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Ley, Lukas

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“Dry Feet For All”: Flood Management and Chronic Time in Semarang, Indonesia

Lukas Ley

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This article describes flood management in poor communities of Semarang, a second-tier city on the north coast of Central Java, Indonesia. Using ethnographic material from participant observation and interviews, the article argues that flood management upholds an ecological *status quo* – a socioecological system that perpetuates the potential of crisis and structures of vulnerability. While poor residents have developed coping mechanisms, such community efforts follow the logic of maintaining a precarious minimum of safety. Designed in 2009, Dutch-Indonesian anti-flood infrastructure (polder) is supposed to put an end to tidal flooding, locally called *rob*. As a short-term project, the polder promises to regulate water levels and improve the lives of local residents. While it wants to make flood control transparent and accountable to riverside communities, the project ultimately fails to escape the institutional logic of chronic crisis management. By investigating the temporality and politics of the polder project, this article aims at contributing empirical and theoretical insights to scholarship on socioecological conflicts and crisis.

Keywords: Crisis; Flood Prevention; Indonesia; Social Anthropology; Urban Political Ecology

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Crisis used to be defined by its short-termness – requiring a decision on the spot, with no possibility of deferral, evasion, or repression. A crisis means we can, perhaps, suspend our usual rules and ethical standards because we must ‘act now!’ But something has happened on the way to the shelter. The bombs have been launched, but they are suspended overhead, allowing us to continue our lives under the shadow of destruction. (Cazdyn, 2012, p. 3)

INTRODUCTION

A polder is a hydrological system that controls water levels in a geographically bounded territory. In the Netherlands, where polders were invented and are a common feature of urban landscapes, polders keep reclaimed land from being inundated. To that end, a polder is surrounded by dikes or embankments. Undesired water can be controlled either by being run off through a sluice or by being pumped out. “A polder is a triumph of technology”, notes Brett-Crowther (1983) appreciatively. But making Dutch polders has always been a political undertaking, too, since technical development was made possible through a simultaneous process of institutional development (Schoubroeck, 2010). Local councils usually oversee technical and social aspects of polders and therefore have

considerable power over territorial matters. A polder is a striking example of how societal change and technological development have shaped nature: By reclaiming land from the sea, polders are credited with creating the very foundation of daily routines and economic activities that make the Netherlands one of the wealthiest countries in the world. Like dams and other large-scale projects of modernity (Kaika, 2006), polders demonstrate the dialectics between the production of nature and the production of cities – their mechanisms, form, and cadence. This article takes its cue from the observation that “for both the developed and the less-developed parts of the world, modernization is an ongoing project in which natures, cities, and people are woven together in an inseparable dialectic of creation and destruction” (Kaika, 2006, p. 297). This vision of dialectic modernization, however, risks overlooking or entirely dismissing the specific arrangements made between actors that allow for the destructive potential of modernization to remain a driving and often unchallenged force.

This article describes the development of a community-run polder under Dutch supervision in Semarang, the capital of Central Java, Indonesia. Twelve years ago, northeastern neighborhoods of this second-tier port city were chosen to become the pilot site of a relatively simple polder system designed by a Dutch consultancy (in cooperation with Indonesian public agencies) that is supposed to put an end to seasonal and tidal flooding. Tidal highs regularly inundate the whole neighborhoods of North Semarang (Marfai & King, 2008), leaving puddles of toxic river water (rivers serve as sewer and drain at the same time) on roads and in people’s houses. The polder – an assembly of embankments, pumps, and a dam – is supposed to regulate influx and discharge of water in the densely populated area. Notably, the polder was conceptualized as a means to *alleviate* and not remedy flooding: to buy the floodplain inhabitants time so that they could revitalize their neighborhood. According to its design, the polder will stop functioning in 15 years, in view of the exorbitant rate of land subsidence (10-15 cm/year) compounded by the projected sea level rise (1 cm/year) (Marfai & King, 2008, p. 95).

Despite the original purpose, I argue, the polder project resulted in reproducing the chronic ecological crisis faced by riverside residents. Questioning the managerial, expert-driven approach to a deeply social and political problem, I also explore how the project is framed as a mere economic necessity. An ethnographic account of the polder project serves the purpose of situating the polder vis-à-vis a management of crisis that allows poor residents to continue their lives “under the shadow of destruction” (Cazdyn, 2012, p. 3). In this *chronic* mode, tame public participation is encouraged, while real alternatives are suppressed. Still, crisis elicits criticism – often expressed in frustration and despair – by those whose lives are continually put to the challenge. In fact, the polder project came to coexist with a specific, local critique of public projects. The management of crisis thus unfolds against a backdrop of muted critique, which never erupts onto the political stage. Instead, arising conflicts come to be moderated by the local communities (and their representatives) themselves.

My contribution raises several empirical and related theoretical questions: What are the kinds of conflicts that arise in sociopolitically marginalized and ecologically endangered areas? Further, what role does the management of socioecological conflicts play in sustaining these structures? Instead of creating the conditions for radical change, contesting ecological endangerment simply allows some individuals and col-

lectives to produce the conditions necessary to ‘endure’ situations of social instability and uncertainty. Drawing on participant observation and interviews, I describe the daily challenge of tidal flooding in northern neighborhoods of the low-lying delta. Marked by a history of political and economic marginalization, the north of Semarang is a complex product of colonial town planning (Cobban, 1988; Coté, 2002, 2014) and water taming (Mrázek, 2001), capitalist development, and international development projects. As a space that exists in the “margins of the state” (Das & Poole, 2004), local arrangements have played an important role in shaping (more or less respected) social norms that regulate, for example, land use, inheritance, and appropriate conduct. Given the oppressive governing style of past regimes, conflicts between civil society groups and the state are a relatively new phenomenon in Indonesia. My contribution, therefore, also attempts to build an understanding of conflicts around tidal flooding – a phenomenon expected to become a key challenge in the future (Lassa, 2012).

