# Grassroots alliances in natural resource governance: shaping territories of life

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Universiteit Leiden

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Photo credit: Diana Suhardiman, Phongsaly province, Laos, 2019

# Grassroots alliances in natural resource governance: Shaping territories of life

Oratie uitgesproken door


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*Mevrouw de Rector Magnificus, Meneer de Decaan, Leden van het Curatorium van de Leerstoel 'Natural Resource Governance, Climate and Equity', Dames en Heren,*

This is Pati Melo.

Picture 1: Pati Melo (photo credit: Karen Environmental and Social Action Network, 2024)

Decades ago, when he was a young man, Pati Melo had the habit of losing his buffaloes. At such times he had to seek support from the village seer - or shaman - with expertise in finding lost valuables both living things and those inanimate objects in the possession of others. The village seer always helped Pati Melo locate his buffaloes, yet he could not prevent the animals from getting lost again. Hence, Pati Melo decided to learn to become a seer himself.

Pati Melo has been a seer for decades now. He possesses deep knowledge of the traditional rotational farming methods and the environmental governance system of his ancestral lands. This system and associated methods are still practiced by many in Kawthoolei, Karen state in Myanmar, and more widely in upland Southeast Asia. Pati Melo has extensive knowledge about soil fertility and its regenerative stages, herbal plants for healing and helping with childbirth, he is highly gifted with various methods and techniques of prophecy, and calls for the rain in times of drought.

Pati Melo represents the embodiment of place-based knowledge, reflected in his personal choices, character, and in his role as a seer. Under a rapidly changing climate, Pati Melo together with other seers, elders, and the wider Karen communities use various species of birds and mammals, as indicators to determine the best time to start rice planting. They look at red ants, monitor lizards, leaches, species' behavior, rocks, and riverbanks formation as early warning systems for upcoming floods, storms, and landslides. This place-based knowledge is also manifested and stored in oral traditions such as old poems and storytelling embedded in the Karen communities' life philosophy, practiced through rituals and ceremonies. This cultural continuum persists despite decades of armed conflicts and political oppression exercised by the Burmese Army.



Knowledge, culture, and agency are cornerstones for linking and tracing past, present and future evolutionary pathways in natural resource and climate governance. In Kawthoolei, this praxis of knowledge, culture, and agency comes to life through Pati Melo, whom I met earlier this year. Natural resource governance, climate, and equity are embedded in the understanding of multiple overlapping - yet not always connected - knowledge systems and grassroots realities. To give the most extreme example; the seer's place-based knowledge stands in contrast to the 2023 Sixth Synthesis Report of the Intergovernmental Panel on Climate Change or IPCC, the latter focuses on the state of knowledge of the science of climate change.

Grassroots actors and institutions are the tip of the spear in defining complex adaptation strategies as they navigate their livelihoods options on a daily basis and across local, national, and transnational boundaries. This is demonstrated by Pati Melo and Karen communities in Myanmar. They are not alone

in this. Sea nomads, lowland farmers, and upland villagers across Southeast Asia are coping with climate challenges while drawing on their place-based knowledge and cultural connections with ocean currents, rainfall, winds, fires, multiple species of plants, migratory birds, and endemic fish. They exercise their political agency to devise strategies to defend their ancestral territories from external threats such as large-scale land concessions, hydropower dam development, and the slow violence of climatic change. These strategies, however, receive little to no recognition in global climate governance and adaptation research agendas, policy discussions, and decision-making processes.

In academic circles and in international and national policy discussions, some knowledge systems are valued more than others, considered more scientific, and therefore more credible. Focusing on predominantly technical knowledge and expertise, climate adaptation research and policy discussions draw on such scientific assessments to tackle the climate crisis through technological innovation and systems transitions. The science and language of climate change measure the value and worth of knowledge, and in so doing overlook other knowledge systems with diverse origins and alternative ontological connections.



