

Governing transboundary commons in Southeast Asia

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The recent uptake of the concept of transboundary commons has directed attention towards the complexities of cross-border environmental governance. Transboundary commons are broadly defined as the spatial arrangements for governing shared resources and coordinating responses to environmental threats and crises that traverse jurisdictions and property boundaries within, as well as between, nation-states (Giordano, 2003; Hirsch, 2020; Miller, 2020). Etymologically and genealogically, transboundary commons inscribe a specific set of relationships that value resources ‘in common’ across borders. Scholarship on the global commons and transnational commons has focused on the international dimensions of dispersed and overlapping resource regimes (Holder and Flessas, 2008; Corson and MacDonald, 2012). While sharing many characteristics with these allied concepts, the notion of transboundary commons does not restrict the study of cross-border relations to national-level units of analysis but extends to encompass all scales of environmental governance. As such, the analytical lens of transboundary commons prompts critical reimagination of the myriad connections between place-based forms of resource organisation and distant decision-making processes, labour, technologies and markets that shape (re)distributional outcomes within and among countries.

This special issue is concerned with increasing the understanding of the challenges and opportunities involved in governing environmental issues that are cross-jurisdictional and multi-scalar in nature. By definition, the transboundary commons problem cannot be addressed by individual groups of resource users, sectors or administrations. Common environmental goods, such as biodiversity, regional

food security and carbon sequestration, can only be maintained through multi-sited activities such as sharing knowledge about species quotas and channelling funding, technologies and expertise into coordinated programmes to protect habitats within designated areas. Transgressive environmental effects that are generated by cumulative development pressures similarly require a politics of collective action. Yet negative transboundary impacts such as air and water pollution, greenhouse gas (GHG) emissions and climate displacement can also create new opportunities to exploit borders in progressive ways by mobilising cross-border networks around the coordination of more informed, effective and inclusive mitigation responses within and among nation-states.

Our geographical focus for this special issue is Southeast Asia, a resource-rich but land-scarce region that covers just 4% of the world’s land mass but supports close to 9% of its human population, or some 670 million people (Woodruff, 2010; Worldometer, 2020). The 11 countries that comprise Southeast Asia share a long history of porous borders around informal resource regimes, mixed use landscapes and economic connectivity forged through trade regionalisation. The expanding role of markets in shaping environmental stewardship across the region has added to this fluidity of borders through a wide variety of public–private, private–societal and co-governance partnerships (Miller *et al.*, 2020). Green growth partnerships are engaged in an extraordinary range of transboundary activities around the conservation and sustainable commodification of common pool resources. Yet growth-based models of development are also the leading drivers of region-wide environmental degradation and the unequal redistribution of risks and impacts.

Despite having almost 15% of the world's tropical forests, Southeast Asia has one of the fastest global rates of deforestation, losing around 80 million hectares of forest between 2005 and 2015 (Estoque *et al.*, 2019), in addition to having the highest rate of mining in the tropics and the greatest number of hydropower dams under construction (Hughes, 2017).

Most of the contributors to this special issue first came together at the *Workshop on Sustainable Transboundary Governance of the Environmental Commons in Southeast Asia*, convened at the Asia Research Institute, National University of Singapore, in November 2018. Other authors with corresponding research interests were subsequently invited to make intellectual contributions. Through these conversations, our authors explored the trade-offs, tensions and contradictions embedded in the transboundary commons of Southeast Asia. As a starting point, this entailed recognition that transboundary commons have been divergently understood and applied in Southeast Asia, as elsewhere, to mean either the right to exploit ownerless (*res nullius*, owned by none) natural resources or a collective onus of responsibility to protect the common heritage of humankind (*res communis*, owned by all) (Schriever and Prislán, 2009). These divergent interpretations are important because they at least partly explain why transboundary commons are sites of contested power relations. Although commons are enacted across borders around the pursuit of a specific environmental good or in response to a shared threat or crisis, they may be captured by powerful elites to whom resource rights and benefits tend to unequally accrue, while exposing other sections of society to new forms of risk, precarity and environmental injustice. Somewhat differently, transboundary commons aimed at conserving or sustainably developing particular resources may (re)reproduce resource exclusions when they prioritise the protection of biodiversity at the expense of indigenous livelihoods, or vice versa. Cognisant of these unequal geographies of resource access and accumulation, the authors of the papers in this collection approach the transboundary commons as highly politicised spaces, within which collective resource rights and benefits are continually contested, negotiated and by no means assured.

