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Corruption and water governance in the Mekong River Basin

Author
Danzig Sopera

Series editor
Saul Mullard

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www.U4.no

U4@cmi.no

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The Mekong River Basin is shared between six countries and displays remarkable and globally relevant cultural and biological diversity. Its natural resources are largely governed by systems in which national and transnational corruption prevail. The countries that share the basin all display varying degrees of authoritarianism, which serve to reinforce these corrupt governance systems, and to determine the choice and type of regional cooperation. These governance systems have clear implications for local communities in terms of food security and production, resettlement and ethnicity, gender, migration, and human rights.

Main points

- The Mekong Region's authoritarian governments and its corrupt natural resources governance regimes mutually reinforce each other.
- Three 'hydro-corruption domains' can be identified, comprising infrastructure development (hydropower, irrigation, and climate change adaptation), direct exploitation (sand mining and fisheries), and land re-zoning (along a water/land interface) and resettlement. Of these, infrastructure construction is by far the most important focus for regional corrupt practice.
- Equating the development of infrastructure with national development is common across the region. While infrastructure is important for regional development, it is noted that 'softer' development strategies (for example, improving regional education, or the provision of social services) are rarely emphasised.
- Regional development choices have had clearly demonstrable environmental impacts and have generally served to complicate transboundary water governance.
- Because regional populations are so reliant on natural resources, the impact of regional development choices on the environment has significant livelihoods impacts at local scales.
- Regional relations may be under-pinned by efforts to create suitable conditions for corruption – through, for example, an overwhelming emphasis on the large-scale development of infrastructure.

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About the author

Danzig Sopera

Danzig Sopera is a pseudonym for a long-time Mekong-based researcher with considerable experience in the natural resources governance sector. The author holds a PhD from a European university, and can be contacted via the U4 Anti-Corruption Resource Centre.

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Abbreviations

CLV: Cambodia, Lao PDR, and Vietnam
cm: centimetres
CNRP: Cambodian National Rescue Party
CPP: Cambodian People's Party
CPV: Communist Party of Vietnam
CSO: Civil Society Organisation
EDL-GEN: Électricité du Lao – Generation
EGAT: Electricity Generating Authority of Thailand
EGATi: EGAT International
EIA: Environmental Impact Assessment
FDI: Foreign Direct Investment
GDP: Gross Domestic Product
GWh: Gigawatt Hours
ha: hectares
HPP:Hydropower Project
km²: square kilometres
LPRP: Lao People's Revolutionary Party
LSS²: Lower Sesan 2
m: metres
m³: cubic metres
MDB: Multilateral Development Banks
MRC: Mekong River Commission
m.t.: Metric tonnes
MW: Megawatts
NGO: Non-Governmental Organisation
OAA:Other Aquatic Animals

ODA: Overseas Development Assistance

PDR: People's Democratic Republic

PNPCA: Procedures for Notification, Prior Consultation and Agreement

PRBC: Phongsupthavy Road & Bridge Construction Co., Ltd

SEZ: Special Economic Zone

SOE: State-Owned Enterprise

SUHAKAM: Human Rights Commission of Malaysia

UNESCO: United Nations Educational, Scientific and Cultural Organization

WCD: World Commission on Dams

Introduction

This paper focuses on Cambodia, Lao PDR, and Vietnam (CLV), but also pays close attention to China and Thailand, particularly with regard to transnational corruption. It considers corrupt systems in these countries' governance of the Mekong and its water resources, and how this corruption affects local communities.

The literature review and interviews for this study identified three major regional 'hydro-corruption' domains, in which 'domains' are understood to be spheres or activity of knowledge. These are not always mutually exclusive, and some domains will be of greater relevance to some countries and less to others. They are:

- Water infrastructure development: comprising primarily hydropower, irrigation infrastructure, and climate change adaptation
- Direct exploitation: comprising fisheries and sand mining
- Land re-zoning

These domains are discussed in the first three sections of the report. If relevant, each domain will be described and analysed across two key scales: regional and national. The fourth section considers the regionalisation of Mekong water corruption. The fifth section explores the impacts of these corrupt systems on local communities, before providing a final analysis. To conclude, recommendations are provided to donors and partners working in this region on water governance.

The Mekong River Basin

The Mekong is the longest river in Southeast Asia. It supports some of the most ethnically diverse populations, and biodiverse ecosystems, in the world. Its basin covers almost 800,000 km², and is shared by Cambodia (19%), China (21%), the Lao People's Democratic Republic (PDR) (25%), Myanmar (3%), Thailand (23%), and Vietnam (8%). The vast majority of Laotian (90%) and Cambodian (86%) territory falls within its basin, while about 21% of Vietnamese territory and some 36% of Thai territory fall inside it. Over its (approximately)

4,530 km length, the river drops some 5,000 m, before eventually depositing an annual average of 475 km³ of water into the South China Sea.¹

An important characteristic of the Mekong system is its ‘flood pulse’. Seventy-five per cent of the Mekong’s annual flow occurs during the monsoon between July and October. This massive increase is more than the system’s distributaries can accommodate, so the water backs up, causing extensive flooding along its middle reaches. The Tonle River, which connects the mainstream Mekong to the Tonle Sap (Great Lake) in Cambodia reverses its flow from north–south (during the dry season) to south–north. The Tonle Sap’s area can grow from just 2,500 km² before the rains, to 25,000 km² during the rains. The flood pulse is critical to the Mekong system’s ecosystems and their productivity.

Water resources and corruption

While there is no single definition for corruption, this paper takes its lead from Paul Robbins,² for whom corruption ‘is an institutionalised system of nature/ society interaction forged from state authority and moulded around local social power through systems of social capital formation.’ Two key facets of Robbins’s definition are relevant here: first, his treatment of corruption as a system – a set of interconnected things that produce their own pattern of behaviour over time; and second, his embedding of corruption within wider (social) power dynamics. Power and corruption are mutually reinforcing; corruption empowers corrupt actors, while corrupt actors will work to ensure that the corrupt system is reproduced over time. ‘Power’ generally references the ability of an actor (individual, institution, or organisation) to influence the actions, beliefs, or conduct (behaviour) of others.

The primary reason why water resources are vulnerable to corruption is because there is never a point at which consumers do not need water. Because water is so critical, the need for clean and usable water resources will always exist, and it follows that (corrupt) opportunities emerge by restricting access to these. Hence, the factors that increase the likelihood of corruption include:³

- Large-scale construction and monopolies
- A high level of public sector involvement

1. In Vietnam, known as the East Sea.

2. Robbins (2000), p. 424.

3. Stålgren (2006).

- Technical complexity, which decreases public transparency and leads to an asymmetry of information
- A high frequency of interrelations between suppliers and consumers, which fosters an atmosphere of discretionary action

Methodology

The findings in this report are derived from an extensive literature survey, supported by 26 interviews with experts in Mekong natural resources governance, and corruption. Expertise on corruption relating to the governance of natural resources in the Mekong is relatively narrow. All known experts on the subject were approached (a total of 38 professionals). The 26 experts interviewed were those who were willing, and able, to spend the time being interviewed on the topic. The characteristics of these (anonymous) experts are provided in Annex 1.

Each interview took approximately 1.5 hours. Interviews were guided by an ‘interview schedule’ – a sequence of six open-ended questions that were designed to keep the conversation on topic, but not to limit the interviewee. To encourage candour in an otherwise sensitive topic area, the anonymity of interviewees was guaranteed.

Exploring corruption in the CLV countries

It is important to note from the outset that the countries of the Mekong Region ‘...feed off the shared imperative of prioritizing national modernization and economic growth above all else.’⁴ Regional development narratives are strongly inclined towards rapid infrastructure development and the assumed relationship between this, poverty alleviation, and national progress. The construction industry has become central to this narrative, ‘...as a central nexus between private capital and public power.’⁵

4. Yeophantong (2016), p. 290.

5. Elinoff (2017), p. 589.

There is a mutually reinforcing relationship between the Mekong Region's corruption and authoritarianism – generally, the higher the degree of authoritarianism, the greater the magnitude of corruption.

In the Mekong Region⁶ all countries are to lesser and greater degrees authoritarian, which tends to support this type of neoliberal development imperative. There is a mutually reinforcing relationship between the Mekong Region's corruption and authoritarianism in which, generally, the higher the degree of authoritarianism, the greater the magnitude of corruption (Table 1).

Cambodia

The Cambodian state system is widely recognised as neo-patrimonial and authoritarian.⁷ It is characterised by patronage-based relationships that place the ruling party (the Cambodian People's Party – the CPP) and its leader, Prime Minister Hun Sen, at the apex of a pyramid-like power structure.⁸ Central to the evolution of this structure has been natural resources – in particular, logging and land concessions and, more recently, construction.

6. The 'Mekong Region' is variously defined. In this paper, it refers explicitly to those territories that share in the Mekong River Basin: Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, the Chinese province of Yunnan, and the Chinese autonomous region of Tibet.

7. Baker and Milne (2019).

8. Global Witness (2007).

Table 1: Selected governance and corruption indicators for the Mekong countries

	Cambodia	China	Lao PDR	Myanmar	Thailand	Vietnam
Freedom (2021) (0 = no freedom, 100 = complete freedom)	24	9	13	9	29	19
Press Freedom (2021) (0 = no freedom, 100 = total freedom)	53.2	21.3	29.4	53.9	54.8	21.5
Democracy (2021) (0 = no democracy, 100 = full democracy)	29.0	22.1	17.7	10.2	60.4	29.4
Corruption Perceptions Index (2021) (0 = highly corrupt, 100 = very clean)	23	42	30	28	35	39
Global Corruption Index (2021) (0 = highest risk, 100 = lowest risk)	26.6	43.7	31.9	36.5	53.7	45.8

Sources: Economist Intelligence Unit (2022); Freedom House (2022); Global Risk Profile (2021); Reporters Without Borders (2021); and Transparency International (2022).

Here, the prime minister and his close CPP allies act as patrons, by providing protection for loyal clients including private interest groups, relatives and kin, military forces, and tycoons.⁹ In exchange for loyalty, these actors gain favour, receive large contracts, have their legal infringements overlooked, or, in extreme cases, are acquitted by a judicial system that acts as an instrument of the Cambodian state.

Informally, Hun Sen's associates are regarded as belonging to the so-called 'Oknha club'. 'Oknha' is an honorific title bestowed by the Cambodian King and approximates to a 'lord'.¹⁰ Since the re-establishment of the Cambodian monarchy in 1992, the *Oknha* title has been restored as the highest that can be bestowed on civilians, exclusively non-royalty. The decision to award the title is made by the prime minister and the CPP, which also controls the charitable donations offered in exchange for the title.¹¹ The title guides the identification and recruitment of businesspeople eligible to join the 'elite pact' based on the

9. Baker and Milne (2019).

10. There are three levels of *oknha*, in order of ascendance: *louk oknha*, *neak oknha*, and *oknha*.

11. Strangio (2021a).

social, symbolic, and material resources they are able to deploy to cement their connections with the CPP elite and to become an integral part of it.¹²

During the 2013 Cambodian elections, the CPP won 68 seats, while the opposition Cambodia National Rescue Party (CNRP) won the remaining 55 seats. This was the CPP's largest loss of seats since the 1998 elections, and alarmed the ruling party. These results were to cause hyper-sensitivity around possible loss of legitimacy, which culminated in the 2017 arrest of the CNRP's leader, Kem Sokha, and the disbanding of his party. This deepened Cambodia's authoritarianism but failed to assuage the CPP's wariness. 'A small fire can destroy a house,' said a government spokesman in 2020, adding that the authorities would 'smash' minor demonstrations to avoid major ones.¹³

Lao PDR

As in Cambodia, corrupt systems in Lao PDR are deeply intertwined with its authoritarianism. 'The nature of corruption is tied to the operation of the one-party political system in Laos. Following from that, it is unlikely to be solvable in its entirety unless we see some sort of political change accompanying it as well.'¹⁴ Within the country, 'major political and economic interests are virtually indistinguishable.'¹⁵

The 1975 revolution overthrew the monarchy and established the Lao People's Revolutionary Party (LPRP) as the country's sole political party. Ideologically, the LPRP borrowed heavily from its northern Vietnamese sponsors, central to which was collectivisation. This proved deeply unpopular and was quickly cancelled in 1979 once it became clear that most of those streaming across the Mekong were not the royalist elite fleeing the nascent communist state, but the backbone of the revolution, the peasants.¹⁶

The failure of collectivisation was a severe ideological blow for the LPRP, and a crisis for state legitimacy. To correct this, the LPRP took two measures: the first was to position itself within the Buddhist pantheon, as the former monarchy had – for all of the latter's multitude indiscretions, its association with Buddhism granted it significant legitimacy. History was revised to suggest that

12. Verver and Dahles (2015), p. 49 .

13. Turton and Phorn (2020).

14. Hutt (2019).

15. Simpson (2007), p. 540.

16. Evans (2002).

the transition from monarchy to single-party authoritarian state was seamless – the logical progression of history.¹⁶ ‘While the revolution abolished the monarchy and terminated the centuries-old tradition of Buddhist kingship, the LPRP [took] elements from this very tradition to stress continuity within political and economic transformation.’¹⁷

The second way that the LPRP sought legitimacy was via patrimony.¹⁸ The party soon became the best bet for social mobility, and while senior members of the movement (such as Kaysone Phomvihane, the revolutionary leader) had maintained modest lifestyles, others quickly became embroiled in the patronage, and the corrupt opportunities that this afforded. ‘Patrimonialism became the safety blanket of Lao society following the departure of Soviet-subsidized state welfare. The party elite, with their newly gained wealth from the sale of timber and other natural resources, sought to reclaim the prestige and ritual of protocol lost during the days of social revolution.’¹⁹ In the country’s south, the family of Kaysone’s prime minister, Khamtay Siphandone, amassed a fortune in a construction business that enjoyed monopolistic control sanctioned by the government.²⁰ Siphandone would go on to serve as the country’s president (1998–2006).