This central positioning of science as the pre-eminent knowledge system is a form of epistemological colonialism. Decolonizing natural resource and climate governance is pertinent in two ways. First, it serves to enrich our understanding of grassroots forces, key drivers, actors, and inter-scalar alliances that shape knowledge production processes. And second, it offers the possibility of alternative mechanisms and pathways to addressing the climate crisis. But decolonizing science cannot be done from afar, from lecture halls like this one, in isolation from the context where processes of knowledge (re)production are situated. Context matters because it offers us different perspectives and interpretations of what decolonization means, why it is needed, and why we must embrace the complexities, messiness, and multiple realities that constitute the world.

During my recent visit to the Thai-Myanmar border, meeting Pati Melo highlighted the urgency to recognize such place-based knowledge systems, the web of cultural connections that constitute such systems, and the political agency that is possible when we – scholars trained in disciplinary traditions – open our minds to other modes of natural resource governance. For me, this realization dates back twenty years ago during my PhD research in Indonesia. In Jakarta, national government agencies and political parties negotiated the scope and coverage of bureaucratic reform in the irrigation sector. In the district of Kulon Progo, I learned about farmer-agency relations in interconnected irrigation systems and how these relations revealed the ongoing power struggles in state-citizen relations in specific localities. At the field level, I witnessed how a different world emerged as farmers arranged their water distribution practices to ensure a reliable water supply to their fields. Farmers' knowledge, cultural values and their agency came to life in how Mbah Sumo navigated water distribution practices within the context of technological determinism.

*Technological determinism and the (re)shaping of spatial authority*

This is Mbah Sumo.

Picture 2: Mbah Sumo, Yogyakarta province, Indonesia (photo credit: Diana Suhardiman, 2004)

He is a village ulu ulu, a person responsible for arranging water distribution practices for all farmers in his tertiary unit. The term ulu ulu originated from centuries old irrigation practices in Java and Bali.[1] In modern day Indonesia, the village ulu ulu continues to play an important role in ensuring equal water distribution.

Mbah Sumo organized water distribution arrangements with his neighboring farmers to ensure that farmers worked as a collective, rather than competing with one another regarding their water taking. He also forged alliances with three farmer leaders in the area: Pak Nuryanto, Pak Sutikno and Pak Nursiyono, to try and ensure that water was distributed equally among farmers in the same area and within the wider irrigation system.

With this alliance Mbah Sumo was in fact creating and exercising farmers' spatial authority[2] through the formation of farmers leaders' networks as a grassroots force to represent farmers' needs in the area. Spatial authority described the condition in which a group of farmers ensured irrigation water supply to individual farmers' fields, sometimes contiguous and connected, but sometimes separated and in isolation from the larger system or inter-system water distribution arrangements. The word 'spatial' refers to a particular area, which can be an irrigation system as well as a certain area within the system. The word 'authority' applies to farmers' actual decision-making power and capabilities to implement, enforce, or challenge existing water distribution rules to ensure irrigation water supply to farmers' fields. Getting this right – both materially (making sure water arrives in sufficient quantity and at the right time) and socially (it is delivered equitably and justly) – is of existential importance. Farmers depended on Mbah Sumo and people like him.

Designed to control and regulate water distribution from the head dam to farmers' fields, the technical hierarchy encoded in the irrigation canals system determines where the water goes, to irrigate whose fields, when, and how much. It was within this context of power asymmetry embedded in village and canal hierarchy that I learned how farmers and field engineers make and remake institutions on a daily basis[3] both through class and inter-class alliances. These complex grassroots realities and Mbah Sumo's ability to ensure equal water distribution to farmers' fields were hardly recognized in national policy discussions. The latter focused more on how to fit global financial institutions' perspectives such as those of the World Bank with the national government's interests. This discussion was informed solely by scientific and technical engineering perspectives. My PhD research, shed light on an alternative cosmos of grassroots knowledge in irrigation systems management, strategic alliance shaping, and the shaping of territories of life that came to feature even more prominently in my later work.