This contribution builds on ethnographic fieldwork conducted in Semarang between 2014 and 2015. Following Moore (2005), I consider fieldwork as a discursive practice and a located labor process. In Semarang, traversing multiple sites – poor neighborhoods called *kampungs* in Indonesian, offices and boardrooms of municipal agencies and local governments, or public events – helped me appreciate the “cultural politics of location,” that is, the salience of scale and spatiality for the “micropractices of power” (Moore, 2005, pp. 26-28). Living in the *kampung* has further allowed me to observe, as a participant in daily *kampung* life, the rhythms and patterns of tidal flooding and infrastructural adaptation. Like most ethnographic work, this article tries to tell a story and precedes from first-hand information to a certain level of abstraction. It, however, recognizes the influence of theoretical thinking on both analysis and methodology. Thus, I provide an overview of relevant theory at the beginning. Then, I provide insights into the everyday life and struggles of residents of the designated polder territory. I develop the affective contours of a ‘hard place’ where crisis is always just a moment away, due to lack of resources and unreliable infrastructure. The subsequent section argues that ‘natural’ events, like tidal highs, and progress are linked in the way that their breakdown in relations can be “built back up again by a different set of relations within the same system” (Cazdyn, 2007, p. 649). As such, the section provides the necessary contextual background to understand the workings and effects of the polder project described in the next section. I show that despite initial widespread enthusiasm about the ‘bottom-up’ initiative, public frustration and a sense of urgency threatened to erode the democratic facade of the much-delayed polder project. A conflict between the city government and eviction-refusing settlers makes the project’s beneficiaries stand united behind the project, while unruly elements of society are blamed for standing in the way of progress.

POLITICAL ECOLOGY, CRISIS, AND THE “CHRONIC PRESENT”

By combining approaches to crisis from anthropology and political ecology, this section extends the understanding of crisis into the concept of “chronic time”. Narotzky and Besnier (2014) contend that “crisis refers to structural processes generally understood to be beyond the control of people but simultaneously expressing people’s breach of confidence in the elements that provided relative systemic stability and

reasonable expectations for the future” (p. S4). In other words, while crisis renders impossible the regular way of doing ordinary things, it is often triggered by mundane practices, such as subprime trading (Roitman, 2013), and despite well-established facts; for example, that segregation and poverty make certain groups of people more vulnerable to disasters (Scheper-Hughes, 2005). The sheer force of moments of crisis erodes structures and sows apprehension. Except in extreme situations, people therefore “innovate practices and institutions” when faced with crisis. Such adjustments are supposed to take the edge off the effects of instability, thereby “enabling a sense of continuity over time”. Returning to a normal way of doing things has its costs, however: such inventive strategies “may involve exclusionary practices that create and demonize an Other, which becomes the target of violence in struggles over access to resources and respect” (Narotzky & Besnier, 2014, p. S8). This double bind of crisis pre-assumes two things: First, it occurs within socially structured lifeworlds and crisis assessments are observations, not objective truth. Second, when dealing with crisis, actors draw on the resources of an environment that is “largely not of their own making but in which they have to live” (Narotzky & Besnier, 2014, p. S8).

Political ecology has provided important answers to the question of how environments are produced and what roles people, institutions, and the economy play in this process. Political ecology is generally understood as a critical investigation of the production of nature and environment that aims at understanding “the ways in which (produced) natures and environments help shape social relations” (Mann, 2009, p. 336). While studies in this vein have addressed human politics as an element in environmental change, I will focus on the (engineered) environment “as site and partial product of human politics” (Mann, 2009, p. 337). Crisis is a key theme in political ecology studies on environmental change. In fact, political ecology often assumes that crisis occurs as a result of capitalist reproduction. What is considered important in political ecology is that, in keeping with Marxist readings of social change, individual crisis does not produce systemic change, while crisis (whether real or imagined) befalling macro-social systems does not necessarily translate into tangible changes at the individual level.¹ I see a link between contemporary crisis management and the politics of “chronic time” laid out by Cazdyn (2007, 2012). This perspective allows me to situate the experience of risk – in the form of tidal floods – and their prevention in the context of protracted socioecological vulnerability that affects individuals and communities in North Semarang. If, as some anthropologists contend today, the “experience of chaos and permanent vital insecurity” (Narotzky & Besnier, 2014, p. S8) is the situation that defines the arena in which many people have to play, and uncertainty has become a common experience, how do social conflicts and infrastructural projects relate to this new temporality? By understanding the institution of chronic time, are we perhaps better analytically positioned to speak about individual crisis? In crisis, as I argued above, people come up with solutions. What kind of imagined futures or opportunities do crises produce? By thinking of crisis as built into chronic time rather than being an exception, I bring to light the specific types of agency that chronic time imposes on individuals living in “economies of abandonment” (Povinelli, 2012). I also contrast other environmental imaginaries with the “new chronic”.

1 For a more poststructural thinking of crisis and conflict within political ecology, see Rocheleau (2015).

When the solution to an environmental problem, like climate change, floods, or pollution, is reduced to the ‘meantime’ and to a ‘for now’, the category of environmental disorder is always in flux, never clearly articulated. For some individuals, the question remains: How does one determine risk, for example, posed by recurrent floods and economic stagnation? How does one plan the future? As Cazdyn (2012) notes, “the future cannot be put off, crisis and disaster cannot be totally managed, life can never be safe, and we do not all experience time – and certainly not the political effects of time – in the same way” (p. 14).