Overview of this collection

Each of the nine papers considers a different aspect of governing the transboundary commons of Southeast Asia. While we expect readers to be interested in those cases about which they have particular knowledge and expertise, taken together, the articles highlight a set of central concerns in the search for more effective and inclusive forms of transboundary environmental stewardship. Apart from their applied policy relevance to situated contexts, these articles signal a need to take better account of the extended governmentality of complex environmental issues that cannot be settled at a single scale of human interest.

Addressing questions of scale, Hirsch's (2020) contribution to this collection argues that regional-level institutional arrangements for governing common pool resources neglect or conceal the place-based impacts of capital-intensive development. He shows how this problem could be addressed by integrating the relationship between localised commons and transboundary development projects into supra-national framings of the commons. As Hirsch explains, taking a holistic approach to rescaling the transboundary commons could combine polycentric forms of multi-scalar governance with cross-border impact assessments. Such an approach has the potential to reveal the full extent of environmental footprints generated by large-scale investments that influence and transform communal property relations within and between localities.

Yong (2020) provides a critical examination of these place-based effects of transboundary development processes on riparian communities, focusing on an environmental movement in Thailand's Chiang Khong district. This movement emerged in response to Chinese-funded mainstream hydropower dams along the Mekong River. Yong describes how community-level adaptive strategies have shifted due to irregularities in the availability of river resources. Through grassroots stewardship, Chiang Khong residents have managed to reclaim access to ecological commons entangled in transnational hydropower enclosures by using territorial strategies centred on adaptive fishing arrangements, community-driven research and the establishment of village conservation zones.

At the opposite end of the scalar spectrum of Mekong development, Tran and Suhardiman (2020) locate large hydropower dam projects within geopolitical debates about the sustainability of alternative energy sources such as wind and solar power. They portray this contested landscape as a transboundary commons problem because of the tremendous socioecological costs involved in transforming hydro(power) from a common pool resource into a commodity. Although the Mekong is itself institutionally defined as a transboundary commons in a basin-scale framework, hydropower dams have fundamentally reorganised both geopolitical power relations and the flow of natural resources across the region. This raises concerns about the sustainability of multi-sited transboundary commons around other river resources, such as wild catch fisheries, if concerted efforts are not made to explore alternative energy supplies in the near future.

Geopolitical power relations are bound up in commodity chains that shape not only relational processes of trade and investment but also the construction of corresponding commons and resource enclosures in distant places. Middleton and Ito (2020) demonstrate this relational (re) patterning of human–nature interactions in their study of (de)industrialisation and connected cross-border processes in Thailand and Japan, set within the historical context of East Asian economic integration. They argue that relationally examining transformations in localised commons lends important insights into multi-scalar forms of hybrid governance that are transboundary in nature in addition to being domestically driven.

Institutional frameworks for governing transboundary water commons rarely consider ways of seeing and valuing water resources that are not readily tangible in terms of economic productivity. Grundy-Warr and Lin (2020) develop the concept of ‘unseen transboundary commons’ to describe the biophysical geopolitics of governing overlooked or unvalued nutrients, sediment and other mobile resources that are transported via the annual flood pulse system of the Mekong Delta and Tonle Sap ecosystem to sustain inland fisheries in Cambodia. In addition to these precious resources being largely ignored in institutional arrangements, the capital-driven relations and infrastructures that exploit, deplete and degrade them are

equally unseen in the sense that they are treated as biophysically separate from their broader socioecological context, which in turn displaces intergenerational knowledge systems required to sustain them.

