

# Chapter 1

## Introduction: Resources Politics and Knowing the Salween River



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### 1.1 Introduction

The Salween is a transboundary river connecting the people, ecosystems, and nation-states of China, Myanmar (Burma), and Thailand. Over its 2,820 kilometer course, it flows from the Tibetan Plateau to Yunnan Province in China, then connecting to Myanmar via Shan State. The river continues, through Karenni and Karen States, also forming the border with Thailand, before joining Mon State and coming together with the Andaman Sea.<sup>1</sup> Over 10 million people live throughout the basin, comprising at least 16 ethnic groups, many of whom depend on river resources for livelihood and food (Johnston et al. 2017). These livelihoods are diverse; they range from fishing-based livelihoods practiced by communities in the Salween estuary in Myanmar, to farmers who practice swidden agriculture and paddy rice cultivation in Myanmar and Thailand, to herders who raise livestock and manage the rangelands at the very start of the river on the Tibetan Plateau. There is also remarkable biodiversity within the basin. It is these livelihoods, peoples, and the river itself that are the focus of this edited volume.

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<sup>1</sup>The Salween Basin covers 283,500 km<sup>2</sup>, of which 48% is in China, 7% is in Thailand and 44% is in Myanmar (Johnston et al. 2017).

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While some areas of the basin are undergoing dramatic transformations, other areas appear to be almost at an impasse. This is due to a combination of factors, including the transformations within the basin, and in the context of the broader political, economic and social changes in the region (e.g., Simpson 2016; Egretau 2016; Farrelly/Gabusi 2015). There is also a long-standing call to “know more” about this understudied basin, often associated with a whole range of development plans and visions for enhancing economic integration, nationally, regionally, and globally (Johnston et al. 2017).

In this context, we see this edited volume as the first to consider and link these concerns across the basin. With a focus on the contested politics of water and associated resources in the Salween basin, this book offers a collection of empirical case studies highlighting local, regional, and international knowledge and perspectives. Given the paucity of grounded social science studies in this contested basin, this book provides conceptual insights at the intersection of resource governance, development, and politics relevant to researchers, policy-makers and practitioners at a time when rapid change is underway. It also offers something more: a call to study, collaborate, and appreciate the range of efforts and actors necessary to do this. As such, we also present a proposal to study the Salween as an ‘area’ for continued critical engagement.

We recognize that the present state of the Salween Basin is informed by both contemporary transformations and historical dynamics. It has been shaped by—although, we note, not *determined* by—histories of colonial resource extraction. For instance, particularly in present-day Myanmar (formerly, British Burma), an emphasis on timber production, not for the improvement of the Salween Basin, but for support of the colonial center is evident (Bryant 1997). This constituted, as well, the associated establishment of the Salween as a ‘periphery’ or ‘frontier’ (Leach 1960; Scott 2009).

More contemporary policies and processes of regional economic integration also play a role in delimiting and creating the Salween as part of, if not constitutive of, an area or region. For example, as discussed by Middleton, Scott, and Lamb in Chap. 3, this volume, the 1990s saw the Asian Development Bank work with regional governments to shape and link the Greater Mekong Subregion (ADB 2012). In addition, since the mid-2010s, it now seems that China’s Belt and Road initiative is building momentum, and building a vision for a global ‘belt’ of interconnection. These, and multiple other regionalization initiatives, represent new planned connections for the Salween, connections to and from distant sites, territories, and markets, via new infrastructures, both hard and soft. Yet, as these plans are promoted and pursued by their proponents, there is a limited understanding of what precisely these new connections and developments would mean for the people, ecologies, and localities that they ‘intersect’ with in the Salween basin. There is also, it seems at least in some senses, a lack of appreciation that this would be something that is valuable to know.

We see these as pressing concerns in the current context of a basin and a region that is experiencing often precipitous political, economic, and ecological change. How can this accumulated work to construct the Salween, often framed to be at the

‘margins’ (Scott 2009), be transformed or even overcome—so that scholars, and the broader public might consider more diverse collaborations and ways of knowing the Salween, which also take into account the change and dynamism of people, states, and ecologies?

van Schendel and others (e.g., Scott 2009; Michaud 2010; Turner 2010) have attempted to overcome what they refer to as “geographies of ignorance” produced as a result of studies focused on centers, heartlands, and academic narrowness of field, by developing a new concept of region and a novel way to approach the study of an ‘area’: Zomia.<sup>2</sup> As Michaud explains, Zomia is

a neglected—an invisible—transnational area, which overlapped segments of all four sub-regions without truly belonging to any of them. It is an area marked by a sparse population, historical isolation, political domination by powerful surrounding states, marginality of all kinds, and huge linguistic and religious diversity. (2010: 187–188)

van Schendel underlines that, “In order to overcome the resulting geographies of ignorance, we need to study spatial configurations from other perspectives as well” (2002: 664). He proposes three alternatives, in what was seen as a moment of opportunity post-WWII, as the globe and its territories were being transformed. We also re-consider these three propositions here for our own purposes, in the contemporary moment, for the Salween.