This poses the question of what role conflicts play with regard to crisis. Much literature on socio-ecological conflicts sees the potential of rupture or defeat of structures of domination – as if conflict was intrinsically about social justice and change wrought from denouncing inequalities. Here, crisis can beget creative and savvy alternatives to existing ideological frameworks and governmental structures. To be sure, conflict can produce a state similar or equal to crisis, in which relations break down and ultimately resettle in a new constellation. But that is not my point. After shedding primordialist stances and cultural essentialism (Appadurai, 1996) – theoretical constructs seeing in cultural or ethnic difference the cause of conflict – anthropologists pioneered a critical reading of the complex historical, social, and economic processes involved in producing and escalating conflict. Anthropological research has, ever since, allowed the unsettling of simplistic theories of conflict, ascribing blame often to the very policies and measures that aimed at reducing the environmental and social costs of industrialization and economic growth. Similarly, I draw attention to the incremental construction of conflicts against a background of starkly uneven urban development (Smith, 2008). In Indonesia, where colonial and authoritarian regimes have left a strong imprint on nature and society alike, conflicts are never just environmental, spatial, or political. They are hybrid and interrelated symptoms of variously experienced “ecologies of fear” (Davis, 1998) in which individuals cope with different degrees of socioecological vulnerability and hazard exposure (Bankoff, 2003). By introducing the notion of the “new chronic” to this social-historical approach to conflicts, I wish to set off a discussion about the consolidation of temporality through socioecological interventions, such as anti-flooding infrastructure and the formalization of flood prevention. The consolidation of time in a chronic configuration here happens to the detriment of a specific urban Other.

THE CONTOURS OF A “HARD PLACE”

Thereupon, in the journey of time
 The sea retreated from the continent
 The mud was reborn as swamp
 And the swamp grew into a city
 ...
 Sticky air, dirty skies, stuffed gutters
 traffic jam
 Nature has become savage,
 values being calculated in fixed sums!
 O my true cover. Is there still

Hatta, dalam perjalanan masa
 Laut menjauh dari benua
 Lumpur menjelma menjadi rawa
 Rawa pun tumbuh menjadi kota
 ...
 Udara pengap, langit kotor, saluran mampet,
 lalu lintas macet
 Alam telah menjadi ganas,
 nilai-nilai dihitung dengan uang pas!
 O, hampan kesetiaanku. Masih adakah

| | |
|--------------------------------------|--|
| the light of full moons | purnama cahaya |
| for all the urbanites and unemployed | Bagi para urban dan pengangguran |
| for the losers who lost hope | Bagi orang-orang kalah yang kehilangan harapan |
| for the urban citizens logged | Bagi warga kota yang tergenang |
| in tidal and river water | rob dan banjir |
| for the rest of time? | sepanjang zaman? |

Djawahir Muhammad (2011), from *Semarang Surga Yang Hilang* (Semarang, A Lost Paradise)²

At a meeting between Indonesian provincial agencies and a Dutch consortium of NGOs and technical consultants, I had the opportunity to speak with a member of an organization tasked with rehabilitating a sizeable stretch of coastal mangrove forest east of Semarang. Intrigued by the surging presence of Dutch development projects in Semarang, I asked her why her team had decided to work on the margins of Greater Semarang. Her answer was straightforward: “The coast of Semarang City is too hard for this kind of project.” It sounded logical: Today, it is difficult to imagine Semarang’s preindustrial coast ecologies being restored to life. Industrialization turned Semarang’s coast, formerly a space for aquaculture and paddies, into a frontier of urbanization and playground for investors – a saturated and densely populated space. The *poldering* of urban space – that is, embanking, damming, and hydraulically engineering the flow of local rivers – is taking the ‘hardening’ process of Semarang’s littoral to the next level. While major rivers (*Kali Semarang*, *Kali Bulu*) once shaped the city’s littoral ecology,³ it is now oversewn by bio-technical assemblages that create a deeply polarized urban landscape (Gandy, 2005). Turning rivers into polders means cutting off their flow and preventing sedimentation in the estuary. The excerpt from Djawahir Muhammad’s poem cited at the outset of this section speaks to similar physical mutations of North Semarang. In the locally famous poem, he describes the dawn of a coastal settlement in which people cohabit happily with the delta’s nature; a nature that is benevolent, malleable, and pregnant with possibilities. The passage of time goes hand in hand with change and ecological metamorphosis, until suddenly time and nature stop working for humans. Having been enclosed and commodified in the wake of industrial capitalism, nature grows ‘savage’ and rebels. The north turns into an eternal hell. The poet⁴ specifically refers to poor residents whose lives are depicted as stagnating in a toxic mixture of air pollution and filthy flood water. A feeling pervades of being stuck “for the rest of time” in this lasting apocalyptic moment.

The remainder of this section describes local discourses of being stuck and what being stuck looks and feels like from both quotidian and diachronic perspectives. As a way of making sense of the socioecological *status quo*, which is expressed as a repetition of the same *ad infinitum*, incidents of excess – like seepage, porosity, and

2 I want to express my gratitude to the poet for allowing me to cite his work. Further, I would not have come across his writings if it had not been for my good friend Wahyu. The full poem was published in *Membela Semarang!* by Pustaka Semarang 16.

3 Presumably because of its many canals and rivers, the Dutch called *Semarang Venetië Van Java* – the Venice of Java.

4 Djawahir Muhammad grew up in North Semarang and calls himself a witness (*saksi*) of the area’s inhabitants’ plight.

abrasion – are interpreted as representing two things: the impossibility of restraining nature and the corrupt nature of state infrastructure projects. Relying on first-hand experiences of residents and observations of the rhythms of everyday life, I try to capture the ‘savage nature’ of North Semarang. I pay particular attention to two northern neighborhoods that belong to two different yet neighboring subdistricts (*kelurahan*) divided by a main road.⁵ These neighborhoods have developed in the “margins of the state” (Das & Poole, 2004). I do not mean to say that they are autonomous, because power barely manifested or has not been fully articulated here. Rather, I hold that *kampungs* have been assiduously constituted by different regimes of power, both colonial and precolonial. Today, the Indonesian state efficiently relies on *kampungs* as partly self-governed housing projects for the indispensable workforce. By withdrawing from the scene of the *kampung*, it therefore makes its otherwise ubiquitous presence less felt (Newberry, 2008). The neighborhoods continue to attract a significant number of migrants from rural areas of Java looking for jobs in the harbor manufacturing industry. Regardless of such influx, other residents have lived their whole life in these riverside *kampungs*, their families looking back on two generations of urban development and large-scale modernization projects.

