

Journal of Current Chinese Affairs

China aktuell

Topical Issue: Political Ecology of a Rising China

Guest Editor: May Tan-Mullins

Hensengerth, Oliver (2017),

Regionalism, Identity, and Hydropower Dams: The Chinese-Built Lower Sesan 2 Dam in Cambodia, in: *Journal of Current Chinese Affairs*, 46, 3, 85–118.

URN: http://nbn-resolving.org/urn:nbn:de:gbv:18-4-11097

ISSN: 1868-4874 (online), ISSN: 1868-1026 (print)

The online version of this article and the other articles can be found at:

<www.CurrentChineseAffairs.org>

Published by

GIGA German Institute of Global and Area Studies, Institute of Asian Studies, in co-operation with the Lau China Institute at King's College London, and Hamburg University Press.

The *Journal of Current Chinese Affairs* is an Open Access publication. It may be read, copied and distributed free of charge according to the conditions of the Creative Commons Attribution-No Derivative Works 3.0 License.

To subscribe to the print edition: <ias@giga-hamburg.de>
For an e-mail alert please register at: <www.CurrentChineseAffairs.org>

The Journal of Current Chinese Affairs is part of the GIGA Journal Family, which also includes Africa Spectrum, Journal of Current Southeast Asian Affairs and Journal of Politics in Latin America: <www.giga-journal-family.org>.





Regionalism, Identity, and Hydropower Dams: The Chinese-Built Lower Sesan 2 Dam in Cambodia

Oliver HENSENGERTH

Abstract: The Greater Mekong Subregion (GMS) has been styled as a natural region drawn together by the Mekong River. However, the literature on regional identity has argued that regions are socially constructed phenomena. River basins in particular are historically evolved constructs of specific political and social relations. Drawing on concepts of regional identity and on the literature examining the links between culture and water, the article argues that the actors driving the GMS have exacerbated social tensions through hydropower programmes, thus failing to establish social coherence. These programmes focus on energy production for national economic growth and economic integration between GMS countries, but they ignore the need to govern water resources for the benefit of local communities, many of which are made up of ethnic minorities with specific cultural attachments to the river. This produces tensions around the type of development that takes place in the GMS, leading to value fragmentation rather than value convergence. The article explores these issues by focusing on the Chinese-built Lower Sesan 2 Dam in Cambodia.

■ Manuscript received 18 January 2017; accepted 11 December 2017

Keywords: Mekong, Chinese hydropower dams, water governance, regionalism, water and culture, identity, Lower Sesan 2

Dr. Oliver Hensengerth is a senior lecturer in International Relations at Northumbria University, United Kingdom. His research focuses on water governance, transboundary water cooperation, flooding, and environmental and social issues in the context of hydropower projects. His geographical interests are in China, continental Southeast Asia, the Mekong River Basin, Cambodia, Vietnam, and Ghana. E-mail: <oli>coliver.hensengerth@northumbria.ac.uk>

Introduction

The Greater Mekong Subregion (GMS) is experiencing a hydropower boom, driven by national governments, banks, and regional construction companies from Thailand, China, and Vietnam. Supported by the Asian Development Bank (ADB), the aim is to end electricity shortages and create sustainable power supplies through regional power trade, of which hydropower is a key energy source.

Hydropower schemes, however, are prone to conflicts between users as well as between sectors. Divergent usage between rural and urban populations and competition between water, environment, energy, and agriculture sectors creates multidimensional conflicts across different geographical scales. Management of water resources for energy production to feed national electrification targets often fails to take into account the impact of a given dam on local fisheries, agriculture, ecological cycles, and local belief systems.

Within the GMS, these conflicts are particularly violent in Myanmar and Cambodia and a strong civil society network has emerged across the Mekong region. These networks include NGOs and local communities who have resisted resettlement. A decade and a half ago, protests against large hydropower dams along the Chinese parts of the Mekong (Lancang) and the Salween (Nu) rivers were also widespread, epitomised by the high-profile campaign against the Nu dam cascade in 2003/2004 (Mertha 2008). While in China protests against hydropower have since died down in the face of concerted government efforts at repression, protests against large dams in Southeast Asia are increasing.

These acrimonious conflicts around major development projects can affect how we perceive of the GMS as a region or, as it is officially called, a subregion. Theorists of regionalism have argued that a region consists not only of transboundary infrastructure and governance organisations, but also that regionalisation entails a convergence of values. Hettne (1999a) has called this the creation of "regionness." Regionness can therefore be interpreted as a shared sense of belonging and popular identification with a region.

Drawing on concepts of regional identity and on the literature examining the links between culture and water, the article argues that the GMS is exacerbating social tensions through its hydropower programmes. These programmes focus on energy production for national economic growth and economic integration, but they ignore the

need to govern water resources for the benefit of local communities. This produces tensions around the type of development that takes place in the GMS, leading to value fragmentation rather than value convergence.

The article examines these propositions through an analysis of interactions of actors involved in the conflict around the Lower Sesan 2 Dam in Cambodia, which is a part of the GMS power grid. Construction on the dam, built by China's Hydrolancang, was begun in 2014; it was subsequently commissioned (opened) in September 2017. The Chinese government has enthusiastically embraced the GMS and has committed substantial funds to building infrastructure, including but not limited to energy-production systems and railroads. Amongst the latest initiatives is the Lancang-Mekong Cooperation, in whose framework China is collaborating on water resources, something the country had previously rejected. Chinese companies have built most of the large hydropower dams in Cambodia, they have substantial stakes in the hydropower sector in Myanmar, and they are increasing their influence in Laos. Most crucially, perhaps, Chinese companies are due to build a substantial part of the planned mainstream Mekong dams, including both proposed mainstream dams in Cambodia.

The article will first discuss the connections between regionalism and identity and then address the links between water and culture. It will then outline the official discourse of the ADB-sponsored GMS project and the role of China in building hydropower infrastructure before analysing the Lower Sesan 2 Dam and the implications for the GMS as a region. Data comes in the form of interviews conducted over several years. An initial round of interviews was conducted in September 2010 with officials from several Cambodian ministries (Environment; Industry, Mines, and Energy [now the Ministry of Mines and Energy]; and Agriculture, Forestry, and Fisheries); with representatives from the Cambodian Investment Board; and, further, with independent consultants, NGOs, and foreign embassy officials. Interviewees were chosen based on their knowledge and involvement with: rationales for the government's hydropower plans; the decisionmaking process for international hydropower financing; policies and practices of hydropower-induced resettlement; and the environmental impact assessment (EIA) process with specific reference to the Lower Sesan 2 Dam.

These interviews were updated in April 2012 based on e-mail conversations with an independent consultant working on hydropower politics and land rights in Cambodia for NGOs and international organisations. A round of face-to-face interviews was conducted in July 2015 with representatives from Cambodian NGOs involved in the Lower Sesan 2 project. A final interview was conducted in June 2017 via Skype with a member of a Cambodian NGO involved in community resettlement in the Lower Sesan 2 project.

Regionalism and Identity

There is wide agreement in the literature that regionalism is a reaction to global developments (Fawcett and Hurrell 1996; Gamble and Payne 1996; Fawcett 2004). However, the question of what constitutes a region remains hotly contested. Approaches vary considerably between territorial, cultural, economic, and political explanations (see, e.g., the overview in Mansfield and Milner 1999: 590–592 and in Fawcett 2004).

Constructivists argue that regions are socially constructed and that, therefore, there are no natural regions (Katzenstein 1997; Hettne and Söderbaum 2000; Jessop 2003). This brings into focus not only geographical boundaries but also the social nature of regions. According to Söderbaum (2012), constructivists explore how regions come into existence. From this viewpoint, regions are not naturally given but are "dynamic settings for social interaction" (Söderbaum 2012: 18). Similarly, Hettne (1999a) argues that regions "are created and recreated in the process of global transformation" (Hettne 1999a: xv). Viewing a region as socially constructed emphasises the norms and values, shared practices, and beliefs that hold a region together. Regions are therefore intersubjective creations that embody a link between identity and space; these creations are not fixed, but continuously produced and reproduced (Emerson 2014).

The production of regional identities is a contest over contending images and meanings of the region. Regional identity can be defined as "regional attachment, belonging or collective consciousness" (Zimmerbauer 2011: 246). Zimmerbauer (2011: 244, 255) argues that although regional identities are seen as a precondition for a successful image-building project, newly created regions are often established by supranational actors who then begin to create a regional image

through place promotion, which may be more relevant to external actors than to the inhabitants of the region. The new region may thus be unfamiliar and even meaningless to its inhabitants.

The problem of unfamiliarity is aggravated where regional images are created around the use of a particular resource, such as water, as in the case of the GMS. In such cases, regions can be located at basin scale with the basin becoming a unit for economic planning. Swyngedouw (2009, 2014) argued that river basins are historically produced waterscapes, characterised by specific political, social, and natural relationships. These human-made waterscapes are contested, as their conceptualisations change depending on how, where, and by whom water is used. They are therefore a reflection of dominant power relationships (Molle, Foran, and Floch 2009). The consequence is the production of overlapping hydro-social scales, structured by competing networks of interest (Swyngedouw 2007).