Ignoring the unseen drivers of anthropogenic environmental change is a major impediment to effective transboundary governance. Drawing evidence from Thailand, one of the world’s biggest contributors to marine plastic pollution, Marks *et al.* (2020) highlight the legally obscure role of land-based drivers of pollution of the oceanic commons. Governed by non-binding international legislation, the world’s oceans are repeatedly transgressed by terrestrial polluters whose activities are rarely interrogated beyond the borders of the countries in which they reside. By showing how domestic processes of plastic production, consumption and waste management pose substantial and ongoing obstacles to environmental reform at different scales of governance, the authors explore collaborative pathways through which policy redress might be enacted across scales and sectors in order to alter collective ecological behaviours in the longer term.

Transboundary commons are increasingly mobilising around the unintended environmental externalities of growth-based development. Astuti (2020) explores the ways in which hybrid governance regimes comprising diverse stakeholders in Riau, Indonesia, are enacting commons to minimise the damage generated by the drainage and conversion of peat swamp forests into agricultural plantations. Biomass wildfires in these highly flammable drained peatlands contribute substantially to transboundary air pollution, known colloquially and legally as ‘haze’ in Southeast Asia. Using the analytical lens of the eco-scalar fix, Astuti describes how collaborative efforts to rewet and rehabilitate Riau’s peatlands are rescaling hybrid governance networks around the hydrological characteristics of peatlands rather than around conventional property borders and administrative boundaries.

Hybrid governance networks are similarly seeking to rescale and spatially (re)connect dispersed commons in the Salween River, which flows through China, Myanmar and Thailand. Middleton and Suhardiman (2020) explore how limited statehood in the Salween basin has

facilitated the emergence of fragmentary decision-making processes and collectivised environmental actions by hybrid partnerships involving non-state and state actors. Placing power relations at the centre of their analysis, the authors argue that without an overarching decision-making body or institutional framework of the kind used (imperfectly) to govern the adjacent Mekong, hybrid networks in the Salween River could potentially be mobilised to connect fragmentary commons around progressive forms of governance centred on conservation activities and socioecological justice.

Galea *et al.* (2020) warn that without more substantive efforts to coordinate and connect commons across borders, food insecurity and other problems of resource scarcity will likely ensue and multiply. They demonstrate that the pressures of hydropower dam construction in the Mekong have led to the depletion of fish stocks critical to local food security. As a result, livestock production has had to be increased in order to replace protein deficits in human diets in Cambodia and Laos, and this in turn has transboundary environmental impacts. By quantifying the risk potential for GHG emissions from beef and buffalo enterprises, the authors show how the displacement of traditional forms of food production is negatively affecting common pool resources at larger scales, with implications for sustainable and equitable transboundary governance.

Collectively, the cases in this special issue emphasise the urgent need to find new ways of connecting geographically dispersed resource users with more coordinated, equitable and inclusive ways of conserving and sustainably developing shared and overlapping resources. Relatedly, they also emphasise the shortcomings of current approaches to environmental governance that seek to partition social and ecological knowledge and limit responsibility for complex problems of resource organisation to individual jurisdictions. In their working paper on Asia's environmental challenges, Howes and Wyrwoll (2012) identify water management, air pollution, deforestation and land degradation and climate change as 'wicked problems'. They use 'wicked' not to mean awful or nefarious but, rather, intractable or hard to solve because they are dynamic and complex. It is instructive that their four major environmental challenges

thread their way so pervasively across the nine papers in this special issue. Given the urgent need to address Southeast Asia's environmental challenges, it is tempting to reach for simple policy solutions because simple is seen to be effective and has the added advantage of being easy to communicate. The papers here, however, demonstrate that we need to be comfortable with solutions that are messy and contingent because there are no simple answers to wicked problems.

Acknowledgements

The authors acknowledge that this publication benefited from the financial support of the Ministry of Education, Singapore, under its Social Science Research Council (SSRC) grant 'Sustainable Governance of the Transboundary Environmental Commons in Southeast Asia' (MOE2016-SSRTG-068). Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not reflect the views of the Ministry of Education, Singapore.

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