*Power and politics (re)shaping natural resource governance and state transformation processes in Southeast Asia*

My research shifted to focus more broadly on power and politics in shaping natural resource governance in Southeast Asia, specifically looking at its transboundary rivers: the Mekong River, flowing from its source on the Tibetan Plateau in China through Myanmar, Laos, Thailand, Cambodia, and Vietnam; and the Salween River flowing from the Tibetan Plateau through China, Myanmar, and Thailand, into the Andaman Sea. Natural resource governance in Southeast Asia is closely interlinked with state transformation processes. States, according to Brenner et al. (2003: 11) are *"dynamically evolving spatial entities that continually mould and reshape the geographies of the very social relations they aspire to regulate and control"*.[4] Here, the state is not only an overarching power structure, politically and administratively, but also a set of processes, beyond its apparatus[5]. Hence, the emphasis on state transformation as an ever-changing dynamic that continually re-shapes state-citizen relations.

State territorialization, or the ways in which the state seeks to exert control over people and resources through *"the*

*creation of systems of resource control, rights, authorities, jurisdictions, and their spatial representations"* [6] is apparent in water, land, environmental, and climate governance in Southeast Asia. Peter Vandergeest and Nancy Peluso show how processes of state territorialization translate into state defined policies and institutions, to justify, legitimize and enforce state control, while excluding or including people within particular geographic boundaries.[7] Current discussions on territorialization positions both the state and private investors as powerful, dominant actors in acquiring control over land and other resources.[8] From my research in Laos, Myanmar, Vietnam, and Cambodia, I have come to see how state territorialization strategies have resulted in systematic land grabbing, massive land dispossessions, and the further marginalization of the poorest and most vulnerable groups within society.



Picture 3a: Village head and vice head of the to-be resettled village, Pak Beng district, Oudomxay Province, Laos (photo credit: Diana Suhardiman, 2020)


Picture 3b: To be resettled villager, Pak Beng district, Oudomxay province, Laos (photo credit: Diana Suhardiman, 2020)

Picture 3c: Villager defending his land rights, Karen State, Myanmar (photo credit: Diana Suhardiman, 2017)

Picture 3d: Rubber plantation built on farmers' upland fields, Karen State, Myanmar (photo credit: Diana Suhardiman, 2017)

Viewing territory and territory-making as socio-political construct[9] shifts the emphasis from the state's territorial control to a more nuanced notion of 'governmentality' manifested in complex relationships between actors and institutions. As Michel Foucault (2007: 6): writes '*if we want to do an analysis of power. . . we must speak of powers and try to localize them in their historical and geographical specificity*' [10]. Perceiving power as heterogenous, and moving from juridical conceptions of power based on state sovereignty to a conception of a geography of power that highlights the role of both state and society in knowledge generation and power production, Foucault develops an analysis of power that goes beyond actors who use it as an instrument of coercion to the notion that 'power is everywhere'[11] and which is in constant flux and negotiation. John Gaventa (2003: 1) puts it like this: '[According to Foucault] *power is diffuse rather than concentrated, embodied and enacted rather than possessed, discursive rather than purely coercive, and constitutes agents rather than being deployed by them*'. [12] Power pervades society and cannot be absolutely hegemonic because it involves people, their social systems, and the ideas they hold about themselves and each other. Power thus travels through social space and time.

Applying inter-scalar, nested policy and institutional analysis allows me to connect transboundary water governance with developmentalist state's interests represented by hydropower dam planning, transnational railway constructions, and large-scale agricultural land concessions. But most importantly, with the multiple realities and grassroots forces and alliances that reveal plural views, perspectives, and aspirations of natural resource governance. Inherent in this approach is that the state is never a single unified actor, but rather a complex and diverse compilation of interests entangled in ever changing power constellations and ongoing power struggles. The same applies to local communities as heterogenous and diverse groups with ever changing views and interests.