First, van Schendel considers suggestions to construct “regions crosscutting the conventional ones” but notes that this is unlikely to enact lasting change, and likely to reinforce new margins and centers (2002: 665). Appreciating this point of critique, he (and we) more seriously consider, the second alternative, studying regions in a way that highlights new spatial arrangements or networks. This invokes not discrete, bounded territories in the traditional sense, but instead, continuous, connected spaces with no particular center. The third alternative proposed “goes further” to develop the study of region via flows and their resulting architectures and infrastructures, which cross (and shape) conventional territories and borders, and which van Schendel characterizes as “more ephemeral” and emergent (2002: 665).

This is an intentional shift, then, by scholars to move beyond areas or territories as static spatial configurations, and beyond regions as depicted in, any of the colonial maps of Southeast Asia, or the development planning devices of regional and world development agencies. It is a shift to study the processes, flows, and connections as way to “develop new concepts of regional space” (van Schendel 2002: 665) as dynamic and changing.

This book builds upon the opportunity presented by van Schendel and related scholars’ insights. As scholars and individuals who have also spent large parts of

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<sup>2</sup>Michaud (2010: 187–188) helpfully identifies that Zomia includes “the highlands of Asia, from the western Himalayan Range through the Tibetan Plateau and all the way to the lower end of the peninsular Southeast Asian highlands, as a political and historical entity significantly distinct from the usual area divisions of Asia: Central (Inner), South, East, and Southeast.” But also, that this has also undergone a shift in 2007 to include areas further west and north, “including southern Qinghai and Xinjiang within China, as well as a fair portion of Central Asia, encompassing the highlands of Pakistan, Afghanistan, Tajikistan, and Kyrgyzstan.”

our careers outside academia working with civil society organizations, we (the co-authors of this introduction to the book and editors of this book) have been working over the past 10 years under a broader and shifting set of ideas, and among a cohort of concerned individuals, towards an understanding of what “Salween Studies” (or Nu-Thanlwin-Salween Studies) could be. This is part conscious and conceptual, but also, partly practical. Indeed, practically, there is a need for some sort of organizing principle as even the various names of the river and its cartographies have been disconnected and fragmented through time (see Lamb, Chap. 2, this volume), with the academic literature, for instance, on China’s Nu Jiang almost entirely distinct from research on Myanmar’s ‘Thanlwin’ River.

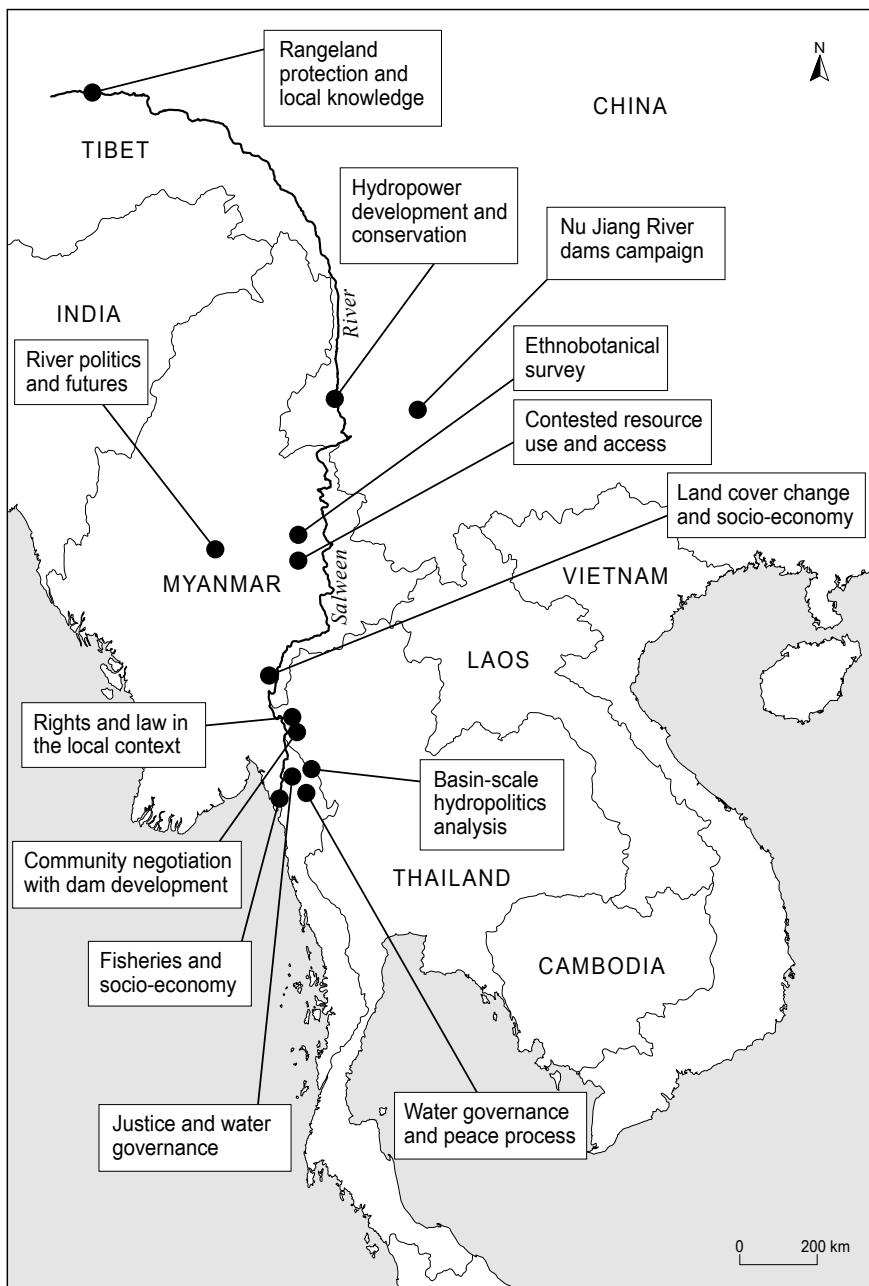
Of course, we recognize that an area of study is not made by maps, names, or words alone.<sup>3</sup> Conceptually, we have been thinking about collaborations, while simultaneously practicing the work of collaboration, to consider what a “Salween Studies” might include, follow, connect, and entail. Areas of study or interest, we argue, should be understood as inherently transdisciplinary, and require collaborators including civil society groups and researchers, academic experts (and generalists), interdisciplinary experts, language interpreters and knowledge interlocutors, as well as interested friends, coalitions, and at times, governments and their representatives, who see enough value in understanding an ‘area’ (as a set of processes, not necessarily geographically fixed) that they can come together and emerge with new understandings of the world and our place within it.

