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# WHERE WILL THE WATER GO?

Abidin Kusno

It doesn't make sense [*nggak masuk akal*] ... The main areas of Jakarta shouldn't have any report on flooding [*banjir*] or stagnant water [*genangan air*]. As long as Pluit dam is doing well, there shouldn't be such a thing as stagnant water in the areas, including the Palace ... Actually, water here is not stagnant, it is just clogged. How come Pasar Baru can be inundated, even though the nearby river in Gunung Sahari is deep [after the dredging]? ... It turned out to be caused by the closing of a floodgate. So, open the gate, please.<sup>1</sup>

I just need them to answer my question: Where will the water go? Neither of them can answer this question, so of course, I am doubtful.<sup>2</sup>

The former governor of Jakarta (2014–17), Basuki Tjahaja Purnama (“Ahok”), was often puzzled by the persisting occurrence of stagnant water, along with rampant flooding (*banjir*), during almost every rainfall, which often included the business district along Thamrin and Sudirman protocol streets. Ahok believed that he had done all he could to eliminate *banjir*, but as the first epigraph indicates, nothing in *banjir* seems clear and straightforward. Ahok took *banjir* seriously, and he wanted solving the flooding problem to be his signature accomplishment during his tenure as governor. Yet *banjir* continues to be a challenge—it was not as easily managed as he thought it would be, despite consuming a lot of his time and energy. Indeed, under Ahok, *banjir* signified continuing transformation or development of the city, as many projects were

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<sup>1</sup> Ikbal, “Ahok: Nggak Masuk Akal Bundaran HI Banjir,” *Postkotanews.com*, August 31, 2016, <http://poskotanews.com/2016/08/31/ahok-nggak-masuk-akal-bundaran-hi-banjir>, accessed June 23, 2017.

<sup>2</sup> “Deep Tunnel Project Questionable: Ahok,” *Jakarta Post*, February 18, 2015, <http://www.thejakartapost.com/news/2015/02/18/greater-jakarta-deep-tunnel-project-questionable-ahok.html>, accessed June 18, 2017.

planned and initiated to rein in *banjir*, and yet *banjir* never failed to return as it had done in the past, or by surprise, leaving the many preventative projects nowhere in particular. *Banjir* seems to belong to an uncanny world, where *banjir*'s root causes are difficult to trace. Its appearance can be strange (*aneh*) and seemingly nonsensical (*nggak masuk akal*).



*Banjir* Jakarta (author's photo)

The issues of *banjir* have increasingly received attention in a variety of fields, and Jakarta has been a primary case study.<sup>3</sup> Existing studies have significantly contributed to our understanding of the inadequate institutional, organizational, and individual capacities for flood management in a city that is expanding rapidly. They also point to universal forces, such as urbanization and climate change, that exacerbate flooding. It is fair to acknowledge, however, with a few exceptions,<sup>4</sup> that existing studies on

<sup>3</sup> See: M. Caljouw, Peter J. M. Nas, and Pratiwo, "Flooding in Jakarta: Towards a Blue City with Improved Water Management," *Bijdragen tot de Taal-, Land- en Volkenkunde* 161, 4 (2005): 454–84; Mike Douglass, "Globalization, Mega-projects, and the Environment: Urban Form and Water in Jakarta," *Environment and Urbanization* 1, 1 (2010): 45–65; Tommy Firman, I. Surbakti, I. Idroes, and A. Simarmata, "Potential Climate Change Related Vulnerabilities in Jakarta: Challenges and Current Status," *Habitat International* 35, 2 (2010): 372–78; Restu Gunawan, *Gagalnya Sitem Kanal: Pengendalian Banjir Jakarta dari Masa ke Masa* [Failure of the canal system: Flood control in Jakarta from time to time] (Jakarta: Kompas, 2010); Rita Padawangi and Mike Douglass, "Water, Water Everywhere: Toward Participatory Solutions to Chronic Urban Flooding in Jakarta," *Pacific Affairs* 88, 3 (2015): 517–50; I. Simanjuntak, N. Frantzeskaki, B. Enserink, and W. Ravesteijn, "Evaluating Jakarta's Flood Defence Governance: The Impact of Political and Institutional Reforms," *Water Policy* 14 (2012): 561–80; P. Texier, "Floods in Jakarta: When the Extreme Reveals Daily Structural Constraints and Mismanagement," *Disaster Prevention and Management* 17, 3 (2008): 358–72; and E. Dickson et al., "Understanding Urban Risk: An Approach for Assessing Disaster and Climate Risk in Cities," in *Urban Risk Assessment: Jakarta* (Washington: World Bank, 2012).