There is no better place to see the conceptualization of power as something elusive, never absolute, and ever changing, than in Southeast Asia's remote uplands.

*Theorizing state-citizens relations: Frontier dynamics and processes of agrarian change*

Through in-depth ethnographic research in Northern Laos and Karen State in Myanmar, I found myself immersed in the Zomia. Zomia refers to the mass of mainland Southeast Asia that has historically been beyond the control of governments based in the population centers of the lowlands. Willem van Schendel's and James Scott's work on Zomia give a new perspective that requires a radical reevaluation of what citizenship means[13]. My journey to Zomia enriches my views and understanding of historical origins, cultural values, people's power to persevere, but most importantly how cultural identity is very much connected and rooted in life-giving socio-ecological systems. Hence, the term place-based knowledge systems and the central positioning of knowledge, culture, and agency are key foundations and praxis for natural resource and climate governance.

Picture 4a: Upland fields, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2019)

Picture 4b: Upland village, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2019)



Picture 4c: Maize for food processing, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)

Picture 4d: Tea tree, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)

Picture 4e: Famous hundred years old tea tree, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)

Picture 4f: Lowland paddy fields, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)

Picture 4g: Yao woman, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)



Picture 4h: Cotton textile, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)

Picture 4i: Yao woman processing tea, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)

Picture 4j: Weaving instrument, Phongsaly province, Laos (photo credit: Diana Suhardiman, 2021)

The concept of the frontier has been invoked by many scholars to illuminate the transformations of upland areas across the region.[14] In Laos, Myanmar, Thailand, Indonesia, and Vietnam rural societies and especially upland communities are increasingly transformed not only due to state-led territorialization strategies but also through broader processes of market integration. This brings mainly subsistence-based peasant economies into uneasy contact with an expanding internationalized market economy.[15] Frontier spaces have mushroomed across these countries and rather than delineating a geo-political separation of physical space, they construct a contact zone or epistemological and political distinction between civilization and the wild. Anna Tsing has famously described this phenomenon in the Indonesian context of Kalimantan: *"A frontier is an edge of space and time: a zone of not yet – not yet mapped, not yet regulated. It is a zone of unmapping: even in its planning, a frontier is imagined as unplanned. Frontiers aren't just discovered at the edge; they are projects in making geographical and temporal experience"*.[16]

Frontier spaces indicate where new resources and commodities come into being and may thus be described in their basic form as *'epistemological, discursive and political operations [that enable] powerful actors to turn nature into economic commodities'*.[17] In Southeast Asia, frontierization has resulted in massive, systemic land grabbing as state programs and private sector actors have come to depict traditional upland cultivation systems as unsustainable and in need of eradication, resulting in widespread expropriation of farmers' farmlands. Within this context of frontierization, I have met and learned from farmers how they navigate these external and internal changes while relying on their knowledge, cultural values, and agency in (re)making institutions. Ai Bounheuang is one such farmer.

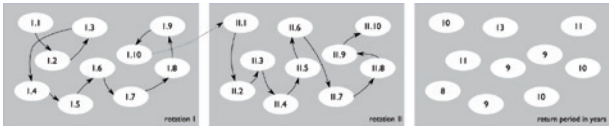
Picture 5: Ai Bounheuang, Houaphan province, Laos (photo credit: Diana Suhardiman, 2019)

*Critical institutionalism, farmers' agency and the (re)shaping of institutional bricolage*

