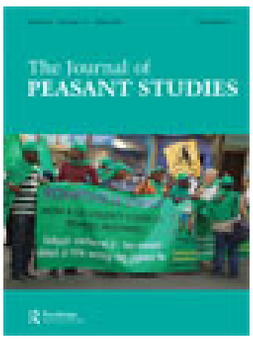

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Catastrophic and slow violence: thinking about the impacts of the Xe Pian Xe Namnoy dam in southern Laos

Ian G. Baird

Department of Geography, University of Wisconsin–Madison, Madison, WI, United States

ABSTRACT

On 23 July 2018, up to five million cubic meters of water plummeted from the reservoir of the Xe Pian Xe Namnoy dam, causing the biggest catastrophic event ever to occur in Laos related to a hydropower dam. But even before the dam broke it was already causing considerable social and environmental impacts, ones that constitute slow violence. Catastrophic and slow violence are, however, not simply separate entities. Rather, catastrophic violence can variously shift into becoming slow violence. This indicates the importance of temporality, and the need to be increasingly vigilant in addressing problems associated with certain types of projects.

KEYWORDS

Hydropower dam; Laos; slow violence; catastrophic violence

Introduction

On 23 July 2018, up to five million cubic meters of water roared from the reservoir of the Xe Pian Xe Namnoy dam into the Xe Pian River Basin in Attapeu Province, southern Laos, after a breach of 'saddle' or auxiliary dam D. The people in the path of the massive deluge of water had little or no advance warning of the impending disaster (*Vientiane Times* 2018m). One of the survivors later reported that the water did not simply flow into his village, but that it came in like 'a cliff of water'.[1]

The dam collapse caused immense damage, obliterating much of what was in its path, including homes, domestic animals, and people. The official death count stands at 71 (*Vientiane Times* 2019b). More than 14,440 people living in 19 villages were impacted (*Vientiane Times* 2018l), with 7,095 people in six of those villages being particularly hard hit (*Vientiane Times* 2018h) (Figure 1). A huge amount of sediment covered some communities in thick mud, which has made it difficult for survivors to return to live in their villages. People's rice crops were wiped out (*Vientiane Times* 2018e), and forests were negatively impacted by the deluge of water (Humphrey 2018). A large amount of silt and debris were deposited on rice farms, making farming difficult.

Over 100 km downstream, communities in Siem Pang and Sekong Districts, Stung Treng Province, northeastern Cambodia were also inundated with water, leading to serious impacts on rice crops, none of which the owners of the Xe Pian Xe Namnoy dam have

CONTACT Ian G. Baird ibaird@wisc.edu Department of Geography, University of Wisconsin–Madison, 550 N. Park St., Madison, WI 53706, United States

[1]Lao language interview of village headman of affected village in Sanamxay District, Attapeu Province by Saykoson Unicef, Facebook, 26 July 2018.

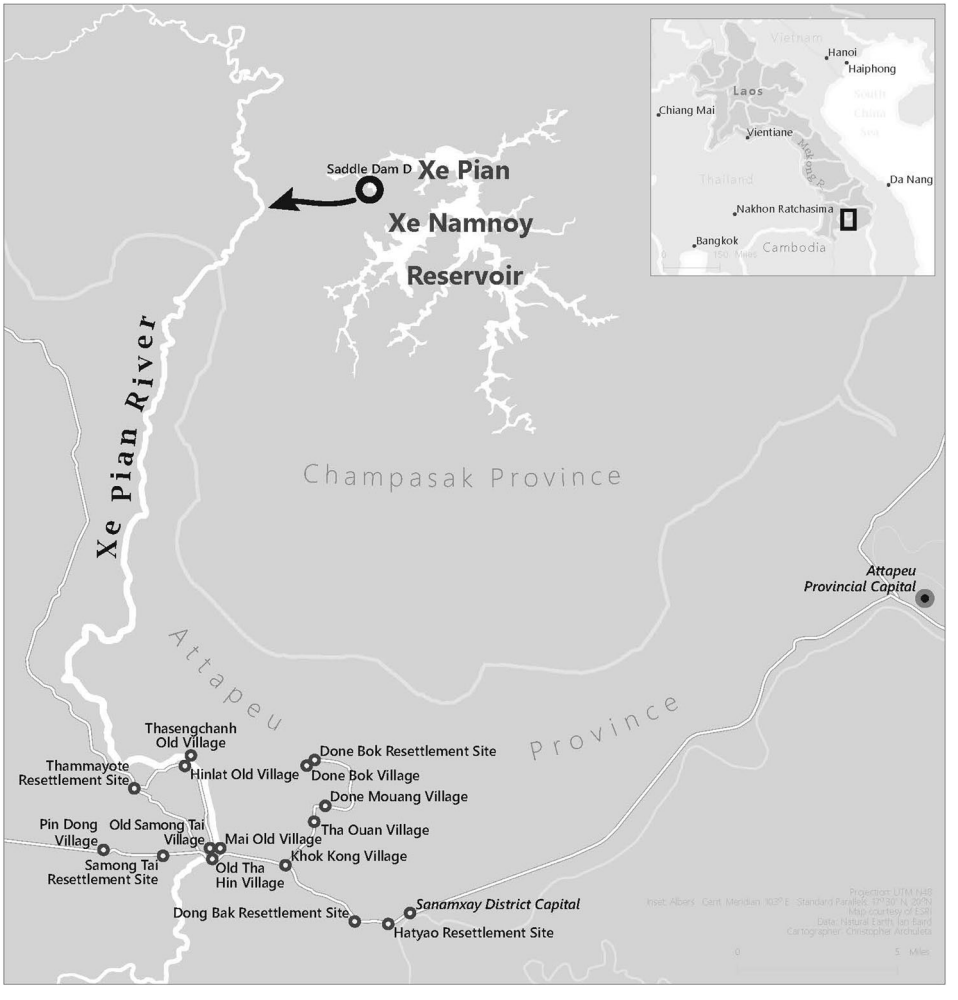

Figure 1. The Xe Pian Xe Namnoy dam and the main villages negatively impacted when the dam broke on 23 July 2018.

agreed to take responsibility for (Mekong Youth Assembly 2018; VOA 2018). Some parts of northeastern Cambodia were initially inundated with 11.5–12 meters of water (Kann 2018; Len 2018). Some 5,000 people were displaced (VOA 2018). One female farmer whose vegetable garden and rice farm were totally destroyed commented to a reporter from the *New York Times* that, 'It's all flooded, it's finished … I barely have anything to eat. I have nothing' (Wallace and Leng 2018). Over a month later, in early September, a villager from Siem Pang District commented, on condition of anonymity, that Cambodians in the area 'have no confidence' in local authorities to discuss compensation for damages with the Lao government … 'I have received no assistance,' the villager said, adding that 'victims are going hungry and their rice crops remain under water' (RFA 2018c).