The collaborators and community familiar with and mobilizing around the Salween and Salween Studies is growing. This is evidenced, for example, in the work to establish international networks – Save the Salween, Salween Watch, Salween University Network – and also in the continued efforts of a large range of collaborators who have organized various Salween gatherings. These have ranged from conferences, such as the 2014 *First International Conference on Salween Studies*, to smaller workshops, road trips, meetings, panels, protests, and ceremonies along the river over the past ten years or more. These efforts aim to understand and position Salween, its peoples, politics, and ecologies, through multiple epistemological and ontological approaches, as an ‘area’ to know and in its connections with people and places outside the physical, or ‘natural’, area of the basin.

We position this edited volume, then, as the first to seriously center on the Salween as a site for critical consideration and interrogation. It provides a wide range of studies presenting rich empirical work and conceptual facets that reflect the varied ways of knowing the Salween (see Fig. 1.1: Map of Salween River Basin indicating the range of “Salween Studies” in this volume). This book provides these at a key moment in the history of the Salween, and which we anticipate will therefore be of interest to a widening audience of academics, researchers, policy-makers and practitioners. It is also written by a wide range of contributors, many of whom are based in

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<sup>3</sup>Even if it has been successfully argued that a nation can be made by maps alone (Winichakul 1994).



**Fig. 1.1** Map of Salween River Basin indicating the range of “Salween Studies” in this volume. Source Cartography by Chandra Jayasuriya, University of Melbourne, with permission

the basin. In the following sections, then, we introduce this range of collaborators and topics of study via three key themes, namely: resource politics (theme 1); politics of making knowledge (theme 2); and reconciling knowledge across divides (theme 3).

## 1.2 Theme 1: Resource Politics

The dynamics of access to, control over, and use of resources are at the heart of resource politics in the Salween basin (Magee/Kelley 2009; Leach et al. 2010; BEWG 2017). The basin is witnessing intensified dynamics of resource extraction, alongside large dam construction, conservation, and development interventions. These are unfolding within a complex terrain of local, national, and transnational governance processes. This intensification raises questions about the contested future visions for the basin, how inclusive they are, and who has the authority to make decisions and on whose behalf? For the Salween, addressing these questions is not straightforward.

Plans for dams in Myanmar have existed since at least the late 1970s (Paoletto/Uitto 1996), and while there is a much longer history of development in the basin, it can be argued that essentially the Salween dam projects were first seriously considered in the late 1980s under Thailand's Prime Minister Chatichai Choonhavan, and have been continually linked to narratives which aimed to transform "battlefields to marketplaces" (Magee/Kelley 2009). These narratives and discourses around 'battlefields' and conflict, as opposed to marketplaces and development for peace, have characterized the Salween since at least this time. The associated frames have also impacted our ability to understand and to 'know' the multitude of ways that the river and the basin matter, and how resource and peoples are governed in multifaceted ways, which as noted above, are not always evident when examination of the 'center' is prioritized. Many of the authors in this volume take up these points, revealing further particulars of the proposed developments, their politics, contests, and shifts over time.