Scholars have introduced a variety of concepts to better understand complex institutional dynamics in natural resource governance, including how institutions emerge, are reproduced, and evolve over time.[18] Critical institutionalists argue that institutions are often multi-purpose, intermittent in operation, dynamic, and thus constantly changing and evolving. While institutions can technically serve as "the channels through which individual and collective action is shaped [and] social capital built", the latter is not necessarily embedded in any institutional prism or segment of society. As Frances Cleaver (2012: 11) writes: *"institutions managing natural resources are only rarely explicitly designed for such purposes... their multi-functionalism renders them ambiguous, dynamic and only partially amenable to deliberate crafting."*[19] An especially important contribution of critical institutionalists is the concept of "institutional bricolage"[20] which is defined as *"a process through which people, consciously and non-consciously, assemble or reshape institutional*

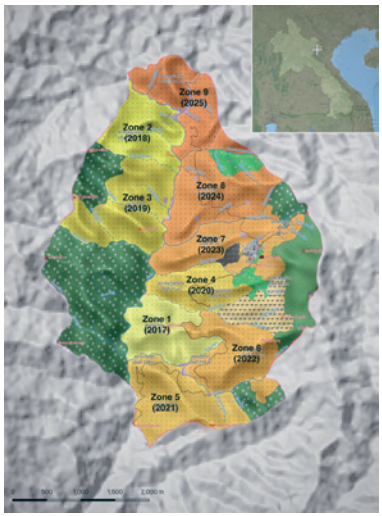
*arrangements, drawing on whatever materials and resources are available, regardless of their original purpose. These refurbished arrangements are the necessary responses to everyday challenges and are embedded in daily practice".*

Ai Bounheuang resembles the very idea of institutional emergence through institutional bricolage. He has practiced rotational farming all his life and managed to rely on it to support his family and send his children to school, with one having a degree in architecture from the National University of Laos. I first met Ai Bounheuang during a village meeting, where we gathered to better understand how the village had successfully implemented the government's land use planning program, even though the chances for such a program to be well implemented were very slim indeed. This was because the plan was not only defined in a top-down manner, but also because implementing it meant going against all existing institutional arrangements in customary land tenure systems. I was trying to figure out how villagers practiced their rotational farming, and why they practiced it in this manner. Towards the end of my fieldwork, I was amazed by Ai Bounheuang's ability to mastermind, design, and reconstruct the government's land use plan in such a way to fit with villagers' rotational farming rules and arrangements. People like Ai Bounheuang enabled the implementation of an unimplementable policy.
Prior to the formulation of the land use plan, villagers in Pa Khom village, where Ai Bounheaung lived, were divided into three groups practising rotational farming. Each group was composed of eight or nine households based on kinship ties. Every year, each group would decide together which of their fallow fields to clear for planting upland rice, a decision based mainly on the presence of big trees, other forest vegetation, and animals such as birds, worms, and insects – indicators of soil fertility. They moved together as a group throughout the rotation cycle, which lasted 10–12 years. As we can see from this figure, farm households would move from their first plot to the second plot, and so on, before returning to their first plot after a span of 10 to 12 years.[21]



Picture 6: Schematic figures on rotation cycle

While it is difficult for an outsider to determine who used what plot of land 10–12 years ago, villagers explained that they use natural markers such as large trees and draw on their extensive knowledge of their "backyard" to remember the location of each family's plot and its soil condition. While some households had plots of land that were better (in terms of location, soil quality, and so forth) than others, those with poor quality plots could "borrow" land from other households for that year's planting. While age, gender, wealth and status generally played a role in the ability for households to negotiate better pieces of land, in Pa Khom, close kinship relations, land abundance and dependence on each other's labor, all served to mitigate against overly unequal land allocation and access.
In line with the government's land use planning program, the upland area of the villagers of Pa Khom is divided into different zones.



Picture 7: map by The Agro Biodiversity Initiative

Traditionally, farm households moved to their next upland fields following a rotation of 10-12 years, carefully informed by ecological indicators and drawing on generations of inherited knowledge. The state-defined zonation system required farm households to move together from one zone to another zone, as defined within the pretext of a land use planning program that paid little heed to such inherited knowledge and experience. Scholars have shown how villagers in Laos ignore land use plans introduced by donor and government agencies – and for good reason.[22] In Pa Khom, the new land zoning system was *made* implementable through villagers' creative assembly and reshaping of land use arrangements, through a process of bricolage, that sought to reduce the risks that the new land zoning posed for their rotational farming strategies and livelihood security.