The international team brought in by the Lao government to investigate has since concluded that the breaking of the dam was not due to a 'force majeure event', but rather poor quality construction of the saddle dam that broke, thus laying full blame for the

disaster on the South Korean and Thai companies that built the dam (*Xinhua* 2019b). There is also strong evidence that the Korean companies involved in the project sacrificed quality by reducing the height of the saddle dams by 6.5 meters in order to save US$19 million (Young-ji 2018), and that the companies were negligent in informing the people impacted in a timely fashion (RFA 2018d).

But what about the more protracted impacts of the building of the Xe Pian Xe Namnoy dam? What about the slow violence – that is, neglect, loss of livelihood, increased poverty, etc. – associated with the dam? And how should we think about the catastrophic violence and slow violence caused by the dam?

This article considers the Xe Pian Xe Namnoy dam and the ways that catastrophic violence is treated differently as compared to the social and environmental impacts caused by slow violence associated with the development of the Xe Pian Xe Namnoy dam. For this study I used media reports and other relevant literature, relied on 25 years of monitoring this particular project in ethnic Heuny (Nya Heun) areas of the Bolaven Plateau in Paksong District, Champasak Province, and twice, in May and July 2019, I visited impacted villages in Sanamxay District, Attapeu Province, where I interviewed, in Lao language, over 60 ethnic Lao, Oi and Jrou Dak (Sou) people variously impacted by the project. I contend that it is crucial to understand the different kinds of violence perpetrated through large hydropower dams, and to recognize that catastrophic events frequently morph into slow violence, thus making the binary between catastrophic violence and slow violence insufficient for understanding the complex ways that hydropower dam impacts frequently unfold. I intend to demonstrate the importance of thinking about how the impacts of violence play out, especially under circumstances that modernized large development projects are prioritized over social and environmental justice. In particular, Rob Nixon's (2011, 8) point about the importance of temporality is crucial (Cecire 2015). That is, 'Violence, above all environmental violence, needs to be seen – and deeply considered – as a contest not only over space, or bodies, or labor, or resources, but also over time.' This consideration of the importance of time is the key contribution of this article. I contend that due to importance of temporality, we need to understand how the different temporalities of slow violence and catastrophic violence are interwoven, which will hopefully help us to pay more attention to environmental violence that slowly occurs over long periods of time.

The next section considers the catastrophic events, a key concept in this article. This is followed by a section on slow violence, another key concept applied here. After the history of the Xe Pian Xe Namnoy dam is briefly explained, the catastrophic impacts of the dam breaking is considered, before examining some of the slow violence that the Xe Pian Xe Namnoy dam has inflicted in the project's reservoir area, and also downstream in the Xe Pian River Basin. I then consider how catastrophic violence can shift into being slow violence. The article concludes with some thoughts about the relationship between catastrophic and slow violence, and the importance of considering temporality in relation to violence.

Violence and catastrophic violence

In the introductory essay of *Violent Environments*, Peluso and Watts (2001, 5) consider violence to be a 'site specific phenomenon rooted in local histories and social relations yet

connected to larger processes of material transformation and power relations.' Drawing on Dumont (1995), they also see violence as being a type of habitus, both structured and structuring, structured because of ideas about violence that emerge out of historical events and memories. Indeed, resource development is intended to naturalize structures of resource control, while at the same time keeping the violence hidden from view (Peluso and Watts 2001, 7).

According to Merriam-Webster's online dictionary, catastrophe can be defined as 'a momentous tragic event ranging from extreme misfortune to utter overthrow or ruin,' or 'a violent and sudden change in a feature of the earth.'[2] Thus, catastrophic violence can be considered to be a particular variety of violence that occurs rapidly, and tends to cause more than normal destruction and/or loss of life or injury. Catastrophic violence is also hard to hide from view, because of the speed and force that it occurs. Temporality becomes the key.

The risk perception literature is relevant for thinking about catastrophic violence. Indeed, temporality is crucial, as the types of impacts that occur due to catastrophic events are experienced differently from those that occur over more extended periods, both with regard to actual affects, but also in relation to the ways that people respond (Slovic 2000). For example, there is considerable evidence to suggest that people, on average, tend to be more fearful or anxious about the impacts of catastrophic events as compared to non-catastrophic ones, even when the latter is likely to cause more harm over the long-term (Robbins, Hintz, and Moore 2014; Slovic 2000). In other words, temporality is clearly crucial, and undoubtedly partially relates to the ways that the media tend to respond to and report on catastrophic events as opposed to how they deal with changes that play out gradually and over time. The first is often considered 'news-worthy', whereas the latter is not generally elevated to the mainstream news media. It is crucial to understand these differences, as they greatly affect the ways we become exposed to and come to understand different temporalities of violence.

Slovic (2000) pointed out that one crucial factor related to time is latency, further emphasizing the importance of temporality. This is because people tend to take impacts that are latent, or will not emerge for an extended period of time, less seriously than those that are more immediate. There is also something about horrific events, especially those involving a large number of people, which catches the attention of the public (Robbins, Hintz, and Moore 2014; Slovic 2000).