<sup>4</sup> Works that take seriously the roles of culture and politics include: Douglass, "Globalization, Mega-projects, and the Environment"; Gunawan, *Gagalnya Sitem Kanal*; Padawangi and Douglass, "Water, Water Everywhere"; Ross King and Dyah E. Idawati, "Surabaya Kampung and Distorted Communication," *Sojourn: Journal of Social Issues in Southeast Asia* 25, 2 (2010): 213–33; Christopher Silver, *Planning the*

environmental problems tend to be technocratic and limited, as they do not take politics and culture as the primary focus of their investigation.

This essay attempts to complement these existing studies by exploring the multifaceted dimensions of flooding, such as how flooding is culturally perceived, understood, and managed; how it is implicated in knowledge and power; and how it becomes a form of “governmentality” that nevertheless produces critical consciousness among the public about environmental crisis.<sup>5</sup> It also seeks to contribute to the recent literature on infrastructure, to works dealing with what Brian Larkin calls “the politics and poetics of infrastructure.”<sup>6</sup> Recent works on infrastructure, as Larkin points out, have moved away from analyzing the technical functioning of technology to a consideration of how it constitutes both rationality of governance and political imaginations of both the ruler and the ruled.<sup>7</sup> This essay builds on the insights of current scholarship from critical geography and anthropology of infrastructure to make sense of a social formation (such as Jakarta) in which *banjir* is associated with both disaster and opportunities. It seeks to contribute to works that emphasize the productive failure of technology that shapes a particular form of governmentality where, as in the work of Nikhil Anand, “leakages are more than just loses. They are uncontrolled, unknown flows of water that structure the lives and states formed by the city’s water supply infrastructure.”<sup>8</sup>

This essay is not about water supply, but water surplus as it floods the city. The focus of this essay is the absence (or inadequacy) of an integrated infrastructure and the presence of the discursive infrastructures that structure the city’s unevenly shared power and hierarchy. In the uncoordinated “absent presence” of infrastructure, *banjir* allows for the possibility of exchange among people, power, and money. It also allows the question of agency (who and what is behind *banjir*, for instance) to occupy an unsettling position that is open for interpretation. Infrastructure, in this context, gives *banjir* a truly fluid existence.

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*Megacity: Jakarta in the 20th Century* (New York: Routledge, 2008); Christopher Silver, “Waterfront Jakarta: The Battle for the Future of the Metropolis,” in *Jakarta: Claiming Spaces and Rights in the City*, ed. Jorgen Hellman, Marie Thynell, and Roanne van Voorst (New York: Routledge, 2018), 120–37; and Roanne van Voorst, *Natural Hazards, Risk and Vulnerability: Floods and Slum Life in Indonesia* (New York: Routledge, 2016).

<sup>5</sup> Foucault’s governmentality has been influential in transforming environmental studies to deal with neoliberal management of environmental crises; see, for instance: Peter Brand, “Green Subjection: The Politics of Neoliberal Urban Environmental Management,” *International Journal of Urban and Regional Research* 31, 3, (2007): 616–32; and Michelle Kooy and Karen Bakker, “Technologies of Government: Constituting Subjectivities, Spaces, and Infrastructures in Colonial and Contemporary Jakarta,” *International Journal of Urban and Regional Research* 32, 2 (2008): 375–91. See also A. Agrawal, *Environmentality: Technologies of Government and the Making of Subjects* (Durham: Duke University Press, 2005). For a different take, see Peter Evans’s conceptualization of “governance” and “ecologies of agency” in Peter Evans, “Introduction: Looking for Agents for Urban Livability in a Globalized Political Economy,” in *Liveable Cities? Urban Struggles for Livable and Sustainability*, ed. Peter Evans (Berkeley: University of California Press, 2002), 1–30. See also Peter Boomgaard, ed., *A World of Water: Rain, Rivers, and Seas in Southeast Asian Histories* (Leiden: KITLV Press, 2007).

<sup>6</sup> Brian Larkin, “The Politics and Poetics of Infrastructure,” *Annual Review of Anthropology* 42 (2013): 327–43.

<sup>7</sup> For the case of Indonesia, see: Rudolf Mrázek, *Engineers of Happy Land* (Princeton: Princeton University Press, 2008); and Kooy and Bakker, “Technologies of Government.”

<sup>8</sup> See Nikhil Anand, “Leaky States: Water Audits, Ignorance, and the Politics of Infrastructure,” *Public Culture* 27, 2 (2015): 307.