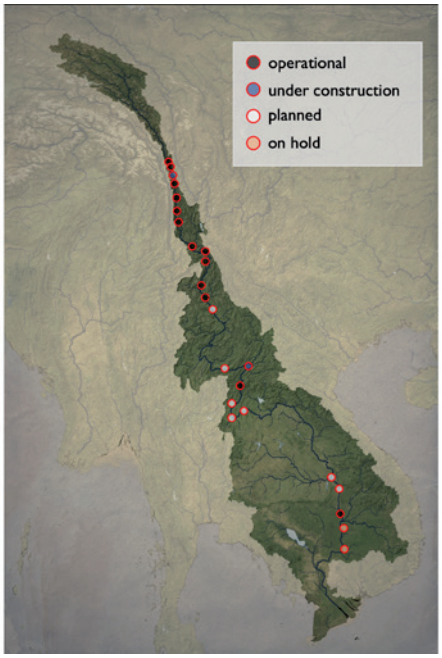
When the project first established the different cultivation zones, the village committee and village elders first ensured all households had a piece of land (a land claim) in each of the defined zones. If they found out that households did not have a plot in a particular zone, they would raise the issue and seek to adjust the boundary of the zone so as to include land plots for these households. Villagers sought to comply with the land use planning program while also ensuring each and every household's food security even from the early stage of plan formulation. To ensure that each household has access to land with the best possible soil conditions within the zone, farmers relied on land use sharing arrangements at the inter-household and the village level. Households that only had plots with poor quality soil in a particular zone tried to borrow land from others with better soil condition. As some farm households had more than one plot of land in a particular zone, and insufficient labor to cultivate all the plots, these farm households selected the land with the best soil quality to cultivate for themselves and lend the remaining plots to others who wanted to cultivate it.

Upland villagers relied on their place-based knowledge to shape the land use plan in accordance with their customary land tenure systems, while exercising their agency through the (re)shaping of institutional bricolages. In the context of rapidly changing climate, their knowledge to design, construct, and organize firebreaks served as a key foundation for climate adaptation strategies designed to prevent uncontrollable forest fires due to severe droughts. At present, however, this knowledge and ability is hardly valued or recognized in national policy circles and discussions. National programs to prevent forest fires are focused on scientific assessments of forest foliage and atmospheric modeling exercises to instruct villagers about the best time for prescribed burning. Villagers' knowledge of soil conditions, moisture content, and vegetation coverage on the ground, including the role of various animals such as wild chickens and wild boars in spreading the forest foliage, and thus minimizing risks for forest fires, is solely overlooked.

Similarly, national government programs to build large-scale infrastructure projects such as hydropower dams is justified in terms of economic growth regardless of how they impact upland communities' livelihoods, knowledge, and culture.

*Hydropower development, Salween Peace Park, and the shaping of territories of life*

This is an overview map of planned, constructed, and hydropower dams already in operation in the Mekong River mainstream and its tributaries.




Picture 8a: Map of hydropower dams in the Mekong River (dam location by Stimson Centre, 2023; map by Nikolai Sindorf, 2024)

Picture 8b: Xayabury dam under construction (photo credit: Diana Suhardiman, 2019)

Hydropower is developing at a rapid pace in the region. There are now more than thirty-six dams in operation in the Lower Mekong Basin and approximately more than 110 planned, under licensing or under construction through private–public partnerships.[23] Twelve of these planned dams are on the Mekong mainstream. The Mekong River is also home to one of the largest freshwater fisheries in the world and comprises a rich range of interconnected ecosystems.[24] These dams have not only disrupted the livelihood of millions of people living along the river, but they have also blocked (regional) fish migration and damaged the river ecosystems.[25]