Slow violence

Slow violence is the second key concept, along with catastrophic violence, for framing this article. In *Slow Violence and the Environmentalism of the Poor*, Nixon (2011, 2) argues for the importance of investigating slow violence, which he defines as:

> a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all. Violence is customarily conceived as an event or action that is immediate in time, explosive and spectacular in space, and as erupting into instant sensational visibility.

[2] https://www.merriam-webster.com/dictionary/catastrophe, accessed 27 November 2019.

In addition, Nixon appeals to his readers to consider temporality seriously and more thoroughly investigate slow violence, writing that,

> We need, I believe, to engage a different kind of violence, a violence that is neither spectacular or instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales. In doing so, we also need to engage the representational, narrative, and strategic challenges posed by the relative invisibility of slow violence. (Nixon 2011, 2)

Crucially, Nixon (2011) interprets slow violence as being linked to poverty-inducing policies, ones that are often hidden from public view, and typically accumulate slowly over time. Watts (1983, 14) similarly wrote about the rupture of a local system, although through applying examples from northern Nigeria, due to integration into the global market system. He too was interested in temporality and the unrecognized structured violence that occurs over time. He, however, called it 'silent violence'.

Blake and Barney (2018) have recently usefully written about the links between Nixon's idea of slow violence, and what is happening in the Mekong River Basin – particularly in Laos – in relation to destructive large hydropower dam development. Focusing on temporality, they argue that slow violence is gradually occurring, step by step, in the Mekong River Basin, and that hydraulic infrastructure development consistently causes serious social and environmental impacts and uneven injustices, and that many of these costs are externalized through a particular 'structural politics' that leads to the uneven allocation of public goods and costs, and a lack of official recognition of what is actually occurring. Large-scale development projects, such as hydropower dams, are excellent examples of slow violence, as they often impose structural injustices that cause everyday forms of suffering that are cumulative, spatially dispersed and gradual. Thus, slow violence is a useful concept for thinking about temporality and large hydropower dam development in Laos.

Nixon (2011, 4) has made the point that unseen poverty is 'compounded by the invisibility of the slow violence that permeates so many of their lives. Our media bias toward spectacular violence exacerbates the vulnerability of ecosystems treated as disposable by turbo-capitalism while simultaneously exacerbating the vulnerability of … "disposable people".' Nixon (2011, 6) also writes, cynically, that slow violence is 'outside our flickering attention spans – and outside the purview of a spectacle-driven corporate media. The insidious workings of slow violence derive largely from the unequal attention given to spectacular and unspectacular time.'

The concept of 'infrastructural violence', a term used by Rodgers and O'Neill (2012) and Li (2018), has many parallels to slow violence. However, whereas the concept of slow violence is focused on time, infrastructure violence is especially linked to materiality. In this article, it is the nature of temporality that is the focus. In engaging with the concepts of catastrophic and slow violence in this article, my main contribution to the literature is to encourage more nuanced understandings of the ways that different temporalities of violence become intertwined.

In southern Laos, the Xe Pian Xe Namnoy dam was already causing significant social and environmental impacts before it burst, particularly on two groups of communities: those living near the dam's reservoir, and those from along the Xe Pian River, downstream from the reservoir. But the basic history of the dam needs to be told first, so that the slow violence associated with the project can be understood.

A brief history of the Xe Pian Xe Namnoy dam

The first dam to be constructed on the Bolaven Plateau in southern Laos was the 150 MW capacity Houay Ho dam, which the South Korean company, Daewoo Engineering Co. Ltd., started constructing in November 1994 (Baird 2013).

Not long after, Dong Ah Construction Industrial Group, another South Korean company, moved aggressively to develop the Xe Pian Xe Namnoy dam. Feasibility studies and environmental and social impact assessments were completed, and before long infrastructure associated with the project, such as access roads, began being developed. However, in 1997–1998, the Asian Financial Crisis hit a number of important South Korean companies, including Daewoo and Dong Ah. Daewoo ended up selling their 80 percent share in the Houay Ho dam, but since the Xe Pian Xe Namnoy dam began being studied in 1994 (Green and Baird 2016), little actual construction work had been done by the time the financial crisis hit in 1997, and the Dong Ah Group went bankrupt in May 1998. Its subsidiary, Dong Ah E&C also went bankrupt in November 2000 (Lee n.d.). The fall of Dong Ah caused the project to abruptly stop. Construction was discontinued for more than a decade (International Rivers 2008).

However, before Dong Ah was forced to give up on the Xe Pian Xe Namnoy dam, the government of Laos had already started relocating over 2,700 ethnic Heuny (Nya Heun) Indigenous peoples from eleven villages in the watershed area of the Houay Ho and Xe Pian Xe Namnoy dams, moving them to another part of the Bolaven Plateau, into an area historically inhabited by their rivals, the ethnic Jrou (Laven) Indigenous peoples.[3] The first villages were moved in 1996–1997, and the last two were relocated in 2000 (Baird 2013; Green and Baird 2016; International Rivers 2008).

Although the whole premise for resettling the villages was always questionable, since some of the communities were not actually previously located within the reservoir areas of either dam, the government was determined to resettle the Heuny, at least partially to 'stabilize' the swidden agriculture these people conducted, and concentrate and modernize the people (see Baird and Shoemaker 2007; Evrard and Goudineau 2004). In the late 1990s, small houses were built for each family in different parts of the resettlement area, and initially three hectares of agricultural land – some good quality and some less so – was allocated to each family, regardless of family size. However, soon after resettlement was completed in the early 2000s, the Jrou communities living nearby reclaimed all but about 20 percent of the land allocated to them (Baird 2013), arguing that it was Jrou fallow swidden land and that it should not have been given to the resettled people. The Heuny were not in their traditional territory, so they did not explicitly resist. Local government officials were aware of what was happening, but they did not do much, as they did not agree with the original resettlement plan, and many agreed that Jrou land had been inappropriately given to the Heuny. The Heuny have become 'development refugees', people who have been forced to relocate due to development policies (see Vandergeest, Idahosa, and Bose 2007). Many Heuny were forced to take on daily farming work in the fields of the Jrou or others on the Bolaven Plateau. The pay was low, often less than the equivalent of $2/day, and many were just able to make enough to feed themselves.