If infrastructure, like a slippery, unpredictable *banjir*, can be nowhere and everywhere at the same time, how should we approach the issue that is both real and imagined? It seems to me that a possible approach to slippery objects is to look for materials that are equally discursive, ranging from news reports, official publications, popular culture and social media, and advertisements to field observations, overheard remarks, and conversations, as well as our feeling about the city as we experienced it. Methodologically, I seek to organize those discursive materials around the use of certain vocabulary terms seen as representing the meaning of *banjir* and its associated infrastructure. These are notions of *banjir* as *bencana* (disaster), as *bocor* (leakage), as *berkah* (blessing), and as *budaya* (culture), which structure the political meaning and practices of the infrastructure. Such an approach may be attributed to Jakarta's unique character (but not so unlike other postcolonial cities) as a city divided by infrastructure, a condition which undermines the conventional understanding of infrastructure as carrying an integrative purpose of serving the public as a whole.

It may be useful, therefore, to remember that, historically, Jakarta has never implemented a unitary infrastructural ideal aimed at benefiting the wider public (as was attempted in most Western cities, such as late-nineteenth London and twentieth-century US suburbs).<sup>9</sup> Instead, Jakarta, from the beginning, has represented a series of fragmented, privately-funded infrastructure projects, constructed to benefit only certain stakeholders. In the absence of providing a universal public good, multiple infrastructures built by different groups divide people, but also create an imagined community, as people have a shared sense of uncertainty and anticipation around, for example, *banjir*.<sup>10</sup> The various programs and facilities operate like an infrastructure of difference as communities are both united by *banjir* and yet divided by their responses to it due to the variety of solutions they built for themselves. The fragmented infrastructures nevertheless serve as mediators between different communities. As people experienced flooding, they imagined themselves in and through these diverse infrastructures that worked (or failed to work) for them.

### **An Infrastructure to Unify the City?**

Towards the end of 2012, Ahok, then Jakarta's vice-governor, rushed to see his superior, Governor Jokowi, at his office. It was a few weeks before marking their first one-hundred days of governing Jakarta. Ahok wanted to report, after weeks of extraordinary work, that he had managed to tidy up the annual city budget and

<sup>9</sup> As Matthew Gandy points out, "in broad terms, we can conceive of the modernization of industrial cities as a shift from 'private city' to the 'public city,' whereby fragmentary, piecemeal, and highly localized solutions to the problems of water and sanitation were superseded by the promotion of more complex kinds of coordination between political and economic interests. This transition was in fact a double movement so that public activities such as washing were increasingly restricted to the private sphere whereas privately organized access to potable water or sanitation was gradually incorporated into a centralized, networked, and municipally controlled metropolitan form." Gandy, however, also indicates that such a universalist approach to the modernization of urban infrastructure was never applied to colonial cities. "Yet, throughout much of the global South this last phase in the modernization of water infrastructure remains only partially completed: in many cities, for example, neither comprehensive sewer systems nor waste water treatment works were ever introduced ..." Matthew Gandy, "The Bacteriological City and Its Discontent," *Historical Geography* 34 (2006): 19–20.

<sup>10</sup> See: Joshua Barker and Sheri Lynn Gibbins, "Cultures and Politics of Indonesian Infrastructures" (in this issue, 1–17).

discovered an excess of US\$750 million from the past year's budget—an unbelievable amount. Jokowi was happily shocked. He told his vice-governor that he had never seen such an amount of money when he served as the mayor of Solo. Ahok, in turn, replied, “especially in East Belitung, Pak” (referring to Ahok's former role as *bupati* there).<sup>11</sup> They were also astonished to find in the files that previous administrations had put forth twenty-two projects to resolve traffic jams and flooding, but none of those projects had been carried out or completed for the reason of “lack of funds.”<sup>12</sup> This reason was clearly nonsense for the new leaders.

Jokowi and Ahok had no time to investigate why there was so much surplus money and yet worthwhile projects went unfunded, but they felt empowered. They were pleased that they had almost everything they needed at their disposal: a stock of ideas and an excess of money to execute some of the projects. What they didn't quite have, however, was time, as they had to demonstrate to everyone in a relatively short period of time (ideally, during their tenure) that they were capable of accomplishing something really substantial to mark their campaign-promise ideal of “*Jakarta baru*” (a new Jakarta).