In 1986, Lao PDR introduced the ‘New Economic Mechanism’ (NEM), which allowed for the entrance of markets into the Lao economy, although without disturbing the political and administrative monopoly held by the LPRP.²¹ The reforms allowed the Lao PDR to engage with multilateral development banks (MDBs) initially, and in particular, the Asian Development Bank (ADB). The MDBs, stressed the need for Lao PDR to take advantage of its natural resources, of which hydropower was seen to have significant potential. They proposed that Lao PDR venture into the hydropower arena by drawing on the so-called Buy-Own-Operate-Transfer approach. Here, private firms obtain a concession from the Lao state to develop a dam, which they then operate for a specified period of time (limited to 30 years), before transferring the facility to the state.

Marxism-Leninism ‘always had shallow roots in Lao soil.’²² The Lao state maintains the appearance of communism through ‘the rhetoric of rule’ (state

17. Tappe (2017), p. 75.

18. Rathie (2017).

19. Rathie (2017), p. 43.

20. Soukamneuth (2006).

21. Bartlett (2012).

22. Stuart-Fox (2006).

rhetoric that plays an integral role in mobilising legitimacy),²³ and through the maintenance of the communist organs of state – while full-heartedly embracing the market: the so-called ‘market-Leninist’²⁴ state.

The LPRP Politburo assumes the role and function of the LPRP Central Committee in-between plenary meetings. Because the latter are infrequent, the Politburo is *de facto* Lao PDR’s highest decision-making authority. Its membership is drawn from the Central Committee, and the current (11th) Politburo comprises 13 members. Key positions in the Politburo are held by the offspring and relatives of former prime ministers, presidents, and revolutionary heroes.²⁵

Historically, the Politburo’s power has been a means by which its members can assert patrimonial interests and/or enrich themselves. High capital intensity infrastructure projects – such as energy projects – are of particular interest to the Politburo, both for state development reasons, as well as for rent-seeking ones. The power of the Politburo over various other state structures is considerable. This ensures that third-party scrutiny is relatively limited, and there is little that can be decided upon within government without the knowledge and acquiescence of the Politburo.

‘Before, they wanted to be corrupt, but didn’t want to be seen to be corrupt. But now, it seems different, and is creeping into all aspects of the party’ (Interview #1).

Vietnam

In Vietnam corruption is ‘endemic, systemic, and deeply political.’²⁶ ‘As government officers, we are at the top of the food chain. We are fed by those lower down in the hierarchy. It is not good, but people accept it. The worst thing is that we keep doing it – simple service delivery needs it’(Interview #5). Corruption in the country is also highly patrimonial, and well embedded into social relationships. ‘In relation to the tendency to pay attention to servicing one’s patronage network rather than working for some notion of the public good, the argument is that in the Vietnamese system, looking after those in your

23. Creak (2014), p. 152.

24. London (2017).

25. Stuart-Fox (2021).

26. Gregory (2016), p. 239.

immediate circle or patronage network is regarded as the culturally right thing to do. In fact, not to do so, would be viewed as behaving badly.²⁷

Vietnam's *doi moi* ('renewal'), also introduced in 1986, created immense new opportunities for corruption, as the state divested itself of assets. The character of (contemporary) corruption in Vietnam differs from Lao PDR and Cambodia, however. Vietnam's irrigation infrastructure is, for example, far older than in its neighbours. Corruption opportunities in the water sector reside mainly in maintenance, and not in the creation of new irrigation systems. People are moving out of farming, so demand for irrigation is declining. Hydropower possibilities in Vietnam have been almost entirely exploited, although opportunities continue to exist on smaller rivers.

Sand mining is a significant issue for Vietnam. While corruption also permeates this sector, it is to a lesser degree than in Cambodia – where sand mining is a major industry. Vietnam is also highly vulnerable to climate change and sea-level rise; hence, opportunities for corruption are emerging from large-scale climate change 'adaptation' infrastructure, such as sea defences, sluice gates to regulate saline intrusion, and other radical infrastructure interventions.

Much attention has been focussed on Vietnam's anti-corruption drive, instigated by Nguyễn Phú Trọng, the current Secretary General of the Communist Party of Vietnam (CPV). Thousands of officials have been prosecuted and jailed as a result; many, however, are Trọng's political foes, or individuals deemed as upstarts. In addition, government efforts to curtail graft are also seen to be linked to its efforts to attract Overseas Development Assistance (ODA). While recent developments in intra-party democratisation and progress in enhancing the National Assembly's law-making authority have been praised, these developments do not indicate the advent of landmark political reform that would introduce a multiparty system and an independent civil society.²⁸ The greatest obstacle remains the need of the CPV to maintain its extra-legal position in the political system, which places constraints on the ability to establish an independent regulatory institution to effectively monitor corruption (see also Box 3).²⁹ Notable also is that the state does not perceive corruption to arise out of institutional or organisational flaws in state

27. Gainsborough (2009), p. 390.

28. Bertelsmann Stiftung (2020).

29. Ortmann (2017).

architecture, but that it is, rather, ‘attributed to the poor qualifications of state officials in terms of knowledge, virtue and ethics.’³⁰

Vietnam’s environmental problems are a significant concern for its urban middle classes, willing to express these perspectives on social media. To some extent, the Vietnamese state can blame external drivers for its environmental problems – such as climate change. Increasingly severe environmental problems in the Mekong Delta are regularly blamed on upstream actors – notably and mainly China. Lao PDR, a long-term regional ally of Vietnam’s, is rarely blamed; and care is taken to not offend Cambodia. Vietnam’s own dams in the Central Highlands, are never blamed for the Delta’s problems, even though there are good grounds for doing so. Whatever the case, the accumulated problems of Vietnam’s environmental challenges may be sufficient to undermine regime legitimacy within the country.³¹

Water infrastructure development

Hydropower

The largest infrastructure intervention in the Mekong Region’s water sector is hydropower. Across the basin, hydropower grew from an installed capacity of 3,434 MW in 2000 to 36,971 MW in 2020. Of the latter, 60% is in Chinese parts of the basin, 27% in Lao PDR, and 9.6% in Vietnam.³² The rate and magnitude of hydropower development within the Mekong Basin provides staggering construction opportunities.

Lao PDR

A large proportion of Lao power (72% in 2020) is exported, primarily to Thailand where it is bought by the Thai State-Owned Enterprise (SOE), the

30. Benedikter (2016).

31. Hutt (2017). Note that the Vietnamese state clearly fears these challenges, and those who draw attention to Vietnam’s significant environmental issues. In July 2021, it arrested Mai Phan Loi, the founder and director of the non-profit Center for Media in Educating Community, and sentenced him to four years in jail for tax fraud; in January 2022, it sentenced Dang Dinh Bach, the director of the Law and Policy of Sustainable Development Research Center, to five years in prison for tax evasion; and in February 2022, it arrested Nguy Thi Khanh, winner of the 2018 Goldman environmental prize, and founder of the [Green Innovation and Development Centre](#).

32. Data from the [Mekong Region Futures Institute’s Mekong Dams Database](#).

Electricity Generating Authority of Thailand (EGAT). In turn, EGAT has several (private) subsidiaries, which include the RATCH Group (in which EGAT holds 45% of shares), EGAT International (EGATi – 99.99%), and the EGCO Group (25%). EGAT rotates its senior staff through these firms. The Senior Vice President and Acting President of EGATi is also a Deputy Governor in the EGAT Governor’s office, while EGCO’s chair is also chair of the EGAT Board, and a permanent secretary in the (Thai) Ministry of Energy. RATCH also holds 5.64% of shares in Électricité du Lao – Generation (EDL-GEN) – a Lao SOE – while its subsidiary, RH International, holds an additional 4.46% of EDL-GEN shares.

Between them, these EGAT subsidiaries hold shares in seven major Lao hydropower projects, all of which sell their power to EGAT. Having subsidiaries selling electricity to parent firms creates perverse incentives for subsidiaries to negotiate electricity prices down³³ – with concomitant impacts on Lao government tax revenues, and what are clearly conflicts of interest.^{34, 35} This arrangement ‘incentivizes collusion and the prospects of agreed cost structures rather than competition with incentives to lower costs.’³⁶ RATCH’s shareholding in EDL-GEN also positions it to influence the price of electricity sold by EDL-GEN to the Thai electricity grid.

There is no clear evidence of EGAT subsidiaries engaging in any kind of corrupt practice in Lao PDR. What is clear, however, is that the networks of patrimony that extend across the Thai–Lao border do exist, and that these are sufficiently powerful as to direct the course of Lao hydropower development.

One (non-EGAT) Thai construction company’s influence in the Lao PDR is alleged to have been gained via its willingness to bribe. Significant corruption is alleged to have almost certainly occurred around the first dam it constructed (Interview #17). For its second dam, proposed for the Mekong mainstream, the firm’s influence is alleged to have heavily influenced the Lao PDR’s decision to proceed with this dam, despite significant environmental concerns and before regional discussions concerning the dam in the Mekong River Commission (MRC) were complete, thereby endangering Lao PDR’s relations with neighbouring countries. While discussion continued, it was alleged, ‘[h]e [a former Lao president] gets big money [from the firm]. He cannot pay it back as it (the money) is all spent. The dam will go ahead. He has a full-time staff

33. Greacen and Palettu (2007).

34. Mekong Energy and Ecology Network (MEE-NET) (2013).

35. This perspective was also strongly endorsed by Interview #17.

36. Jarvis (2010).

person whose job it is to convey his wishes to [the firm]. If his daughter wants a laptop, it is there within days. The reason this will go ahead despite the opposition, is that the very top is getting the money.’³⁷

Box 1: Hydropower-led development in the Lao PDR

Lao PDR’s hydropower ‘binge’ has been spectacular and represents the country’s primary intervention into the water sector. It also sets Lao PDR apart from Vietnam and Cambodia, for whom development is more diffuse. By the end of 2020, Lao PDR had 70 dams that produced an estimated 40,305 GWh. Sixty-seven per cent of this production came from just ten dams with installed capacity of 200 MW or more.*1

Nevertheless, in the government’s determination to attract investment, a plethora of hydropower plants have mushroomed uncoordinated across the country. It is therefore unsurprising that, during the wet season, Lao PDR has significant power over-supply, which is expected to grow to 52.6% more power than is required by 2023.*2

While power production contributes significantly to the country’s GDP (12.35% in 2020) and to its exports (30.39% of export value in 2020),*3 GDP growth contributes only modestly to poverty alleviation.*4 Lao PDR’s hydropower and mining-driven development approach has ‘...created few jobs, while leading to significant environmental and macroeconomic pressures.’*5 It has also tended to favour the already wealthy, contributed to increased inequality, and only modestly to government revenues.

An additional concern for Lao PDR is that this excessive focus on hydropower development results in other potentially productive sectors being neglected, a condition that economists refer to as ‘Dutch disease’. This introduces rigidities into the Lao economy, reducing its ability to adapt to a dynamic global economic climate.