[3] I refer to them as Indigenous Peoples, since they are a colonized group of first peoples, even though the Lao PDR does not recognize the existence of Indigenous Peoples within Laos (Baird 2015).

There were also other problems in the resettlement areas, such as poor quality well water (Baird 2013). One foreign observer who visited the resettled villages in 1997, stated, '[I]f our informant is accurate, this situation is a human rights emergency which requires immediate attention at a high level in Vientiane' (cited in Baird 2013, 251). Women were especially negatively impacted, since they tend to speak less Lao and have lower education levels than men, which led them to take on the lowest paid and most arduous labor.

Once construction on the Xe Pian Xe Namnoy dam had stopped, it appeared that the project might be permanently discontinued. Therefore, villagers started to explore ways to return to their previous villages, since they still had agricultural fields there, and there was plenty of good quality farmland there. However, the government refused to officially allow them to return, in case the dam was only temporarily postponed. Secondly, when the initial relocation occurred, the resettlement areas were designated as official government 'focal sites', a designation that is expected to result in concentrated government attention (Baird and Shoemaker 2007). Moreover, the government praised the focal site as being highly successful. Therefore, it would have amounted to an admission of failure and a loss of face to the government, particularly the provincial government of Champasak, if they allowed the Heuny to return to their original lands, especially considering that they were relocated to make way for the dams, but their relocation was also expected to serve the purpose of stopping the Heuny from conducting swidden cultivation. In addition, it is likely that government officials did not want to deal with complex processes associated with reallocating land to the people. Therefore, they were told to continue to stay in the resettlement area, despite the land shortage problem.

Before long, due to severe difficulties associated with staying in the resettlement villages, a large number of Heuny families started to defy the government and return to their old villages. Initially, they received permission to return to pick up rice that they had stored in barns from when they were living there before. Often, however, they would stay for days or weeks before returning to the resettlement villages with a small amount of rice. Within a few days, that rice would be eaten, and then they would again ask to return to their old villages to get more rice. Again, they would stay days or weeks in the old villages before returning to the resettlement villages, and over time the periods of time that they spent in the old villages got longer and longer. Soon many families were essentially living full-time in their old villages, and over the years the number of people who moved back gradually increased.

In 2008, fifty Heuny families requested permission to establish a school in the vicinity of the old villages, so children could go to school there, but the sub-district chief refused to grant them permission. Still, the number of people returning to their old villages increased, until it reached 80 percent by the time the Xe Pian Xe Namnoy dam reemerged in 2012 (Baird 2013, 255).

In 2006, the Lao government approved a two-year investigation of the Xe Pian Xe Namnoy dam, thus marking its possible revival, and in November 2008, SK Engineering and Construction (South Korea) (26 percent), Korea Western Power (South Korea) (25 percent) and Ratchaburi Electricity Generating Holding Public Company (25 percent) signed an agreement with the Ministry of Planning and Investment to develop the 390 MW dam, at an estimated cost of US$500 million. According to the agreement, the Lao government would hold a 24 percent share of the project (*Vientiane Times* 2008).

However, the project did not move ahead as hoped. However, in October 2011, the Lao government applied for overseas development aid from the government of South Korea's Economic Development Cooperation Fund (EDCF). The dam site was inspected in December 2011 and an agreement was signed between South Korea's Ministry of Strategy and Finance and Lao's Department of Treasury, in which the Korean Ministry agreed to fund the involvement of Korean companies in the project. The Lao government's contribution, US$73 million, was lent to the Lao government by the Korean Exim Bank's EDCF (Lee n.d.).

In June 2012, it was announced that Thailand had agreed to purchase the energy produced by the Xe Pian Xe Namnoy dam for a 27-year period. This agreement was seen as crucial, and it was anticipated that it could be leveraged by the consortium to gain financing (*Vientiane Times* 2012). On 19 October 2012, the concession agreement for the project was signed (*Market Screener* 2012). However, the cost of the project had doubled from US$500 million to US$1.02 billion, and its capacity, which includes three rockfill dams on the Xe Namnoy and Xe Pian rivers, and the Mak Chan stream, increased from 390 MW to 410 MW (ERB 2012). The dam was expected to sell 90 percent of the energy to Thailand, and it was reported that Laos' Ministry of Natural Resources and the Environment had already approved the environmental and social impact assessment reports for the project (*Vientiane Times* 2013). It was later reported that the Xe Pian Xe Namnoy Company had signed a syndicated loan agreement for 22.13 billion Thai Baht (US$731 million) with Krungthai Bank, Bank of Ayudhya, Thanachart Bank and the Export and Import Bank of Thailand (Lee 2013).

Once construction on the project began in February 2014, the company and the government started again resettling the Heuny people who had unofficially moved back to their former villages, much to their dismay. The plan was to move the Heuny back to the same resettlement sites that they were moved to in the second half of the 1990s, although without resolving the fundamental land problem in the resettlement areas (Green and Baird 2016). Villagers were quite unhappy with the proposed plan, and in March 2017, many Heuny families protested (RFA 2017), something quite rare in Laos. They have remained determined, and as of late 2019, 75 families were still refusing to move into the resettlement areas. According to a Heuny leader interviewed in May 2019, 'The police and military have gone to try to convince them to move, but they continue to refuse.' They are living on higher elevation land within the watershed of the dam's reservoir. Villagers are refusing to move until they are granted sufficient good quality land for agriculture, the most important problem facing those living in the reservoir area.

The dam was reportedly closed in December 2016, and on 23 July 2018, the day the dam broke, the project was reportedly 80–90 percent complete (*Vientiane Times* 2018c).