The case of newly created regions is of relevance to the GMS, which was created through an initiative of the ADB in 1992 in order to promote trade and investment between member states - China (provinces of Yunnan and Guangxi), Myanmar, Laos, Thailand, Cambodia, and Vietnam - and to attract external investment. The ADB views the GMS as a "natural economic area" bound together by the Mekong River (ADB 2012b: 3). The GMS was therefore purposefully located at basin scale. Yet, rather than being a natural unit, the creation of institutions to govern this area, and the financial and technical incentives provided by the ADB to facilitate trade and investment, clearly indicate that the GMS is a created region. The invocation of the river as the tie that binds the region together is particularly problematic, as it frames the Mekong as a source of energy and transport that benefits primarily macroeconomic development while it simultaneously ignores the rights of riverside communities engaged in subsistence fisheries and agriculture, as the case of the Lower Sesan 2 Dam will show.

The social cohesion of this region is therefore in question and so is the extent to which a conflict between region-promoting agents and inhabitants creates conflict or cohesion. To investigate this problem and its impact on the creation of regional identity, the article now explores the relationship between water, culture, and identity.

Contending Visions of Place and the Links between Water and Culture

Political ecologists have pointed out that nature is produced in particular ways as power influences human—environmental interactions (Castree 1995; Bryant 1997). The alignment of different stakeholders and their ability to shape nature to their requirements therefore determines which development narratives prevail and which are ignored. As Johnston and Donahue (1998) argued, the politics of water represents a struggle over the right to land and water resources, and therefore over the control of place. This struggle often involves a complex relationship between water, culture, and power.

In her conceptualisation of waterscapes, Strang (2004, 2009) pointed to the material and non-material aspects of such waterscapes. Material aspects can include larger infrastructure (such as dykes or dams) or smaller infrastructure (such as fish weirs). Non-material aspects can be of aesthetic or spiritual nature and include, for instance, sacred sites. Whatever their form, "waterscapes are concerned with the ongoing materialisation and perpetuation of particular cultural lifeways" (Strang 2004 cited in Johnston et al. 2012: xvi).

Indeed, Greaves (1998) and Whiteley and Masayesva (1998) pointed to a permanent connection between water and the cultural survival of indigenous populations where traditional economic, social, and ritual activities depend on rivers. Ettenger (1998) reported how dwindling and polluted rivers may affect indigenous communities in terms of not only their physical well-being but also their mental well-being. In this context, Mazumdar and Mazumdar's (1993) argument that a strong link exists between religious rituals, identity, and place becomes relevant. In these conflicts between different lifeworlds and identities, Whiteley and Masayesva (1998) observed a conflict between the interests of indigenous communities, corporations, and governments, creating tensions between multiple stakeholders across different scales.

Observing state-led development of water resources in the Andes region, Boelens argues that the organisation of water resources development signifies a process in which

dominant groups have supplanted the diversity of water cultures and rights to make everyday water management and social rela-

tions graspable and controllable, by installing dominant water players' rights categories and frameworks. (Boelens 2015: 9)

The issue is therefore not simply access to water, but recognition of cultural rights and the ways in which these rights are protected as pressure on water resources continues to grow.

The same river can thus have different – often competing – meanings for different population groups that pursue different cultural lifeways. According to Greider and Garkovich,

every river is more than just one river [...]. Cultural groups transform the natural environment into landscapes through the use of different symbols that bestow different meanings on the same physical objects or conditions. (Greider and Garkovich 1994: 2)

Exploring the links between identity and place in the Niobrara National Scenic River in Nebraska, Davenport and Anderson (2005) discovered a "web of river meanings" as different people and groups develop different forms of attachment to the river that can also change over time.

For hydropower, meanings of water and spiritual and emotional well-being conjoin where dam-induced resettlement threatens communities, particularly those deriving social, economic, and spiritual benefits from the river. Problems are not necessarily clear-cut, however. While Vorkinn and Riese (2001) found that strong positive identification with a place can produce negative attitudes towards proposed hydropower projects, others have suggested that communities might be positively positioned towards a transformative project, also based on their attachment to the place (Twigger-Ross, Bonaiuto, and Breakwell 2003).

Indeed, a dam might be viewed as negative or as beneficial by different members of the community, or by different communities in the affected area. Whether or not communities benefit depends on a number of factors, including their position in the river basin, which determines the types of benefits or costs they receive from the dam, or the specific livelihoods pursued (Siciliano et al. 2015). At the same time, it also depends on religious and other cultural practices in relation to the surrounding environment, as well as on communities' perception of their identity and of the prevailing power relationships with dam proponents.

Processes of identity, culture, and power therefore produce different waterscapes. The article now explores this phenomenon for the Mekong Basin, using community resistance to the Lower Sesan 2 project as a case study.

Hydropower, Identity, and Geographies of Water Use in the GMS

In Mekong hydropower schemes, interventions come in the form of multilateral development banks, national and local governments, and infrastructure companies. Resistance comes from local communities refusing to be resettled and calling on governments and investors to allow them to participate in the decision-making process in order to arrive at solutions that balance the interests of disparate user groups.

A key problem here is the way in which water is used for hydropower generation. Hydropower has been criticised for exacerbating rural—urban and local—national divides by emphasising urban and national priorities to the detriment of rural and local needs. Gilron argues that

the location of population relative to water and energy sources suggests that there is a need to choose those technologies for energy and water production, which produce an appropriate match between sources and population. (Gilron 2014: 1471)

In order to achieve such a match within multiple water-use systems, Penning de Vris (2007) called for the establishment of learning alliances of water users to create a balance between multiple uses and multiple users of water. He points to a need for integration across three dimensions: spatial, temporal, and social – that is, to make decisions about the geographical scope, the time frame, and the needs of different water users (Penning de Vris 2007: 80). Similarly, Robinson et al. (2015) show that values of indigenous communities can be incorporated into basin governance in a way that achieves both locally important outcomes and basin-scale outcomes. Values of indigenous communities thus do not prevent the realisation of needs beyond the local scale.

By locating the GMS at basin scale, and thus by projecting an image of the GMS as a natural region, the ADB and national governments reflect a specific scalar version of a waterscape that ignores other views. The Mekong Basin therefore sees the competition of different "basin narratives" that construct very different Mekong

identities, which are tied to specific scales of water use (Sneddon and Fox 2015). These narratives are at the same time narratives of identity, place, and belonging. Conflicts over water use therefore become conflicts over identities.

The GMS is premised on the belief that deploying cross-border infrastructure and enabling cross-border trade, investment, and tourism will help Mekong states to integrate economically (ADB 2011). While the Chinese provinces of Yunnan and Guangxi are GMS members, the central government is not but has identified the GMS as a strategic economic area and has pledged considerable sums to enable cross-border economic activity to develop the region into a vibrant market for products from Western China and as an investment destination for Chinese companies (Hensengerth 2010). Turning the region into a key economic area, however, goes beyond GMS policies and includes, perhaps most crucially, the construction of the Kunming–Singapore Railway, also known as the Pan-Asia Railway Network, which has now become part of the Chinese government's "One Belt, One Road" strategy (see, for example, Wu 2016).

Chinese companies, amongst the key players in building up the hydropower capacity of the region as a whole, are constructing the majority of Cambodian hydroelectric stations, have substantial stakes in the hydropower sector in Myanmar, and are increasing their influence in Laos. They are, in particular, some of the key actors building the 11 proposed mainstream dams on the Lower Mekong, including Sambor and Stung Treng, the two proposed dams on the Cambodian stretch of the Mekong (Hensengerth 2015). China has further begun to explore regional infrastructure connectivity and the joint exploitation of water resources through the Lancang–Mekong Cooperation, which is a Thai–Chinese initiative introduced at the 2014 China–ASEAN Summit and inaugurated in 2015 and which runs alongside the GMS.

A key policy in energy development is the creation of a regional power market with hydropower as a cornerstone (ADB 2012a). According to the ADB power trade plan, new hydropower stations will facilitate energy security, reduce price volatility, and enhance export earnings where hydropower is earmarked for export rather than for domestic consumption (ADB 2009). (On energy development in the GMS, see also Yu 2003; Watcharejyothin and Shrestha 2009.)

The ADB's 2010 update of the GMS Regional Master Plan sees China (provinces of Yunnan and Guangxi), Thailand, and Vietnam as the main importers, their combined power demand projected to constitute 96 per cent of the power demand in the GMS in 2025, when power demand is expected to peak. Cambodia, Laos, and Myanmar are the main exporters of energy (ADB 2010: 24–31). The main source of exported energy is hydropower, justified by its cost effectiveness and its CO₂-reduction capacity when compared to thermal energy (ADB 2010: 25).