Over the past two decades, poverty has been significantly alleviated in Lao PDR. But this is not because of hydropower development, or the maintenance of high levels of GDP growth; it is, rather, because of the commercialisation of the agricultural sector.*6

37. Boh (2012).

The justifications for a continued excessive emphasis on hydropower development in Lao PDR are not presently – and have not been for some time – strong. This raises the possibility that this is less a hydropower binge than it is a construction binge. ‘Laos’ hydropower plans appear to have become untethered from any solid economic rationale, driven overwhelmingly by the domestic interests that stand to benefit from dam construction.’^{*7} Hydropower construction is complicated and requires a very significant up-front capital burn. In turn, this creates many opportunities for corruption and kick-backs.^{*8}

**1 Calculated from data supplied by the Ministry of Energy and Mines, Vientiane, Lao PDR.*

**2 Asian Development Bank (ADB) (2019).*

**3 Bank of the Lao PDR (2020).*

**4 World Bank (2017).*

**5 World Bank (2021).*

**6 World Bank (2017).*

**7 Strangio (2021b).*

**8 Haas (2008).*

In the south of Lao, Malaysian investors are alleged to have issued significant bribes to the Governor of Champassak Province in order to obtain the decision to proceed with another mainstream dam, the Don Sahong. The son of a former Lao president, the then governor is now a senior member of the Lao government and of the Politburo, and the Minister of Planning and Investment. Following the difficult challenges that the government had had to face around the construction of the country’s first mainstream dam, Lao government officials were hesitant about proceeding with another – not least because another proposed hydropower plant, the Thako, was located a stone’s-throw from the Don Sahong site, and could have produced similar amounts of power to the Don Sahong – although without blocking a channel critical to fish migrations.³⁸ In a 2010 meeting with senior provincial government officials in Champassak, the governor is alleged to have told them that the dam was good for the country, and anyone who opposed it was ‘an enemy of the people’ (Interview #1).³⁹

Much of the corruption in the Lao hydropower sector has occurred around the FDI described above. Local firms, however, are also actively involved. Phongsupthavy Road & Bridge Construction Co., Ltd. (PRBC) is allegedly

38. The World Wildlife Fund branded the Thako a ‘sustainable alternative’ to the Don Sahong.

39. For a slightly different description of this meeting, see Baird (2011).

‘owned’ by the Politburo. The firm is understood to be a ‘white glove’⁴⁰ company, through which the government elite engage with capitalism. Such companies are a ‘step in the legitimisation’ of corrupt practices (Interview #2). The firm was originally focussed on road and bridge construction, for which it carried out several contracts on behalf of the Lao government. Unable to pay for completed work, however, the government instead awarded PRBC hydropower concessions (Interview #17). PRBC has not, however, engaged that far in the hydropower sector and, in many cases, has sold its concessions – or commenced construction, only to sell off the partially completed dam.

Elsewhere in the energy sector, PRBC holds 24% of the shares in EDL-GEN. This gives PRBC considerable influence in the country’s hydropower decision-making structure. In addition, it appears to have an ‘inside track’ on contracts to supply the Vietnamese market – and is indicated as the lead developer on multiple dams in the northeast of Lao PDR. In September 2021, the Lao government announced that it has authorised six companies to mine cryptocurrencies, including PRBC. PRBC is alleged to have acquired a 100% stake in the (planned) 330 MW Xekong 5 Hydropower Project (HPP) with a specific view to powering its bitcoin mining operation.

Chinese investments in the Mekong Region appear to show a general preference for engineering, procurement and construction contracts (in which dams and other infrastructure are constructed on behalf of some other company, who will then run it), rather than to run and maintain these facilities. Where Chinese firms actually do run hydropower plants, this may be at the behest of the Chinese Communist Party – because revenues from many of these plants would appear to be marginal at best. Alternatively, Chinese firms may be playing a ‘long game’ – agreeing to loss-making investments now in order to obtain bigger and better contracts in the future.

The Chinese diaspora in Southeast Asia has been instrumental in their support for the entry of Chinese SOEs into local economies. In Lao PDR, for example, it was an ‘open secret’ that a former Foreign Minister and Deputy Prime Minister promoted closer ties with China, drawing on his own Chinese origins.⁴¹ The minister ‘played a significant role in drawing Chinese investors into Laos ... and developed close personal relationships with [his] counterparts in China...’. Lao PDR established a Cooperation Commission (as a department in the Ministry of Planning and Investment (MPI)) to coordinate Sino-Lao ODA. The minister

40. A ‘white glove’ company that launders money on behalf of someone else.

41. Fujimura (2010).

became its president and ensured that authorisations for receiving Chinese financing were not required by MPI – the chain of command extended directly from the Cooperation Commission to the minister.⁴² Authority was not even required from the Department of International Cooperation in the same ministry – unlike funding from other development partners.

In 2018, the Xe-Pian Xe-Namnoy HPP collapsed with large loss of life and property (further discussed below). A ‘Nationwide Emergency Dams Safety Inspection’ was carried out of all dams with more than 15 MW installed capacity by an international inspection team.⁴³ The inspection addressed 56 dams, of which 21 had to be excluded from the analysis because ‘insufficient basic data were missing to give a critical assessment of the safety of the dams’ [*sic*]. Of the remaining 35 dams, findings included:

- In 46% of dams, seismic hazards had been inadequately addressed in their design.
- In 55% of cases, the dam operators rarely (or never) opened the dam ‘bottom outlet’ – an important safety feature allowing dam managers to rapidly draw down water in the reservoir and/or to flush out sediments to prevent safety issues related to sediment accumulation.
- In 65% of the cases, there were insufficient inspections to identify unstable slopes for which failure would impact the integrity of the dam.
- In 29% of dams, cracks or slip surfaces, or deteriorated joints were noticed, which are evidence of structural deficiencies.
- For 98% of dams, an emergency action plan was considered inadequate or absent.

It is difficult to imagine how, in the absence of corrupt practice, such transgressions can be explained. A possible alternative explanation is that the Lao PDR simply does not have the capacity to monitor its dams adequately. If this were the case, however, the Lao authorities would likely not have allowed the number of dams within the country to exceed its dam safety inspection capabilities given the very serious implications of a dam break.

42. Aroonpipat (2018).

43. Ministry of Energy and Mines (MEM (2020) (confidential report).

Cambodia

In Cambodia, an *Oknha* and senator, and his ethnically Chinese wife, are seen as key brokers for Chinese interests.⁴⁴ The couple are listed as ‘third party governors’ to the Cambodian subsidiary of the world’s largest hydropower developer, PowerChina.⁴⁵ Hence, the senator is alleged to have brokered the deal for Sinohydro (Cambodia) United Ltd, to develop the Stung Cheay Areng HPP, the reservoir of which would have inundated parts of a national park. The dam was eventually cancelled due to protests. This senator is also alleged to have brokered the 193 MW Kamchay HPP deal, also owned and operated by Sinohydro (Cambodia).

While this senator looks after the interests of Sinohydro, a *Neak Oknha* looks after those of another Chinese hydropower firm, HydroLancang. He is the CEO of Cambodia’s Royal Group and a close associate of Prime Minister Hun Sen. Royal Group holds 39% of the shares in the company that built and operates Cambodia’s largest dam, the 480 MW Lower Sesan 2 (LSS2) HPP. Another 10% is held by EVN International (a subsidiary of the Vietnamese SOE, Vietnam Electricity), while the remainder of the shares are held by HydroLancang, a subsidiary of the Chinese electricity generating behemoth, China Huaneng Group. HydroLancang also holds the concession for all of China’s dams on those reaches of the Mekong mainstream inside Chinese territory and is indicated as the possible developer of the mainstream Sambor HPP that, if developed to its original design, will be 18 km long and hold back 3.7 km³ of water in a reservoir covering some 620 km². In 2020, however, Cambodia announced a ten-year moratorium on mainstream dams.

The LSS2 is highly controversial for three reasons. The first is that the dam blocks two critically important fish migration tributaries, the Sesan and the Sre Pok; second, its resettlement was a deeply flawed process (as discussed below); and third, the extensive logging that occurred in and around its reservoir area (see Box 2). HydroLancang seems to have known about the likely fisheries impacts of the dam, because it constructed an unusual ‘nature-like’ fish passage into the dam’s design. It was not, however, responsible for either the resettlement or the logging in the inundation area, and the attention that these attracted were likely deemed unwelcome.

44. Verver (2019).

45. Pye (2014).

For many Chinese companies then, there may be no direct bribery – potentially, there does not need to be if their investments create sufficient opportunities for ‘spin off’ corruption that arises from resettlement or from logging in the inundation area. Such investments create bigger and more profitable ventures in the long run, and for Chinese firms to gain greater access to local economies and a country’s natural resources. Lax governance and regulation, and high levels of corruption, are not necessarily the fault of Chinese firms – these existed before Chinese firms arrived; but Chinese firms – apparently because of their non-interference policies – have little or no comment to make when local partners and connections embark on corrupt activity.⁴⁶

Vietnam

In Vietnam, ‘corruption happens in licensing. You can see this by how many dams there are in protected areas’ (Interview #8). In one high-profile case, two planned hydropower plants – the Dong Nai 6 and 6a – were to be built in the UNESCO Biosphere Reserve of Cat Tien National Park, before they were cancelled in 2013. In the Central Highlands, the Yok Don National Park and nature reserves in Chuyangsin and Nam Ka are the sites for the Sre Pok 3, Sre Pok 4, Krongkma, and Buon Kop HPPs.

As in Lao PDR, Vietnam has a decentralised approach to hydropower authorisations. Provincial authorities can approve smaller dams of 30 MW installed capacity or less, while large dams are approved at national levels.⁴⁷ This has led to a profusion of smaller dams across the country, with lower scrutiny, oversight and, potentially, corruption (Interview #19). In many cases, provincial authorities would appear not to have monitored safety and construction requirements closely, or to have been bribed to look the other way.

Whatever the case, dam failures are remarkably common in Vietnam. In September 2018, for example, the Giao Kèo Dam in Bà Rịa-Vũng Tàu Province was breached following heavy rain, flooding hundreds of households; in December 2014, an irrigation dam in Dam Ha District in Quang Ninh Province collapsed after heavy rain, destroying several houses downstream; and in June 2013, the Ia Krel 2 HPP in Gia Lai Province broke due to its ‘construction technique’, causing a flash flood that claimed 10 ha of farmland – two months later, the dam burst again.

46. Yeophantong (2016).

47. The argument that corruption is more a provincial problem than it is national one was frequently implied in interviews for this study.

In November 2012, the Dak Mek 3 HPP in Kon Tum Province partially collapsed after being struck by a truck. The dam 'had not been built in accordance with quality standards and the approved design', thereby causing the collapse. A construction worker was killed during the collapse. In November 2010, a dam associated with a mine in Cao Bang Province collapsed, releasing 'thousands of cubic metres of sludge'; and in June 2009, a section of the Z20 irrigation dam in Ha Tinh Province collapsed. A 'wall of water' derailed a train, destroyed 200 m of track, and damaged 17,000 m² of rice fields.

Box 2: Hydropower and logging

There is a mutually reinforcing relationship between hydropower and logging in the Mekong Region, which may influence choices around where hydropower is located, and the type of hydropower to be developed. From a logging perspective, reservoir hydropower located in protected forest areas offers the greatest promise. Before such dams are filled, the ‘inundation zone’ – that area which will be flooded by the reservoir – needs to be cleared of as much vegetation as possible. Typically, regional governments will take on this responsibility, so that the dam developer can concentrate on constructing the dam and its power plant.

The 650 MW Nam Theun 1 HPP is scheduled for completion in 2022. Sixty per cent of shares in the Nam Theun 1 Power Co. are held by a Lao firm, the Phonesack Group – a firm better known for its (alleged) illegal logging activities. During 2006–07, the Lao national timber quota was temporarily raised by 400,000 m³ to allow for the clearance of the Nam Theun 2 HPP’s 450 km² reservoir area. Phonesack was involved in that clearance, and possibly saw hydropower as a means to get around national logging bans and/or quotas.*1

In 2012, the firm’s owner signed an agreement with the government of Lao to carry out the feasibility study for the Nam Theun 1 HPP.*2 The dam – and its 93.6 km² reservoir area – is located well inside a protected area, the Nam Kading National Biodiversity Conservation Area. The firm’s owner is extremely well connected to the Lao Politburo,*3 and related to a powerful political family said to be ‘...China’s good friend and old friend’*4 (as Xi Jinping put it, when he called upon the family while visiting Vientiane in 2017).

The contract for logging the LSS2 HPP’s inundation area (in Cambodia) was awarded in 2013 to the brother of a well-known tycoon, a *Neak Oknha* and Hun Sen crony. Logging, however, repeatedly occurred outside the reservoir boundary, with logs being allegedly ‘laundered’ through the reservoir area,*5 and trucked through informal border crossings into Vietnam.*6

The contract for clearing the inundation areas of the Tatay HPP reservoir area (also outside of the Mekong Basin and owned by a Chinese firm called Beijing Sanlian International Investment Co.) went to the Cambodian firm, Timbergreen. It was a Cambodian military policeman, dressed as a Timbergreen security guard, who shot and killed the environmental activist Chut Wutty in April 2012.*7 Timbergreen also held the contract to clear the Lower Stung Russey Chrum HPP reservoir area (developed by the firm China Huadian). Where these reservoir areas contain

rosewood, the value of logging can, Interview #15 suggested, be higher than that of the hydropower plant.