The catastrophic impacts of the Xe Pian Xe Namnoy dam break

After the catastrophic collapse of the Xe Pian Xe Namnoy's saddle dam D, five camps were established in Sanamxay District, Pindong Camp (now moved to Samong Tai), Dongbak Camp, Hatnyao Camp, Tammayote Camp, and Donebok Camp (Rujivanarom 2019; *Vientiane Times* 2018g) (Figure 1). The temporary housing in these camps was not completed until early 2019, with many complaints about delays (*Xinhua* 2019a). Various roads and bridges were also damaged by the floodwaters (*Vientiane Times* 2018d). The Attapeu

provincial Department of Agriculture reported that more than 1,700 hectares of agricultural land had been devastated. In addition, four irrigation systems were destroyed, 190 fishponds were damaged, and over 1,200 buffalo, 4,000 cattle, and a large number of poultry and pigs were lost (*Vientiane Times* 2018j). Many tractors, motorcycles and other vehicles were also destroyed (*Vientiane Times* 2018h).

This catastrophic disaster led to quite a different response compared to what other hydropower dams in Laos have experienced over longer periods of time. To begin with, the international media response to the dam break was unprecedented. I was in northeastern Thailand when the dam broke, and within a week I had conducted over 20 interviews for a number of important news outlets, including the New York Times, Associated Press, the BBC, CNN and Reuters. While concerns regarding hydropower dam development in Laos have received considerable press coverage in recent years, the dam break attracted attention like never before. But the media showed little interest in the others impacted by the slow violence of the project. Temporality and the catastrophic nature of the disaster explain the difference.

Second, the breaking of the Xe Pian Xe Namnoy dam resulted in an influx of humanitarian aid from governments and private citizens, both in Laos and especially from abroad (High 2019; *Vientiane Times* 2018c; Yonhap 2018). By 21 August 2018, almost a month after the dam broke, the total amount of donations received for flood victims was reported to be US$15.2 million (130 billion kip) (RFA 2018b), not including expenses incurred by the dam developers. Humanitarian aid agencies, such as the Red Cross, also showed up in force to provide support (Thitithamtada and Varasane 2019). The World Food Programme of the United Nations allocated food to those impacted by the dam break (Lindsay 2019). This differs considerably from when hydropower dams cause less catastrophic social and environmental impacts. In those cases, humanitarian aid is not forthcoming.

The Lao general public's response differed considerably from anything that has ever occurred in Laos. Within a day or two of the disaster, people started posting and reposting messages in Lao language on social media stating that the Minister of Energy and Mines, Khammany Inthirath, had resigned from his position in order to take responsibility for the disaster, which was assumed to have occurred due to insufficient government oversight. I was initially skeptical about this report, as I am unaware of any case since the Lao People's Democratic Republic (PDR) was established in 1975 that a high-level official has resigned to take responsibility for poor performance. I started checking with friends living in Laos, both long-term expats and Lao people. Initially, various people informed me that they believed that the Minister had resigned as stated on Facebook.

Within a few days, however, it became evident that the rumor had no basis in truth. The Minister made a statement denying that he had resigned, and blamed the false rumor on 'bad elements'. It is particularly interesting that such a rumor emerged in the first place, and that so many people in Laos appear to have believed it, or at least wanted to believe it. This may be a symptom of an unsatisfied public in a country where there is a lot of secrecy (Baird 2018), and where people do not have clear venues for openly criticizing the government, and as we know from the work of Scott (1985), when people do not have the ability to openly resist, they sometimes adopt safer ways of resisting, including adopting what Scott called 'weapons of the weak', which includes such acts as spreading rumors and slandering people in positions of power.

This was not, however, the only dam-break related rumor that spread around Laos immediately after the dam broke. An Associated Press journalist informed me that there were credible reports that a dam on the Xekaman River, in southeastern Laos, not far from the Xe Pian Xe Namnoy dam, was also in danger of breaking. In the end nothing was reported on the news, as reports could not be independently corroborated. However, in May 2019 I learned that shortly after the Xe Pian Xe Namnoy dam broke, a villager had gone to the high Xekaman 1 dam, and had used his phone to photograph what looked like cracks in the dam. Although they turned out not to be actual cracks, he spread the photo on social media, and soon villagers were fleeing to the hills. Hundreds of villagers from Xaysettha District, in Attapeu Province, stayed in the nearby Pa-o Mountains for 4–5 days before officials were finally able to convince them to return to their villages.[4]

There were similar reports of the Nam Ou 2 dam being in danger of breaking on the Ou River in northern Laos. However, there is evidence to support this rumor. On 27 July 2018, Nikhom Keosavang, the head of the Department of Meteorology and Hydrology, wrote a Lao language letter, warning that water levels in the reservoir of the Nam Ou 2 dam were higher than safe levels, and that this could cause erosion and damage to the dam that could endanger people living downstream. People were warned to be careful (Keosavang 2018).

I observed a number of video clips of younger Lao people who criticized the government's response to the breaking of the dam. Some also openly questioned – for the first time to my knowledge – the Lao government's decision to build a large number of dams in the country in the coming years (see, also, High 2019), in order to become the so-called 'battery of Asia'. In the past Lao people had been unwilling to strongly criticize Laos' dam-building agenda, but this was different. The state-control media even provided uncharacteristically critical comments, stating that

> a number of people have expressed their opinion that the government and the dam developers must think about how to rehabilitate the flood victims, not solely in accordance with the letters of the concession agreement and under the law, but also from a social justice perspective. (*Vientiane Times* 2018b)

It was, however, the video clips that struck me. I started to get the impression that the dam breaking catastrophe was eliciting an unusual type of public response, unlike anything I am aware of in relation to hydropower dam development in Laos. The catastrophic nature of the dam-break, and the short amount of time that so much destruction occurred, really impacted the Lao public, at least over the short-term. A young Lao woman with experience working in rural areas was quoted saying,

> I hope this concern will be heard in the countries of free expression. My heart broke and my tears fell when I heard about the Xe-Pian Xe Nam Noy dam collapse. This would not have happened if the concerned governments and companies had given equal value to the lives of local people, the Lao government is gambling with community members' lives! Who will guarantee that community members' lives will be safe from such development projects? (Mekong Youth Assembly 2018)

[4]Man, Attapeu pers. comm., 25 May 2019.