Jokowi and Ahok were quick enough to learn that traffic jams and flooding were the two most strategic public issues, as everyone was affected by these perennial problems. Imagine if they could solve them once and for all. After looking through the existing collection of ideas, they chose “deep tunnel,” a project that was first floated in 2007 by Governor Sutiyoso at the end of his term (a bit too late to save his image). The idea was based on Malaysia's Stormwater Management and Road Tunnel (SMART) project. The main attraction for Jokowi and Ahok was that “the deep tunnel can deal with flood and traffic jams at the same time. In addition, it can also function as a channel for telephone and electric cables, gas pipelines, and sewage drains.”<sup>13</sup> Such a multifunctional tunnel would integrate for the first time the city's diverse, uncoordinated utility network, which would all be sharing a single underground pathway. For Jokowi, “this is a breakthrough.”<sup>14</sup> All-in-one, it would represent the city's first integrated infrastructural ideal. Jokowi and Ahok were told that the tunnel could be constructed rather quickly, in just four years, which was soon enough to represent the core achievement of their administration's first term. And above all, it could be done quite easily, as the project is underground, deep enough to avoid land-ownership issues or any trouble with authorities outside the territory of Jakarta. Jokowi and Ahok were enthusiastic. They could use the excess funds that Ahok had found in the budget “so that the deep tunnel can immediately start next year,”<sup>15</sup> along with what are known as conventional methods of flood mitigation in the city, such as the World Bank-sponsored river-dredging, well-drilling, and normalizing of reservoirs and rivers. Since the tunnel would be more effective than all of those “surface” treatments, Jokowi launched “deep tunnel” as his first infrastructure project. But, alas, as we now know, the project was never carried out.

<sup>11</sup> As cited in Widiarsi Agustina, N. Theresia, T. S. Siregar, and Rafika, “Wong Solo Di Belantara Jakarta,” *Tempo*, January 27, 2013: 32.

<sup>12</sup> Agustina et al., “Wong Solo Di Belantara Jakarta.”

<sup>13</sup> “Jokowi Siapkan Terowongan Multifungsi,” *Kompas*, January 4, 2013: 1.

<sup>14</sup> “Jokowi Siapkan Terowongan Multifungsi.”

<sup>15</sup> *Tempo*, “Wong Solo Di Belantara Jakarta,” 32.

In January 2013, a few weeks after the announcement, a massive flood hit Jakarta. So devastating was the flood that media used the phrase *alam mengamuk* (nature is furious/mad)!<sup>16</sup> *Banjir* showed its true nature and washed away Jokowi's dream project. Referring to the massive flood, the Ministry of Public Works determined that a deep tunnel would, as a practical matter, be inefficient and ineffective. The capacity of the deep tunnel was considered too small to handle the madness of *alam*. Since then this "immediate" technological fix has received very little support, and over time even Ahok himself, after becoming governor in 2014, doubted that the deep tunnel would ever solve the flooding problem. In 2015, after being approached again by a developer/investor and the persistent engineer who initiated the project, Ahok reported: "I just need them to answer my question, 'Where will the water go?' Neither of them can answer this question, so of course, I am doubtful."<sup>17</sup>

### Where Will the Water Go?

The matter of "where will the water go" (*airnya mau dibuang kemana*) is, apparently, a haunting question.<sup>18</sup> Neither was Ahok the first to ask such a question. According to Ahok, the question was also put forward by Sutiyoso when he first proposed the tunnel project in 2007, after a massive flood. It is not clear what response he got, but apparently there has never been a good answer to the question of "where will the water go." That seems to indicate, nevertheless, how difficult it is to understand the flow of water in Jakarta. For sure, many cities and municipalities have constructed deep tunnels quite successfully, but apparently Jakarta is considered to be different. Maybe there is something different about the way water flows in Jakarta. Ahok felt such a difference. As governor, he increasingly expressed his frustration and confusion over the logic of Jakarta's *banjir*. He could not understand how inundation could occur on roads that had never been flood-prone in the past. "It is odd that inundation moves from one area to another. Yesterday, Jl. Tunjojoyo was inundated. The road had never been inundated before."<sup>19</sup>

Ahok, however, learned that issues accompanying flooding are not just technical. Instead, they carry a dimension that is social, if not political. And they often led to the discovery of unruly things or uncanny happenings. "It is strange [*tak masuk akal*] that Gembrong was flooded, because it has never been before. Civil servants in East Jakarta initially said that the pump in Gembrong was broken because a cable was bitten by a rat, but when I checked, the cable was fine, but was not installed properly." Meanwhile, "in Dukuh Atas, the pump's cable was cut ... Fatmawati was crazier [*lebih*

<sup>16</sup> The expression "*alam mengamuk*" in relation to *banjir* can be found in various reports at different times. See, for instance: Qur'anul Hidayat, "Derasnya terjangan banjir di Puncak, Bogor, Warga: Masya Allah air mengamuk," [news.okezone.com](https://news.okezone.com/read/2018/02/05/338/1854750/derasnya-terjangan-banjir-di-puncak-bogor-warga-masya-allah-air-mengamuk), February 5, 2018, <https://news.okezone.com/read/2018/02/05/338/1854750/derasnya-terjangan-banjir-di-puncak-bogor-warga-masya-allah-air-mengamuk>, accessed July 25, 2018; and Stevanus Subagijo, "Alam yang mengajarkan," [Beritasatu.com](http://id.beritasatu.com/home/alam-yang-mengajarkan/78138), February 15, 2014, <http://id.beritasatu.com/home/alam-yang-mengajarkan/78138>, accessed June 20, 2017.