In 2013, the possibility that small-scale hydropower projects were being specifically developed as a front for logging in Vietnam's national parks was raised. According to the Ministry of Agriculture and Rural Development, some 20,000 ha of forests were cleared for 160 small hydropower projects in recent years – about 125 ha per project. 'Under the mask of developing hydropower plants, the investors can exploit wood legally, though no one admits this. In principle, the investors have to afforest to compensate the plants they chop down. However, no one has done this.'⁸ This latter regulation appears to have been ineffective. By 2017, the Central Highlands had lost 22,770 ha to hydropower, and just 757 ha had been replanted.⁹ It is also noted that replacement forest is not of the same quality as the natural forest it is expected to replace.

Following damaging floods in 2020, Quang Nam Provincial Authorities said that they were reviewing their hydropower dam authorisations to see whether or not the floods were caused by deforestation associated with hydropower development.¹⁰ In 2020 in Khanh Hoa Province, four hydropower projects were cancelled due to concerns about the relationship between hydropower development and deforestation.¹¹

**1 Phonesack was also implicated in illegal gold mining inside the Nakai Nam Theun National Protected Area (via a concession issued by the Lao military), and logging close to its boundaries.*

**2 Environmental Investigation Agency (2011).*

**3 Lipp and Chambers (2017).*

**4 Xinhua (2017).*

**5 Blomberg (2014).*

**6 Environmental Investigation Agency (2018).*

**7 Soenthrith (2012).*

**8 Chi (2013).*

**9 Nguyen and Nguyen (2017).*

**10 Thanh (2021).*

**11 Ngoc (2020).*

Irrigation

Irrigation (mainly large scale) is frequently touted as a necessary ingredient for regional agricultural (and national) development. It is legitimised with a variety

of narratives, including rural poverty alleviation, the modernisation of agriculture, and national food security. It is also regarded as essential to state-building.

Cambodia

Cambodia's Ministry of Water Resources and Meteorology is responsible for the country's irrigation development. It is also alleged to be notoriously corrupt (Interview #23). There is a strong emphasis on promoting – and attracting funding for – large-scale irrigation investments. Irrigation serves the country's elite in two crucial ways: first, the promise of irrigation is a viable election campaign strategy. It is overwhelmingly regarded as 'good' – so much so that even very large irrigation schemes are constructed unopposed by civil society and NGOs. 'Irrigation is so obviously a good thing, who can oppose it?'⁴⁸ (See also Box 3). With these levels and degrees of endorsement, irrigation developments are minimally scrutinised. Second, it is 'a means for elites to reward loyal bureaucrats, contractors, party members, and politicians (depending on their position within the patron-client hierarchy) through mutual rent-seeking opportunities during the scheme's construction.'⁴⁹

The Vaico Canal in Cambodia's east is an extreme example of these kinds of investments. This project was explored by both the World Bank and the ADB but discarded as unfeasible. Nevertheless, China has provided some US\$200 million in financing – the largest investment in the Cambodian irrigation sector in history. The Minister of Water Resources and Meteorology is alleged to have personally overseen the entire agreement, which included circumventing the Ministry of Economy and Finance. For this purpose, he allegedly employed his own 'bagman' (Interview #4).

Construction on the scheme's first phase began in 2013, with financing provided by China-EXIM bank. Vaico will, it is planned, irrigate 300,000 hectares of land across parts of Prey Veng, Svay Rieng, and Kampong Cham provinces. The first phase of the project promises to deliver irrigation to 108,300 ha of wet season rice fields and 27,100 ha of dry season rice production. The two main canals were also designed to have navigation capabilities, and would therefore be constructed to be 44–55 metres wide and 18–25 metres deep.⁵⁰

48. Berkoff (2010).

49. Blake (2019).

50. Blake (2017).

‘This project was built to supply irrigation to a large area of poor-quality land in an area that does not drain well in the wet season and was deemed “marginally suitable” or “not suitable” for irrigated agriculture. ... [N]ot a single hectare of land has been irrigated by the scheme, despite the digging of a reported 78 km of canals and associated hydraulic infrastructure ... the Vaico project represents the most striking example of a transnational cultural gifting phenomenon that benefits few beyond national elites, but harms many.’⁵¹

Vietnam

In Vietnam, irrigation infrastructure is extensive and landscape-altering. The agricultural systems in the Mekong Delta are no exception. Corruption is widespread and under-pinned by patrimony. Here, in particular, procurement is vulnerable to various corrupt practices, including the paying of ‘commissions’ to procurement agencies by would-be contractors. Invariably, contractors who paid commissions are successful. Such contractors are also well embedded within local patrimonial systems, such that rejecting them during a bidding process would be ‘morally the wrong thing to do.’⁵²

Climate change adaptation

Land subsidence, reduced sediment delivery from upstream, sea-level rise, and increased salinity are all major climate change challenges for Vietnam’s Mekong Delta. These challenges are exacerbated by widespread development within the Mekong Basin and create new opportunities for engineering and construction. Some 21.5 million people live in the Delta, which is also Vietnam’s largest agricultural production geography.

Although climate change will affect all of the Mekong Region’s countries, it will be especially problematic for the Vietnamese Mekong Delta. Here, average elevation above sea level is just one metre, and many strategic assessments assume a sea-level rise of up to a metre by 2100. At the same time, the Delta has sunk over the past 25 years, on average, about 18 cm.⁵³ Indeed, rates of subsidence exceed rates of sea-level rise. In the absence of intervention, up to 30% of the Delta area (of 3.9 million ha) may be permanently inundated.⁵⁴

51. Blake (2019).

52. Benedikter (2014).

53. Land subsidence is a major problem in the Mekong Delta. The primary cause of land subsidence is excessive ground-water use.

54. Smajgl (2018).

Currently, a new plan for the Delta is under consideration in Vietnam. Under previous plans, a combination of ‘hard’ (infrastructure) and ‘soft’ (retraining, new crop varieties, new farming systems etc) approaches have been considered. So too, ‘green infrastructure’, such as mangrove protection along the seashore, has been considered and to some extent implemented. Opportunities for the construction of concrete infrastructure of immense proportions is, however, being actively considered. The 28 kmlong Vung Tau-Go Cong Sea Dyke (and an associated 13 km branch dyke) would, if constructed, extend across the mouth of the Lòng Tàu River in an effort to protect Ho Chi Minh City from sea-level rise. It would cost an estimated US\$20 billion.⁵⁵

Cost estimates for the proposed upgrade of sea-dykes elsewhere in the Delta and the construction of new large-scale estuary sluice gates vary between US\$5.3 and US\$8.2 billion.⁵⁶ While there can be little doubt that measures will need to be taken to protect the Delta as far as is possible, these are heavily focussed on (very large) ‘hard’ investments. Far less consideration appears centred on, for example, attempting to regulate sand mining (both within the Delta and in Cambodia), or reducing excessive ground-water exploitation. Furthermore, these immense investments also create opportunities for corruption.

Box 3: National efforts to address corruption

All three of the CLV countries have signed and ratified the United Nations Convention against Corruption (UNCAC) which provides an international legal basis for addressing corruption. There is no evidence that UNCAC has served to curb corruption in the CLV countries.

Cambodia’s Anti-Corruption Law was promulgated in 2010 and created the Anti-Corruption Institution. The latter has two bodies: the National Council Against Corruption, which performs an advisory role; and the Anti-Corruption Unit (ACU), which has the (nominal) independence to investigate and confront corruption. The work of the ACU is not generally regarded as having been effective. ‘Enforcement of Cambodia’s anti-corruption legislation is weak, and public officials act with impunity.’*1 Rather it (and other anti-corruption measures) have served to reinforce the CPP’s monopoly on power, and to protect its rent-seeking activities – while also serving as to promote the appearance of anti-corruption concerns and actions within the state.*2

55. Quynh (2018).

56. Smajgl et al. (2015).

Lao PDR has many laws to support anti-corruption measures, of which the 2005 (amended in 2012) Anti-Corruption Law is the most important. The State Inspection and Anticorruption Authority is charged with implementing that law. While the LPRP may recognise that corruption threatens its legitimacy, the party has not been able to curb it – not least because corruption pervades both the Central Committee and the Politburo.*3

Vietnam's 2018 Law on Anti-Corruption is the country's primary legislative instrument to combat corruption. Three institutions are responsible for its enforcement: the Government Inspectorate, the People's Procuracy, and the People's Public Security Forces. '[E]nforcement remains problematic and most indictments of high-level corruption are perceived to be politically motivated.*4 There can be little doubt that the Central Anti-Corruption Steering Committee has been busy identifying and prosecuting corrupt officers of state. 'Still, the prosecution of official abuse cases is constrained by the party-controlled mechanism which prevents "big fish" from being arrested and disciplined.*5

*1 *Gan Integrity (2020a)*.

*2 *Baker and Milne (2019)*.

*3 *Bertelsmann Stiftung (2022b)*.

*4 *Gan Integrity (2020b)*.

*5 *Bertelsmann Stiftung (2022a)*.

Direct exploitation

In this paper, direct exploitation references the corruption opportunities that arise by harvesting or manipulating natural resources directly. Here, we focus on sand mining and fisheries – resources directly relevant to water. Corruption in this regard revolves mainly around exploiting these resources beyond what is legally allowable, and then to derive undeclared income as a consequence.

Sand mining

In natural flowing rivers, erosion will generally occur at the top of a catchment in the 'erosion zone'. In the 'transport zone' – comprising the middle reaches of a river – its waters carry these sediments downstream, where they are finally dropped in the 'deposition zone' – the delta. Sand mining, and sediment trapping by dams, causes water to become 'hungry'. Sediment-starved rivers

then consume the bed and banks of a river until it has reached its carrying capacity once more. This causes erosion and other (serious) morphological problems. ‘Excessive sand mining is inducing riverbed lowering that in turn leads to the onset of riverbank instability, raising the likelihood of dangerous riverbank collapse in locations where mining operations are present.’⁵⁷ A two-metre lowering of the river bed is sufficient to cause bank instability (and collapse). Sand dredging pits can be up eight metres in depth. Riverbed lowering also helps to exacerbate saltwater intrusion from the mouth of the Mekong, northwards, where it has the potential to destroy rice crops and freshwater-dependent ecosystems. Sand mining in the Chaktomuk Junction⁵⁸ off Phnom Penh is believed to have directly contributed to reduced water levels on (and shrinkage of) the Tonle Sap Lake.⁵⁹

Cambodia

Sand mining is a major industry in Cambodia, where it is extracted from both the country’s rivers as well as along its coast. Sand is needed for infrastructure development, whether within Cambodia or elsewhere. In 2020, Cambodia mined an estimated 59 million tonnes of sand from the Mekong.⁶⁰ This is thought to be almost three times the rate of replenishment.

In the past, Singapore has been a key recipient of Cambodian sand. Singaporean records indicate that, between 2007 and 2016, it imported 80.33 million tonnes of sand from Cambodia. Cambodian records, however, indicate that just 2.77 million tonnes of sand were exported to Singapore. This discrepancy has led ‘...analysts to assume that there is a significant illegal trade in sand.’⁶¹ Between 2013 and 2015, Indian customs records indicated that the country took delivery of 108,658 tonnes of sand from Cambodia, while Cambodian customs records show no such exports.⁶²

These revelations, many of which were exposed by the Cambodian NGO Mother Nature Cambodia (MNC), initially focussed on two Cambodian sand mining firms whose activities were concentrated along the coast in Koh Kong Province: LYP, owned by an *Oknha* who has served as an economic advisor to Hun Sen

57. Hackney et al. (2020).

58. The Chaktomuk Junction is where the Mekong begins to braid at Phnom Penh. Here, the Bassac River continues southwards, while the Tonle River heads north to the Tonle Sap.

59. Ng and Park (2021).

60. Hackney et al. (2021). With an error bound of 41–75 million tonnes.

61. Lamb, Marschke and Rigg (2019), p. 8.

62. Willemyns and Dara (2017).

and as a senator;⁶³ and the Mong Reththy Group Co. Ltd, owned by another *Oknka* who is a close ally of Hun Sen and also a senator. In 2017, sand exports were supposedly banned. In 2018, however, two MNC activists were arrested and jailed for ‘filming sand export activity’.⁶⁴ Sandmining has also continued in order to supply the sand needed to fill Phnom Penh’s lakes (see below), and to supply other domestic development initiatives. Cambodia’s sand is even implicated in the expansion of islands, and the in-filling of atolls and reefs in the South China Sea by the Chinese military (Interview #23).