The GMS Roadmap for Expanded Energy Cooperation, adopted at the GMS Ministerial Conference in 2009 and based on an ADB Energy Strategy Study, emphasises four goal-areas: to provide access to modern energy; to lower carbon output and bolster renewable resources; to improve regional energy cooperation; and to encourage private sector participation. With hydropower being a central feature of the energy strategy, it is framed by a discourse of low-carbon economic development through the harnessing of the renewable potential of water resources.

Johnston argued that underpinning hydropower development in the GMS is a "culture of governance and modernisation mindset, one that typically views the installation of dams and diversion systems as a societal good" (Johnston 2012: 303). The aim of this modernisation project, to borrow Scott's phrasing, is to drag a "technically backward, unschooled, subsistence-oriented population into the twentieth century" (Scott 1999: 96).

Place promotion in the GMS is thus firmly focused on driving a modernising agenda at basin scale. Matthews argues that the regional place name of "GMS," coined by the ADB and used in all ADB documents

suggests a homogenous, fixed space, erasing from the public mind a sense of the unique ecosystems and diverse cultures and livelihoods that exist within the Mekong River Basin. As a name, "GMS" reflects and facilitates a focus on the development agendas and empowers actors working on behalf of those agendas who are increasingly distant from state citizens and local environmental concerns. (Matthews 2012: 355)

The fast construction of large hydropower stations in the Mekong Basin has turned out to be a divisive development policy (Molle, Foran, and Floch 2009). Rising social protests in Burma, Thailand,

Laos, and Cambodia against large hydropower schemes mark this industry as a prime point of contention (see, e.g., on Burma, Simpson 2013; on Thailand, Mirumachi 2012; on Vietnam, Evers and Benedikter 2009; on Cambodia, Hensengerth 2015; on Laos, Baird and Shoemaker 2008). Several authors have pointed out how development in the Mekong region benefits investors and government elites through resource capture but turns workers and local communities into losers of development, including those affected by hydropower projects (Oehlers 2006; Glassman 2010; Sims 2015).

Specifically for hydropower, the attempt by governments to achieve energy security by constructing large hydropower dams exacerbates already existing social tensions and produces various forms of human insecurity (Simpson 2007; Kuenzer et al. 2013). This suggests that while cross-border infrastructure may produce integrated economies, socially the GMS is becoming increasingly fragmented and conflict-prone. Standoffs between police and villagers over the now suspended Cheay Areng project in Cambodia (Phak and Pye 2014; Pye 2014), and the conflicts over the Myitsone and Mong Ton dams in Myanmar (Kirchherr, Charles, and Walton 2016), illustrate a situation in which communities have been willing to face authoritarian responses to their grievances. In the following, the article will examine these processes with reference to the Lower Sesan 2 Dam.

The Lower Sesan 2 Dam and Local Identities

In contrast to how Cambodia is viewed in the ADB documents, the Cambodian government does not see Cambodia as only an exporter of electricity: a substantial portion of the energy produced from hydropower plants will fuel domestic development. To achieve this goal, the Cambodian government has sought to attract foreign investment while guaranteeing payments for electricity to the plant owner, thereby shouldering considerable financial risk (Middleton, Matthews, and Mirumachi 2015: 143–145). The government aims to achieve uppermiddle-income country status by 2030, but the challenges are considerable and include high electricity costs, high dependence on electricity and fuel imports, a lack of grid electricity in rural areas, and frequent outages (Ham et al. 2013: 11–14). Expansion of grid electricity is therefore central to economic development plans. The two key sources to be developed are coal and hydropower. Indeed, a focus on

investment into these two energy sources underpins the government's understanding of sustainable development (Royal Government of Cambodia 2010; Ministry of Environment, Ministry of Foreign Affairs, and Ministry of Planning 2012).

In Cambodia, all large dams are build-operate-transfer (BOT) projects, meaning that the project company builds the dam and operates it for a specified period, after which the project is transferred to the government unless the concession period is extended. BOT projects are common in contexts where domestic expertise in building and operating dams is lacking. Furthermore, in Cambodia, the project owner is also responsible for commissioning the EIA and for planning and implementing resettlement (Anonymous 1 2010).

Lower Sesan 2, with a capacity of 400 megawatts (MW), was approved by the Council of Ministers in November 2012 (Royal Government of Cambodia 2013). This approval followed the completion both of the EIA by Key Consultants Cambodia in October 2008 and of the feasibility study by Power Engineering Consulting Joint Stock Company No. 1 (PECC1). Clearing of the reservoir area began in March 2013. The resettlement and compensation plan was published in January 2014. Construction began in February 2014. Some of the energy produced will go to Stung Treng, Kampong Cham, and Kratie, with the rest benefitting Phnom Penh (Anonymous 2 2017).

As of June 2017 only 15 people remained in the reservoir area, maintaining the resistance that had been widespread in the earlier days of planning and construction. The construction company informed the villagers that construction would be complete in September 2017, at which time the dam gate would be closed, inundating the area (Anonymous 2 2017).

Lower Sesan 2 was originally a joint venture between Electricity of Vietnam's (EVN) subsidiary EVN International Joint Stock Company and Cambodia's Royal Group, who together incorporated the Cambodia-Vietnam Hydropower Company as the project owner. EVN then withdrew as a major partner, and in November 2012 Hydrolancang International Energy, a subsidiary of China Huaneng, signed a memorandum of understanding with the Royal Group for an "initial two-year cash injection" into the project (Khouth, Sokha, and Pye 2013). Since then, the project developer has been Hydropower Lower Sesan 2, a joint venture between Royal Group and Hydrolancang, which together own 90 per cent of the stakes. EVN International

Joint Stock Company owns the remaining 10 per cent (Royal Government of Cambodia 2013). The dam is funded partially by the company's capital (30 per cent), and the remaining 70 per cent is provided by "an undisclosed bank loan" (International Rivers no date b). As the project moved from EVN to Hydropower Lower Sesan 2, so, too, did responsibility for environmental mitigation and resettlement.

Lower Sesan 2 has a 45-year concession period that includes five years of construction. During this time, Hydropower Lower Sesan 2 is obliged to conduct training and human resources development so that by the end of the concession period, domestic expertise in running and maintaining dams can replace foreign expertise. Moreover, the company is required to conduct environmental mitigation and resettlement projects.

Lower Sesan 2 is located near the confluence of the Sesan and Srepok rivers, which together with the Sekong River form the 3S river system, a part of the Mekong river system. The 3S system contributes 23 per cent of total Mekong discharge. Blocking the rivers will therefore have significant impact on the Tonle Sap and the Mekong Delta (Adamson et al. 2009; Wild et al. 2015). Although it represents only 10 per cent of the entire Mekong watershed area, the 3S system contains 42 per cent of all Mekong fish species. In the Sesan River, fishermen catch 41 migratory fish species, which represent 60 per cent of the total catch. Thirty to fifty thousand people are estimated to depend on riverine resources along the Sesan River in Cambodia (Baran et al. 2011: 3–4, 17–35). Despite this importance for food security, at least 42 dams are in various stages of development in the 3S system "without much regional coordination or stakeholder consultation" (Arias et al. 2014: 5304).

As a consequence, the construction of hydropower dams in the 3S system presents complex trade-offs between food security, fish biodiversity, local livelihood protection, and hydropower generation. Lower Sesan 2 alone is expected to cause a 9.3 per cent drop in fish biomass across the entire Mekong Basin (Ziv et al. 2012; Räsänen et al. 2015). According to the EIA, the dam will lead to the resettlement of 4,785 villagers (located in 1,059 households from seven villages in four communes) into six resettlement sites (Mekong Watch and 3S Rivers Protection Network 2013). The EIA further acknowledged that the impact on migratory fish would extend to the Mekong and

Tonle Sap and to Thailand, Laos, and Vietnam (Baird 2014). The environmental management plan provides compensation of USD 127 million for lost assets including rice fields, trees, gardens, houses, and fisheries and stipulates the provision of land for relocation (Grimsditch 2012: 30).

