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Steering Transboundary Water Cooperation in the ASEAN Region

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This policy brief provides an in-depth exploration of transboundary water governance in the ASEAN region, highlighting the challenges and opportunities associated with international water law and regional cooperation. We attempt to situate this assessment within the framework of Sustainable Development Goal (SDG) 6.5, emphasizing the importance of integrated water resources management and operational arrangements for water cooperation while outlining key elements of international water law, including substantive and procedural rules, institutional mechanisms, and dispute resolution frameworks. As we examine ASEANspecific practices, such as the "ASEAN Way," and provide examples of existing agreements (e.g., the Mekong Agreement) and non-binding instruments that guide transboundary water governance, the document highlights both the progress made (e.g., Vietnam's engagement with global water conventions) and the gaps in operational arrangements across the region.

Background

The Association of Southeast Asian Nations (ASEAN) is an important regional institution comprised of ten States (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam) that seeks to promote cooperation and regional integration as well as friendly relations with non-ASEAN States at its periphery (Bangladesh, China, India, Papua New Guinea and Timor-Leste). ASEAN States have developed a unique framework of State relations,

Highlights

Transboundary water governance is a regional challenge, affecting nearly all Association of Southeast Asian Nations (ASEAN) States and those at its periphery. Still, the region has few operational arrangements to govern these shared water resources.

Practice across the region is mixed, with limited arrangements on transboundary watercourses shared by ASEAN States. There are operational arrangements for water resources shared between ASEAN and non-ASEAN states, but they are often non-binding.

Regional or global agreements, including the 1985 Natural Resources Agreement, 1997 Watercourses Convention or 1992 Water Convention, could accelerate transboundary water cooperation in the region.

The expansion and implementation of transboundary water cooperative arrangements across the region can secure significant benefits while supporting the implementation of the Sustainable Development Goals, particularly SDG 6.5.





the ASEAN Way, based on consultation, consensus building, refraining from criticizing the internal affairs of others, and a preference for non-legal forms of cooperation. As the region developed, however, there is an increasing use of legal forms of cooperation, including on transboundary watercourses. The importance and transboundary nature of these water resources provide the impetus for sharing, often guided by an operational arrangement, which may come in the form of a binding agreement or non-binding instruments.

At the global level there are two global water conventions – **1992 Convention on the Protection and Use of**

Transboundary Waters and International Lakes (Water Convention) and the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses

(Watercourses Convention), but also regional agreements, such as the 2000 Revised Protocol on Shared Watercourses in the Southern African Development Community that applies between States of the Southern, multilateral agreements such as the 1995 Agreement for the Sustainable Development of the Mekong (Mekong Agreement), bilateral agreements and nonbinding instruments. These arrangements assist in reducing conflict and political tensions, but also create a series of benefits across economic, social, environmental, regional economic, peace and security, and governance benefits (UNECE, 2021).

Sustainable Development Goal (SDG) 6 seeks to "protect and restore water-related ecosystems, including mounts, forests, wetlands, rivers, aquifers and lakes". This includes implementing integrated water resources management (IWRM) at all levels, including the transboundary (SDG 6.5). This is measured by the degree of implementation of IWRM, but also the "proportion of transboundary basin area with an operational arrangement for water cooperation." While there are high levels of institutionalization in North America and Europe, there is markedly lower levels of operational arrangements across Asia, including the ASEAN region. ASEAN is home to 41 transboundary surface and groundwaters resources, but there are a limited number of instruments and institutions that govern their joint use. This policy brief seeks to elaborate upon how this group of 15 States governs their transboundary surface and groundwater resources, identifying pathways for the promotion of regional cooperation and connectivity.