Vietnam

The consequences of sand mining in Vietnam are no less serious for Vietnam than they are for Cambodia, and being downstream of Cambodia exacerbates Vietnam’s sand-mining challenges. In 2018, Vietnam is estimated to have mined almost 18 million m³ from the Mekong Delta. Studies show that natural, upstream, sediment supplies are insufficient to compensate for these losses.⁶⁵ Between 1961 and 2015, sediment supply to the Vietnam Delta has reduced by 74.1%. An estimated 14.8% of this loss is attributed to sand mining.⁶⁶

The Mekong Delta covers more than 40,000 km² in Vietnam and Cambodia. Over 20 million people live in Vietnamese parts of it. The impacts of sediment reductions into the Delta have caused extensive riverbank collapses. Whereas a decade ago there were 99 erosion ‘hotspots’ in the Delta, there are now 564 riverine and coastal erosion hubs. Between 300 and 500 ha are lost every year.⁶⁷ In August 2019, a part of National Route 91 in An Giang Province collapsed into the Mekong, costing US\$21.5 million to repair.⁶⁸ This is the same province where, in 2017, it was reported that ‘[t]hough illegal sand mining is rampant in the Bảy Núi (Seven Mountains) area ... provincial authorities said they are unable to catch any of the miners red-handed.’⁶⁹

In 2021, the Can Gio Tourist City was approved to proceed by the Vietnamese government. This US\$9.3 billion investment would cover 28.7 km² and be built

63. Hunt (2013). Ly Yong Phat is said to run the Koh Kong Province ‘...as his own personal fiefdom’ (ergo, ‘the King of Koh Kong’), where he has been able to capitalise on trade between Cambodia and Thailand. Ly gained particular notoriety around forced evictions from his sugar cane plantations. He is considered amongst Cambodia’s richest people.

64. Thul (2018).

65. Jordan et al. (2019).

66. Binh, Kantoush and Sumi (2020).

67. Nhung and Vo (2021).

68. Quynh (2020b).

69. Lê Hùng (2017).

on land reclaimed from the sea.⁷⁰ Its planned construction is in the buffer zone for the Can Gio Biosphere Reserve, the world's largest rehabilitated mangrove forest. It would need an estimated 138 million m³ of sand – a demand that was not addressed in its EIA.⁷¹ It is not clear where the sand will come from. The developer for this project is Vinhomes, owned by Vietnam's largest firm Vingroup – in turn owned by Vietnam's richest person, Phạm Nhật Vượng. While there is no evidence that the firm is corrupt, it is implicated in challenging any criticism of its activities, apparently with government support.⁷²

Fisheries

In 2012, Cambodia abandoned a lot-based governance system for its fisheries. Here, certain lots were set aside for community fisheries, while commercial lots were auctioned off to the highest bidder at the start of the fishing season. Lot owners were seen as highly corrupt in the manner that they secured their fishing concessions, and violent in their determination to protect their lots from the predations of small-scale fishers. It is possible that it was because of these tensions that Hun Sen got rid of the lot system. Other observers note, however, that there were elections scheduled for the following year, and that Hun Sen may have abandoned the lot-based system in an effort to secure votes from around the lake (Interviews #6 and #15).

In any case, Hun Sen argued that the fishery was worth just US\$2 million,⁷³ only 0.2% of GDP, an estimate significantly at odds with MRC assessments. In 2010, they estimated that the total value of the fishery as a whole was between US\$3.9 and 7 billion a year;⁷⁴ while independent researchers had placed the value of the wild capture fishery at US\$2 billion in 2007.⁷⁵ This suggests that Hun Sen was deliberately downplaying the importance of the fishery.

While it might not have occupied a large proportion of Cambodian GDP, its relative value to rural livelihoods and nutrition is widely regarded as immense. An estimated 40 million people were involved in the wild capture fishery (amongst the MRC member countries), and fish are the cheapest form of animal protein in the region – making up between 47% and 80% of animal protein in

70. Quynh (2020a).

71. Nhung and Vo (2021).

72. Reed (2019).

73. Ishikawa, Hori and Kurokura (2017).

74. Mekong River Commission (2010).

75. Baran and Ratner (2007).

rural diets.⁷⁶ The characterisation of the fishery as valueless is, perhaps, a reflection of its limited corruption value – or that the Cambodian state observed greater opportunities elsewhere that it knew would have a negative impact on the fishery. A widely discussed 2012 research paper⁷⁷ had anticipated that the LSS2 HPP would alone cause a 9.3% reduction (about 183,000 m.t.) to the lower Mekong’s fish biomass; the dam was nevertheless approved that same year.

When the lot-based system was withdrawn, the Cambodian Fisheries Administration imposed a variety of fishing gear restrictions; areas of the Tonle Sap were also set aside for fish conservation, within which all fishing is banned. Combined, these two measures now form the basis of corruption on the Tonle Sap. Catches have – it is claimed – declined, likely due to the combined pressures of hydrological change (occasioned by upstream infrastructure) and excessively high numbers of nets, traps, and/or other fishing methods (collectively referred to as ‘fishing pressure’). ‘Now it [the Tonle Sap] is open access’ (Interview #10).

Fish catches are therefore smaller (per fisher or fishing trap), and the individual fish caught are smaller. Competition between fishers has increased significantly, opening the way for new corruption opportunities. Now, ‘to be a legal fisherman you cannot survive’ (Interview #10). Illegal gear abounds. Amongst local fishing communities, some gears are seen as more illegal than others – those using the latter are said to fish at night, using boats that can outpace those of the Fisheries Administration.

Some fisheries officers are amenable to being bribed to allow fishers into the protected areas (‘1 million Riel for 10 minutes’), where catches can be sizeable (Interview #6). Corruption is not restricted to cash transactions – if caught using illegal gear, fisheries officers may request that, rather than receiving a bribe, a fisher agrees to sell his catch to the officer’s wife. Powerful people no longer benefit from corruption in the fisheries sector, which they could when the lot-based system was in place (Interview #10).

76. Pukinskis and Geheb (2012).

77. Ziv et al. (2012).

Land re-zoning

There is a large literature on land concessions and ‘land grabbing’ in the region. This section concerns itself only with land that interfaces with water, such as wetlands and flood plains, which is generally re-zoned via in-filling.

Cambodia

Land re-zoning of the kinds described earlier are particularly acute in Cambodia. Here, such wetlands are classified as ‘government public land’ that the state (through an undefined process) can reclassify as ‘public private land’ which allows it to sell it off.⁷⁸

Perhaps the best example of this relates to the series of wetlands (*boeung*) that once dotted the landscape in and around Phnom Penh. As a lowland city located at the top of the Mekong Delta, Phnom Penh is vulnerable to flooding. The *boeung* played an important role in Phnom Penh’s flood management. As flood waters drained into the city’s open canals, much of this would be directed towards the *boeung*, where it could then be stored, and gradually evaporated.⁷⁹ The *boeung* are also an important source of water treatment for a city that has little in the way of wastewater facilities. Hundreds of thousands of cubic metres of wastewater were pumped into the lakes daily. In the absence of the *boeung* and industrial water treatment, the wastewater can only be pumped directly into the Mekong.

In the past, the *boeung* have also played a significant livelihoods role for the urban poor, who have used them to cultivate a wide diversity of aquatic vegetables and economically useful plants, such as morning glory, water celery, water mimosa, the water hyacinth, and a variety of reeds.

Many of the *boeung*, however, occupy central areas of the city, making them highly attractive to developers. Eighteen lakes have so far been filled using an estimated 77 million m³ of sand.⁸⁰ ‘With ... so many lakes now gone, the city is frequently inundated by polluted flash floods.’⁸¹

78. Neef (2016).

79. Kummu et al. (2007).

80. LICADHO, CYN, Equitable Cambodia and STT (2020).

81. Hawken et al. (2021), p. 8.

Human rights agencies described the Boeung Kak lake in-filling project as the single largest urban displacement in Cambodia since the forced evacuation of Phnom Penh in 1975.

The best known of these land grabs was Boeung Kak, which was in-filled by various property development firms, including Shukaku Inc which was owned by a senator and *Oknha*. An estimated 4,225 families were forcibly moved away from the lake between 2008 and 2009 to make way for the development.⁸² Human rights agencies described the project as the single largest urban displacement in Cambodia since the forced evacuation of Phnom Penh in 1975. As with the other Phnom Penh *boeung*, developers argued that because riparian residents did not have land titles, land was available for expropriation. The events surrounding the Boeung Kak development were widely regarded as human rights violations, prompting the International Federation for Human Rights, Human Rights Watch, and Amnesty International to all raise concerns about what was happening around the lake. The World Bank suspended its loans to Cambodia over Boeung Kak.

Elsewhere in the city, Boeung Tompoun is being in-filled to make way for ING City, the brainchild of another *Oknha*, a former Secretary of State in the Ministry of Public Works and Transportation, former senator, and another close confidante of the prime minister. In-filling and development also involve Orkide Villa Co. Ltd, the Chief Operating Officer of which is the majority stakeholder of Timbergreen, the logging firm apparently specialising in hydropower reservoir clearance (See Box 2).

Around Phnom Penh, in-filling extends beyond Phnom Penh's wetlands. The Koh Norea development along the Bassac River (a branch of the Mekong that starts at Phnom Penh) covers 125 ha, and has an investment of US\$2.5 billion. The project will also connect to down-town Phnom Penh via two bridges (which will cost an additional US\$39.6 million). The site used to be part of the river. 'As everybody knows, the area does not belong to anyone. It is an island. As for the right to develop the island, we have a construction license issued by the government, proving that there won't be any negative impact. We did not use money to buy the area.'⁸³

82. LICADHO, CYN, Equitable Cambodia and STT (2020).

83. Haffner (2020).

The developer is the Overseas Cambodian Investment Corp. Ltd (OCIC), a subsidiary of Canadia Bank, one of Cambodia's largest banks. Neither OCIC nor the Cambodian government have made public any social or environmental impact assessment studies completed for Koh Norea. Canadia's board is chaired by its founder, a *Neak Oknha* who is another of Hun Sen's economic advisors. This *Neak Oknha* also led the development of Koh Pich ('Diamond Island'), another of Phnom Penh's major developments, along with Olympia City and Chroy Changvar Satellite City. He is also investing US\$1.5 billion in Phnom Penh's new international airport.

Several respondents for this study argued that the Tonle Sap flood plain is vulnerable to land grabbing. One example of this occurs around the construction of rice perimeters (in effect, dykes that enclose an area of paddy). In Kampong Thom Province, the widespread construction of dry season rice perimeters is resulting in a complete reshaping of local agro-ecosystems in the Tonle Sap flood plain,⁸⁴ and the enclosure of what was once a common property flood plain. At the time of writing, the annual 'turning' of the Tonle River has once again failed, as it did in 2020, meaning that the Tonle Sap has not filled up, and has exposed large areas of flood plain. When the Tonle Sap rises again, water is then trapped behind the dykes, and released to downstream rice farmers. This increases the number of potential rice harvests over the year, driving up the value of the land and fuelling land speculation (Interview #11). The perimeters can themselves also be in-filled, so that the flood plain rises above the water level and, in effect, creates new land – land that is amenable to privatisation and sale (Interview #11).

'The Cambodian Government gets very angry when you call this "corruption." Elite capture is not considered corruption' (Interview #11).

Lao PDR

The in-filling of livelihoods-relevant lakes and wetlands is not, it should be noted, restricted to Phnom Penh alone. In the mid-1990s, Vientiane Prefecture was estimated to have 1,500 km² of wetland areas, playing a variety of important socio-economic and hydrological roles. The largest of these was the That Luang Marsh. Prior to its development, That Luang Marsh covered an area approximately 20 km². There were 17 villages, over 7,000 households, and nearly 38,000 people located around it.⁸⁵ In 2014, construction was commenced

84. Diepart (2007).

85. McCartney and Sihanath (2016).

by Chinese property developer Wan Feng Shanghai Real Estate Company to build 18 condominium towers, each up to 18 storeys high, as an initial investment into the That Luang Marsh Special Economic Zone (SEZ, known as *Meuang Chin* – Chinatown – to local residents) – a reported US\$1.6 billion development, to be developed over 15 to 20 years.⁸⁶ This development has led to significant dispossession of those who were formerly located within the SEZ, changes to the area’s hydrology, and widespread land speculation.⁸⁷

‘As is common with development projects in Laos, the developer ... handed over a sum of money to the government that would be used for compensation, and the government was responsible for doling it out. There were of course a range of inconsistencies taking place that led ... landowners to increasingly believe that government officials were lowering compensation rates and skimming the rest off the top. There wasn’t really any transparency on how compensation rates were determined, especially in relation to the size of the overall compensation fund,’ explains researcher Miles Kenney-Lazar.⁸⁸

The regionalisation of Mekong water corruption

It is clear that there is a strong, regional dimension to water corruption in the Mekong. Lax regulations or high levels of patrimony in neighbouring countries create corrupt opportunities, whether between Thai construction firms and some of those responsible for authorising hydropower in the Lao PDR, or between firms tasked with clearing out inundation zones in Cambodia, selling their timber to Vietnamese buyers across otherwise under-controlled borders.

Collusion is a form of collaboration; the only difference is that collusion is considered nefarious because its goals are generally unethical or illicit. Like collaboration, collusion is high risk, and calls for significant levels of trust and high levels of actor inter-dependence. Insofar as collusion occurs between political elites in one country with those in another, it can serve as the basis for deepening bi-lateral relations to unlock new opportunities, whether corrupt or not. As argued above, these strongly held interests are perceived as mutual, and this may influence the choice of international cooperation frameworks.