Cultural and Spiritual Issues

One of the key compensation issues is that the area upstream and downstream of Lower Sesan 2 is home to a number of ethnic minorities. One of the villages that has to make way for the reservoir is Kbal Romeas in Sesan District along the Srepok River, home to the Pu Nong community. According to the Cambodian Centre for Human Rights, known for its government-critical stance, the community of Kbal Romeas depends on fishing and non-timber forest products from the surrounding forests that provide food and items for trade. Proximity to the river is important, as a Srekor Commune resident argued:

It is our traditional way of living to live near the river, and if we move to the mainland, we will have no job to do. (Cited in Khuon and Chen 2012; Cambodian Centre for Human Rights 2015: 1–2; Boonsrirat 2014)

Furthermore, land and forests link the community to their ancestors and spirits, and these relationships

form a key part of the community's cultural identity and sense of wellbeing. The local forests contain important sites where local people pray to these spirits, invoking their help in maintaining the spiritual and physical health of the community. (Cambodian Centre for Human Rights 2015: 1–2; Moul and Seng 2012: 5)

In interviews with communities in the Lower Sesan 2 area, Ham, Hay, and Sok report that

88 per cent of the upstream villagers [... interviewed] mentioned that their religion and tradition would be affected if they were relocated because their Buddhist temples, the guardian spirit of their village (neakta), the guardian spirit of the forest (areak), and their ancestors' graveyards would be flooded. In addition, the guardian spirit of the rivers (neakta krahomkor) would be affected. All of these spirits [...] are believed to protect villagers from illness,

bring them happiness and harmony, provide them with good businesses and agricultural activities, and protect them when they travel on the river. (Ham, Hay, and Sok 2015: 165)

Economic, social, environmental, and spiritual aspects of life are thus strongly intertwined as a basis for well-being. As a consequence, protection of the forest and river ecology maintains what previous generations had already preserved, fulfilling spiritual beliefs that also establish customary law and guide social behaviour (e.g. White 1996: 335–366 and 350–358 cited in Chhim 2005: 21; see also Palmieri 2010). For example, protection of ancestral burial grounds fulfils important functions of social customs and social cohesion. These burial grounds

are extremely important spiritual sites. The families of the dead frequently pay their respects to the dead in order to attract good luck, make offerings of food and burn incense for them. They may invite Buddhist monks to perform ceremonies in the grave-yards, especially on Phchum Ben Day (the day of the ancestors [...]) and Khmer New Year's Day. It is believed that the ancestors will be angry and curse them with illness or other problems if they fail to conduct these rituals. [...] if the area were to be flooded, there would be two ways of dealing with the ancestors' graveyard: giving it up or moving it to the new location. Either way, spiritual and traditional rituals would have to be performed. This also applies to the movement of other spirits. Moreover, in seeking out a new place to live, local people must first ask the spirit of the land guardian (neakta) for permission by praying and through rituals. (Ham, Hay, and Sok 2015: 166)

These cultural issues have not been included in compensation policies, which typically incorporate assets that can be expressed in economic values. Yet, cultural and spiritual assets are often intangible and cannot be monetised (Ham et al. 2013: 54). Indeed, part of the dispute around compensation in Srekor Commune was the fact that compensation documents made no mention of ancestral burial grounds that are to be destroyed by the reservoir (Kuch 2014). Local resistance against the dam therefore had an important cultural component.

Local Resistance to Lower Sesan 2

In contrast to many other communities affected by hydropower plans, communities in the Lower Sesan 2 area are already well aware of the impacts that dams can have on livelihoods, as they suffered the negative effects of Vietnam's Yali Falls Dam (Anonymous 1 2010; Baird 2016: 263). In 1996, EVN completed Yali Falls upstream on the Sesan River in Vietnam. Following completion of Yali Falls, villagers in Cambodia experienced floods. In total on the Cambodian side, Yali Falls has since affected 55,000 villagers from 16 ethnic communities in Ratanakiri and Stung Treng provinces by way of losses in rice production, livestock, and fishing income, and damage to rice reserves, boats, fishing gear, and houses; in these cases, there was no compensation or any other form of mitigation. Yali Falls also signified the failure of EVN to fully comply with responsibilities set out in project documents for other dams in the 3S system (Seang et al. 2013: 7; Grimsditch 2012; International Rivers no date a; 3S Rivers Protection Network 2012; Mekong Watch and 3S River Protection Network 2013). Suspicion of EVN was therefore widespread.

As part of the EIA process, Key Consultants held public consultations in February 2008 with people who would be most affected by the project. Of those attending, 85 per cent disagreed with the project. A second consultation was held in April 2008 by PECC1, resulting in 94 per cent agreement and raising questions as to the cause of this turnaround. A third meeting was organised by Key Consultants and PECC1 in the city of Stung Treng and attended by community representatives, NGOs, local government, private sector actors, and members of the Ministry of Environment and the Ministry of Industry, Mines, and Energy (Grimsditch 2012: 33). In contrast to the wide agreement in the second meeting, Baird (2009) found that the vast majority of local people disagreed with the compensation and relocation provisions. Ham et al. (2013: 51) report that some community members did not "speak or understand Khmer well." A lack of appropriate interpretation services impeded effective engagement with local and national authorities and the dam developer (Ham, Hay, and Sok 2015: 163).

Coalitions of regional and international NGOs and indigenous communities have protested against the dam, petitioned governments and dam builders, and refused to move to the designated resettlement sites. Cited by International Rivers, Mrs. Von of Phe Village, Sesan Commune, Oyado District in Ratanakiri, said,

We call to the governments of Cambodia and Vietnam to pay attention for future studies and to cancel the Lower Sesan 2 Dam, because the project will mostly affect indigenous people and our livelihoods and rights and our fisheries [...]. If the [...] dam is built, the governments and companies must allow for more community participation throughout all steps of the process. (Sesan and Sekong Rivers Protection Network 2012)

The acrimonious dispute also had wider political implications. While Srekor Commune had been under the control of the ruling Cambodian People's Party (CPP) until 2012, in the commune council elections of that year the oppositional Sam Rainsy Party emerged victorious, a reflection of the popular dissatisfaction with the way that CCP national and local party branches had pushed the dam project (Ham, Hay, and Sok 2015: 166–168).

It is noteworthy that the compensation policy for Lower Sesan 2 went through a number of reincarnations. The original policy was announced by EVN in 2011 (Ham, Hay, and Sok 2015: 162). A revised and much improved policy was published by the Cambodian government in 2013. This committed Hydropower Lower Sesan 2 to provide compensation for farmland, houses, other structures and crops; to construct 797 houses of specified square metres; to provide five hectares of farmland per household; to construct public works per commune including roads, one commune office, one police station, one pagoda, one health centre, one kindergarten, one primary school, one lower secondary school, one well for every five households, public gardens, a sports complex, and irrigation facilities; to provide an allowance and rice provisions for 12 months; and to offer basic vocational training to enable adaptation to the new livelihoods. It also set out specific sums for each activity, amounting to a total of nearly USD 39 million of a total budget of more than USD 781 million (Royal Government of Cambodia 2013). Communities were also involved in resettlement-site selection, but the policy still lacked consideration of the cultural impacts (Ham, Hay, and Sok 2015: 163, 165).

With this policy, government officials argued that they were attempting to provide a model of good practice for compensation and resettlement in other dam projects (Ham, Hay, and Sok 2015: 163;

Anonymous 3 2015). However, in the face of continuing local opposition, the government decided to establish the Committee for Solving the Impacts of the Lower Sesan 2 Dam. As part of the resolution process, reports emerged that the dam had been substantially redesigned, including a reduction in height, installation of radial gates to improve sediment passage, and a change of project type to run-of-river (International Rivers 2014a, 2014b: note 1).

The Cambodia Daily reported that in February 2014 a group of eight villagers facing resettlement from Stung Treng and Ratanakiri provinces petitioned the ministries of industry, mines, and energy, of environment, and of finance, as well as the Chinese ambassador, that Hydropower Lower Sesan 2 enter into negotiations with them, arguing that they had not been consulted. Among them was Puth Khoeun, a representative of Srekor Commune in Sesan District. The villagers were primarily concerned that the allocated land would be infertile, and that ancestral burial grounds would be destroyed without compensation. According to Puth Khoeun, local villagers in his community were "particularly upset" about the destruction of the burial grounds (Kuch 2014). In response, Tuon Taing, Phluk Commune chief, said that 16 families had already accepted offers between USD 8,000 and USD 20,000 to compensate for houses and land:

Affected families have been offered compensation, I think that's enough for them [...]. The dam's a good thing that will help develop the community and create more jobs. (Cited in Kuch 2014)

The statement of the commune chief points to disagreements between affected villagers. Indeed, Baird (2016: 257–258, 267) reports that while fundamental opposition to the dam is widespread in the reservoir and downstream areas, a small number of villagers in the reservoir area had accepted resettlement offers – although Baird (2016) also reports that some of this might have been due to intimidation of villagers as well as attempts by Phnom Penh-based NGOs to negotiate better resettlement deals while dissuading villagers from openly opposing the project.

Resettlement has been a complex issue. The director of a Cambodian NGO that had dealt with villagers' concerns for several years argued, similarly to Baird, that opposition had been widespread in the reservoir and downstream areas. At the same time, Cambodian villages often comprise poor, medium-income, and rich households, each of whom may take a different view of the compensation packages.

Some poor people in particular had accepted compensation offers believing promises of better lives, although amongst those still remaining in the reservoir area some are poor and refuse to leave. Those who had left, however, found upon relocating that houses were inadequate and that community forestry and the spirit forests had not been restored in the new villages. Even poor people who had moved still wanted to see the spirit forests restored (Anonymous 2 2017).