In Chap. 3, titled "Hydropower politics and conflict on the Salween River," Carl Middleton, Alec Scott, and Vanessa Lamb draw on the lens of 'hydropolitics' to analyze the contested nature of dams planned for the Salween River (Sneddon/Fox 2006; Rogers/Crow-Miller 2017). A hydropolitics approach is sensitized to how water and energy are intimately constitutive of politics at multiple scales, and also highlights how these politics foreground certain facts, actors, and agendas, while others are rendered forgotten. Indeed, analysis of foregrounding and forgetting can reveal the power relations at play.

The particular focus of the chapter is the projects proposed in Myanmar and their connections with neighboring China and Thailand via electricity trade, investment, and regional geopolitics. The authors detail the recent political history of conflict in the Salween basin in Myanmar, and relate the contesting claims for political authority and territorial control to plans for hydropower dams. In Myanmar, at present there are five dams at various stages of planning on the Salween River mainstream, and a further two that have been suspended, if not cancelled. On the

tributaries, there are a further four medium or large-dams already complete, two under construction, and seven at an advanced stage of planning. As each of the dam projects are located in places where there is either open or recently ended conflict, that the central government has limited ability to fully project its authority is profoundly significant for the decision-making process for each project. Overall, the authors argue that Myanmar's peace negotiations need to be concluded before large dams on the Salween are discussed as a part of a broader discussion on resource governance in the context of federalism.

Moving the focus upstream, Chap. 4 titled "From hydropower construction to national park creation: Changing pathways of the Nu River" by Yu Xiaogang, Chen Xiangxue and Carl Middleton, explores the politics of the evolving visions, narratives, and decision-making processes for the Nu River and the extent to which they have materialized through five 'pathways'. This includes: a hydropower construction pathway that led to plans for 13 large dams on the mainstream, of which two to date have been built in the most upper stretch; a civil society protection pathway that emphasizes their role both in resistance to the hydropower construction pathway, and in support of environmental protection via national parks and energy reform; an energy reform pathway that highlights the current oversupply in China of electricity, and other (better) future options; a national park pathway that foresees the Nu River giving priority to ecological protection; and a water conservancy pathway recently proposed by the government to build dams as multi-purpose projects that include irrigation and flood/drought management.

The authors utilize this approach to reveal the contested character of the Nu River, and to render visible how there are multiple potential futures. Yet, the authors also highlight that over time not all pathways have been given equal consideration, and for at least a decade until the mid-2000s large hydropower plans were dominant. While now suspended, and the national park pathway appears currently favored by the government, the authors still argue that access to information, transparency and accountability are of the utmost importance in any decision-making towards the river that is fully inclusive of the ethnic communities living along the river.

Work on the Salween Peace Park is also instructive in regard to resource politics. Saw John Bright, in Chap. 5, "Rites, rights, and water justice in Karen State: A case study of community-based water governance and the Hatgyi Dam", juxtaposes two very different plans for the Salween River. Bright details the case of a Community-Based Water Governance project supported by the NGO Karen Environment and Social Action Network (KESAN) around the Daw La Lake that connects to the Salween River, and the Kaw Ku seasonal island located in the Salween itself, to draw out how the communities relate to these resources in terms of human rights and cultural practices, the latter of which he terms 'rites' (Badenoch/Leepreecha 2011). He shows how the communities have organized strategically seeking to gain recognition from the Karen State government on the right to govern their resources, and to protect them from enclosure by outside private actors.

Bright then contrasts this with the planned Hatgyi Dam, around which armed conflict continues to erupt creating severe insecurity for communities nearby. He

emphasizes that the project's centralized and opaque formal decision-making process has excluded communities and civil society groups to date, and challenges the project's legitimacy including due to the ongoing conflict. He concludes by calling for more emphasis to be placed on principles of justice in water governance and proposes that both human rights and community rites should be recognized, thus pointing towards the multiple normative values that could or should be in play within resource politics.

Johanna M. Götz, in Chap. 6 titled "Contested water governance in Myanmar/Burma: Politics, the peace negotiations and the production of scale", shows how highly contested power-relations shape decision-making around various scales. Throughout the chapter, Götz draws on a hydrosocial approach (Linton/Budds 2014), which understands water not merely as its chemical form of H<sub>2</sub>O, but as always socially embedded and the product of historical processes. Götz utilizes this sophisticated conceptual approach to resource politics to analyze two groups of actors with divergent visions, namely: Myanmar's Union government's National Water Resources Committee and its Advisory Group and its work to create a National Water Policy; and a network including the NGO KESAN, the Karen National Union (KNU) and community groups to create the Salween Peace Park (SPP) within KNU-controlled Mutraw District in Karen State. Overall, Götz shows how scale in water governance cannot be taken as given *a priori*, but that scale's production is in fact a key contestation within the politics of water governance. In the context of Myanmar, Götz concludes that how these scales become consolidated within institutions, laws, and decision-making processes will also hold implications for the outcome of the ongoing peace negotiations, and will inevitably shape the form of federalism that is intended to emerge.