Collusion between Mekong states is not thought to create direct opportunities, but can easily create opportunities for indirect corruption through, for example,

86. J&C Group (2014).

87. Chen and Kenney-Lazar (2019).

88. Kenney-Lazar and Chen (2022).

joint ventures. If such international collusion exists, it is primarily to enable opportunities for corruption to arise.

Of the 13 multilateral cooperative mechanisms operating in the Mekong Region,⁸⁹ all but one focus on infrastructure development. Indeed, regional relations can be typified as the relationships needed between states to build – preferably large-scale projects. While other types and forms of regional relations exist, these are of far lower priority in the Track 1 space.⁹⁰ The good relations

between China, Lao PDR, and Cambodia are nearly always characterised by construction – hydropower dams, railways, roads, bridges, and malls. This overwhelming focus on infrastructure development in turn increases the risk of – and potentially motivates – corruption both between and within countries. Countries may well make choices about which regional cooperation frameworks to join and support, so as to maximise corruption opportunities (Lao PDR, one notes, is the only country in the region to be a member of all 13 of the frameworks).

Although the latter assertion must necessarily be characterised as speculative, the strong focus on infrastructure development is, however, highly suggestive given that all of the Mekong countries have powerful kleptocratic tendencies, strong integration between the state and private interests, and a inclination to conduct business (whether of the state or between firms) along patrimonial lines.

The one regional cooperation framework that is not focussed on infrastructure development is the Mekong River Commission (MRC), which concentrates on the governance, management, and sustainable development of the Mekong’s water resources. The MRC is an inter-governmental, treaty-based agency formed by the Cambodian, Lao, Thai, and Vietnamese governments. It was created under the Agreement on Cooperation for Sustainable Development of the Mekong River Basin, signed in 1995 (the ‘Mekong Agreement’).

The MRC is usually regarded as a river basin organisation. It excludes, however, two Mekong countries from its membership (China and Myanmar, who are observers); its mandate is restricted exclusively to the Mekong mainstream; it has no regulatory authority; it has no independence; it is consensus-based; and its mandate does not encompass engagement with actors outside of its

89. Zawacki (2019).

90. In international diplomacy, up to nine ‘tracks’ are identified – Track 1 is government-to-government.

membership. The Mekong Agreement does not supersede national sovereignty, and a country may still proceed with any proposed development without obtaining approval from the other MRC member countries – it must, however, notify the other member states.

Recent reforms to the MRC have sought two essential changes. First, to ‘riparianise’ all positions in the MRC – whereas, previously, the Commission’s CEO and its programme coordinators were drawn from outside the MRC’s membership in an effort to instil independence into the organisation, they are now all regional citizens. In 2016, the first riparian CEO took office. This individual is the brother of the then Vietnamese Foreign Minister, and the son of a former Vietnamese Deputy Prime Minister. When he left the MRC at the end of his tenure in 2019, it is alleged that he also made off with US\$175,000. The Vietnamese government eventually repaid the amount. The former CEO has not been affected.

Second, the MRC has divested itself of its programmes, and placed these inside the National Mekong Committees (NMCs). NMCs, which are not identified in the 1995 Agreement, exist within their parent ministries to coordinate the relations between their own governments and the MRC Secretariat. The Secretariat has no oversight over the NMCs. These reforms have meant that the financial flows between the Secretariat and the NMCs have increased significantly. It is alleged that the Vietnamese and Lao NMCs immediately started charging an unofficial 10% ‘overhead charge’ on all monies received from the MRC Secretariat.

Riparianisation and decentralisation could, to some extent, be seen to have allowed the MRC to be ‘captured’ by corrupt interests within its member states. It should be emphasised that there is nothing to suggest that the second or the third riparian CEOs are in any way corrupt. The MRC is generally regarded as a well-run and accountable organisation, which continues to receive significant Western ODA support.

How are local communities affected?

Corruption is a regular, daily experience for community members in the Mekong. ‘Corruption is everywhere. It is very hard to draw a line between what is corrupt, and what isn’t’ (Interview #3). In Lao PDR, for example, community members have to pay small bribes almost every time they encounter a

government official – especially the police – whether or not they have broken any laws. Because it is so common, it is questionable whether citizens even perceive these small bribes as corruption, in the absence of knowing life without corruption.

This section considers the impacts of corruption on local communities. The latter types of corruption are ones that community members will experience all of the time. Most of the impacts discussed below, however, emerge from corrupt deal-making that occurs far from communities, between people they are unlikely to have met, and the costs of which they must now bear. These impacts are examined from the perspectives of poverty alleviation; food and nutrition; resettlement and ethnicity; gender; migration; and human rights.

Food production and security

The most obvious impacts on food security are the ways in which dams affect fisheries production. In 2000, it was estimated that the capture fishery yielded 2.3 million m.t.⁹¹ from the lower Mekong (ie excluding Myanmar and China). Most of this catch comes from Thailand (40%), followed by Cambodia (33%). About 45% of this catch is derived from the river and its main flood zones, while another 45% is derived from rain-fed systems outside of the main flood zone, such as rice paddies. The remainder comes from other permanent water bodies, such as reservoirs. This yield combines fish and so-called ‘Other Aquatic Animals’ (OAAs) (shrimps, snails, frogs, and other reptiles), and it is not clear what proportion comprises fish and what comprises OAAs. Consumption data for the lower Mekong suggests that about 2.6 million m.t. of fisheries products was consumed in 2000, 19% of which were OAAs.⁹²

Significant changes to the lower Mekong aquatic environment are attributed to upstream mainstream dam development in China,⁹³ which has – amongst others – contributed to a decrease in the flood pulse, and the annual flood volume. Also, floods tend now to be lower-than-average at the start of the flood season, and higher towards the end; the flood season starts and ends later than it used to; water levels in the river during the dry season are now usually higher than previously; habitats have become fragmented (also a major contribution of downstream dams); and sediments have reduced throughout the system.

91. Hortle and Bamrungrach (2015).

92. Hortle and Bamrungrach (2015).

93. Mekong River Commission (2021b).

If all the planned mainstream dams are built⁹⁴ fish biomass will, it is predicted, decline by 40%.⁹⁵ Dams represent barriers to fish migration. Many dams in the Mekong Region incorporate different types of fish passage into their design. These may help to get fish up the river; far more pertinent, however, is getting fish eggs and fry down the river again. When eggs encounter reservoirs, they usually sink and die; fry attempting to get through turbines are typically killed.

Amongst the various assessments of the likely impacts of a total hydropower buildout, this fisheries decline is considered to be of particular significance to rural nutritional security. For every 3,800 m.t. decline in fish production, 1,000 more households are classed as ‘undernourished’.⁹⁶ Lao PDR is regarded as particularly sensitive to these fisheries declines.

Rice production can, however, potentially grow provided the waters of this increasingly regulated river are directed towards the agricultural sector. If this occurs, potential increases in undernourishment can be offset (notwithstanding the relative inferiority of rice as a nutrition source as compared to fish).

Resettlement and ethnicity

Perhaps the most common way in which people are directly affected by the development of water resources is through resettlement – and thereby creating another impact on their food production and security. In 2010, the World Bank estimated that hydropower development in Lao PDR would result in the resettlement of between 100,000 and 200,000 people.⁹⁷ In 2019, the Lao Minister of Energy and Mines estimated that, up until that point, 60,000 people from 12,000 families from more than 200 villages across Lao PDR had been resettled to make way for power projects.⁹⁸ Similar estimates at national levels are not available from other Mekong countries. In Yunnan, over 38,000 people were resettled to accommodate the Xiaowan HPP reservoir; some 30,000 people were resettled to make way for the Ubol Rattana dam in Thailand; and the Son La reservoir in Vietnam forced the relocation of 91,100 people.

94. Currently, there are 11 dams on the Mekong mainstream in China (with one currently under construction and another planned), and two in Lao PDR (the Don Sahong and the Xayaburi HPPs). On the lower Mekong, Lao PDR has ambitions to build an additional seven, while Cambodia is considering two.

95. Mekong River Commission (2017).

96. Mekong River Commission (2017).

97. Fenton and Lindelow (2010).

98. Vientiane Times (2019).

Resettlement is difficult, even under the best of circumstances. Resettlement costs can occupy a large proportion of hydropower development budgets. This, in turn, offers an additional dimension to corruption within regional water governance. During the construction of the Kamchay HPP in southwestern Cambodia, the discontent of many thousands of project-affected people was increased by compensation payments being held up by *Oknha* Lao Meng Khin and his associates.

It is common in both Lao PDR and Cambodia for the governments to stipulate that companies are responsible for the cost of resettlement, but that it is the government that will organise this (Interview #7). Hence, for one major dam development in the northern Lao PDR, the Chinese developer paid for the resettlement associated with the development of the several dams. When no resettlement actually occurred, the firm was blamed for the failure by regional and international NGOs, while the Lao government attracted no blame. A senior member of the firm's Vientiane staff told this author that the funds had been 'stolen' by the state.

In 2002, historian William van Schendel coined the name 'Zomia' to describe the Southeast Asian territory above 300 m in altitude and characterised by immense ethnic diversity that has historically been beyond the control of governments based in the lowland population centres.⁹⁹ Zomia has, as a consequence, been a significant focus for regional state-building as dominant (lowland) ethnic minorities seek to extend their control over these highlanders. These areas are also suitable for hydropower, and dam development is a significant instrument in Mekong Regional state-building.

'There are real suspicions about what's going on beyond the patronage networks [in Lao PDR], for example, amongst the Hmong. These suspicions are what lie behind resettlement. You know, if you don't know what's going on beyond the next mountain, then you want your people [the dominant lowland Lao] in there in charge of the Hmong (or whoever). That's why they need this neural patronage network that reaches all the way down to the local level' (Interview #2).

As a consequence, authorities may therefore seek to resettle far more people than directly affected by a dam. Not far from the Thai border in the Lao northwest is the 168 MW Nam Tha 1, completed in 2018. The dam itself, and the

99. van Schendel (2002).

area it inundated (64 km²), was originally expected to force the relocation of some 9,000 people. Subsequently, however, it transpired that an estimated 15,000 would be relocated, making it the largest dam resettlement in Lao PDR. The developers agreed to accommodate the provincial authorities' request to include an additional 6,000 people from the surrounding hills. The Nam Tha 1 resettlement provided the provincial authorities with a clear opportunity to address state-imposed sedentarisation goals.

In March, 2019, Lao PDR's Minister of Energy and Mines, explained the benefits that hydropower development would bring to ethnic minorities: '...there are indirect benefits from projects such as development of infrastructure such as roads, transmission lines, water basins, water canals under dams, and other facilities which create convenience for ethnic groups. The people can use these facilities and contribute to promoting the production of goods and services as well as boosting tourism. The facilities also facilitate [sic] the implementation of policies on gathering several small villages into a large village, building a small district in rural areas, thereby reducing the gaps between cities and rural areas.'¹⁰⁰

Hydropower proponents regularly cite access roads as an example of a positive intervention. Affected communities can better access markets via these roads – even if, at the same time, such roads open up previously inaccessible areas to logging, hunting, and other resource extraction opportunities. Communities may not necessarily be against resettlement; some may, indeed, be keen on it. 'Resettlement taps into deeply held aspirations for poverty reduction and modernity among Lao rural residents.'¹⁰¹ These aspirations are, however, 'jarred ... as they meet with inadequate government services and lowered incomes.'

In Vietnam, people who have been moved and resettled due to development projects with little or no compensation have emerged as a group that frequently confronts the regime. The government has sought to respond to their outrage, fearing that the confrontation could threaten the regime's stability and the CPV's legitimacy.¹⁰²

100. Vientiane Times (2019).

101. High (2008), p. 531.

102. Bertelsmann Stiftung (2020).

A review of literature¹⁰³ identifies the following problems associated with resettlement processes:

- They are frequently poorly planned and executed.
- They separate people from land that has significant cultural/spiritual relevance to them.
- Compensation is usually inadequate.
- Tensions often emerge between resettled people and host villages and/or communities.
- Agricultural land set aside for the resettled is often of poor quality.
- There is regularly unsatisfactory follow-up by the hydropower company and/or responsible government agencies (for example, support from these entities is withdrawn shortly after resettlement has occurred).
- Housing and/or other infrastructure in resettlement villages is substandard.
- There is limited or absent participation by affected communities in resettlement planning and/or design – in particular, by women.
- Resettlement prevents or curtails access to natural resources.
- Ethnic minorities are disproportionately affected by resettlement.
- Resettlement is rarely accompanied by training and/or job opportunities in relocation areas.
- There is a general weakening of community resilience, social capital, and/or livelihoods foundations.
- Mismatches occur between what was promised and what was received.
- There is an exacerbation of inequality and/or human rights problems.
- Resettlement plans do not address the social and economic realities of affected communities.
- There is increased conflict within and amongst affected communities over competition for resources.