Similarly, the Cambodian Centre for Human Rights (2015: 2) reported that the compensation and resettlement offer by Hydropower Lower Sesan 2 "led to a three-way split among the villagers in Kbal Romeas." While one group had accepted the offer, a second group argued they would accept the offer only pending a new EIA and after they had received the promised compensation; a third group rejected the offer entirely. However, in July 2015 people from other villages who had already accepted relocation, but had not yet moved, changed their minds. In a letter to Hydropower Lower Sesan 2, they requested that they be given enough time to store enough food in advance of moving to the new villages, pointing to problems with the fertility of the new land. Houses were poorly built and inadequate to keep cattle, villagers were asked to move in the middle of the farming season, and the question of the relocation of the spirit forests where the ancestral burial grounds are located was still unresolved (May 2015).

In response, representatives from Hydropower Lower Sesan 2, Ith Prang of the Ministry of Mines and Energy, and deputy governor of Stung Treng Doung Pov pledged to properly relocate the graves, to provide 20 kilograms of rice per person per year (although it was not reported for how many years), to take on responsibility for the maintenance of the houses for four years (a pledge made by Hydropower Lower Sesan 2), and to not use force. Indeed, acknowledging the continued resistance of locals, Doung Pov said, "They are willing to die, but we are not going to let them die [...] No one will force or drag them from their home" (cited in May 2015).

However, villagers reported intimidation and threats (Baird 2016). In addition, more subtle pressure was exerted. To coerce villagers into moving, the company and government created facts that led to deteriorating conditions in the old villages: schools were closed and teachers moved to the resettlement sites without providing replacements; health centres were established at resettlement sites only;

and village and commune chiefs were no longer present at the old sites. The company therefore decided to coerce villagers to move "by cutting off social connections" (Anonymous 2 2017). In their analysis of benefit-sharing mechanisms of Lower Sesan 2, Men et al. (2015) show that forms of benefit sharing are very basic and (where existent on paper) badly implemented, and that ultimately support for local livelihoods is overridden by national development objectives.

Yet, not only are spiritual issues an important part of local livelihoods and a chief problem in the conflict over the dam. They also form part of the inventory of local resistance (Baird 2016: 269). In March 2015, villagers from Lao and Pu Nong minorities paid tribute to the local deity Neakta Krahom Kor, guardian spirit of the river, in Srekor Commune, asking it to protect them from harm and "curse the officials and investors behind the dam" (Aun 2015). Following the ceremony, the villagers set up effigies – representing Minister of Mines and Energy Suy Sem, company owner Chip Mong, as well as officials from Hydrolancang and local authorities – and stabbed them with needles and burnt them, thus ritually killing their live targets. This provoked a reaction from Doung Pov, who argued that the ceremony had violated the rights of the investor (Aun 2015).

Discussion: Lower Sesan 2 and Competing Identities in the GMS

Indigenous communities in the global South often perceive hydropower projects as outside interventions by a modernising state into specific cultural, economic, social, and ecological settings. This intervention occurs in the belief that an end to geographic isolation will enable communities to prosper. Yet the result is a realignment of existing user networks in new hierarchies that are dominated by a modernising state in alliance with transnational financiers and dam developers. This process of modernisation often ignores the rights of indigenous communities, including their traditional economic, social, and spiritual attachments to the river (Rigg 2006; Swyngedouw 2014; Duarte-Abadía, Boelens, and Roa-Avendaño 2015).

The Lower Sesan 2 Dam is part of an ADB-supported regional modernisation programme to support GMS-wide power trade arrangements, enthusiastically supported by all six GMS member states. The project's goals are to reduce frequent outages and to accommo-

date rising energy demands. In this project the ADB presents the GMS as a natural region, despite the fact that the institutions establishing the GMS reach back no further than 1992. This place promotion occurs at the basin level, using the place name of the GMS as a powerful symbol for regional identification, legitimising external intervention by the ADB, national governments, and transnationally operating companies into seemingly undeveloped places with idle resources, often inhabited by indigenous communities. Similarly, the Thai–Chinese-initiated Lancang–Mekong Cooperation invokes the entire stretch of the river to promote a programme of infrastructure building.

In the case of the Lower Sesan 2 Dam, these external interventions come in complex forms, including the ADB, the Cambodian government, Chinese financiers, and Hydrolancang, and – as in the case of the Srekor Commune police chief – may also include people in direct proximity to affected communities. The steadfast community resistance to the project indicates that the attempt to portray the GMS as a natural region is not shared by everyone. Indeed, the issue of resettling the ancestral burial grounds sits in sharp contrast to the modernising vision underpinning the GMS. At the same time, by arguing for more participation, villagers express a willingness to engage with external actors, attempting to negotiate a compromise to alleviate local impacts.

While a large majority of local people rejected the dam entirely, resistance may not always signify total opposition. Instead, it may show an attempt to urge governments and developers to consider the impact in ways that safeguard economic, social, and spiritual aspects of community life. However, Cooke et al. (2017) argued that even where safeguards for indigenous people exist, they are seldom implemented. Instead, people's land is commodified and their cultural survival threatened.

In Lower Sesan 2, some of the poor may have been more willing to accept compensation packages following the promise of better lives. However, there is no clear-cut socio-economic division, as many poor have resisted resettlement on account of the ancestral burial sites and spirit forests. And even where poor community members have accepted compensation, these spiritual aspects remain a key point of contention.

As a consequence, resistance to hydropower dams may have complex origins and often involves a debate over forms of modernisation and development. Planning for energy production requires taking into account social, economic, and cultural rights by recognising and maintaining the links of communities to water bodies.

The contending processes of what sort of development model the GMS should create brings us back to Zimmerbauer's (2011) exploration of how leading actors conduct place promotion of new regions without reference to the multiple identities that can be found in an area as vast as the GMS. It can therefore be argued that the conflict over the Lower Sesan 2 Dam, and by extension over GMS development, "marks less a space-and-place opposition than one that allows for some form of relation beyond that woven by capital" (Herr 1996: 18 cited in Limón 2008: 167).

The literature on culture and water by Strang (2004) and others has evidenced how rivers can be essential to the perpetuation of cultural lifeways. In this problem complex, as Boelens (2015) argued, the issue inherent in the development of water resources is not just who makes decisions or who has access to water; the issue is recognition of cultural rights and the preservation of these rights as the pressure on water resources increases. That the GMS is an economic development programme based around the exploitation of the Mekong River is, therefore, especially problematic, as the river is used by different groups as a potent symbol for the creation of regional consciousness and for cultural traditions and the survival of cultural identity and diversity.

It is precisely the meaning of the Mekong river system that is contested. Identity in the Lower Sesan 2 conflict includes spiritual attachment to the river and the dependence this produces on the resource as a source of well-being. In the contest, villagers not only raised the issue of how to account for the loss of the ancestral burial grounds, they also resorted to traditional forms of justice, calling directly on the river's guardian spirit to protect them. The state response, that such action is illegal, marks the belief of the modernising state that local forms of authority and justice have no place in stateled modernisation narratives. As Matthews argued, the dominant narrative of water resources development in the GMS "silences and devalues other cultural meanings [of water], such as local knowledge and local livelihoods" (Matthews 2012: 356).

As a consequence, the constructivist notion that there are no natural regions (Katzenstein 1997; Hettne and Söderbaum 2000; Jessop 2003) directly contradicts the ADB's attempts to portray the GMS as one such region. Söderbaum's notion that regions are "dynamic settings for social interaction" (Söderbaum 2012: 18), and Hettne's notion that regions "are created and recreated in the process of global transformation" (Hettne 1999a) present region-forming processes as socially, economically, and politically contested processes throughout which different identities, ideas, norms, and policies compete. Indeed, the projection of a unified notion of what the GMS represents might be unachievable if the Lower Sesan 2 Dam is a representative example of hydropower projects. Such fragmentary processes challenge the legitimacy of the GMS, as they reflect an unwillingness of the project's leading proponents to negotiate compromises between contending visions of development. Lacking value convergence across its inhabitants, the GMS loses normative coherence and fragments into contrasting identities and senses of belonging as the state, assisted by the ADB, imposes itself on local identities.

In this sense, the call by Katzenstein (1997) and others to view regions as socially constructed means that we can imagine different ideas of regional identity based on different spatial uses of river water. A region is thus a social construct that is organised spatially, around people's lives and attachment to places. The view of the GMS as a natural region located at basin scale is difficult to defend when taking into account local water users, and in particular indigenous water users. While at GMS scale water is used as a source for the GMS power grid to enable economic interdependence, these goals are far from the concerns of many local communities affected by hydropower. Geographies of water use therefore exist on very different scales, creating competing waterscapes that embody different interests and identities.

It is thus difficult to perceive of the GMS – to borrow from Jessop (2003) – as an emergent and socially constructed phenomenon that is shared across the region's diverse population. Instead, it appears as an elite project that has failed to produce value convergence and is witnessing a conflict between different identities in a key area of its future development. By virtue of their active engagement in the build-up of hydropower across Mekong countries, Chinese companies are a key participant in this conflict. A lack of engagement with

h **...**

local communities, in particular indigenous communities facing specific cultural and livelihood issues, is likely to further exacerbate such conflicts.