<sup>17</sup> "Deep Tunnel Project Questionable: Ahok," *Jakarta Post*, February 18, 2015.

<sup>18</sup> Wanda Indana, "Ditanya deep tunnel, Ahok: airnya mau dibuang kemana," [metrotvnews.com](http://news.metrotvnews.com/read/2015/02/17/359346/ditanya-deep-tunnel-ahok-airnya-mau-dibuang-kemana), February 17, 2017, <http://news.metrotvnews.com/read/2015/02/17/359346/ditanya-deep-tunnel-ahok-airnya-mau-dibuang-kemana>, accessed July 25, 2018.

<sup>19</sup> "Ahok Confused by Flooding in South Jakarta," *Jakarta Post*, October 5, 2016.

*gila lagi*]. There is no way Fatmawati could sink. It turned out there are tires and traffic lights inside the drainage ... I suspect sabotage.”<sup>20</sup>

“I am not sure,” Ahok mused, “is this a game or not, but I was then asked to issue emergency funds in the amount of 50 *miliar rupiah* (US\$3.8 million).”<sup>21</sup> For Ahok, *banjir* points to not only disaster, but also excess and leaks, terms that in turn are associated with corruption and collusion. The excesses of *banjir*, apparently, can be channeled into someone’s pocket.

On the other hand, *banjir*’s unpredictability and impartiality also connotes some kind of unidentified behind-the-scenes agency—that is, the work of an extraterrestrial being. As noted previously, *banjir* is often described (in media) as nature being angry. In this understanding, it would be too much to fight *banjir*. The notion of *banjir mengamuk* might have come from the belief in supra-natural power. Historian Restu Gunawan points out that in 1932, when a massive flood hit Batavia, some people believed that it was “Nyi Loro Kidul *mengamuk*” (rampage of the Sea Goddess).<sup>22</sup> News circulated then that the *banjir* was sent by the Queen of the South Sea, who was furious that the colonial state had detained Sukarno in 1931. Such understanding is, in itself, interesting when read in the context of resistance against colonial rule, but it can also be understood in terms of a traditional belief in the power of supra-natural forces.

So does this mean that water makes its own decision about where it will go? Perhaps *banjir* is capable of making a deal, too? When Jokowi became the governor, a cartoonist showed an animated *banjir* introducing itself by reaching out its hand politely (as well as creepily) to shake the governor’s hand (see next page).

This “meeting” between human and nonhuman symbolizes a variety of things, one of which is perhaps a deal to be made for mutual benefits. “Where will the water go” could also suggest that agency can lie in objects or processes that are nonhuman if not supra-human. A month later Jokowi told a reporter, as if in answer to this cartoon, “I just started my term a few months ago. I am not a superman, a god, or a magician who can just turn his hand to eliminate *banjir*”<sup>23</sup>—as if to assure *banjir* that together they can work something out. Perhaps Jokowi was saying he needed more time to understand not only the nature of *banjir*, but also what is so unnatural about it. Meanwhile, the diverse residents of Jakarta daily must face the question of “where will the water go”?

<sup>20</sup> Ahok speaking, as reported in “Pumps Out of Order Ahead of Rainy Season, Flooding Likely,” *Jakarta Post*, November 2, 2016.

<sup>21</sup> Ahmad Romadoni, “Ahok Curiga Ada yang Sengaja Bikin Jakarta Banjir,” *news.liputan6.com*, February 9, 2016, <http://news.liputan6.com/read/2432060/ahok-curiga-ada-yang-sengaja-bikin-jakarta-banjir>, accessed June 21, 2017.

<sup>22</sup> *Pandji Poestaka*, January 1932: 92, as cited in Gunawan, *Gagalnya Sistim Kanal*, 133–34. For an exploration of human and water relationships from social-anthropological perspectives, see: Peter Boomgaard, “In a State of Flux: Water as a Deadly and a Life-giving Force in Southeast Asia” and Sandra Pannell, “Of Gods and Monsters: Indigenous Sea Cosmologies, Promiscuous Geographies, and the Depths of Local Sovereignty,” in Boomgaard, ed., *A World of Water*, 1–26 and 71–102.

<sup>23</sup> Randy Ferdi Firdaus, “Jokowi: Saya bukan Superman, dewa, pesulap untuk atasi banjir,” *www.merdeka.com*, December 25, 2012, <https://www.merdeka.com/peristiwa/jokowi-saya-bukan-superman-dewa-pesulap-untuk-atasi-banjir.html>, accessed June 20, 2017.