Deni

On rainy days, the humid *kampung* air can reek of sewage and wet debris, intensified by waste flushed into the Banger river (*banger* means stinky in Javanese) through polluted drainage capillaries. I sat many times with Deni and his family in front of their riverside house. Deni is married and has three children. His youngest son, Putra, is a lively, constantly babbling boy and superhero fanatic. The family’s brick house is separated from the river by a narrow embankment road (*jalan inspeksi*) mainly used by pedestrians and motorcyclists. Cars and trucks avoid it. Alternatively, we would chat at Deni’s food stand by the main street. Here, loaded camions of the state-owned oil company Pertamina and tourist buses would roar past us, while thirsty mosquitoes whirred around our heads. Most of Deni’s routines take place between the river and his food stand, which are connected by a paved alleyway (*gang*). He often contrasted the smallness of his everyday life to a past life rich with activities: “I used to be an English teacher and a tourist guide. Now, I can barely remember English”. Deni’s oldest son, who wishes to study abroad, once told me that many neighbors have already moved uptown (*naik ke atas*) to escape the floodplain and socially stigmatized area. Economic success in Semarang often translates into social and geographical ascension. If residents have the means, they prefer to leave their downstream residences behind. “Too hot” and “too much flooding” are what I heard a few times. Deni’s son deplored that the successful stopped caring about the floodplain *kampungs*, as if they wanted to excise this place from their identity and present. Deni himself regularly complained about a lack of public commitment to improve water infrastructure in his subdistrict, and a dearth of public figures who might lead the way (*tokoh masyarakat*). Getting worked up, he lamented that nobody stepped up for them, not even

5 The *kelurahan* is the lowest echelon of government administration in Indonesia. It is headed (*lurah*) by a civil servant appointed directly by the municipal government.

the wealthy neighborhood chief (in whose flood-safe house I was renting a room). Deni's family especially worried about high tides during dry season months – the river bank (*tanggul*) was then barely standing the additional pressure of in-flowing water. At high tide, the Banger river looks like it is on the verge of bursting. Because the river water does not visibly flow, the river's physical mutation is better approximated by the notion of gradual swelling. Multiple times residents have informed the subdistrict government of the river bank's obsolete state, but nothing had been done, according to Deni. His house is almost flooded daily due to the river's tidal expansion. In the meantime, they tried to stack bricks against the bank in hopes of increasing its stability.

In Semarang and many other Javanese coastal cities struggling with increasing tidal highs and land subsidence, such flood events are called *rob* (see Figure 1). A young resident of the area once told me that most residents welcomed daily floods for two reasons: First, their regularity allows to make reasonable predictions of flood risk, as people know what normal and abnormal river levels amount to. If *rob* is strong, for example, coincidental rainfall will assuredly cause rivers or canals to overflow. Second, tidal floods provide *rezeki*, a term that can variably mean livelihood or luck. *Rob* is the pulsating vein of everyday economic and social life. In the presence of flood risks, residents have made their lives, pursuing their own projects with more or less success. More importantly, however, floods are not regarded as impeding success. With the regularity of *rob*, the challenge becomes one of succeeding in life in an area whose economy is stagnant, whose infrastructure is outdated and porous, and whose built environment shrinks yearly. Welcoming *rob* is then not the same as normalizing crisis and risk, but assuming a relatively stable place in society from which to try your best shot at social ascension or wait for better times.

When I came by Deni's house a few months later, I saw the whole family sitting by the river. I stopped to talk as I noticed with curiosity that workers (*tukang*) were busy dredging the gutter (*saluran*) in front of the house. Wider and deeper, the gutter now looked like a small water conduit with concrete edges. Putra was absorbed in overseeing the works and ran around cheerfully in his spiderman pajamas. Deni explained to me that they were carrying out kampung improvement work (*kerja bakti*) as they had received IDR 16 million (ca. USD 1200) from the government for repairs. He added proudly that he had been elected substitute neighborhood head (*wakil RW*). Repairs were deemed necessary because water in the gutter had been barely flowing. After the deepening, it could run more easily to the pumping station (*lebih lancar sampai pompa air*) from where it was pumped into the river, Deni explained in a workman-like manner. He leisurely snipped his cigarette stub into the river. We agreed, though, that they still had to increase their floors if they wanted to be out of *rob*'s reach. In fact, that was why they saved the brown soil from dredging the gutter in an adjacent roofed part of their house. Deni's daughter said smilingly that this free dirt (*tanah uruk*) will come in handy in the future.

Arief

Another daily fieldwork interlocutor of mine was Arief. Although not being native to the area of Semarang, Arief devoted much of his leisure time to improving his



Figure 1. Rob in front of Deni's house. (photo by author).

neighborhood. “This is my turf (*wewenang*)”, he once told me laughingly, meaning a stretch of about hundred meters along the embankment. Even before being elected as a neighborhood head (*ketua RW*) three years ago, Arief felt deeply responsible for the cleanliness in his territory: He swept the street separating the river and his house daily, he cleared waste off the gutters manually, and he assigned space for garbage disposal. He attended most meetings at the neighborhood level and convened the neighbourhood heads (*ketua RT*) every month. Arief’s commitment to cleanliness, civil engagement, and honesty have produced tangible results in his eyes. He was convinced that his ‘turf’ was the cleanest in the whole subdistrict. In fact, when the mayor announced an official visit shortly before Ramadan, the subdistrict head (*lurah*) suggested a solemn inspection of Arief’s territory, which served as an example of successful local governance. His volunteer work often left Arief exhausted to the point of passing out during conversations. When we attended neighborhood meetings together, Arief was often the first to doze off. His unpaid neighborhood engagement also meant that he had to rely on his daytime job earnings – he made the minimum wage⁶ in a local baseball factory. His wife sold snacks and beverages in a makeshift canteen by the river.