Picture 9a: Artisanal miner, Oudomxay province, Laos (photo credit: Diana Suhardiman, 2020)

Picture 9b: Women processing river weeds for food, Oudomxay province, Laos (photo credit: Diana Suhardiman, 2020)

Picture 9c: Fisherman, Oudomxay province, Laos (photo credit: Diana Suhardiman, 2020)

Picture 9d: Livestock raising along the Mekong River, Laos (photo credit: Diana Suhardiman, 2020)

Picture 9e: Vegetable farming along the Mekong River, Laos (photo credit: Diana Suhardiman, 2020)

Picture 9f: Women collecting river weeds in Mekong tributaries, Laos (photo credit: Diana Suhardiman, 2020)

Picture 9g: Woman selling Non Timber Forest Product in local market, Oudomxay province, Laos (photo credit: Diana Suhardiman, 2020)

Picture 9h: Freshly caught catfish at local market, Oudomxay province, Laos (photo credit: Diana Suhardiman, 2020)

In much of Southeast Asia, hydropower has been used to project state power into geographies where the state does not reach.[26] Dam development is usually accompanied by the construction of access roads into natural resource territories previously unavailable to the state, accompanied by new power lines that serve much the same purpose. The same can be said regarding camps for workers guarded by the military, or resettlement schemes to move 'project affected people' out of reservoir inundation areas. By compressing people into uniform settlements, the state can regulate these spaces and project its power further. Dams serve and are legitimized by modernity narratives, announcing the progression of the developmentalist state. The climate crisis reinforces this narrative, as the electricity produced from hydropower dams is often labeled as 'clean and green' energy.

Critical hydropolitics scholars have shown and analyzed how water intersects with power in multiple different ways, drawing in different actors, across scales while responding to multiple drivers, such as climate change, globalization, and regional economic integration, often leading to political conflicts[27]. As socio-political construct, space and time are (re)produced by social relations, institutional shaping, and power relations embedded in wider socio-political landscapes. As stated by Christian Schmid (2008: 28): *"Space does not exist in itself, it is produced."*[28]

Civil society organizations and communities living along the river have engaged with social movements to defend their space and rights to the river. In Kawthoolei, Karen state in Myanmar, these political spaces of engagement were manifested in the formation of the Salween Peace Park. The Salween Peace Park embodies multiple forces working collectively to shape territories of life. Territories of life entail the creation of socio-cultural and political spaces rooted in Karen communities' customary rights and governing systems, contextualized in their rotational farming practices, and embedded in their life philosophy and cultural values, ceremonies, rituals, and oral traditions.[29] Located in an area where armed conflict continues, the park is meant to provide space for sustainable rural livelihoods, environmental protection, wildlife conservation, and the needed resources for post-conflict recovery.

Picture 10: Saw Paul Sein Twa, Salween Peace Park, Kawthoolei, Karen State, Myanmar (photo credit: Karen Environmental and Social Action Network, 2020)

Saw Paul Sein Twa through the Karen Environmental and Social Action Network played a crucial role in paving the path that led to the establishment of the Salween Peace Park. He works together with Karen communities and other state actors, builds strategic alliances across scales, as he envisions the Salween Peace Park formation as Karen communities' socio-cultural and political imaginaries.[30]

The Salween Peace Park embodies Karen people's aspirations for political self-determination and grassroots state formation. It contests the dominant notion of the nation state. It questions what the state really entails in the context of military dictatorship and decades of armed conflict, and its implications for our understanding of state-citizens relations within and beyond the context of natural resource governance. Placing this within the broader discussion of hydropolitics and the (re)shaping

of hydrosocial territories, the Salween Peace Park illustrates how grassroots actors create spaces of engagement and claim political space even within the realms of an extreme form of authoritarianism consolidated by the Myanmar's recent military coup. For his work on the Salween Peace Park, Saw Paul Sein Twa received the Goldman Environmental Prize in 2020.