“Hello Sir, I just want to introduce myself, my name is Banjir Jakarta”—  
 Beny Rachmadi, “*Jokowi Hadapi Banjir*” (Jokowi meets the flood), November 28, 2012  
 (source: Kontan, [http://images.kontan.co.id/main/kartun\\_benny/302](http://images.kontan.co.id/main/kartun_benny/302))

Such a question must have shaped the imaginations, actions, and choices of individuals, and some of the answers and attempted solutions are unraveled in the city’s discursive infrastructures. What follows are some instances that allow us to observe here and there the imagining of *banjir* in and through infrastructure and the implication for the formation of communities divided as well as united by flooding.

### Communities of Infrastructures

The unevenness of Jakarta’s topography is widely acknowledged. It can be seen in the urban form. It also often finds expression in maps that represent the city’s flooding patterns. Excess water goes to the *lokasi rawan banjir* (flood prone locations), and those areas, while not always synonymous with places where most urban poor live, indicate the social inequality of the city. Such mapping initially served to establish where the water will go and to prepare for flooding, but such maps turn out to be unreliable, if not misleading, over time. It is difficult to predict if the same area or any area will be inundated or stay dry the following year. In 2007, when massive *banjir* hit Jakarta, inundating 70 percent of the city, killing fifty-five people, and displacing over 350,000 people from their homes, Pluit, a vulnerable flood-prone area located below sea level in North Jakarta, was “magically” unaffected. Residents of the district (mostly ethnic Chinese) attributed this miracle to *hoki* (“good luck” in Hokkienese) that had protected the “abode of the dragon” (i.e., Pluit’s location, according to Chinese beliefs).<sup>24</sup>

Such *hoki*, however, was not determined by the power of the dragon believed to reside there. Instead, it was due to the extra efforts of the communities living in

<sup>24</sup> Untung Widyanto, “Hoki di Perut Naga,” *Tempo*, February 25, 2007: 40–42.

Pluit's housing estate to raise the wall of their levee.<sup>25</sup> After 1996 and 2002, when Pluit was flooded at an average height of one meter, residents independently formed Forum Masyarakat Peduli Lingkungan Pluit (Communities that Care for Pluit's Environment) to work together whenever a nearby levee broke. Each neighborhood sent ten capable men to work with security personnel to mend the levee. Pluit covers an area where both the rich and the poor live. They have long lived together collaboratively, though not always comfortably, but *banjir* has brought them together as a community. "The rich and the poor worked together arm-in-arm," a community organizer reported.<sup>26</sup>



Community members paid for extra pumps and pipes in North Jakarta (author's photo)

Tjhi Fat Khiong, then head of RW 07,<sup>27</sup> indicated that the Pluit communities were united by previous *banjir*, and in 2007, through a system of water pumps, created for themselves a localized infrastructure of flood control. Tjhi Fat Khiong pointed out that the communities collectively bought sixty water pumps and a set of generators to pump water out of the area. They also hired three workers to watch over the six huge pumps that operate around the clock. As a result, today Pluit comprises communities of water pumps, and residents know perfectly well where the water should go. Water is pumped over the levee out into the river and sea.

Kelurahan Pluit (a ward located at Penjaringan subdistrict) sits on 7.7 square kilometers (three square miles) of land that is lower than the adjacent sea. Residents

<sup>25</sup> Widyanto, "Hoki di Perut Naga," 40.

<sup>26</sup> Widyanto, "Hoki di Perut Naga," 40.

<sup>27</sup> *Rukun Warga* (RW, harmonious citizens) is an administrative territorial unit comprising six or so *Rukun Tetangga* (RT, harmonious neighborhood or neighbors), where each RT comprises thirty to fifty households.

must feel as if all of Jakarta is dependent on their pumps. The Pluit dam (constructed in 1965) contains the Cideng River and nine others before that water is pumped out to the sea. Tjhi told me that he appreciated the pumps and private guards. The pump stations are placed strategically along the Pluit dam and the canal and river embankments. It feels safe when all the communities cooperate and pray together to the dragon, the pumps, and the guards. Residents long ago lost confidence in the developer who is supposed to manage their district. They consider the developer as interested only in new business, not the quality of life. For example, throughout Tjhi's time living in Pluit, he saw that many green areas were converted into commercial establishments, such as shopping malls. Residents also did not want to bother the municipality's Public Work Unit (Dinas Pekerjaan Umum), as that apparatus was not always reliable, given the vast challenges the city was facing.<sup>28</sup>