Located on the river bank and about 1 m below street level, Arief’s house is literally flooded every second day. Whenever I visited the family, the floor tiles were regularly inundated; chairs, benches, and dressers standing in a brownish liquid. If it was

6 The minimum wage was IDR 1,685,000 per month in 2015 which equals USD 117.

midday, the adjacent diesel pump would be running to normalize the water level in the street gutter. During high tide, however, rob prevented them from pumping runoff water into the river, because it could not absorb it. “It makes no sense to pump out the water now as it would return just as quickly”, Arief explained to me. This year, they were able to save enough money to raise the floors of their bedroom so that they would not have to sleep in a dark puddle. But the other rooms would have to wait.

Arief never seemed to be concerned about his socioeconomic status. Instead of worrying about money, insurances, or material things, he valued above all being reliable and of use to his “citizens” (*warga*). “I don’t even have a motorbike. I prefer to take the public minibus (*angkot*) so I can chat with other passengers.” A few years ago, his unfailing engagement earned his community the cherished diesel pump which they run as often as possible. Arief suggested a nonbinding monthly community tax (*iuran*) to pay for maintenance and operation expenses – a rule most of his constituents gladly complied with. For now, *rob* was “under control”, since they were taking water management in their own hands. When I asked him why he invested so much personal time and labor in a neighborhood organization, he answered:

I tell my friends not to expect help [from the government]. Poor people (*orang tidak mampu*) ask for help. Help comes only once. But we work in the name of God (*ibadah*). Our thinking has to be focused on the long term. In the past, we didn’t have our own pumps (*pompanisasi*) and everybody had to see for themselves (*masing-masing harus bertahan*).

This type of self-government as a form of religiously justified labor is typical for Indonesian *kampungs*. Self-governed *kampungs* on the margins of urban centers can be traced back to colonial land governance (Cobban, 1974), which strictly divided Dutch property and native land. Economically autonomous but politically marginalized, *kampungs* developed sociocultural mechanisms to compensate for the absence of welfare structures and public infrastructure. While the Indonesian state has devised a number of bio-politically motivated schemes to improve living conditions in *kampungs* (Kusno, 1998; Silver, 2011), urban neighborhoods retain a certain degree of social autonomy. Newberry (2008) described *kampungs* as community forms “reproduced through governance across various regimes but also through daily exchanges and support between inhabitants” (p. 241). The case of Arief, however, underlines the tremendous role that personal labor plays in creating and maintaining a viable environment and working infrastructures. In a social-entrepreneurial spirit, Arief has decided to take matters into his own hands. But in the absence of long-term public investment in the area, the rising tide itself becomes a barrier for sustaining his projects. Like the urban economy, then, the river is unable to absorb the result of his work.

At a certain point during my research, after news broke that the city government would expedite a delayed polder project by using municipal funds, Arief’s neighborhood was jubilant. There was a feeling of contentment and change in the air. The community was assured now that Polder Banger would become reality – sooner or later. They had made it through the rainy season without major flooding. At a neighborhood meeting presided by Arief, which aimed to be ready for the mayor’s visit, the

lurah held a zealous appeal. Of note is that the subdistrict head rarely attended such meetings, but, as I mentioned earlier, Arief's community had shown exemplary commitment and willingness to cooperate with the local government. The community would play an important role in the mayor's upcoming participation in their annual river cleaning event.

Concerning the mayor's visit, our collective behavior has to reflect a clean Banger river and local youth. . . . I want to show that the residents of this area care about waste, that's where I'll be pointing. Sure, in the meantime, our drainage is still like this, but garbage makes *rob* look worse. . . . Those are old habits but they have a strong impact. I want residents to look united (*guyung*) and motivated so that we come across as residents that are actually interested in making a better environment. The mayor told me that if he gets reelected, we will receive more help. This year, we got a lot of help already – 50 billion rupiah [ca. USD 3,470,000] for Polder Banger.

The *lurah's* speech reflects the importance of the large-scale intervention project for the subdistrict. Although several other subdistricts would benefit from the anti-flood project, he makes it sound as if they in particular had been rewarded with public investment in the area for changing their "habits".

On the day of the mayoral visit, Arief had a stroke. At some point, his face became weirdly disfigured; one side of his mouth having dropped beyond redressal. Strokes being rather common among middle-aged adults in Indonesia, Arief was immediately aware of his affliction, but regardless continued the inspection along with other public figures of his neighborhood. Weeks after the incident, I accompanied him to a weekly check-up at the hospital. He had been diagnosed with a stroke due to exhaustion (*kecapaian*). Despite admitting his extreme tiredness, he explained that he would continue to "serve the community so that his life would not be useless" (*mengabdikan supaya hidup saya tidak sia-sia*). His exhaustion and sickness were therefore a case in point: Financial assistance and infrastructural state projects would not change their dire situation. Only by forming a self-sufficient pumping community and working hard could they face their life in poverty (*melawan kemiskinan*). While flooding is read as evidence of the system's failure, it is also considered as a 'normal' crisis, texturing the expectations and future of riverside dwellers. Maintaining the system is an enduring state and therefore demands minute attention to and care of infrastructure. But for Deni, the infrastructure crisis of his neighborhood produces frustration, since the chronic present stifles his and his children's ambitions.

To close this section, I return to the Dutch mangrove expert's comment regarding Semarang's coastal infrastructure. On the face of it, her assessment of a solidified urban environment captures well the 'hard' reality of riverbank dwellers. But it is more complex than that. The hardness of infrastructure – as in concrete, built, developed – does not translate into certainties and safety from flooding. A feeling that could be approximated by being stuck 'between a rock and a hard place' arises when riverbanks are alternatively seeping or breaking. My interlocutors represented infrastructure as fragile and unreliable, while the subsiding ground drowns and swallows houses in ever-shortening intervals. They have two equally unsatisfying options: Waiting for government projects and doing nothing in the meantime, which puts them at risk

of gradually losing their homes to the rising tide. Or, actively inhabiting an environment that is at the mercy of tenuous and fragmentary interventions. The new polder was supposed to at least smooth out this predicament.