These are significant discourses, narratives, and stories of resource politics that do not generally make it into the news cycle on the Salween, which highlights instead neat, linear narratives of conflict. To complicate these contestation narratives, as our contributors do, does not mean in any way that conflict does not exist. But, in a setting like the Salween River Basin, there are also enormous efforts by the basin's residents to create alternative visions. This includes the SPP and community-based water governance in Karen State, as well as new networks of women and youth as emphasized by Nang Shining in her concluding commentary on Shan State (Sect. 16.3), or the rituals that affirm community relationships with the river in Thailand as discussed by Pianporn Deetes (Sect. 16.4). Thus, to focus only conflict overshadows the immense progressive work and diversity of the Salween.

### 1.3 Theme 2: Politics of Making Knowledge

In this introduction, we highlight that knowledge making is an active endeavor, a practice, and that making knowledge is about more than addressing a 'gap' or a lack of data, but also about how knowledge boundaries are defined. It has a geography, a politics, and a history. What these chapters present, then, when assembled alongside



one another is a provocation about not just what we know, but about who knows and who decides on those boundaries.

In emphasizing knowledge as practice (Jasanoff 2004), we also demonstrate that knowledge about the Salween is very much an ongoing conversation. Chapter 7 is illustrative of what we mean. Titled “A State of Knowledge of the Salween River: An overview of civil society research” this contribution emerged from ongoing conversations between a group of researchers about the “state of the basin”. State of the basin reports are generally large tomes, written by leading scientific researchers in the field. When applied to water governance, such studies are intended to serve as key reference points. This chapter discusses what would such a study would look like if civil society and activist research was considered as one (or more) of those leading fields? The chapter presents, partially in response to that question, an argument that much of what we now know about the Salween River Basin, its people, ecosystems, values, and threats, has been documented through civil society research. The chapter is of specific importance in reviewing this research and at the same time, recognizes the need for additional information such as biophysical baseline studies. The chapter, thus, provides an overview of the existing knowledge of the basin and begins to identify the key knowledge gaps in support of more informed and inclusive water governance in the basin.

Hannah El-Silimy’s contribution, Chap. 8 titled ““We need one natural river for the next generation”: Intersectional feminism and the Nu Jiang Dams campaign in China” focuses on the politics of making knowledge with a particular purpose in advocacy. In taking ‘activism’ seriously and as worthy of sustained research, El-Silimy interrogates ‘who’ makes knowledge and does activism, and who can and is involved in advocating for conservation of the river. She focuses on an analysis of the Nu Jiang dams campaign in China via an intersectional feminist lens, writing an eloquent contribution that speaks to debates on the politics of making knowledge. These debates consider that not only is politics inherent in influencing decision-making or ecological management, but that politics are also about who participates and with what implications for the making of subjects and identities (Lamb 2018; Agrawal 2005; Tsing 1999; Li 2000). El-Silimy argues that gender and class matter in the politics of participation; particularly when civil society groups argue for this in the representation of affected groups, it also matters who can participate in campaigns and as part of civil society.

The works in this section recognize a plurality of knowledge making activities. The interpretation, practice, and production of law is another societal process through with knowledge is produced and acted upon by a range of actors including lawyers, judges, government officials and activists. Chapter 9, “Local context, national law: The rights of Karen people on the Salween River in Thailand”, by Thai lawyer Laofang Bunditdterdsakul, examines how the rules and norms reflected in Thailand’s current national law runs up against existing Karen practices in three forest communities on the Salween. He details the existing livelihoods of the Karen communities in relation to land, forests, and river resources, and shows how the creation of the Salween National Park around them and its associated laws have placed constraints on the Karen communities’ traditional practices. On the ground,

the existing law mandates local government officials to act to constrain the Karen's livelihood practices, creating a sense of insecurity among the communities. Underlying these insecurities, however, are the histories of the communities themselves, within which many members still have been unable to receive full Thai citizenship despite existing for many decades. Overall, Bundidterdsakul argues that the existing national law has not acknowledged the rights to these resources for the ethnic minorities. Yet, rather than take the law as absolute and immutable, Bundidterdsakul sees it as an arena of ongoing contestation in which ongoing court cases test, interpret and on occasion rewrite it. Within these court cases, whose knowledge counts in the eyes of the law is revealed as one of the considerations in their outcome. The stakes are high, as Bundidterdsakul argues that the tension between local practice and national law also reflect a more fundamental question regarding the definition of Karen identity in Thailand.