Conclusion

Rising discontent amongst local communities against hydropower dams defies the attempt by governments and the ADB to portray the GMS as a natural region. Community protests against hydropower dams occur across the GMS and – importantly – also in authoritarian and semi-authoritarian settings. This shows willingness by populations to resist despite potentially violent government responses. It also indicates that crucial livelihood and identity issues are at stake.

Notably, these protests do not always entail a complete opposition to hydropower dams; indeed, the potential benefits they may bring to the community if properly implemented are also taken into consideration. In some cases, resistance may represent a request to be given a voice and to have community identity and cultural rights protected by external recognition of, and concern for, the links between cultural survival and water. In current practice, hydropower plants and the uneven ways that benefits are distributed reflect competing waterscapes and networks of interest. A consideration of geographies of resource use therefore leads to a view of the GMS not as a cohesive region but as one characterised by a mismatch between sources of electricity and the actors and locations that it benefits. This signifies a lack of Hettne's "regionness," suggesting a lack of a shared sense of belonging and identification with the project of the GMS and the image that it projects.

The case of the Lower Sesan 2 Dam and the wider hydropower developments in the GMS have implications for other regions where similar hydropower build-ups are occurring, often with the help of Chinese investment. Conflicts of a similar kind are occurring in, for instance, South America, including in Chile and Brazil – the latter has seen highly publicised conflicts over the Belo Monte Dam. Another region facing similar conflicts is Central America, where Guatemala and Panama, for instance, have often been sites of violent conflict between indigenous communities and modernising states.

At stake are, therefore, the cultural rights of indigenous communities, set against the modernisation of a majoritarian society. The

development conflicts in the GMS are not unique to the Mekong Basin. As large hydropower dams are likely to remain the energy source of choice for many governments in the global South – and as climate change provides a rationale for investment in this type of energy – conflicts over the nature of modernisation and development, along with questions of cultural rights, are likely to remain on top of the international development agenda for the foreseeable future.

References

- 3S Rivers Protection Network (2012), Stop Plans to Construct the Lower Sesan 2 Hydropower Project, 30 March, online: <www.international rivers.org/resources/stop-plans-to-construct-the-lower-sesan-2-hydropower-project-3681> (27 October 2015).
- Adamson, Peter, Ian Rutherfurd, Murray Peel, and Iwona Conlan (2009), The Hydrology of the Mekong River, in: Ian Campbell (ed.), *The Mekong: Biophysical Environment of an International River Basin*, 53–76.
- ADB see Asian Development Bank
- Anonymous 1 (2010), interviews at the EIA Department, Ministry of Environment, Phnom Penh, 7 September, 16 September, and 20 September.
- Anonymous 2 (2017), interview via Skype with director of a Cambodian NGO, 8 June.
- Anonymous 3 (2015), interview with a Cambodian NGO, Phnom Penh, 22 September.
- Arias, Mauricio, Thanapon Piman, Hannu Lauri, Tom Cochrane, and Matti Kummu (2014), Dams on Mekong Tributaries as Significant Contributors of Hydrological Alterations to the Tonle Sap Floodplain in Cambodia, in: *Hydrology and Earth System Sciences*, 18, 12, 5303–5315.
- Asian Development Bank (2012a), Greater Mekong Subregion Power Trade and Interconnection: 2 Decades of Cooperation, Manila: Asian Development Bank.
- Asian Development Bank (2012b), *Greater Mekong Subregion Economic Cooperation Program*, Manila: Asian Development Bank.
- Asian Development Bank (2011), The Greater Mekong Subregion Economic Cooperation Program: Strategic Framework 2012–2022, Manila: Asian Development Bank.

- Asian Development Bank (2010), Final Report Update of the GMS Regional Master Plan, Executive Summary, Manila: Asian Development Bank.
- Asian Development Bank (2009), Building a Sustainable Energy Future: The Greater Mekong Subregion, Manila: Asian Development Bank.
- Aun, Pheap (2015), Villagers Call on Spirit to Curse Officials, Company behind Dam, in: Cambodia Daily, 2 March, online: <www. cambodiadaily.com/news/villagers-call-on-spirit-to-curse-officialscompany-behind-dam-78885/> (22 November 2015).
- Baird, Ian (2016), Non-Government Organizations, Villagers, Political Culture and the Lower Sesan 2 Dam in Northeastern Cambodia, in: Critical Asian Studies, 48, 2, 257-277.
- Baird, Ian (2014), Cambodia's LS2 Dam: A Disaster in the Making, 9 August, online: <www.eastasiaforum.org/2014/08/09/cambodiasls2-dam-is-a-disaster-in-the-making/> (17 November 2015).
- Baird, Ian (2009), Best Practices in Compensation and Resettlement for Large Dams: The Case of the Planned Lower Sesan 2 Hydropower Project in Northeastern Cambodia, Phnom Penh: The Rivers Coalition of Cambodia.
- Baird, Ian, and Bruce Shoemaker (2008), People, Livelihoods and Development in the Xekong River Basin of Laos, Bangkok: White Lotus Press.
- Baran, Eric, Samadee Saray, Shwu Jiau Teoh, and Thanh Cong Tran (2011), Fish and Fisheries in the Sesan River Basin: MK3 Catchment Baseline, Fisheries Section, Hanoi: World Fish Centre.
- Boelens, Rutgerd (2015), Water, Power and Identity: The Cultural Politics of Water in the Andes, Abingdon, UK: Routledge.
- Boonsrirat, Pitchava (2014), Common Pool Resources and Rural Livelihoods in Stung Treng Province of Cambodia, PhD thesis submitted to the University of Massachusetts Amherst, September.
- Bryant, Raymond (1997), Beyond the Impasse: The Power of Political Ecology in Third World Environmental Research, in: Area, 29, 1, 5-19.
- Cambodian Centre for Human Rights (2015), Kbal Romeas, Lower Sesan II Dam Profile, online: <www.cchrcambodia.org/project page/ land_profile/pdf/13-Stung-Treng-Lower-Sesan-II-Dam-Profileen.pdf> (22 November 2015).
- Castree, Noel (1995), The Nature of Produced Nature: Materiality and Knowledge Construction in Marxism, in: Antipode, 27, 1, 12–48.

- Chhim, Kristina (2005), Indigenous and Tribal Peoples' Perceptions of Poverty and Poverty Reduction Strategies in Cambodia, Geneva: International Labour Organization.
- Cooke, Fadzilah, Johan Nordensvard, Gusni Bin Saat, Frauke Urban, and Giuseppina Siciliano (2017), The Limits of Social Protection: The Case of Hydropower Dams and Indigenous Peoples' Land, in: *Asia and the Pacific Policy Studies*, 4, 3, 437–450, online: http://onlinelibrary.wiley.com/doi/10.1002/app5.187/full (22 November 2017).
- Davenport, Mae, and Dorothy Anderson (2005), Getting from Sense of Place to Place-Based Management: An Interpretive Investigation of Place Meanings and Perceptions of Landscape Change, in: *Society and Natural Resources*, 18, 7, 625–641.
- Duarte-Abadía, Bibiana, Rutgerd Boelens, and Tatiana Roa-Avendaño (2015), Hydropower, Encroachment and the Re-patterning of Hydrosocial Territory: The Case of Hidrosogamoso in Colombia, in: *Human Organization*, 74, 3, 243–254.
- Emerson, Guy (2014), An Art of the Region: Towards a Politics of Regionness, in: *New Political Economy*, 19, 4, 559–577.
- Ettenger, Kreg (1998), "A River that was once so Strong and Deep": Local Reflections on the Eastmain Diversion, James Bay Hydroelectric Project, in: John M. Donahue and Barbara Rose Johnston (eds), *Water, Culture, and Power: Local Struggles in a Global Context*, Washington, DC: Island Press, 47–72.
- Evers, Hans-Dieter, and Simon Benedikter (2009), Hydraulic Bureaucracy in a Modern Hydraulic Society: Strategic Group Formation in the Mekong Delta, Vietnam, in: *Water Alternatives*, 2, 3, 416–439.
- Fawcett, Louise (2004), Exploring Regional Domains: A Comparative History of Regionalism, in: *International Affairs*, 80, 3, 429–446.
- Fawcett, Louise, and Andrew Hurrell (1996), Regionalism in World Politics: Regional Organization and International Order, Oxford: Oxford University Press.
- Gamble, Andrew, and Anthony Payne (eds) (1996), Regionalism and World Order, Houndmills, Basingstoke: Macmillan.
- Gilron, Jack (2014), Water-Energy Nexus: Matching Sources and Uses, in: *Clean Technologies and Environmental Policy*, 16, 8, 1471–1479.
- Glassman, Jim (2010), Bounding the Mekong: The Asian Development Bank, China, and Thailand, Honolulu, HL: University of Hawai'i Press.