“DRY FEET FOR ALL”: THE POLDER PROJECT

In 2009, the design of Indonesia’s first democratically steered polder was cheerfully released at Novotel Semarang. Shortly after, a polder board (SIMA⁷) was created by a memorandum of understanding and a mayoral decree (*Perwal*) that made the Dutch embassy and the municipal government of Semarang primary partners in the project.⁸ The creation of an advisory board with civic representation followed the recommendations of a working group that consisted of Indonesian state agencies and Dutch water experts. The board is supposed to run the polder independently, that is, without interference from municipal actors. The idea was to imitate the model of autonomous, ‘democratic’ Dutch water authorities that involve the community in both operation and maintenance of the polder system. The Dutch cooperation partner suggested a catchy project slogan – “dry feet for all” – which suggested a socially inclusive solution to the flooding problem.

The Jakarta-based Dutch consultant company Witteveen & Bos won the tender to provide the technical design of the polder. In short, the polder infrastructure was to consist of a low-budget ensemble of dams and dikes, five pumps, and a water retention basin. On the one hand, sediment dredging and transferring excess water to the nearby flood canal would have lowered the water level of Banger river by approximately 1.7 m (Witteveen & Bos, 2014), restoring Banger’s historical water volume. On the other hand, a dam positioned where the stream hits the tide and a dike along the northern edge of Karang Sayu promised to stop *rob*, as it would block out sea water from the system. Banger river would have been reborn as Banger Polder. The local government asked the responsible engineers to fuse the new infrastructure as much as possible with the existing urban landscape, as the budget could not cover expensive resettlement plans. However, creating space for the pumping house did initially necessitate the eviction of residents. The land issue was resolved quietly. The second set of evictions, supposed to be carried out shortly after the pumping house had been built, however, was delayed by repeated disputes over land ownership and housing rights. In July 2014, the consultant company Witteveen and Bos deplored that despite commencement in 2010, “no, or very less progress has been achieved since November 2013” (Witteveen & Bos, 2014).

Along with other *kampungs* in eleven sub-districts, Arief’s and Deni’s neighborhoods were supposed to benefit from the Dutch-Indonesian pilot project. By reduc-

7 SIMA is a compound word carrying the first syllable of the Dutch board’s name and the second syllable of Semarang. Further, the term is reminiscent of *Shima*, the female monarch of Kalingga, a kingdom on the northern coast of Central Java. The queen is known for her truthfulness reflected by her introducing a law against thievery.

8 At the moment, the embassy still covers most administrative costs of SIMA, while it has not committed to any expenses for physical components of the polder. Please note also that the group of Indonesian and Dutch actors involved in the project has undergone several changes. However, one Dutch water authority, the *Hoogheemraadschap van Schieland en de Krimpenerwaard*, has been an important institutional partner since the get-go and continues to be deeply involved in the project.

ing flooding – not by providing economic incentives or access to jobs – the area was expected to prosper wholesale. Relieved of expenses for yearly renovations, residents were expected to use their income more adequately and towards economic betterment. A ‘democratic’ handling of the flooding issue did not entail a fair redistribution of resources and risk or equal access to urban services, but aimed at providing riverside *kampung* inhabitants with the environmental and infrastructural preconditions for improving their economic lot. This motif of ‘empowerment’ was further important in justifying taxation: The polder board aspires to financial autonomy in the near future, which would seal its independence from Indonesian state budgets. Using the term ‘contribution’ (*iuran*), which arguably emerged from a colonial context in which *kampung*s were legally autonomous (Cobban, 1974) – the project designers operated from within local discourse to endow the project with communitarian sentiment. It also managed to create strong local legitimacy, while reinforcing local structures of leadership, as residential contributions are normally drawn (*tarik*) by elected neighborhood chiefs. According to the project design, residents were already used to paying *iuran* (BPP Banger Sima, 2012), assuming that all residents had the same interest in this. The second major goal of the project was to raise awareness: supposedly, riverside communities did not know the degree to which their daily “behaviors” impacted the delta’s drainage systems and urban ecology. As such, they needed to be educated about the negative effects of littering. For example, SIMA ran a campaign called *budaya bersih* (culture of clean) in most participating sub-districts that was supposed to reduce waste disposal into the Banger river by informing residents about alternative ways of waste disposal. In short, securing the future of the *kampung* hinged on inducing different environmental practices on the part of riverside dwellers. While state intervention into water infrastructure in Indonesia has often aimed at creating governable subjects (Kooy & Bakker, 2014), the polder project conjures a subject that wants to govern itself through culturally informed and local norms of conduct. While this suggests a critique of state-run development projects, it also relieves the municipal government of subsidies by devolving responsibility to the community. Lastly, it redefines pollution as a disturbance of the river’s new urban function, which is mainly flood prevention, thereby externalizing accumulated environmental costs.

Many residents were ostensibly hopeful that the polder would improve the overall situation by substantially reducing flooding. Though some residents felt uneasy about the fact that the former oppressor had been summoned for help, the Dutch involvement was generally welcome. Long before the completion of the polder infrastructure, the project showed positive effects: The area was regularly in the news and discussed in municipal meetings. The promised improvements attracted further investment, reflected in the emergence of multiple small *kampung* improvement initiatives, such as the Ministry of Public Work’s Program for Community-Based Regulation of the Environment of Settlements (PLPBK – *Program Penataan Lingkungan Permukiman Berbasis Komunitas*).