Also critical in any approach to studying the politics of making knowledge are the long-standing debates in political ecology, anthropology, and geography that have pushed our understanding of what constitutes local, indigenous, and scientific knowledge (e.g., Agrawal 1995, 2002; Forsyth 1996; Tsing 1999, 2005; Li 2000; Santasombat 2003; Vaddhanaphuti/Lowe 2004; Lowe 2013). While early work in anthropology characterized many local or indigenous knowledge systems in Southeast Asia and elsewhere as practice-based or even "fixed in time and space" (Agrawal, 1995), more engaged scholarship has shown that local knowledge systems are *simultaneously* embedded within practice, empiricism, and theory, suggesting that the boundaries between 'local' and 'scientific' knowledge are porous and not all that distinct.

Two chapters that take on the politics of the "local-scientific" knowledge divide, but in very different ways, are the contributions by ethnobotanists Mar Mar Aye and Swe Swe Win in their survey and analysis of plants and health in Myanmar's Shan State (Chap. 10) and by Paiboon Hengsuwan in his study of villagers' research and their perspectives on development along the Thai stretch of the Salween (Chap. 11).

Paiboon's contribution, titled "Not only anti-dam: Simplistic rendering of complex Salween communities in their negotiation for development in Thailand," details his research in Thailand into what it means for local people along the Salween River-border to be "anti-dam" but not necessarily anti-development. His nuanced analysis also shines light on a rather under-considered but significant points in this debate: that individuals and communities are making strategic choices in development and activism.

Following work by Keyes (2014), Hengsuwan explores how villagers have reworked the discourses of development to be meaningful as related to their own experiences. He writes that, "Local communities see their participation in the anti-dam movement as a strategy to improve local development. Participation in the anti-Salween dam movement is one of the villagers' many strategies to articulate their own meaning of local development." He suggests, then, that it is imperative to understand the broader networks of movement and resistance around local development, as a way to produce richer understandings of complex communities.

In Chap. 10, “An ethnobotanical survey in Shan State, Myanmar: Where Thanlwin biodiversity, health, and deforestation meet”, the authors perform a mix of methods for their study, from plant species surveys and herbarium stand methods, to interviews with traditional healers. They take these together to understand (and to document and categorize) plant species from the perspective of botanical records, healers, and residents who rely on medicinal plants because of complex histories and geographies. Some interviewees report turning to traditional plant remedies when they lack other options, like hospitals or clinics. Others report a decline in plants themselves due to collection for export and intensification of cash crops nearby the wild areas these plants are collected. The authors then link these pressing issues of health, plant availability, and production of herbal medicines to broader changes to forested land via agriculture intensification and the ability to make a living in Myanmar’s changing economy.

### 1.4 Theme 3: Reconciling Knowledge Across Divides

In this third theme, reconciling knowledge across divides, we consider the divides, spatial and otherwise, that are both imposed on and constituted through research into the Salween. In particular, this work highlights the struggles to consider, appreciate, appraise, and reconcile knowledge or ways of making knowledge that may initially seem irreconcilable or at odds. As such this section begins with an important study of access to Salween River resources, positioned as part of a contested history of authority and control, still manifest in contemporary development debates, particularly in Myanmar. As K. B. Roberts underlines in this study in Chap. 12, “Powers of access: Impacts on resource users and researchers in Myanmar’s Shan State”, these contests over conflict and development (theme 1) and knowledge making (theme 2) are linked. Roberts shows via field research in Myanmar’s restricted stretch of the Salween River in Shan State, that conflict has not only restricted local residents’ access to natural resources, but the ongoing conflict also restricts research and researchers, both foreign and domestic. This closing off impacts researchers’ ability to understand and operate, necessitating new methodologies and tools, as Roberts details in their innovative study of resource access via collaborative fieldwork and analysis with local Shan youth.

Chapter 14, presenting new research on the connections between forest cover and histories of conflict in Myanmar by Khin Sandar Aye and Khin Khin Htay is one these kinds of knowledge that Roberts refers to. Titled, “The impact of land cover changes on socio-economic conditions in Bawlakhe District, Kayah State,” it draws on remote sensing as well as quantitative and qualitative surveys on-the-ground to document and understand the changing land cover and land use in Kayah State, with particular focus on the implications for people’s livelihoods. The authors identify three periods during which land cover, livelihoods, and governance changed significantly. These include: first, a period prior to 2010, when armed conflict limited timber companies’ access to the area and limited forest loss; second,

from 2010 to 2015, since a peace agreement was signed, during which timber companies could undertake logging, and the area's forests rapidly depleted; and third, the period since 2016 when a logging ban was implemented, although much remains to be done to recover and protect forests, and ensure sustainable livelihoods for communities in the area. While not a substitute for long-term ethnographic field study, the methods applied enabled the researchers to generate and triangulate data and insights over a three decade period, covering a period when access to undertake field research would have been challenging and risky, and to integrate natural and social science methods.

Chapter 13 by Professor of Marine Science, Dr. Cherry Aung, also highlights what linking changes that might otherwise be divided as distinct economic, environmental, and social change can reveal. Titled "Fisheries and socio-economic change in the Thanlwin River Estuary in Mon and Kayin State, Myanmar," the chapter begins with an understanding that while the estuary is a well-established fishery, the fishery is in decline for a range of reasons linked to economic, social, and environmental change. As a result, the communities who depend upon the fishery are also in a kind of decline; people of working age have migrated out to Thailand, Malaysia, and other parts of Myanmar, to make a living.