Local perceptions were also probably impacted by the breaking of a smaller dam, the Nam Ao dam, in Laos' central Xaysomboun Province, in September 2017. Although water from the dam's broken reservoir damaged villages downstream, apparently no lives were lost. Poor construction methods, poor dam siting, and heavy rain are believed to have caused the break (Hutt 2018). Following the breaching of the Nam Ao dam, the Minister of Energy and Mines, Khammany Inthirath, told *Radio Free Asia* that 'legal action must be taken [against the project developer] for sure, and now the provincial authorities are investigating all the damage' (quoted in Hutt 2018), although no action has apparently been taken.

Indicative of the mood in the country, the Prime Minister, Thongloun Sisoulith, announced that (1) a committee would be established to investigate the disaster, and that (2) while the construction of dams already being built would be allowed to continue, no new dam projects would be approved until dam safety had been thoroughly investigated. Furthermore, he commented, unlike any Lao politician in the past, that Laos was not aspiring to be the 'battery of Asia'. The Ministry of Energy and Mines also ordered that all the dams in the country be inspected (*Vientiane Times* 2018a, 2018f, 2018m).

Later, in early September, however, Prime Minister Thongloun back-tracked somewhat, stating that the country would move ahead with its ambitious dam-building plans, but that it would put more efforts into ensuring dam safety (*Eyewitness News* 2018). The passing of time apparently had a major impact on government policy. But at around the same time, Thongloun reiterated his dismissal of the widely used 'Battery of ASEAN' moniker, stating that it is an exaggeration of Laos' potential. However, he added that hydroelectric power generation and transmission capacity development for domestic use and export was still quite significant for the country. By 2025, the Lao government still intends to develop a strategic plan to become the center of a regional electricity transmission system network (*Vientiane Times* 2019a).

The saddle dam that broke is being rebuilt. However, there are still concerns regarding the lack of local participation in negotiations related to compensation, and the low levels of compensation being proposed, even though the consortium that owns the dam has US $50 million in insurance (*Vientiane Times* 2018k).[5] As of late 2019, villagers had still not received any compensation for lost assets, and according to one villager, 'The insurance company offered us compensation, but it wasn't nearly enough to replace what we lost, so we all refused to accept it.'[6]

Initially, each family of the 40 people recognized to have been killed by the dam-break received US$198 (1.7 million kip) each (RFA 2018b). Later, on 23 January 2019, the families of 71 people who were by that time recognized as having been killed were given US $10,000 (85.7 million kip) each as compensation (ABC News 2019; *Vientiane Times* 2019b). However, in May 2019 villagers expressed dissatisfaction with the lives of their loved ones being valued so low.

For those not killed in the disaster, the equivalent of US$60 (500,000 kip) in 'pocket money' was provided to each family displaced by the breaking of the dam (RFA 2018b). Later in January, the situation deteriorated, with many becoming frustrated about having had to live in tents for six months (*National Multimedia* 2019).

[5]Ounkeo Souksavanh, *pers. comm.,* April 2019.
[6]Man, Hatnyao Camp,, *pers. comm.*, 25 May 2019.

Medium-term impacts need to be carefully considered. Those impacted and resettled have been receiving only 250,000 kip, less than US$30 each, per month to live on in the temporary camps, along with 20 kg of rice per person (*Vientiane Times* 2019b). These payments have, however, not arrived in a timely fashion, and in May 2019, villagers reported that they had not received any money for two months. The rice has been arriving on time, but villagers complained bitterly about it. One woman said, 'The rice is very low quality non-glutinous rice. It makes me sick when I eat it.'[7] The rice came from the ASEAN plus Three Emergency Rice Reserve (APTERR+3) (*Vientiane Times* 2019c).

This section has illustrated how catastrophic violence was capable of mobilizing – albeit in eclectic ways – resistance to dam-building, in ways that have not been possible in cases of slow violence. Yet, the two are connected, as years of slow violence has partially primed people to respond strongly to the catastrophic violence. In this case, the two types of violence come together in unexpected ways, as if the two temporalities have converged at a node.

Slow violence: moving from the reservoir area in Paksong District, Champasak Province

The ethnic Heuny Indigenous peoples who previously lived in the basin of the dam's reservoir, on the eastern side of the Bolaven Plateau in Paksong District, Champasak Province, are the first group discussed. As already explained, these communities have already been suffering due to the dam for more than 20 years, but have so far received insufficient attention or support. The example of the Heuny is important as it indicates how much less attention the protracted impacts of the project have received compared to the catastrophic impacts. The Heuny were resettled in the late 1990s and early 2000s to accommodate the Xe Pian Xe Namnoy dam, and to a lesser extent the Houay Ho dam, but most still do not have sufficient farm land to subsist off of. This can be considered slow violence, violence that has played out over a longer period of time. No wonder 75 families continue to refuse to move into the resettlement area, even though they have been heavily pressured by the government to do so. A villager told RFA, 'We do not want to move to the area provided by the government and project developer … We can't grow anything there, not even cucumbers. We will be poor if we continue to live there.' Villagers have also been unhappy with compensation rates (RFA 2017).

The slow violence before the catastrophic violence: people who rely on the Xe Pian River

The Jrou Dak (Sou) and Oi Indigenous peoples and the ethnic Lao people who live downstream from the Xe Pian Xe Namnoy dam in Sanamxay District were also neglected before the dam broke. Villagers in the communities washed away were not even aware that the dam was being built, and in July 2019 villagers were still unaware that the Xe Pian River had been dammed and that the water was being diverted into the dam's reservoir, reducing the amount of water that flows downstream and supports local fisheries and livelihoods. As predicted in 1995, in a fish and fisheries impact study conducted for the

[7]Woman, Hatnyao Camp, *pers. comm*., 25 May 2019.

dam developers, this dewatering can be expected to cause significant negative impacts to the aquatic life it once supported, and to the people who relied on fisheries to provide them with their main source of animal protein (Roberts and Baird 1995). Yet, despite these impacts being predicted over 20 years ago, no efforts have been made to mitigate them. This represents another form of slow violence, this time against people living downstream, including many of the same people impacted by the breaking of the dam.