### Where Might the Water be Coming From?

The communities of water pumps that Tjhi organized are only a part of a larger, but not so well coordinated, network of dams and embankments that loosely form Jakarta's urban system of flood management. Pluit thus can never quite develop a securely self-contained infrastructure, no matter how many pumps are installed. Its fate depends on the management of water flow from elsewhere in Jakarta. For other parts of the city, the answer to the question "where will the water go" is rather clear: it goes to Pluit, where it is pumped out to sea. As such, Pluit is always in need of *hoki*, but *hoki* being *hoki*, it is not always present, no matter how much incense is burned. Tjhi, like most people in the city, knows where the water should go, but he has little idea about the source of that water or the volume that will be received from other parts of Jakarta. His feeling is that water can come from anywhere and at any time. Pluit residents fear *banjir kiriman* (flooding water from outside their areas). Thus, they need *hoki* to secure their place.

There were times when *hoki* was not around, however. In late January 2013, six years after Pluit was spared from 2007's massive, historic flooding, a part of the West Flood Canal embankment, near the Menteng area of Central Jakarta, collapsed. The levee in that area suddenly broke, as water was filling the West Flood Canal after a floodgate at the nearby Manggarai in South Jakarta was opened. The overflow went behind Pluit Dam, and it was too much stress for the dam. *Tempo* reported on the catastrophe as it was experienced by a guard who watched over Pluit's water pumps:

Joko, who stood watch over the dam's water pumps for 32 years, was astounded that the seven pumps, which he had been operating since that morning, were outpaced by conditions at the dam that afternoon. The water level quickly rose to 25 centimeters. "The pumps were running at full capacity, but the water kept rising." Continuing to rise, the water level finally overflowed. In fact, this time

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<sup>28</sup> *Tempo* reported that 40 percent of the land areas of Jakarta (24,000 hectares) is located under sea level. Those areas relied on pumps, but "only 9,000 hectares were protected by water pumps." Widyanto, "Hoki di Perut Naga," 40.

the water at the Pluit Dam rose to 275 centimeters. This broke the previous record, namely, 135 centimeters in 2007.<sup>29</sup>

As a result, more than 4,500 Pluit homes, belonging to the rich and the poor alike, were inundated with floodwater one to two meters deep. A week after the initial flooding, Tjhi had to ride in an amphibious vehicle belonging to the Indonesian Red Cross to move around the housing complexes still under water. He lamented, “the good prospects of the area had been washed away...”<sup>30</sup> As Pak RW, Tjhi had done well for some years to keep his district dry, but in 2013 Pluit became the area hit by the worst *banjir*. Tjhi blamed the flooding on the change of land use over several years in his district. When he moved to Pluit in 1982, “Mega Mal Pluit, Mal Emporium Pluit, and Pluit Junction had not been built, and there had not been a land reclamation project to build the Pantai Mutiara residential area.”<sup>31</sup> These complexes reduced further the amount of open, green areas, and contributed to land subsidence in Pluit, which was once (during Dutch colonial times) a swampland and water catchment zone.

Tjhi blamed the municipality’s property developer, Pembangunan Pluit Jaya Company, which, after 2000, became a corporate entity called Jakarta Propertindo Group. Its management company, Estatindo, expanded its real-estate holdings by encroaching into areas reserved for environmental conservation. For Tjhi, in the long run, those violations brought floods into Pluit. Yet, according to Jakarta’s Zoning Office and its Geospatial Information Agency, the flooding in Pluit was simply caused by damaged water pumps. For them, what was needed was better-maintained pumps. But for Joko, the hardworking pump operator on duty at Pluit Dam, “The pumps are strong enough for pumping out rainwater. But water does not only come from the sky.”<sup>32</sup> The technician in Jakarta’s Office of Public Works, who believed in a technological fix, replied: “If the embankment of the West Flood Canal had not collapsed, Pluit would have been safe.”<sup>33</sup> Governor Jokowi, after personally inspecting the drains, concluded that the collapse of the embankment was “due to a weak control management.”<sup>34</sup> Jokowi and Tjhi ultimately believed that the *banjir* was caused by human error. It was due to government failure and developers’ greed. Little did they realize, perhaps, that their perspectives, which focused on what could have been done, represented a different consciousness in Jakarta’s history of *banjir*, as most residents believe that *banjir* is *bencana alam* (a natural disaster).

### ***Banjir as Bencana***

During Jakarta’s massive flooding in 2007, Governor Sutiyoso defended himself by saying that flooding was part of a natural cycle and there was nothing he could have

<sup>29</sup> Untung Widyanto, A. William, Mahardika, E. Prima, A. Fikri, and A. Siswadi, “Bah di Perut Naga,” *Tempo*, February 3, 2013: 45.

<sup>30</sup> As cited in *Tempo*, “Bah di Perut Naga,” 47.