Table 1: List of transboundary water resources shared across the greater ASEAN region.		
	ASEAN-ASEAN (19) Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam	ASEAN-non-ASEAN (22) Shared between ASEAN States and Bangladesh, China, India, Papua New Guinea and Timor-Leste
Transboundary Surface Waters (22)	Bangau Basin – Brunei, Malaysia Ca/Song Koing Basin – Laos, Vietnam Golok River Basin – Malaysia, Thailand Ma River Basin – Laos, Vietnam Pak Chan Basin – Myanmar, Thailand Panduruan Basin – Brunei, Malaysia Saigon Basin – Cambodia, Vietnam Sembakung Basin – Indonesia, Malaysia Song Vam Co Dong Basin – Cambodia, Vietnam	Bei Jiang/Hsi Basin - China, Vietnam Fly River Basin - Indonesia, Papua New Guinea Irrawaddy River Basin - China, India, Myanmar Kaladan River Basin - India, Myanmar Karnaphuli Basin - Bangladesh, India, Myanmar Loes Basin - Indonesia, Timor Leste Mekong River Basin - Cambodia, China, Laos, Myanmar, Thailand, Vietnam Naaf River Basin - Bangladesh, Myanmar Red/Song Basin - China, Vietnam Salween River - China, Vietnam Salween River - China, Myanmar, Thailand Sepik River Basin - Indonesia, Papua New Guinea Tami River Basin - Indonesia, Papua New Guinea
Transboundary Groundwaters (19)	Baram Aquifer – Brunei, Indonesia, Malaysia Mekong River Delta Aquifer – Cambodia, Vietnam Golok Aquifer – Malaysia, Thailand Khorat Plateau Aquifer – Laos, Thailand Limbang Aquifer – Brunei, Malaysia Lower Mekong River 1 Aquifer – Laos, Myanmar, Thailand Lower Mekong River 2 Aquifer – Laos, Thailand, Vietnam Palah Basin Aquifer – Indonesia, Malaysia Salween Aquifer – Myanmar, Thailand Tanjung Selor Aquifer – Indonesia, Malaysia	Beilun River Basin – China, Vietnam Besikama Aquifer – Indonesia, Timor Leste Downstream of Lancang River – China, Myanmar Hong River Basin – China, Vietnam Jayapura Basin Aquifer – Indonesia, Papua New Guinea Karst Aquifer Upper Zuojiang Valley – China, Vietnam Merauke-Ketu Basin Aquifer – Indonesia, Papua New Guinea Nu River Valley Aquifer – China, Myanmar Upriver of Zuo River Aquifer – China, Vietnam

Transboundary Watercourse Agreements: Regional Frameworks for Water Sharing

Across the region, there are a total of 41 transboundary surface (22) and groundwater resources (19). ASEAN States share 19 transboundary water resources, including nine surface waters and ten groundwater resources. The majority of transboundary water resources in the ASEAN region, however, are shared between ASEAN and non-ASEAN States, including 13 surface waters and nine groundwaters, pointing to the need for ASEAN to cooperate with States beyond its institutional representation – see Table 1.

ASEAN States have developed a "**way of doing things**" referred to as the "**ASEAN Way**". Influenced by the common experiences of colonialism and Cold War interactions with hegemonic powers, this form of cooperation has primarily utilized non-legal forms of cooperation based on consultation, consensus building, refraining from criticizing the internal affairs of others, and a preference for non-legal forms of cooperation (Davidson, 2004). An emphasis on noninterference, however, places limitations on a State's ability to discuss environmental issues that cross borders, such as the use of water resources in riparian neighbours (Koh, 2007). As the region developed, however, there is increasing use of legal forms of cooperation, exemplified in a variety of issue areas, but also on transboundary watercourses.

Of all the States in the ASEAN Region, only Vietnam is

party to the Watercourses Convention. While none are party to the Water Convention, ASEAN States have engaged through participation as observers in the Meeting of the Parties. These international conventions provide frameworks for the peaceful management of transboundary water resources through five key elements that exemplify best practice, including provisions on scope – outlining what waters the agreement applies to, substantive rules – equitable and reasonable use and the due diligence obligation not to cause significant harm, procedural rules – information sharing, prior notification of planned measures and consultation, institutional mechanisms, and dispute settlement. These key elements are found in both global water conventions, the Water Convention (UNECE, 2013).

An "ASEAN Way" to Transboundary Water Cooperation?

Across the ASEAN region, there are limited agreements, binding or non-binding on transboundary watercourses, with the majority of instruments in the region found on watercourses shared between ASEAN and non-ASEAN States. The key elements of transboundary watercourse agreements are prevalent in instruments in the region, but so is the ASEAN Way. Although it has not entered into force, the 1985 Agreement on the Conservation of Nature and Natural Resources takes an approach similar to that of the Watercourses Convention – see Box 1. Apart from this agreement, Malaysia and Thailand have established a joint institution, the Joint Committee on the Golok River, facilitating procedural cooperation, including information sharing, for the joint development of the Golok River. No further instruments are found on transboundary watercourses shared between ASEAN States.

Remaining instruments are found on watercourses shared between ASEAN and non-ASEAN States, however, much of this is non-binding. The most notable, and widely studied, is the 1995 Agreement for the Sustainable Development of the Mekong, which largely reflects the approach of the Watercourses Convention. This includes equitable and reasonable utilization (Art. 5), with various procedural requirements for use of the tributaries or mainstream during the wet or dry season. It also contains the due diligence obligation not to cause significant harm (Art. 7), and established a joint institution - the Mekong River Commission (MRC) - which plays a strong role in dispute settlement (Arts. 18. 24 & 35). Procedural rules, however, are developed through non-binding instruments. Even though the Mekong originates in China, China is not party to the Agreement, instead participating as a "dialogue partner", which has challenged its ability to take a basin-wide approach. China has also shared information with the MRC since signing an agreement in 2002.