When catastrophic violence becomes slow violence

The passage of time is crucial, and is a key reason why slow violence is not given sufficient attention. However, it also important to recognize that as time passes, catastrophic violence can become intertwined with slow violence, as the following examples illustrate.

Downstream impacts

Although the Xe Pian River was already being negatively impacted downstream by the Xe Pian Xe Nam Noy dam, even before the dam broke, it was further negatively impacted when the dam broke, as not only water came down but a lot of silt, sand and debris. Rapids and deep water pools were smothered with sand, destroying habitat and making the riverbed shallower. According to villagers interviewed in May and July 2019, this is negatively impacting aquatic life. It has also made flooding more likely in the future, since the river bed can hold less water than previously. Presumably over time the river will be flushed out, but it will probably take years, and now the water is silty, whereas before it was much clearer. Thus, slow violence has become intertwined with catastrophic violence.

Unexploded Ordnance

One of the concerns that emerged after the Xe Pian Xe Namnoy dam broke was that the fast flowing and large amount of water that gushed downriver had unearthed and dislodged Unexploded Ordnances (UXOs) still buried underground since the time of US bombing of the area during the 1960s and early 1970s. The Lao Red Cross issued a warning regarding the increased danger of UXOs, including cluster bombs or 'bombies', just a few days after the dam broke (ABC News 2018). According to Channapha Khamvongsa, the executive director of the Legacies of War (2018), 'On this heavily contaminated land, the flood waters will churn up and move the bombs into people's fields, roads, and villages.' Beginning on 11 August 2018, almost three weeks after the dam broke, 110 people working for UXO Lao, a government organization, were sent to work in 11 teams to deal with the increased UXO threat (*Vientiane Times* 2018i).

Since then, 2,140 hectares of farmland have been surveyed and apparently cleared of UXOs (*Vientiane Times* 2019b). This impact is a clear indication that the boundaries between catastrophic and slow violence are often blurry, and that catastrophic and slow violence are often oddly intertwined. These circumstances have affectively resulted in a melding of catastrophic and slow violence. It also shows how catastrophic violence can be transformed into slow violence.

Posttraumatic stress disorder (PTSD)

Another way that catastrophic violence is intertwined with slow violence is through posttraumatic stress disorder (PTSD). The emergence of PTSD represents both immediate violence and also slow violence. That is, when the dam broke and the water poured down, the impacts were clearly catastrophic and devastating. However, the psychological impacts can be expected to affect people for a much longer period of time, and thus can be seen as slow violence.

Since the late 1960s and early 1970s, various studies have shown that traumatic experiences associated with various types of disasters can result in serious psychological impacts (Green et al. 1990), including PTSD, anxiety and depression (Crombach and Siehl 2018), and sleep disorder impacts (Zhen, Quan, and Zhou 2018), problems that can persist for years or decades, but tend to decrease over time. These impacts are experienced quite unevenly, thus making it difficult to predict what individual impacts might be.

According to Liu et al. (2017, 3), PTSD is 'an anxiety disorder that develops after exposure to a terrifying event or ordeal in which grave physical harm occurred or personal security was threatened.' It can be expected that many victims are likely to experience PTSD due to the breaking of the Xe Pian Xe Namnoy dam. Various news agencies have already reported signs of PTSD. For example, RFA (2018a) reported that a week after the dam broke, villagers were 'still in a state of "panic" and refused to return to their ruined villages,' And Rujivanarom (2019) recounted the story of fear and trauma affecting a boy who was almost killed by the breaking of the dam, and lost his cousin during the catastrophe. 'I was so terrified,' he recalled. 'I am now afraid of floods. After the incident, I never look at the river the same way again.' Yet, the child's family is facing difficult conditions in a camp, and he needs to help them find food. This has challenged him. He told Rujivanarom (2019), 'I have to overcome my fear of the river and help my father fishing … Now, I am no longer afraid of the river.' He did, however, admit that he still has a 'deep fear of fast-rising floodwaters.' Yun Jiyoung, the representative coordinator for the Korea CSO taskforce team, which was formed to deal with disaster survivors, also reported that many of those impacted are suffering due to being traumatized during and after the disaster. Yun said, 'Some of them are still having nightmares about the night of the disaster.' She also added, 'They [the villages] feel scared when they visit their houses' (Whong 2019).

Many residents of impacted villages – not just those mentioned above – are having second thoughts about returning to live in their former villages due to the trauma they experienced as a result of the worst hydropower dam disaster to hit the Mekong River Basin. One man, who was injured during the disaster, stated that when he was in the hospital for 20 days after the disaster, he often heard the flow of the river in his ears, indicating psychological impact. He expressed fear about moving back to his village from Natnyao Camp. In addition, the village headman from Thasengchanh Village told me that many people from his village, which was the worst impacted, were psychologically impacted. 'You can hear people yelling out in the camp at night when people wake up having nightmares,' he reported. Some are moving back to Mai, Samong Tai and Tha Hin Villages, but will those who return to their old villages be able to sleep well in the future, knowing that the dam is still upstream from them? Will they trust that the dam will not break again? Thitithamtada and Varasane (2019), from the Lao Red Cross,

wrote that it is the fear of such future disasters that may be the most worrying aspect of the situation. Landscapes can be seen as 'archives of memories' (Baird 2013), but in the case of the people impacted by the dam break, they may experience what resembles landscapes of nightmares.

In addition, the village headman from Thasengchanh Village reported that the stress of the present circumstances has upset and destabilized many villagers since the dam broke, resulting in increasing anxiety about the future. The Heuny people who were resettled to make way for the Xe Pian Xe Namnoy dam have faced uncertainty over the years, which has emotionally impacted families and communities. These examples show how important temporality is to understanding impacts, and how catastrophic and slow violence are intertwined.

