world, should be fostered to tackle this issue more effectively.

Another contentious water management problem in the DRB is the continuous construction of dams and reservoirs, which has led to disruptions of the river flow. Dams and reservoirs have been constructed in almost all mountainous regions of the DRB and in some lowland regions (there are more than 700 dams and weirs along the river's main tributaries) for many different purposes, but especially for hydropower generation (ICPDR, 2013a: 26). It is worth noting that, as hydropower has become an important economic lifeline for some DRB countries, it is hard for them to halt hydropower activities completely in the region. For example, about 60% of Austria's annual electricity supply is derived from hydropower generated in the DRB (ICPDR). Despite this significance, the construction of hydropower plants in the DRB has become the leading cause of the Danube River interruptions (ICPDR, 2013a: 64). This ultimately creates significant difficulties for fish migration and sediment transportation in the region. Due to these problems, the DRB countries are looking to external partners for best practices and experiences in managing water to ensure its sustainable use for generations.

Water Management Problems in the Mekong Region

Despite a number of regional mechanisms, the risks and conflicts associated with water management amongst downstream and upstream countries in the Mekong region are still rather high. Problems such as drought and dwindling fisheries have worsened.

In July 2019, it was reported that the downstream countries had encountered a major drought, which threatened fisheries and agricultural production along the river basin. The drought caused Northeast Thailand to lose access to the river (Eyler and Salzberg, 2019).

In addition, water levels are increasingly lower than the average. According to the MRC, the water level in Thailand's Chiang Sen was 2.10 metres (m) during June–July 2019, 0.92 m lower than its long-term average (3.02 m) (MRC, 2019). During the same period, the water level in Vientiane was 5.54 m, 0.70 m lower than its long-term average (6.24 m), and the water level in Cambodia's Kratié Province was 9.31 m, about 5.40 m lower than its long-term average (14.71 m). Between 10 June and 18 July 2019, there was a drop of about 0.38 m at the Kratié station. In addition, the amount of nutrient-rich sediment flowing down the river has significantly decreased. According to the United Nations Educational, Scientific and Cultural Organization, this reduction is largely attributed to the construction of dams on the upper part of the Mekong (Fawthrop, 2018).

The existing policy mechanisms have been inadequate to mitigate the ecological risks in the Mekong region. As a result, the Mekong countries have sought to cooperate with other countries and regions to learn best policies and practices to manage water usage effectively in the region and to minimise possible tensions amongst upstream and downstream countries in the Mekong River region.

The Asia–Europe Meeting Can Mitigate Water Management Issues in the Danube and Mekong Regions

With the Danube and Mekong regions both facing water management problems, there is a need to establish a cooperation mechanism between the two regions. ASEM, with the participation of over 50 countries and international organisations across Europe and Asia, is a possible avenue for cooperation on water management between the two continents. ASEM became an important platform for countries in Europe and Asia, particularly those in the Danube and Mekong basins, to exchange best policy practices and lessons learned and to seek common solutions to the water problems they have encountered.

The water issue was first raised at the Seventh ASEM Summit held in China in October 2008, where ASEM leaders mainly discussed ways to address climate change and environmental protection issues, including water resources in general. They agreed to encourage and back regional and subregional organisations to devise joint research projects, including those related to life-sustaining water resources (ASEM, 2008). However, no reference was made to either the Danube or Mekong in particular.

At the Eighth ASEM Summit, the leaders emphasised the significance of water resources management and the need to cooperate in exchanging scientific research, experiences, and best practices. They even tasked their ministers to carry out a concrete dialogue on the issue in early 2011 (ASEM, 2010).

At the Ninth ASEM Summit in the Lao PDR in November 2012, the ASEM leaders mentioned water management cooperation between the Danube and Mekong regions for the first time. Specifically, they expressed their support for the results of the first ASEM Sustainable Development seminar, held in Hungary on 21–22 June 2012, which concentrated on the crucial role of water in the Sustainable Development Goals, and agreed to share their best practices and experiences on the development and better usage of water resources between the two regions (ASEM, 2012). During the 10th ASEM Summit in Italy in October 2014, the leaders once again reaffirmed ASEM's role in forging cooperation between the two regions, and committed to concretising their cooperation on water-related issues (ASEM, 2014).

At the 11th ASEM Summit in Mongolia in 2016, the ASEM leaders acknowledged ASEM's role as an important venue to share best practices and experiences regarding water management between the Danube and Mekong regions, and recognised the importance of water cooperation between the two regions, with ASEM as a model for transforming common challenges into opportunities for sustainable development and inclusive growth (ASEM, 2016). Lastly, during the 12th ASEM Summit in Belgium in 2018, the ASEM leaders reiterated their commitment to strengthening intraregional cooperation on water resources management, and acknowledged ASEM as a role model for cooperation in this area (ASEM, 2018).

Conclusion and Policy Recommendations

The Danube and Mekong rivers are both important lifelines of Europe and Asia. In light of this extreme significance, a variety of mechanisms are being put in place to ensure the effective and sustainable use of water, boost economic cooperation, and protect the environment in these regions. In terms of water management along the Danube, the DRB countries established strong, legally binding regulations such as the DRPC, WFD, EFD, and EU Renewable Energy Directive to achieve the objectives mentioned above. The establishment of such binding documents has smoothened water management amongst the DRB countries.

In addition to the legal tools mentioned above, bilateral and multilateral cooperation mechanisms have been created amongst the DRB countries in a bid to promote better cooperation and coordination in the area of water resources management. Cases in point include the agreement on water management between Romania and Hungary, and the agreement between Croatia and Bosnia and Herzegovina.

Water management in the Mekong region is governed by more flexible regional initiatives such as the MRC, GMS, LMI, and LMC. These mechanisms have, to a certain degree, helped improve ties amongst the lower Mekong countries and between these countries and their donor countries, such as China, Japan, and the US. The initiatives have strengthened information sharing on water-related issues within the Mekong region and enhanced multifaceted economic cooperation amongst these countries.

As both the Danube and Mekong regions have faced similar challenges, leaders in both regions have decided to work together, with ASEM at the centre of the conversation. The Ninth ASEM Summit specified cooperation on water resources management between the Danube and Mekong regions. The leaders expressed their view that the sharing of best practices and experiences in relation to water management should be encouraged. During the 10th–12th ASEM Summits, the leaders agreed to forge bi-regional cooperation between the two regions under the ASEM framework, and to work out concrete cooperation projects pertaining to water resources management.

Notwithstanding ASEM's current commitment to promote cooperation on water management between the Danube and Mekong regions, it should make greater efforts to translate statements into action by pooling of activities and resources. The upcoming 13th ASEM Summit (ASEM13) in Phnom Penh in early June 2021 may be a good starting point. This multilateral platform can help Asia and Europe resolve their common challenges and bring about peace and shared prosperity for both continents in accordance with the theme of the 13th ASEM Summit: 'Strengthening Multilateralism for Shared Growth'.

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