- Greaves, Tom (1998), Water Rights in the Pacific Northwest, in: John M. Donahue and Barbara Rose Johnston (eds), *Water, Culture, and Power: Local Struggles in a Global Context*, Washington, DC: Island Press, 35–64.
- Greider, Thomas, and Lorraine Garkovich (1994), Landscapes: The Social Construction of Nature and the Environment, in: *Rural Sociology*, 59, 1, 1–24.
- Grimsditch, Mark (2012), Understanding New Threats and Challenges from Hydropower Development to Biodiversity and Community Rights in the 3S River Basin, Chiang Mai, Thailand: Wanida Press.
- Ham, Kimkong, Samchan Hay, and Thea Sok (2015), The Politics of the Lower Sesan 2 Dam in Cambodia, in: Nathanial Matthews and Kim Geheb (eds), *Hydropower Development in the Mekong Region: Political, Socio-economic and Environmental Perspectives*, Abingdon, UK: Routledge, 153–172.
- Ham Kimkong, Samchan Hay, Thea Sok, Vichet Sim, and Rasmey Lor (2013), Improving Hydropower Project Decision Making Processes in Mekong Basin: Case Studies of Lower Sesan 2 and Kamchay Hydropower Projects, Cambodia, Final Report of the CGIAR Research Program on Water, Land and Ecosystems in the Greater Mekong, MK8: Improving Hydropower Decision Making Processes in the Mekong, Phnom Penh: AusAid.
- Hensengerth, Oliver (2015), Global Norms in Domestic Politics: Environmental Norm Contestation in Cambodia's Hydropower Sector, in: *The Pacific Review*, 28, 4, 505–528.
- Hensengerth, Oliver (2010), Regionalism in China-Vietnam Relations: Institution-Building in the Greater Mekong Subregion, Abingdon, UK: Routledge.
- Herr, Cheryl (1996), Critical Regionalism and Cultural Studies: From Ireland to the American Midwest, Gainesville, FL: University of Florida Press.
- Hettne, Björn (1999a), The New Regionalism: A Prologue, in: Björn Hettne, András Inotai and Osvaldo Sunkel (eds), *Globalism and the New Regionalism*, New York, NY: St. Martin's Press, xv–xxix.
- Hettne, Björn (1999b), Globalization and the New Regionalism: The Second Great Transformation' in: Björn Hettne, András Inotai and Osvaldo Sunkel (eds), *Globalism and the New Regionalism*, New York, NY: St. Martin's Press, 1–24.
- Hettne, Björn, and Fredrik Söderbaum (2000), Theorising the Rise of Regionness, in: *New Political Economy*, 5, 3, 457–474.

- International Rivers (no date a), Sesan Dams, online: <www.internationalrivers.org/campaigns/sesan-dams> (21 November 2015).
- International Rivers (no date b), *Lower Sesan 2 Dam*, online: <www.internationalrivers.org/campaigns/lower-sesan-2-dam> (24 November 2015).
- International Rivers (2014a), *International Groups Demand New ELA for Lower Sesan 2 Dam*, 16 October, online: www.internationalrivers.org/node/8422 (27 October 2015).
- International Rivers (2014b), Public Statement Lower Sesan 2 Dam: Call for Release of Information on Project Redesign and A New Environmental Impact Assessment, 16 October, online: <www.internationalrivers.org/files/attached-files/141014ls2final_statement_on_new_eia_eng.pdf> (27 October 2015).
- Jessop, Bob (2003), The Political Economy of Scale and the Construction of Cross-Border Micro-Regions, in: Frederick Söderbaum and Timothy M. Shaw (eds), *Theories of New Regionalism*, Basingstoke, UK: Palgrave, 179–196.
- Johnston, Barbara Rose (2012), Water, Culture, Power: Hydrodevelopment Dynamics, in: Barbara Rose-Johnston (ed.), Water, Cultural Diversity, and Global Environmental Change: Emerging Trends, Sustainable Futures?, New York, NY: Springer, 295–318.
- Johnston, Barbara Rose, and John Donahue (1998), Introduction, in: John Donahue and Barbara Rose Johnston (eds), *Water, Culture, and Power: Local Struggles in a Global Context*, Washington, DC: Island Press, 1–8.
- Johnston, Barbara Rose, Marcus Barber, Veronica Strang, Irene Klaver, Lisa Hiwasaki, and Ameyali Ramos Castillo (2012), Preface, in: Barbara Rose-Johnston (ed.), *Water, Cultural Diversity, and Global Environmental Change: Emerging Trends, Sustainable Futures?*, New York, NY: Springer, xi–xx.
- Katzenstein, Peter (1997), Introduction: Asian Regionalism in Comparative Perspective, in: Peter Katzenstein and Takashi Shiraishi (eds), *Network Power: Japan and Asia*, Ithaca, NY: Cornell University Press, 1–44.
- Khouth, Sophak Chakrya, Cheang Sokha, and Daniel Pye (2013), Logging at Dam Site Halted, in: *Phnom Penh Post*, 25 October, online: www.phnompenhpost.com/national/logging-dam-site-halted (24 November 2015).

- Khuon, Narim, and Dene-Hern Chen (2012), Dam Approval Angers Villagers, Rights Groups, in: *Cambodia Daily*, 5 November, online: www.cambodiadaily.com/archives/sesan-dam-approval-angers-villagers-rights-groups-5231/ (25 November 2015).
- Kirchherr, Julian, Katrina Charles, and Matthew Walton (2016), The Interplay of Activists and Dam Developers: The Case of Myanmar's Mega-Dams, in: *International Journal of Water Resources Development*, online first 12 May 2016, print 2017, 33, 1, 111–131.
- Kuch, Naren (2014), Villagers Want Compensation for Lower Sesan 2 Dam Construction, in: *Cambodia Daily*, 14 February, online: https://www.cambodiadaily.com/archives/villagers-want-compensation-for-lower-sesan-2-dam-construction-52244/ (22 November 2015).
- Kuenzer, Claudia, Ian Campbell, Marthe Roch, Patrick Leinenkugel, Vo Quoc Tuan, and Stefan Dech (2013), Understanding the Impact of Hydropower Developments in the Context of Upstream–Downstream Relations in the Mekong River Basin, in: *Sustainability Science*, 8, 4, 565–584.
- Limón, José (2008), Border Literary Histories, Globalization, and Critical Regionalism, in: *American Literary History*, 20, 1–2, 160–182.
- Mansfield, Edward, and Helen Milner (1999), The New Wave of Regionalism, in: *International Organization*, 53, 3, 589–627.
- Matthews, Nathanial (2012), Drowning under Progress: Water, Culture, and Development in the Greater Mekong Subregion, in: Barbara Rose-Johnston (ed.), Water, Cultural Diversity, and Global Environmental Change: Emerging Trends, Sustainable Futures?, New York, NY: Springer, 349–366.
- May, Titthara (2015), Damned if They Don't, in: *Phnom Penh Post*, 28 July, online: swww.phnompenhpost.com/national/dammed-if-they-dont (10 February 2018).
- Mazumdar, Shampa, and Sanjoy Mazumdar (1993), Sacred Space and Place Attachment, in: *Journal of Environmental Psychology*, 13, 3, 231–242.
- Mekong Watch, and 3S Rivers Protection Network (2013), Fact Sheet: Lower Sesan 2 Hydropower Project, Northeastern Cambodia, 5 August, online: www.mekongwatch.org/PDF/LS2_FactSheet_ENG_20140918.pdf (27 October 2014).
- Men, Prachvuthy, Vathana Thun, Soriya Yin, and Louis Lebel (2015), Benefit Sharing from Kamchay and Lower Sesan 2 Hydropower

- Watersheds in Cambodia, in: Water Resources and Rural Development, 4, October, 40–53.
- Mertha, Andrew (2008), *China's Water Warriors: Citizen Action and Policy Change*, Ithaca, NY: Cornell University Press.
- Middleton, Carl, Nathanial Matthews, and Naho Mirumachi (2015), Whose Risky Business? Public-Private Partnerships, Build-Operate-Transfer and Large Hydropower Dams in the Mekong Region, in: Nathanial Matthews and Kim Geheb (eds), *Hydropower Development in the Mekong Region: Political, Socio-economic and Environmental Perspectives*, Abingdon, UK: Routledge, 127–152.
- Ministry of Environment, Ministry of Foreign Affairs, and Ministry of Planning (2012), *The Cambodian Government's Achievements and Future Direction in Sustainable Development: National Report for RioC2*, Phnom Penh: Ministry of Environment, Ministry of Foreign Affairs and Ministry of Planning.
- Mirumachi, Naho (2012), Domestic Water Policy Implications on International Transboundary Water Development: A Case Study of Thailand, in: Joakim Öjendal, Sofie Hansson and Stina Hellberg (eds), *Politics and Development in a Transboundary Watershed: The Case of the Lower Mekong Basin*, Dordrecht et al.: Springer, 83–100.
- Molle, François, Tira Foran, and Philippe Floch (2009), Changing Waterscapes in the Mekong Region: Historical Background and Context, in: François Molle, Tira Foran and Mira Käkönen (eds), Contested Waterscapes in the Mekong Region: Hydropower, Livelihoods and Governance, London, UK: Earthscan, 1–13.
- Moul, Phath, and Sovathana Seng (2012), Country Technical Notes on Indigenous Peoples' Issues: Kingdom of Cambodia, Rome: International Fund for Agricultural Development and Asia Indigenous Peoples Pact.
- Oehlers, Alfred (2006), A Critique of ADB Policies towards the Greater Mekong Sub-region, in: *Journal of Contemporary Asia*, 36, 4, 464–478.
- Palmieri, Sonia (2010), *The Hidden Minorities: Representing Ethnic Minorities and Indigenous Peoples in Cambodia*, Geneva and New York, NY: Inter-Parliamentary Union and UNDP.
- Penning de Vris, Frits (2007), Learning Alliances for the Broad Implementation of an Integrated Approach to Multiple Sources, Multiple Uses and Multiple Users of Water, in: *Water Resources Management*, 21, 79–95.