The massive delay of the project was therefore highly controversial. At the time of writing, the polder has failed to fully materialize and completion lags three years behind. While a pumping house has been constructed at its northern edge, the main components of the polder system are still missing. The lonely pumping house haunts the original ambitious plan to get a grip on flooding. The edifice too is subject to land

subsidence and has started to sink. Bringing the intervention to fruition ultimately required the clearance of settled land to make space for the retention basin. The formal owner of the land, the Indonesian Railways Company (PT Kereta Api), claimed that it was not responsible for evicting the people living on the plot. The municipal government, which is leasing the land, however, insisted that the owner had to make sure the land was in constructible condition. An agreement was reached according to which the company had to carry out the evictions, offering a lump sum to the evictees. Compensations did not take into account land ownership but only the surface actually occupied by the house. In return, the government slightly increased the lease it was paying the company. In an indirect way, the municipal government, then, forced the eviction via financial settlement. However, Semarang's city council is currently evaluating complaints from the residents in question that bemoan inappropriate financial compensation for losing both land and habitation (IDR 250,000/m²), in case the retention area is built. Basically, the residents are challenging the legitimacy of the company's claim to land ownership, having produced evidence (in the form of a newspaper article) that suggests that title deeds were officially bequeathed to occupants by president Suharto himself. Nobody, even the complainants, thought that their appeal would stop the evictions, but their evidence raised doubts as to the eviction methods of the company. In fact, PT Kereta Api turned into an 'enemy' of the local people, while it was really the polder project that caused the trouble in the first place.

This process is far from unique for Indonesia. Van Voorst and Hellmann (2015) described recent evictions of 'illegal' dwellers in Jakarta that followed calls of 'improvement'. After often oblique promises of recognition, governments and local residents arrange deals that are most often not beneficial for the majority. In fact, in what follows, I show how residents of the subdistrict came to prefer a rigorous and exclusionary handling of the land conflict. Their claims in a sense echoed the discourse of the government which, as the democratic facade of the polder project began to crumble, resorts to criminalization in order to expedite the project completion.

An Apocalyptic Floodplain

I headed north in the afternoon, cycling on the recently raised embankment road (*jalan inspeksi*) along the Banger river until I reached Semarang's subdistrict *Karang Sayu*. I had planned to spend some time at Adin's, who has been a local member of the polder board SIMA since 2010. Being responsible for public relations, he promotes the project in other neighborhoods and represents residential interests. Also, he is a locally known social activist with a vast local network. As usual, Adin and I ended up talking about whatever came to our minds, while smoking too many clove cigarettes in his house. Looking at the roughly plastered wall and bare floor, I was reminded that he had recently hired workers to raise his floors and heighten the walls. Finishing touches would have to wait. His wife's income was currently just enough to put food on the table, as his mainly voluntary activist work could not pay their bills.

That day, he shared some thoughts on nature with me. He spoke about century-old maps of Semarang that, so he believed, showed the delta as it looked when the Portuguese arrived in Semarang. The shoreline was many kilometers south of to-

day's ocean frontier (*batasan laut*). In the not so distant past, my research site must have risen from the Javanese sea, I pictured. When Adin was young, many fishponds (*tambak*) as well as mangrove forests (*hutanan*) separated his neighborhood and the ocean. He explained how these 'natural' structures protected the settlements from tidal waves. They were an integral part of a long gone "nature equilibrium" (*keseimbangan alam*). When settlers began occupying land north to the Pengapon corridor, a process of informal urbanization was launched. People laid claim to unmapped land, privatizing it while also creating communities, of sorts, that had rules for conduct and self-imposed regulations. The Dutch kept redrawing the 'natural' limits of the harbor which led to the gradual destruction of the protective mangrove belt. But nature cannot stay unbalanced forever, Adin forewarned me. He considered tidal flooding as nature's way of taking back stolen land: It is seeking to restore an equilibrium. Unfortunately, this would cause disaster for humans. The more people lived in places out of synch with nature, the more people were in harm's way. To solve this problem, he mused with a touch of irony, humans invented technology. Since the Dutch had been living with comparable flood risks for centuries, he concluded, Indonesia's best bet was therefore to adopt their technology.

After chatting in his house, we went for a walk through the neighborhood and stopped to sit on the Banger river embankment for a while. From here, we contemplated the neighborhood's remaining fishponds, a stagnant body of water framed by elevated train tracks to the south, a permanently inundated road to the west and the relatively new toll road to the north. The riverbank we sat on, staring absentmindedly into the distance, separates the fishponds from the Banger river. Since 2009, when the city government officially released the design for Polder Banger, the fishponds have been slated to become a retention basin with a catchment surface of 9 ha.⁹ Poor families built small houses along the fishpond or rented rooms in apartment blocks. "I have many friends in the settlement", Adin stated, well aware that the government was planning to evict roughly 80 families.¹⁰ I asked him who was going to compensate the evictees' losses in terms of property (*pengantian rugi*) and carry out the eviction. He answered: "This is a government affair. I don't want this to be a conflict between people. It ought to be a government job (*seharusnya pemerintah*)." While he advocated for the polder, Adin hoped to avoid a conflict between its beneficiaries – in theory, all local residents regardless of residency status – and the people rejecting the planned retention basin – branded as squatters. Adin liked to explain that he was speaking and acting in the name of residents like Arief and Deni (both well-known to him); poor *kampung* dwellers whose lives were stuck somewhere between ecological, economic, and medical crises. However, Adin obviously realized that the planned evictions ran counter to the participative and inclusive approach of the polder project that he wholeheartedly promoted and even helped develop. All residents – regardless of their residency status – deserved to be rescued from the rising tides, especially the poor ones. The residents by the fishponds simply happened to exist at the wrong place at the wrong time. This unfortunate situation posed an inner conflict (*konflik batin*) for

9 In fact, the size of retention area has been subject to contestation and re-evaluation by public and state actors.

10 An exact number of evictees was never established.

Adin, as he knew that it was neither exceptional nor coincidental. Many times before, the government had evicted residents to make space for ‘better’ and more ‘modern’ infrastructure that would solve the flooding problem. This time, however, he had allied himself with the government to produce a more just solution.