Gender

The World Commission on Dams (WCD) documents a wide variety of ways in which women are disadvantaged when resettled as a result of hydropower development.¹⁰⁴ Implicitly, this emerges as a result of a change to their status (ie women's bargaining position vis-à-vis men). If resettlement and dam

103. Baird and Shoemaker (2007); Baird (2009); Dao (2016); Khouangvichit (2010); Delang and Toro (2011); Ha (2011); Druppers (2013); Kusters (2013); Souksavath and Maekawa (2013); Souksavath and Nakayama (2013); Zhang et al. (2013); Kusakabe et al. (2015); Sayatham and Suhardiman (2015); Green and Baird (2016).

104. World Commission on Dams (WCD) (2000).

development result in reduction in women's bargaining power, and an increase in men's bargaining power, the outcomes can result in a significant diminution of women's power, access to resources, and livelihoods, and have knock-on impacts on family health and resilience.

A key difficulty here results from the manner in which resettlement planning and consultation proceeds. Usually, resettlement planning is done 'by men for men' (what the WCD refers to as the 'gender blindness of hydropower planning'). Men will receive land titles, regardless of what the land tenure situation was prior to resettlement. Opportunities for women to earn an income are rarely built into the project, whether during its construction or after its completion.¹⁰⁵

There are many matrilineal ethnic communities across the Mekong Region. Resettlement interventions that favour men can tip whole societies in patrilineal directions: political spaces are not usually seen as women's spaces. Because men typically occupy senior administrative positions within communities, it is them that development companies will approach to confer and negotiate over resettlement. If such communities are ethnic minorities, many of them may not be able to speak national languages, particularly the women.

The resettlement literature from the Mekong Region frequently highlights how women's access to natural resources is disturbed or destroyed as a result of resettlement. Communities resettled as a result of the Manwan Hydropower Dam in Yunnan suffered significant reductions to their agricultural productivity. Resettlement prompted widespread deforestation, forcing women to search further and further afield for fuel wood.¹⁰⁶ In Lao PDR, women have (in some cases) been moved to locations far from the forests they used to exploit. While markets may be closer, and access (via roads) to them easier, men monopolise motorbikes to get to and from markets, while women have no access at all.¹⁰⁷ Nevertheless, finding that resettlement sites do not replace the livelihoods that they had previously, resettled communities often return to their former residential areas to resume the same natural resource collection practices they employed before.¹⁰⁸

105. Khouangvichit (2010).

106. Tilt, Braun and He (2009).

107. Kusakabe et al. (2015).

108. Lawrence (2008).

Very often, the areas that women exploit for resources differ from those that men exploit. Indeed, women tend to concentrate on gathering resources along the edges of places controlled by men. These ‘in-between spaces’ are typically less interesting to men because they have lower commercial values. They do, however, have significant household value, and contribute considerably to household nutrition and medicines. Because women are also usually the primary caregivers in households and responsible for raising and feeding children, these contributions are extremely important. Women’s household responsibilities have additional implications. These serve to restrict women’s mobility (because they need to stay relatively close to home), and therefore limit women’s flexibility and adaptive capacity when they are relocated.

Migration

The accumulated impacts of water development must be understood within the context of additional natural resources interventions that have served to reduce the access of the Mekong Region’s people to those resources – in particular, land concessions. Typically, assessments of environmental change in the Mekong Region stop short of extending analyses to how local populations are likely to respond to environmental collapse, and to the continuing reductions to their natural resources access. Under such circumstances, migration will almost certainly be a key coping strategy.

Dam building in the Mekong Basin has both direct migratory consequences – by resettling project-affected people – and indirect migration flows due to the cumulative effects of tributary and mainstream dams on water-related activities – especially fisheries.¹⁰⁹ Migration will be (and already is) both national and international. The Mekong Delta is experiencing net migration losses. Between 2008 and 2018, 1.7 million people migrated out of the Delta, while 700,000 moved in.¹¹⁰ For 14.5% of these migrants, the dominant factor for their departure was climate change.

Human rights

The idea of ‘water justice’ emerges from environmental justice, which is broadly concerned with the equitable distribution of environmental rights and risks.

109. Le Texier (2013).

110. Le Thi Kim and Le Minh (2017).

Water ‘injustice’ is multi-layered, and ranges from ‘the brutal, visible practices of water grabbing and pollution’ to more subtle processes that serve to exclude or restrict access to water resources and its attendant benefits.¹¹¹ These latter processes have been referred to as ‘slow violence’ in the Mekong, where, for example, the creeping impacts of downstream sediment deprivation, declining fish catches, or the diminution of the Mekong’s flood pulse exacerbate the challenges confronting rural livelihoods in the Mekong Region.¹¹²

There are nonetheless more brutal varieties of water injustices from the region. In Attapeu Province in the south of Lao PDR is the 427 MW Xe-Pian Xe-Namnoy HPP. In 2018, one of its saddle dams broke, killing 71 people and displacing some 14,440. The flood destroyed all or part of 19 villages. While dam developers are supposed to be responsible for safety at a dam site, the Lao government is responsible for addressing any disaster that might arise. Three years later, there are still 3,600 people living in temporary shelters – many of whom are unable to farm. The developers had promised 700 houses, but only 182 were supposed to have been completed by the end of 2021.¹¹³

The immense delays to supporting affected communities has led the Office of the UN Commissioner on Human Rights (UNHR – OHC) to comment: ‘Thousands of survivors lost everything and continue to face uncertainty and neglect. Governments, as well as companies and banks, stand to profit handsomely from the hydropower project, yet communities who lost everything have received only broken promises.’¹¹⁴ Millions of dollars were donated from a variety of different sources, including Korea (the home country of one of the dam’s main developers) and Thailand (where RATCH Group, one of the dam’s main shareholders, is from). Even Cambodia donated US\$100,000. Where these funds have gone is unclear.

In 2021, a Human Rights Watch report raised significant concerns around the resettlement process associated with the LSS2 HPP in Cambodia.¹¹⁵ Impacted communities were, they said, inadequately consulted; community concerns were ignored; alternative dam designs were discarded; compensation was wholly insufficient; and neither the government nor the Chinese developer attempted to obtain the free, prior, and informed consent of those affected. ‘The

111. Boelens, Vos and Perreault (2018), p. 2.

112. Blake and Barney (2021).

113. Sohsai (2021).

114. UNHR – OHC (2020).

115. Human Rights Watch (2021).

Lower Sesan 2 dam has profoundly harmed local communities, leaving them poorer and worse off. It has caused massive damage to the ecology of rivers upstream and downstream of the project, resulting in major losses in fisheries populations.’¹¹⁶

Human rights abuses have been alleged around many dams across the region. In 2019, the US NGO, International Rivers, wrote to the United Nations Special Rapporteur on Extreme Poverty and Human Rights alleging human rights violations around hydropower development in Lao PDR generally. ‘While promoted as a means to support development and poverty alleviation, hydropower dams can impoverish local communities and have serious impacts on a range of human rights, including rights to life, an adequate standard of living (including rights to housing, food, and water), health, and culture.’¹¹⁷

Outside of hydropower-based human rights concerns, the forcible removal of residents around Boeung Kak Lake in Phnom Penh, and the destruction of their homes, also received international attention. One group of women who worked to oppose the development – known as the Boeung Kak 13 – were arrested and convicted of occupying the land illegally. All of the women were sentenced to two and a half years in prison, reduced to time served on appeal. Five of the group and two other activists were sentenced to a year in prison for another protest in November 2014 but were given a royal pardon five months later.¹¹⁸ The arrest of the Boeung Kak 13 was brought to the attention of Amnesty International, and Human Rights Watch, while the 2012 report of the UN Special Rapporteur on the human rights situation in Cambodia¹¹⁹ summarised the significant human rights concerns to have emerged out of the forcible removal of riparian residents from Boeung Kak’s shores, and the treatment of peaceful protestors. Related to Boeung Kak, as well as land grabbing generally across Cambodia, a coalition of international NGOs comprising Global Witness, the International Federation for Human Rights, and Climate Counsel submitted a letter to the International Criminal Court to open a preliminary examination into land grabbing in Cambodia in March 2021.¹²⁰

The proximity of regional water infrastructure development to human rights violations has also resulted in NGO and CSO action to seek human rights

116. Human Rights Watch (2021).

117. International Rivers (2019).

118. Dara (2016).

119. Subedi (2021).

120. Flynn and Phoung (2021).

recourse. In May 2011, the National Human Rights Committee of Thailand (NHRCT) agreed to hear a case on the Xayaburi HPP (in Lao PDR) –after receiving a complaint from the Network of Thai People in Eight Mekong Provinces (‘the Network’). The complaint was based ‘on the grounds that the project lacked information disclosure and public participation, including an Environmental Impact Assessment and Health Impact Assessment.’¹²¹ The NHRCT was to find that there was, indeed, a case to answer. Although this did not serve to stop construction of the Xayaburi HPP, the Network believed that their action yielded an additional US\$100 million investment by developers in the dam’s social and environmental management.¹²²

In October 2014, a coalition of six Thai, Cambodian, and US NGOs submitted a complaint to the Human Rights Commission of Malaysia (SUHAKAM) against another Lao dam, the Don Sahong HPP, the majority shareholder of which was a Malaysian developer. The basis for the complaint was the risk that the project posed to the right to health, the right to life, and the right to livelihoods that were threatened by harm to fish stocks.¹²³ Alleged violations over the right to information and the right to participation for riverside communities also formed part of the complaint. SUHAKAM stated that it was unable to conduct an onsite visit to verify the allegations, given that it was mandated only to operate within Malay territory. Instead, SUHAKAM considered itself as a mediator and met with the firm to discuss the complaint in February 2015. SUHAKAM also recommended that the Malaysian government formulate policies or guidelines to monitor Malaysian companies operating outside of Malaysia in order to ensure compliance with applicable human rights principles and standards.

121. Middleton (2018).

122. The MRC also claims that, because its PNPCA process identified deficiencies in the dam’s proposed environmental management, this additional investment occurred. Whatever the case, the new investment served to increase the up-front capital burn on the dam, which was in all likelihood very attractive to its developers. It remains to be seen if the additional environmental management measures (mainly various types of fish passage) work.

123. Middleton (2018).

Box 4: The Yuam River Diversion: An emerging human rights crisis?

During the dry season, central Thailand often suffers from water shortages and saline intrusion from the sea and up the Chao Phraya River. One plan to alleviate this water stress is a diversion project to syphon water from the Yuam River (a tributary of the Salween) through a 61 km, 8 m diameter tunnel to the Bhumibol Dam in Thailand's northwest. The cost of this project is an estimated US\$2.1 billion. In the absence of the project, it is said, the water of the Yuam just 'flows uselessly to another country' (Interview #24). The project environmental impact has meant that Thailand's National Environmental Board has rejected the EIA on two occasions, most recently in December 2019.

A lone voice in the Thai parliament has nevertheless been promoting the project over the years. Veerakorn Kamprakob, an MP with the ruling Palang Pracharath Party and vice-chair of a parliamentary committee on water management, is firmly behind the project. In the past, he has mentioned a 'Chinese firm' showing interest, but out of apparent regard for due process, did not identify it. They had, he said, 'sent proposals to me directly.'¹ In October 2021, Veerakorn for some reason revealed the identity of the Chinese firm as Norinco International,² a civil engineering subsidiary of Chinese state-owned arms manufacturer Norinco Group, who is said to be willing to do the project for just US\$1.2 billion.³ In return, it is speculated, the Chinese expect Thailand to lobby for dams along the Salween mainstream – in particular, the hugely controversial Hatgyi dam project (Interviews #4 and #25).

In September 2021, the project's EIA was suddenly approved. Thailand's National Environment Board is chaired, observers noted, by Deputy Prime Minister Prawit Wongsuwan, who is widely regarded as the architect of the 2014 coup d'état.⁴

The Yuam River Diversion project would be located in an area of great political sensitivity. On the Thai side of the border, large numbers of communities would be affected by the project. Many of these are of Karen ethnicity, a characteristic which has caused significant citizenship difficulties;⁵ many Karen – who may have lived in the Thai–Myanmar borderlands for generations – have no rights in Thailand, whether to education, to health, or to vote. The EIA for the Yuam did not consult these communities until International Rivers pointed out the oversight (Interview #25), after which someone was appointed to 'make good the relationship with the community' and, in one case, donated a megaphone, some medicines, and some food. Thereafter, a photograph of posing community members appeared in the EIA, as if to suggest that they endorsed the project.

The community was deeply upset, which was further compounded when they all had to contribute 20,500 Thai baht (about US\$620) for a copy of the EIA. Under the law, EIAs are supposed to be free (Interview #24). Large parts of the EIA were redacted, so that the community could not see who was alleged to have said what. Public meetings, in addition, were held in Thai, with little or no effort to translate to Karen, so community members regularly had no idea what was discussed (Interview #24).