The Salween Peace Park and other parallel examples from Indonesia and Laos show the resilience of grassroots actors and their ability to shape territories of life, while relying on their place-based knowledge systems, institutional intelligence, and building on perseverance, ever growing solidarity and the power of the collective. Territories of life serve as key building blocks for grassroots alliances in natural resource and climate governance.

*Looking to the future: Tracing evolutionary pathways for climate governance*



Positioning grassroots actors, their place-based knowledge systems, cultural values, and political agency centrally in climate governance, my next journey will trace the (re)shaping of multiple evolutionary pathways in various socio-ecological systems in Southeast Asia. Combining archival research, oral history, and ethnographic research, it will trace how knowledge (re)production processes in climate adaptation are rooted and entangled in different types and forms of knowledge, institutional rules, and arrangements, across spatio-temporal scales.

Climate adaptation as geographies of knowledge, culture, and agency is contextually rooted in four distinct yet interrelated socio-ecological systems: 1) upland cultivation; 2) irrigated agriculture; 3) forest conservation; and 4) sea nomads' fishing territories across Southeast Asia.

*Words of thanks*

The people I have met and collaborated with throughout the journey, farmers, villagers, grassroots activists, in roads less travelled in Indonesia and mainland Southeast Asia, have shaped who I am today, not only as an academic and researcher, but also as a person. From community elders and villagers in remote uplands of Laos, Thailand, and Myanmar, to migrant workers in Vientiane, field engineers in Indonesia, civil society organizations, policy makers in various countries in Southeast Asia, to my fellow researchers across national universities and research institutes, we have made this journey together. I will forever be grateful for your trust, time, opportunities, openness, knowledge, and insights throughout the journey. I am indebted for your support to enable me to see things in a different light, from a different angle, if not allowing me to enter a different world altogether. You have enriched my understanding of things, helped me recognize plural views and perspectives, how they resemble multiple realities, coexistence, but also tensions and contestations, and how they continue to inspire me to seek further, search deeper, try harder, but most importantly to live up the journey, to exhaust the limits of the possible, to convey my thoughts to contribute to shaping territories of life through grassroots alliances in natural resource and climate governance.

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I have spoken.

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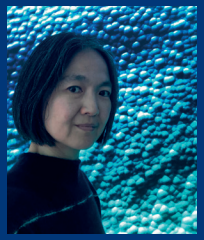

Diana Suhardiman is director of KITLV and professor of Natural Resource Governance, Climate and Equity (by special appointment) at Cultural Anthropology and Development Sociology, Faculty of Social Sciences, Leiden University. Putting power and politics central in the contemporary struggles of natural resource and climate governance in Southeast Asia, she looks at how state-citizens relations manifest in ever-changing dynamic of livelihood and institutional (re)making. Placing her research at the intersection of land, water, environmental, climate governance, she studies power struggles and the politics of representation within the broader context of state transformation processes in various countries in Southeast Asia, including Laos, Indonesia, Myanmar, Thailand, Vietnam, and Cambodia. Her research unpacks processes of regional economic integration in Southeast Asia, how it (re) shapes state spaces in natural resource governance, and traces processes of institutional emergence across spatio-temporal scales. Viewing scale and space as socio-political construct, she looks at knowledge systems, culture, and agencies (re)shaping natural resource and climate governance across scales: local to transboundary, while also recognizing their blurred boundaries.

She serves as a member of the editorial board of Agriculture and Human Values and international advisory board of Leiden University Press. Between 2016-2021, she was Research Group Lead Governance and Inclusion at the International Water Management Institute, based in Vientiane, Laos, where she also worked as post-doctoral fellow and later (senior) researcher since 2008. Diana studied Tropical Land Use at Wageningen University (1998) and obtained her PhD in Social Science from Department of Water Resources Management at the same university (2008).

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