Restoring lives

> At first, soon after the disaster, we were encouraged when we saw all the aid agencies coming to help us. But now they have mainly forgotten us, and we are still suffering. (Villager, Dongbak Camp, 26 May 2019)

The restoration process for those impacted by the breaking of the dam is likely to take years to complete, and also demonstrates how catastrophic and slow violence are intertwined. In August 2018, the Deputy Minister of Planning and Investment, Dr. Kikeo Chanthabouly, told the *Vientiane Times* that there would be three phases associated with the recovery process. The first would be to construct temporary housing for those displaced. Villagers were also expected to receive 'free food and benefits' over the next two years. The second phase would involve restoring the original villages and rebuilding houses, etc. The third and final phase would involve restoring infrastructure such as hospitals, schools, and roads, and supporting income generating activities so that the people can earn an income and support their families in the long-term (*Vientiane Times* 2018i).

The most problematic part of the restoration process to date has been the way that the dam developers and government have tried to restore agriculture for those displaced. In early 2019, displaced villagers were allocated land for farming, but they were told that they had to cultivate it following a particular system that would involve each family cultivating the allocated land with either cassava or sugar cane. Crucially, the farmers would have to follow the instructions of a private Vietnamese company brought in to oversee the project. The idea was that the company would advance money to pay for all initial expenses. The company would contribute expertise, inputs and marketing. The farmers would contribute land and labor. Once the crops were harvested, the company would sell them at 'market price' and give the farmers whatever profit remained, after they subtracted their expenses (and presumably profit) from the revenue generated. This process can be seen as a variety of what Karl Marx called primitive accumulation, when land is taken over by capitalists and the previous inhabitants are forced to join the labor force because they no longer have enough land to sustain themselves, as villagers had their water resources enclosed by the dam, and then there was an attempt to coerce them into working for the Vietnamese company, which would certainly generate surplus value from the displaced labor (see Baird 2011). However, the villagers were immediately wary of the scheme, and not one family agreed to sign contacts to participate. As one farmer put it,

> We don't want to work for the Vietnamese. We want to have our own land and plant on it whatever we want when we want. We don't believe that there will be any profit left for us once the Vietnamese subtract their expenses.[8]

To make matters worse, villagers widely report that corrupt government officials have taken a large amount of the funds allocated for helping them. One villager said, 'Some people have gotten rich from this disaster, but none of those people were impacted by the dam.' No wonder frustration has been building. On April 26, ethnic Oi villagers in Ta Ouat Sub-Village protested to receive a higher rice allocation, and villagers, particularly former communist veterans who fought against the Royal Lao Army in the 1960s and early 1970s. Veterans at Donebok Camp claim that they may protest in the future if conditions do not improve.[9] Although much attention was given to those impacted by the dam break, over time they have been increasingly neglected and taken advantage of. Again, we can see how catastrophic and slow violence are intertwined in sometimes unexpected ways.

Conclusion

We need to be attentive when it comes to how temporality affects the ways that environmental violence is understood in different contexts. Indeed, catastrophic violence causes certain types of impacts, and also elicits particular types of responses. However, the responses to the slow violence that the same dam has been causing for over two decades to Heuny Indigenous peoples living on the Bolaven Plateau have been starkly different, as have the response to impacts caused downstream along the Xe Pian River due to water having been diverted into the reservoir and due to the river having been filled up due to the breaking of the dam. Governments, aid agencies, the media and the general public have all responded differently to them.

While thinking about the impacts of the Xe Pian Xe Namnoy dam in relation to catastrophic and slow violence, and the ways that they are intertwined, is useful for better understanding the impacts of the dam, and why responses to different types of impacts have varied so much, the binary between slow and catastrophic violence is ultimately not particularly useful. Indeed, the boundaries are often blurred between the two, and are constantly shifting. For example, when the Xe Pian Xe Namnoy dam broke, it immediately unleashed catastrophic violence on thousands of people living downstream. However, what started out as catastrophic violence has now, in various ways, turned into slow violence as the result of various long-term impacts, such as PTSD, and the likelihood that it will take many years before villagers receive compensation for their losses, and that they are likely to receive far less compensation than they deserve. In other words, catastrophic violence has turned into slow violence, and ironically, the interventions designed to remedy the impacts of the catastrophic breaking of the dam are actually quite similar to the interventions introduced in Heuny communities on the Bolaven Plateau to address past slow violence.

What about the impacts of UXOs? Bombs were initially dropped from American airplanes during the Secret War in Laos in the 1960s and early 1970s, with the intent of

[8]Man, Hat Nyao Camp, *pers. comm.*,, 7 July 2019.
[9]Man, Donebok Camp, *pers. comm*., 26 May 2019.

inflicting catastrophic impacts on communist enemies. But those bombs did not all explode, resulting in a form of slow violence. Now that UXOs have been unearthed by the dam, yet another form of slow violence has emerged, but one that may potentially result in catastrophic results if anyone inadvertently steps on any of those UXOs. My point here is that we need to recognize the intertwined nature of the temporalities associated with different kinds of violence, but we must also realize that real-life circumstances are typically complex and multi-faceted.

The real value of thinking about catastrophic and slow violence in tandem is that both shine light on the importance of temporality in affecting and transforming different kinds of violence, something that Nixon (2011) also emphasized, but in a quite different context. Thinking about temporality can help us predict when environmental violence is likely to occur, and when it is likely to receive insufficient attention. This finding, in turn, indicates that we need to be particularly mindful of environmental violence that occurs over longer time frames, and we need to understand the ways that catastrophic and slow violence are related and intertwined. Only through recognizing the structural issues – which are inherent to situations where slow and less high profile impacts are occurring – can we expect to be able to appropriately address the serious challenges associated with different kinds environmental violence.

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ORCID

Ian G. Baird http://orcid.org/0000-0001-7747-2485

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Ian G. Baird is a full professor of Geography at the University of Wisconsin–Madison. He is also the Director of the Center for Southeast Asian Studies at UW-Madison. Most of his research is focused on Laos, Cambodia and Thailand. He has published widely, and his most recent book is titled, *Rise of the Brao: Ethnic Minorities in Northeastern Cambodia during Vietnamese Occupation* (University of Wisconsin Press, 2020).