Because the project belongs to the Thai Royal Irrigation Department, there are concerns that the project is being cast as having royal blessing, which would make it very risky to criticise. Schemes that promise irrigation, however, are seen as election winners (as described above), and the next Thai election must occur before 23 March 2023.

**1 Macan-Markar (2021).*

**2 Zsombor (2021).*

**3 Other sources suggest that the Chinese firm is willing to build it 'for free'.*

**4 The deputy prime minister is also at the centre of the 'watch scandal' – in which he allegedly failed to declare 22 'luxury' watches estimated to be worth 40 million Thai baht (about US\$1.2 million) before he took office. The watches had been photographed on his wrist at various times. In his defence, General Prawit claimed he had borrowed the watches from a friend, who subsequently died.*

**5 Bunditdersakul (2019).*

Conclusions

In the Mekong, there is a strong correlation between regional corruption, and rates and magnitudes of regional authoritarianism. Regional government narratives tend to strongly emphasise large-scale infrastructure development as a way of achieving social and economic development goals. Such initiatives feature prominently in regional development plans and strategies. Large-scale infrastructure development also provides significant opportunities for corruption.

Water plays an important and central role in regional development trends. This paper has explored corruption in the Mekong Regional water sector across three ‘hydro-corruption domains’, comprising infrastructure development (hydropower, irrigation, and climate change ‘adaptation’ infrastructure), direct exploitation (sand mining and fisheries), and land re-zoning (along a water/land interface). Of these, infrastructure construction is by far the most important focus for regional corrupt practice, because it provides the greatest opportunities.

The latter is not to suggest that the Mekong countries do not, or should not, benefit from well-considered and planned large-scale development of large-scale infrastructure, accompanied by environmental and social mitigation and other off-setting strategies.

Development necessarily calls for trade-offs between the societal benefits of the intervention and its environmental impact.

Development necessarily calls for trade-offs between the societal benefits of the intervention and its environmental impact. In the Mekong, these trade-offs are of particular importance because of the heavy reliance of livelihoods on the river’s common property resources, such as its fisheries, or the sediment that is deposited on its flood plains. Even relatively modest changes to the Mekong’s hydrological regime can have significant knock-on effects. Corruption, however, reconfigures trade-off analyses. Here, losses or gains to society or the environment are not generally variables of concern – unless they also offer corrupt opportunities.

In this paper, hydropower has been singled out for close attention as a locus for regional corrupt practice. The complexities of hydropower construction mean that it presents many corruption opportunities – as well as additional spin-off opportunities, such as logging. Other large water infrastructure projects, such as those in irrigation, or climate change adaptation infrastructure, present additional opportunities. Corruption also plays a significant role in the direct exploitation of natural resources. Similarly, sand mining has been portrayed as particularly concerning due to its severe impact on the environment and livelihoods. Much of this sand is destined for the in-filling of small, deltaic lakes in and around Phnom Penh, which has provoked strong human rights concerns.

The ways in which corruption impacts livelihoods are multi-faceted. The infrastructure developments discussed affect regional food supply – particularly through the impact on fisheries – and have caused widespread resettlement – frequently affecting ethnic minorities. This is particularly true of hydropower, in part because ethnic minorities are concentrated in areas that are also good for hydropower (the Southeast Asian highlands), and because the Mekong countries use infrastructure development as a way to territorialise.

Under the best of circumstances, resettlement is complicated and difficult, and usually involves large quantities of compensation – all characteristics that create opportunities for corruption. Multiple other difficulties also arise with resettlement, which when combined have significant livelihoods impacts. The ways in which some of these processes have been implemented would seem to have caused clear human rights violations.

These livelihoods impacts reverberate into intra-community relations – in particular, gender relations. Resettlement is frequently biased towards men, ie addressing male interests at the expense of women. This can curtail women’s access to natural resources; in addition, because women are typically the primary caregivers in these communities, these impacts are carried through to children.

Resettlement and the development of infrastructure contributes to regional migration trends – through relocation, or by forcing affected communities to seek opportunities elsewhere. The extent to which this occurs, however, is not well researched.

Large-scale development of infrastructure can contribute significantly to societal upheaval and, as a consequence, also cause important human rights

impacts. Such examples are the alleged human rights violations that arose around the resettlement associated with the Lower Sesan 2 hydropower plant in Cambodia, and the alleged violations around the evictions associated with the in-filling of Phnom Penh's lakes.

Because corruption is systemic in regional government, it follows that it should also affect regional cooperation. The preponderance of regional infrastructure development cooperation frameworks serves national corrupt ends well. The transboundary water governance and sustainability mandate of the MRC sets this agency apart from other regional frameworks. The member states have, however, taken care to confine the MRC's mandate to the Mekong mainstream, and to ensure that the Commission does not engage beyond its membership with, for example, NGOs. The MRC deserves credit for managing to include in its current Strategic Plan¹²⁴ a focus on the Mekong's tributaries; it seems unlikely, however, that the Lao state will allow the MRC to investigate the impact of developments on the tributaries within its territory, or that the Thai state will allow them to scrutinise the massive proposed Khong-Loei-Chi-Mun project.¹²⁵

The Mekong countries emphasise strongly their sovereignty. In many respects, the levels and degrees of collaboration needed to manage this river across national territories are anathema to Mekong states. And yet, upstream development will, sooner or later, have to account for downstream impact. While the Lao PDR (for example) is correct that it has a sovereign right to choose its own development path, this position is complicated if Lao PDR's development choices contribute to downstream environmental impacts.

Corruption in water governance in the Mekong is a significant feature of its regulatory landscape; its presence needs to be factored into any initiative to further its sustainability and the equitability of its benefits.

124. Mekong River Commission (2021a).

125. Mai (2016).

Operating in corrupt contexts: Recommendations

The corruption that infuses water governance in the Mekong is a large – if not dominant – feature of its regulatory landscape, and its presence needs to be factored into the planning of any initiative intended to further its sustainability and the equitability of its benefits. Curbing corruption in the Mekong is, of course, the responsibility of its countries. It is unlikely that any external actor will be able to achieve this.

Promoting and encouraging third-party assessments of environment and development change

Focussing on transparency, this recommendation emphasises a reliance (as far as is possible) on remote sensing to track regional environment and development trends across the Mekong Region, and for communication – in regional languages – via social media by third parties.

This could include drawing on ongoing initiatives, such as the global monitoring of deforestation trends provided by [Global Forest Watch](#), and extracting Mekong-relevant data and trends for repackaging and distribution. Other variables amenable to remote sensing monitoring could be dams and other infrastructure, sediments, and wetlands. By externalising such monitoring, findings can be judged to be less politically influenced than if they were generated from within the region; it serves also to internationalise discussions around the Mekong – in any case, a globally valued ecosystem.

This is not intended to preclude partnerships with on-the-ground actors in the region – such as, for example, local investigative journalism networks – but, rather, to establish safe ways in which these trends can be revealed, their consequences debated and dialogued, and environmental damage attributed.

Necessary for the latter initiative is a strong communications approach, that taps into regional social media. Per capita, Facebook use is extremely high in the Mekong Region and represents a ready-to-go conduit via which synthesised trends in regional water use can be shared. The communications package looks to translate such findings both into regional languages, and from technical language into that understood by laypersons.

A subset of this recommendation is to extend the analysis of environmental change into the human security domain, to consider the ways in which affected

populations are likely to react to environmental change and collapse. The reason why this is recommended is because social instability is generally of significant concern to governments of any hue. Human security messages are, in other words, more likely to gain traction than those focussed exclusively on biophysical variables. The analysis of the Mekong's environmental challenges needs to be extended into the human security domain, to assess how Mekong populations are likely to react to large-scale environmental change that includes: (a) the insecurities arising from large-scale resettlement; (b) the collapse or severe curtailment of agriculture in the Mekong Delta; (c) the collapse of the Mekong's fisheries; (d) the widespread seizure of common property resources (land, forests, river banks etc) by private and state interests; (e) the disappearance of the Mekong flood pulse; and (f) the significant inequalities in the distribution of wealth across the region.

Excellent legal frameworks exist to guide development and identify the rights of affected communities and the obligations of developers. Rarely, however, are affected communities aware of these recourse mechanisms.

Using legal frameworks to support affected communities

This paper has discussed a few examples of where efforts have been made to litigate – mostly for human rights reasons – against development interventions in the Mekong water resources sector. Three opportunities exist in this respect. First, to explore national-level law and to consider opportunities for redress around environmental and livelihoods deprivation as a result of development interventions and inadequate compensation. In many of the Mekong countries, excellent legal frameworks exist to guide development, and which identify the rights of affected communities and the obligations of developers. Rarely, however, are affected communities aware of these rights, and recourse mechanisms. Second, to consider similar opportunities available in the home countries of investors or developers. With globalisation, many governments oblige their firms to operate under both host-country as well as home-country law – particularly with regard to corruption. And finally, to consider opportunities under international law, and the ways and means that local communities can address legal and human rights infringements on an international stage.

Gaining a deeper understanding of the financial flows around hydro-corruption trends

This consideration is of significant interest to most western agencies operating in the Mekong Region, and therefore has a high potential for financing from multiple sources. It is also attractive because it can take advantage of existing initiatives that seek to address environmental risk, and promote greater levels and degrees of financial transparency and accountability of regional financial trends. Examples are the Equator Principles or the International Finance Corporation's (IFC) Performance Standards.

Financial flows are difficult to monitor. Opportunities for implicit financial flows are, however, easier to obtain through, for example, transparency rules and regulations associated with companies registered on regional stock markets, and their reporting obligations to shareholders. Of particular interest in this respect is information on the shareholding held in regional companies by regional political elites.

Supporting the visioning and planning processes in the region

Regional governments regularly take advantage of ambiguities to head off criticism, and to cover up illegal and corrupt activity. One way that this is achieved is by having vague – or ‘non’ – goals or objectives. This leaves government administration vulnerable to abuse by corrupt interests, because virtually any initiative can be justified within a framework that is not pointing towards a particular destination.

Once a vision is created, it becomes possible for regional ministries or other stakeholder groups to align with it, and to create the administrative systems, policies, and strategies that will be needed to achieve it. Vision development also provides excellent opportunities for inclusivity, and for integration across sectors.

Having a strong vision, it should be emphasised, will not stop corruption; it does, however, make corruption easier to detect because deviation from the vision, or pathways to it, can be observed. Visions embody a ministry's commitment and promise against which a minister's (and those of his/her staff) actions can be evaluated.

Annex

Interviewee characteristics

Interview No.	Date (2021)	Description
1	October 19	Internationally recognised political ecologist and academic, with long-time regional research experience.
2	October 20	Programme coordinator for a large, regionally based international NGO with a focus on land and other natural resources.
3	October 21	Coordinator of a programme for a small, regionally based international NGO concerned with agriculture, land use, and natural resources.
4	October 22	Western diplomat with long-time experience in the Mekong, and a strong overview of natural resources trends and political dynamics.
5	October 22	Senior employee and a regional government institution with a focus on water resources management.
6	October 23	Experienced, regionally based political ecologist/economist, with senior-level experience in both the research and NGO sectors.
7	October 25	Long-time regionally based researcher, with insights into Chinese infrastructure financing and other development activities.
8	October 25	Regionally based senior member of staff in a national conservation-oriented NGO.
9	October 26	Senior member of staff at an international organisation with a focus on Southeast Asian corruption.
10	October 26	Experienced fisheries researcher and academic.
11	October 27	Noted regional natural resources researcher, currently serving as an academic.
12	October 27	Experienced regional NGO staffer, with specialism in water, hydropower, and agriculture.
13	October 28	Senior consultant with a extensive experience in the Mekong water sector.
14	October 29	Two senior programme officers for a regionally based international advocacy group that focuses on issues of human rights, the environment, and conservation.
15	October 29	Noted corruption and political ecology academic with a focus on a Mekong country.

Interview No.	Date (2021)	Description
16	October 29	Senior member of staff at an international finance institution, with extensive experience coordinating and programming hydropower-related initiatives in the Mekong.
17	October 29	Senior member of staff at a Mekong hydropower company.
18	October 31	Noted scholar on the political ecology and infrastructure development of the Mekong.
19	November 1	Economics academic with a focus on corrupt systems.
20	November 1	Experienced water activist with a deep understanding of water governance trends and environmental justice.
21	November 2	An experienced academic specialising Mekong Region relations and cooperation.
22	November 2	Legal expert at an international conservation-focussed NGO.
23	November 3	Senior western diplomat in a Mekong country.
24	November 3	An ethnic-minority anti-dam activist based regionally.
25	November 3	Regional anti-dam campaigner, an NGO.
26	November 5	Senior staff for an international network focussed on corruption in the natural resources sector.

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