In turn, the fishery has also transformed: a fishery that was in the past a more independent endeavor, is now characterized by larger operations, who hire domestic migrants from across Myanmar. The key linkages made between environment change, labor change, and people illustrates a 'community' in transition in Myanmar. They also point to the broader links between livelihoods, ecosystems, and economic development. Dr. Cherry Aung's research was conducted by interviews and focus groups across four villages located in the estuary in Mon and Kayin States. She is in a unique position to carry out research in this area, which might otherwise be restricted, as an individual who hails from this area and an academic who can speak across natural scientific and social science divides, which have been a long-standing challenge in Myanmar.

This brings us to the final case study in this edited volume, Chap. 15, sited at the highest point of the Salween in the Tibetan plateau where the author, doctoral candidate Ka Ji Jia, is also in a unique position to carry out and present this work. Ka Ji Jia's work reveals key insights into the sacred knowledge and local practices of Tibetan herders. Titled, "Local knowledge and rangeland protection on the Tibetan Plateau: Lessons for conservation and co-management of the upper Nu-Salween and Yellow River watersheds" her chapter argues for greater consideration of the work and knowledge of local residents in the protection and conservation of the rangelands, as opposed to the more conventional "fixed fences" approach preferred at the moment by the Chinese government.

Particularly salient is Ka Ji Jia's presentation of research in relation to the less visible aspects of sacred knowledge linked to environmental protection. While she is optimistic that these forms of local knowledge can be harnessed, even in the context of a fences and fines approach to conservation, she also acknowledges that this would require a divide be crossed and reconciled. It is a divide between what is (and has been) considered 'evident' and visible, and what is, according to outsiders,

*less visible* in the nomadic practices of herders: their efforts at environmental conservation. Writing on knowledge and visibility, anthropologist Celia Lowe also recognizes this divide. She explains that in her research in Indonesia on the Sama people, known by some as the “sea nomads”, she also saw the ingrained assumptions about how people who move would not, and could not, care about place, separating nomads from sedentary groups:

I once spoke with a biologist visiting Susunang village who explained to me that since Sama people are “sea nomads” and are always moving from place to place, they can’t possibly care about the particular location they happen to find themselves in at a given moment. His implication was that the people of Susunang would not protect the Togeang [Indonesian island] environment because they were just going to move one. (Lowe, 2013, 86)

Lowe goes on to point out that visibility and its assumptions “tells us nothing” of the less visible, magic or sacred ways of knowing and being, which may be, in practice, more powerful. Not wholly dissimilar to the divides that Roberts and Cherry Aung connect—spatial/political, economic/social—Ka Ji Jia makes a concerted effort to move forward in an attempt to reconcile plural knowledges and perceptions, which might otherwise not be ‘struggled with’ and dismissed.

The final chapter of this edited volume offers five concluding commentaries. Each writer holds a long experience with the Salween River, including two academics (Chayan Vaddhanaphuti (Thailand) and R. Edward Grumbine (US)), two civil society leaders (Nang Shining (Myanmar) and Pianporn Deetes (Thailand)), and one government advisor (Khin Maung Lwin). Each was invited to provide their personal reflection on both the current volume, and their experience, analysis of and future hope for the Salween River.

Thus, in what follows in this edited volume is a kind of reconciling of plural knowledges as well as a curation for one possible ‘area’ of Salween Studies for further consideration, discussion, and collaboration. As further evidenced by the immediately following chapter (Chap. 2), a short introduction to the many names of river we have referred to as ‘Salween’, we recognize that names, knowledges, and conventions of scholarship privilege certain actors and histories and ways of knowing.

## References

- ADB (Asian Development Bank). (2012). *The Greater Mekong Subregion at 20: Progress and prospects*. Mandaluyong City, Philippines: Asian Development Bank. Retrieved from: <https://www.adb.org/sites/default/files/publication/30064/gms-20-yrs-progress-prospects.pdf>.
- Agrawal, A. (1995). Dismantling the divide between Indigenous and Scientific Knowledge. *Development and Change* 26, 413–439.
- Agrawal, A. (2002). Indigenous knowledge and the politics of classification. *International Social Science Journal* 54, 287–297.
- Agrawal, A. (2005). *Environmentalism: Technologies of Government and the Making of Subjects*. Durham: Duke University Press.