Many residents had misgivings about the ways in which the government handled flooding. Helping poor residents was just “politics”, I heard many residents complain. From experience, Adin and his activist friends knew that ‘upgrading’ poor neighborhoods did not change the long-term lot of their inhabitants. Adin was convinced that access to education (*pendidikan*) and business opportunities were just as important; not simply infrastructure (*fisik*): “The government thinks that welfare in *kampung* will increase with physical development (*pemerintah pikir dari pembangunan fisik kampung mengalami kenaikan*), but they are wrong, it does not result in empowerment. It is useless (*tidak terjadi pemberdayaan, sia-sia*).” In reality, after improvement programs, many *kampung* residents decided to sell their house and land for a profit as property prices went up. Profits allowed them to make short term investments or pay debts. Then, they resettled in an area as deprived and endangered as their previous neighborhood. Adin had seen many times that these people ended up as poor and marginalized as they had been before (*tetap miskin dan dipinggirkan*). In view of the government’s eviction plans, Adin foresaw that the polder project would have very similar consequences. Without paying attention to other sectors of society (i.e., education and economic empowerment), the polder project would intervene in the neighborhood’s ecological crisis without providing the grounds for actual change.

Though cloaked in discourses of democracy, the project was not going to provide a fairer future. Alleviating flooding in fact not only perpetuated the exclusivist tendencies of development, but also further enshrined this ideology in the polder project.

Doolding (2009) coined the concept of “ecological gentrification” to explain the ideological exclusion of certain categories of citizens from specific urban natures, such as park space. Equally, the polder project required the elimination of built structures that disturbed the technological intervention supposed to restore ecological balance and thereby flood safety. While Adin supported a smooth and peaceful resolution of the land conflict, the process by which development ended up looping poor people back into hard reality where ecological risks loom on the horizon raised important political questions for him. Those questions, however, never surfaced in meetings, where the squatter problem was discussed. The fact that Adin could imagine an apocalyptic present – somehow beyond colonial rule and capitalism – invites a conversation about alternatives but also points to the way in which he perceives his reality: a chronic situation beyond human redressal.

EPILOGUE: WATER GOVERNANCE AND THE NEW CHRONIC

In this paper, I have adopted the metaphor of a ‘hard’ coast to build an understanding of material and social processes that result in the precarious situation faced by poor riverside residents in the north of Semarang. While mangrove forests have been cemented over and over again, rivers embanked, and estuaries constructed, the subjects inhabiting these structures today feel ‘stuck’ physically, politically, as well as socially.

In other words, the present political configuration of ecology and uneven exposure to risk limits their room of maneuver in ways that are deeply felt to them. The polder project which comes with promises of empowerment and economic improvement not only relegates the search for alternatives to the future, but also ends up rehearsing discourses that blame riverside dwellers for the ongoing crisis, encouraging them to be more collaborative and aware.

Disaggregating capitalist development, as the polder project currently attempts to do by introducing catchy concepts such as public participation and transparency, does not address the root of the problem. The pilot project prevented meaningful political contestation of certain aspects of the plan – its experimental character effectively sidestepping public scrutiny. Further, the project is vulnerable to co-option by elements in the municipal government, precisely because in Indonesia policy is often outweighed by projects that briefly concentrate funds and actors before simply dissipating (Li, 2015). While the polder project depends on conjuring a flood-less future, its investment in the present and temporal scope are minimal. Fast-tracking the project to prevent its certain ‘death’ may have allowed for extra-legal evictions, rendering settlers a mere obstacle dealt with monetarily instead of democratically. While I have reason to believe that both Dutch and Indonesian creators of the project had good intentions, the polder in fact undermined progressive change. Without having achieved significant progress in the fight against poverty, the ‘inclusive’ polder model comes at a high social cost.

The presented case allows me to build a theoretical argument about *chronic* time with regards to Semarang’s poor floodplain communities. It may, however, not be so unique in view of similar problems faced by other Southeast Asian cities. In North Semarang, time is written into the environment and the infrastructures proposed to manage it. Tidal flooding happens daily, having more or less dramatic outcomes, and is aggravated by seasonal fluctuations. According to Cazdyn (2012), the *chronic* is about a certain relation to time and the experience of time as following a logic “that assumes that everything will remain the same as the present turns into the future” (p. 17). Residents rejoiced when the government paid attention to their drowning neighborhoods and welcomed the institutionalization of transparent and locally governed water governance. Yet, riverside dwellers’ relationships are supposed to align with the technical and temporal logic of a polder that has a clear expiry date. Catastrophe, in this sense, is merely pushed off. Instead of opening a politically viable discussion about the future, the chronic mode insists on “maintaining the system and perpetually managing its constitutive crisis, rather than confronting . . . the system’s own death” (p. 5). Operating in this chronic mode allows the government to externalize important environmental and social costs.

Floods pose a threat to the system. They are, however, only symptomatic of an ongoing crisis embodied by land subsidence, which is why the polder project presupposes the “impossible location” (p. 4) of flood safety. Like a self-fulfilling prophecy, fragmentary and voluntary investments in a systematically under-financed drainage system only slow down the present flood crisis, producing a similarly uncertain future due to both land subsidence and sea level rise that are felt most strongly by the poorest. In the end, Adin suggested to simply use the fishponds as retention space and abstain entirely from building a real basin. He did not specify whether this meant

to protect the squatters or expedite the polder implementation. In any case, his creative suggestion as representative of the polder board may have helped preserve the homes of *kampung* dwellers, but it would also have underwritten the chronic tendency of infrastructural deficiency of his neighborhood.



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ABOUT THE AUTHOR

Lukas Ley is a PhD candidate at the Department of Anthropology, University of Toronto, Canada. His research analyzes the socio-ecological effects of tidal flooding in Semarang, Indonesia. He is particularly interested in a spatiotemporal optics of climate change that is grounded in the lived experiences of downstream dwellers. Lukas Ley is co-founder and editor-in-chief of the independent anthropological *Journal of Urban Life* (www.julonline.com).

► Contact: lukas.ley@mail.utoronto.ca

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