The scope of this cooperation has slowly expanded and now encompasses year-round information sharing. Non-binding instruments are also utilized between Indonesia and its neighbours. Indonesia and Papua New Guinea cooperate on precautionary measures to prevent pollution crossing the border, whereas Indonesia and Timor-Leste cooperate on "management of transboundary watersheds," including joint management plans, information sharing, and joint monitoring. China has also increased its engagement with Mekong States through the establishment of the Lancang-Mekong Cooperation (LMC). Established and developed through nonbinding leader's declarations and foreign ministers' joint statements, the LMC recognizes applicable international law and works alongside it including "the principles of extensive consultation, joint contribution and shared benefits, respect for and compliance with the United Nations Charter and international laws as well as ASEAN Charter, domestic laws

and regulations of member countries". Although not binding themselves, these instruments also reflect elements of transboundary water agreements, such as the substantive rules, but with a strong emphasis on procedure. No instruments are found on transboundary watercourses shared with Bangladesh or India.

Box 1: The 1985 Agreement on the Conservation of Nature and Natural Resources

Established in 1985, the Agreement covers the governance of a wide range of resources, one of which is water. It is currently not in-force, requiring ratification by Brunei, Malaysia and Singapore.

Scope: "sustainable utilization of harvest natural resources" including water (Art. 1(1)).

Substantive Rules: Cooperate while taking the sovereignty, rights and interests of other parties into consideration (Art. 19(1)); control, prevention, reduction or elimination of adverse environmental effects (Ar. 19(2a) & 20).

Procedural Rules: environmental impact assessment, prior notification of planned measures that may cause significant impact, consultation, emergency notification and an obligation to establish agreements in this regard (Art.19 & 20).

Institutions: Meeting of the Parties, secretariat and national focal points (Art. 21-23).

Dispute Settlement: settled "amicably by consultation or negotiation" (Art. 30).

Key Points and Recommendations

Transboundary water governance in the broader ASEAN region is conducted through a patchwork of agreements and non-binding instruments. These include primarily bilateral agreements or non-binding instruments, very few of which are comprehensive. There is a strong emphasis on procedural cooperation, often a first step towards greater cooperation, but this has yet to materialize. What is missing across the arrangements studied here, however, is mention of prior notification of planned measures. There are also various transboundary watercourses without an operational arrangement.

Cooperation on transboundary watercourses is incremental, and there are no shortcuts. How might ASEAN States enhance cooperation in the region?

- Conduct an up-to-date assessment of transboundary water resources (surface and sub-surface) across the region, as well as relevant governance frameworks that apply to them. Apart from the Mekong Basin, there is relatively little research on the smaller basins and relevant governance frameworks. In coordination with regional institutions, governments and stakeholders, undertake an assessment of shared water resources, the legal and non-legal frameworks that govern them, gaps in those frameworks and the challenges they face.
- Host workshops and training courses to expand knowledge of international water law and diplomacy across the region. There is often limited understanding of the rules of international water law and their practical application in various geographic contexts. It is pertinent to build capacity and understanding of these rules in the ASEAN region by holding workshops, seminars, lectures and training courses on the topic in coordination with regional governments and institutions.
- States in the region should collectively assess the possibility of acceding to the global water conventions or the establishment of a regional instrument. Accession to one of the global water conventions would provide a standard set of norms for transboundary water governance in ASEAN and beyond. This could also be achieved through ratification (by Brunei, Malaysia and Singapore) of the 1985 Agreement on the Conservation of Nature and Natural Resources which would then act as a regional instrument, or the establishment of a new regional instrument. The latter options may be preferred as it would better reflect an ASEAN approach.
- Further enhance the role of regional institutions as leaders on the issue of transboundary waters and foster greater collaboration between them, especially between ASEAN and the MRC. ASEAN and the MRC have sought a closer working relationship by hosting two joint "Water Security Dialogues" (2021 and 2024), but neither has explicitly discussed transboundary water resources. The MRC has significant experience in this regard, and should share its best practice with ASEAN and other ASEAN States. Successful transboundary water governance requires a basin-wide approach. As such, non-ASEAN States and related institutions, such as the LMC, should also be included whenever feasible.

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