- Badenoch, N., & Leepreecha, P. (2011). Rights and rites: Local strategies to manage competition for water resources in Northern Thailand. In K. Lazarus, N. Badenoch, N. Dao & B. Resurreccion (Eds.), *Water rights and social justice in the Mekong Region*. London, United Kingdom: Earthscan.
- BEWG (Burma Environment Working Group). (2017). *Resource federalism: A roadmap for decentralized governance of Burma's natural heritage*.
- Bryant, R. (1997). *The political ecology of forestry in Burma: 1824-1994*. Hawaii: University of Hawaii Press.
- Egreteau, R. (2016). *Caretaking democratization: The military and political change in Myanmar*. Oxford, UK: Oxford University Press.
- Farrelly, N., & Gabusi, G. (2015). Introduction: Explaining Myanmar's Tentative Renaissance. *European Journal of East Asian Studies* 14(1), 7–14.
- Forsyth, T. 1996. Science, Myth, and Knowledge: Testing Himalayan environmental degradation in Thailand. *Geoforum* 27(3):375–392.
- Johnston, R., McCartney, M., Liu, S., Ketelsen, T., Taylker, L., Vinh, M.K., Ko Ko Gyi, M., Aung Khin, T., & Ma Ma Gyi, K. (2017). *State of knowledge: River health in the Salween*. Vientiane, Lao PDR: CGIAR Research Program on Water, Land and Ecosystems. Retrieved from: <http://hdl.handle.net/10568/82969>.
- Jones, L. (2014). Explaining Myanmar's regime transition: the periphery is central. *Democratization*, 21(5), 780–802.
- Keyes, C. (2014). *Finding their voice: Northeastern villagers and the Thai state*. Chiang Mai, Thailand: Silkworm Books.
- Lamb, V. (2014). "Where is the border?" Villagers, environmental consultants and the 'work' of the Thai–Burma border. *Political Geography*, 40, 1–12.
- Lamb, V. (2018). Who knows the river? Gender, expertise, and the politics of local ecological knowledge production of the Salween River, Thai-Myanmar border. *Gender, Place & Culture*, 1–16.
- Leach, E.R. (1960). The frontiers of "Burma". *Comparative Studies in Society and History*, 3(1), 49–68.
- Leach, M., Scoones, I., & Stirling, A. (2010). *Dynamic sustainabilities: Technology, environment, social justice*. Abingdon, United Kingdom: Earthscan.
- Li, T. (2000). Articulating Indigenous Identity in Indonesia: Resource Politics and the Tribal Slot. *Society for Comparative Study of Society and History*, 149–179.
- Linton, J., & Budds, J. (2014). The hydrosocial cycle: Defining and mobilizing a relational-dialectical approach to water. *Geoforum*, 57, 170–180.
- Lowe, C. (2013). *Wild profusion: Biodiversity conservation in an Indonesian archipelago*. Princeton and Oxford: Princeton University Press.
- Magee, D., & Kelley, S. (2009) Damming the Salween River. In F. Molle, T. Foran & M. Käkönen (Eds.), *Contested waterscapes in the Mekong Region: Hydropower, livelihoods and governance* (pp. 115–140). London, United Kingdom: Earthscan and USER (Chiang Mai University, Thailand).
- Michaud, J. (2010). Editorial Zomia and beyond. *Journal of Global History*, 5, 187–214.
- Paoletto, G., & Uitto, J.I., 1996. The Salween River: is international development possible?. *Asia Pacific Viewpoint*, 37, 269–282.
- Rogers, S., & Crow-Miller, B. (2017). The politics of water: a review of hydro-political frameworks and their application in China. *Wiley Interdisciplinary Reviews: Water* 4(6): 1239.
- Santasombat, Y. (2003). *Biodiversity: Local knowledge and sustainable development*. Chiang Mai, Thailand: RCSD Chiang Mai University.
- Scott, J.C. (2009). *The art of not being governed: An anarchist history of upland Southeast Asia*. New Haven, CT: Yale University Press.
- Simpson, A. (2016). *Energy, governance and security in Thailand and Myanmar (Burma): a critical approach to environmental politics in the South*. London: Routledge.
- Sneddon, C., & Fox, C. (2006). Rethinking transboundary waters: A critical hydropolitics of the Mekong basin. *Political Geography*, 25(2), 181–202.

- Tsing, A. (1999). Becoming a tribal elder, and other green development fantasies. In Tania Li (ed.) *Transforming the Indonesian Uplands: Marginality, Power and Production*. Amsterdam: Harwood, 157–200.
- Tsing, A. (2005). *Friction: An Ethnography of Global Connection*. Princeton: Princeton University Press.
- Turner, S. (2010). Borderlands and border narratives: a longitudinal study of challenges and opportunities for local traders shaped by the Sino-Vietnamese border. *Journal of Global History*, 5(2), 265–287.
- Vaddhanaphuti, C., & Lowe, C. (2004). The Potential of People: An Interview with Chayan Vaddhanaphuti. *Positions: East Asia Cultures Critique* 12(1), 71–91. Duke University Press.
- Winichakul, T. (1994). *Siam Mapped*. Honolulu, Hawaii: University of Hawaii Press.
- van Schendel, W. (2002). Geographies of knowing, geographies of ignorance: jumping scale in Southeast Asia. *Environment and Planning D*, 20(6), 647–668.

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