- Oliver Hensengerth
- Phak, Seangly, and Daniel Pye (2014), Standoff, Arrests in Areng, in: *Phnom Penh Post*, 16 September, online: <www.phnompenhpost.com/national/standoff-arrests-areng> (1 December 2015).
- Pye, Daniel (2014), Areng Villagers Block Dam Assessment Team, in: *Phnom Penh Post*, 31 December, online: <www.phnompenhpost.com/national/areng-villagers-block-dam-assessment-team> (1 December 2015).
- Räsänen, Timo, Olivier Joffre, Paradis Someth, Cong Tran Thanh, Marko Keskinen, and Matti Kummu (2015), Model-based Assessment of Water, Food, and Energy Trade-Offs in a Cascade of Multipurpose Reservoirs: Case Study of the Sesan Tributary of the Mekong River, in: *Journal of Water Resources Planning and Management*, 141, 1.
- Rigg, Jonathan (2006), Forests, Marketization, Livelihoods and the Poor in the Lao PDR, in: *Land Degradation and Development*, 17, 2, 123–133.
- Robinson, Catherine, Rosalind Bark, Dustin Garrick, and Carmel Pollino (2015), Sustaining Local Values through River Basin Governance: Community-based Initiatives in Australia's Murray-Darling Basin, in: *Journal of Environmental Planning and Management*, 58, 12, 2212–2227.
- Royal Government of Cambodia (2013), Draft Law on Authorization of Payment Warranty of the Royal Government of Cambodia for the Hydro Power Lower Sesan 2 Company, Phnom Penh: Royal Government of Cambodia.
- Royal Government of Cambodia (2010), National Strategic Development Plan Update 2009-2013, Phnom Penh: Royal Government of Cambodia.
- Scott, James (1999), Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed, New Haven, CT: Yale University Press.
- Seang, Phyrom, Chay Keartha, Suon Seng, Edsel Sajor, and Rutmanee Ongsakul (2013), Development of Water Resource Infrastructures and Livelihood Benefits: A Case of Lower Sesan 2 Project, Cambodia, Research Report of the CGIAR Research Program on Water, Land and Ecosystems in the Greater Mekong, MK4: Water Governance.
- Sesan, Srepok, and Sekong Rivers Protection Network (2012), *Stop Plans to Construct the Lower Sesan 2 Hydropower Project*, 30 March, online: swww.internationalrivers.org/resources/stop-plans-to-

- construct-the-lower-sesan-2-hydropower-project-3681> (10 February 2018).
- Siciliano, Giuseppina, Frauke Urban, Sour Kim, and Pich Lonn (2015), Hydropower, Social Priorities and the Rural-Urban Development Divide: The Case of Large Dams in Cambodia, in: *Energy Policy*, 86, 273–285.
- Simpson, Adam (2013), Challenging Hydropower Development in Myanmar (Burma): Cross-border Activism under a Regime in Transition, in: *The Pacific Review*, 26, 2, 129–152.
- Simpson, Adam (2007), The Environment-Energy Security Nexus: Critical Analysis of an Energy 'Love Triangle' in Southeast Asia, in: *Third World Quarterly*, 28, 3, 539–554.
- Sims, Kearrin (2015), The Asian Development Bank and the Production of Poverty: Neoliberalism, Technocratic Modernization and Land Dispossession in the Greater Mekong Subregion, in: *Singapore Journal of Tropical Geography*, 36, 1, 112–126.
- Sneddon, Chris, and Coleen Fox (2015), A Genealogy of the Basin: Scalar Politics and Identity in the Mekong River Basin, in: Emma Norman, Christina Cook and Alice Cohen (eds), Negotiating Water Governance: Why the Politics of Scale Matter, Farnham, Surrey: Ashgate, 41–58.
- Söderbaum, Frederik (2012), Theories of Regionalism, in: Mark Beeson and Richard Stubbs (eds), Routledge Handbook of Asian Regionalism, Abingdon, UK: Routledge, 11–21.
- Strang, Veronica (2009), Gardening the World: Agency, Identity, and the Ownership of Water, Oxford, UK: Berghahn.
- Strang, Veronica (2004), The Meaning of Water, London, UK: Berg.
- Swyngedouw, Erik (2014), "Not A Drop of Water...": State, Modernity, and the Production of Nature in Spain, 1898-2010, in: *Environment and History*, 20, 1, 67–92.
- Swyngedouw, Erik (2009), The Political Economy and Political Ecology of the Hydro-Social Cycle, in: *Journal of Contemporary Water Research and Education*, 142, 1, 56–60.
- Swyngedouw, Erik (2007), Technonatural Revolutions: The Scalar Politics of Franco's Hydro-Social Dream for Spain, 1939-1975, in: *Transactions of the Institute of British Geographers*, 32, 1, 9–28.
- Twigger-Ross, Clare, Mirilia Bonaiuto, and Glynis Breakwell (2003), Identity Theories and Environmental Psychology, in: Mirilia

- Bonnes, Terrence Lee and Marino Bonaiuto (eds), Psychological Theories for Environmental Issues. Aldershot, UK: Ashgate, 203–233.
- Vorkinn, Marit, and Hanne Riese (2001), Environmental Concern in a Local Context: The Significance of Place Attachment, in: Environment and Behavior, 33, 2, 249-263.
- Watcharejyothin, Mayurachat, and Ram Shrestha (2009), Regional Energy Resource Development and Energy Security under CO2 Emission Constraint in the Greater Mekong Sub-region Countries (GMS), in: Energy Policy, 37, 11, 4428-4441.
- White, Joanna (1996), The Indigenous Highlanders of the Northeast: An Uncertain Future, in: Center for Advanced Study, Interdisciplinary Research on Ethnic Groups in Cambodia, Phnom Penh: Centre for Advanced Study, 333-374.
- Whiteley, Peter, and Vernon Masayesva (1998), The Use and Abuse of Aguifers: Can the Hopi Indians Survive Multinational Mining?, in: John M. Donahue and Barbara Rose Johnston (eds), Water, Culture, and Power: Local Struggles in a Global Context, Washington, DC: Island Press, 9-34.
- Wild, Thomas, Daniel Loucks, George Annandale, and Prakash Kaini (2015), Maintaining Sediment Flows through Hydropower Dams in the Mekong River Basin, in: Journal of Water Resources Planning and Management, 142, 1.
- Wu, Shang-su (2016), Singapore-Kunming Rail Link: A "Belt and Road" Case Study, in: The Diplomat, 17 June, online: http://the diplomat.com/2016/06/singapore-kunming-rail-link-a-belt-androad-case-study/> (23 December 2016).
- Yu, Xiaojiang (2003), Regional Cooperation and Energy Development in the Greater Mekong Sub-region, in: Energy Policy, 31, 12, 1221-1234.
- Zimmerbauer, Kaj (2011), From Image to Identity: Building Regions by Place Promotion, in: European Planning Studies, 19, 2, 243–260.
- Ziv, Guy, Eric Baran, So Nam, Ignacio Rodriguez-Iturbe, and Simon Levin (2012), Trading-off Fish Biodiversity, Food Security, and Hydropower in the Mekong River Basin, in: Proceedings of the National Academy of Sciences of the United States of America, 109, 15, 5609-5614.

Contents

Political Ecology of a Rising China

Introduction

Article Index 2017

-	May TAN-MULLINS Dancing to China's Tune: Understanding the Impacts of a Rising China through the Political-Ecology Framework	3
Research Articles		
•	Adebusuyi Isaac ADENIRAN Repository Africa in the Evolving "Chinese Century": The Uneven Sino–Nigerian Water Conservation Partnership	33
•	Meredith J. DEBOOM Nuclear (Geo)Political Ecologies: A Hybrid Geography of Chinese Investment in Namibia's Uranium Sector	53
•	Oliver HENSENGERTH Regionalism, Identity, and Hydropower Dams: The Chinese-Built Lower Sesan 2 Dam in Cambodia	85
-	Shun Deng FAM China Came, China Built, China Left?: The Sarawakian Experience with Chinese Dam Building	119
Contributors		159