<sup>31</sup> As cited in Widyanto et al., “Bah di Perut Naga,” 47.

<sup>32</sup> Anton William, J. Supriadin, and Istman M. O., “Peluit Bahaya dari Latuharhary,” *Tempo*, February 3, 2013: 28.

<sup>33</sup> William et al., “Peluit Bahaya dari Latuharhary,” 28.

<sup>34</sup> Jokowi, as cited in Widyanto et al., “Bah di Perut Naga,” 47.

done about it.<sup>35</sup> “There is no point in throwing abuse around,” he said, adding, “what is important to know is ... I was up till 3:00 AM trying to handle the refugees.”<sup>36</sup> Such an answer is typical. Almost all governors would say the same thing. His successor, Fauzi Bowo, is known for repeatedly asking people to understand (*maklum*), “because *banjir* is a natural factor [*factor alam*] that is difficult to handle.”<sup>37</sup> *Banjir* has long been understood as a supra-human force. The term *bencana* might be linked to a belief in the working of “natural”—nonhuman—forces. When *banjir* is understood as a *bencana*, it gives an impression that no particular human or any agency or institution is to be blamed. Some *kampung* residents living on riverbanks also believed that “the flood is only a natural disaster which could happen at any time; I don’t see any connection between the location of our houses and the worsening floods ... it could be a message from God; perhaps he was punishing us for our sins.”<sup>38</sup>

Governors of Jakarta have often exploited the idea of *bencana* as stemming from natural forces to wash their hands of any responsibility. Their position could be seen as drawing from a framework that separates ecology from the social and the political, as if they occupied different domains. Such a position is often also shared by scientific communities that emphasize Jakarta’s geo-environment to explain *banjir*. The city’s government officials often cited the scientific reasoning that *banjir* is inevitable, because 40 percent (some 26,000 hectares) of the city’s territory (which is about 65000 hectares, or 251 square miles) is low land, which means below sea level. The explanation continues with more geographical facts, including that the city is crossed by as many as thirteen rivers—each carrying, unequally, massive amounts of water from the nearby mountains to the sea. In addition, Jakarta sits on a shallow delta, so during the rainy season, much of the city can be filled with water very easily, especially during heavy rainfalls. Furthermore, the fate of the city is also determined by full moons and tides. When ocean tides reach their peak, they tend to overwhelm the shoreline and cover the north end of the city. Those explanations are not exhaustive, but may suffice to highlight how and why *banjir* is clearly a natural phenomenon, and thus it is not fair to just keep pointing a finger at the city government. There is even a statement in the municipality’s official publication about *banjir*’s intractability: “elements from nature are far more powerful than the limited (territorial) sovereignty of the municipality.”<sup>39</sup>

This geo-environmental argument is drawn from a belief that *banjir* is caused by atmospheric (cosmic) forces, and thus flooding is somehow a “natural” event—or, oddly, a supra-natural phenomenon. This, then, also suggests that one can’t really

<sup>35</sup> Seth Mydan, “Flood Toll Rises and Indonesia Braces for Disease,” *New York Times*, February 6, 2007: A11.

<sup>36</sup> As cited in Mydan, “Flood Toll Rises and Indonesia Braces for Disease,” A11.

<sup>37</sup> As cited in “Foke Minta Warga Maklumi Banjir,” *Koran Jakarta*, October 27, 2010: 6.

<sup>38</sup> Bambang Nurbianto, “Riverbank Squatters Ignorant to Environmental Destruction,” *Jakarta Post*, February 11, 2002.

<sup>39</sup> Jakarta officials reported that *banjir* is related to natural phenomenon and its power is larger than the managerial power of humans: “Unsur-unsur alam ini jauh lebih berkuasa daripada wilayah administrasi yang diatur oleh manusia.” See the official website of Jakarta Municipality, June 2012, <http://www.jakarta.go.id/v2/news/2012/06/persaingan-antara-manusia-dan-air-upaya-pengendalian-banjir-pemerintah-provinsi-dki-jakarta#.Vt3aV003Np8>, accessed November 23, 2016.

avoid it, get rid of it, or fight it, especially when it is “mad,” but one can still try to minimize its impact. One can also learn to live with it, as well as escape from it. Victims can flee the disaster caused by the “cosmic force” to emergency accommodations (at schools, mosques, and relatives’ houses), and return once the flood has receded. Adaptation and accommodation are behind such thought, which, ironically, also assumes *banjir* is a “normal,” natural phenomenon. This assumption has served as a paradigm for flood management since colonial times, if not before.

### Engineering the Waterways

That Jakarta is a city of rivers and canals is something that is known but not always obvious to everyone. Thirteen small and large rivers flow one into another before all flow into Jakarta Bay. Consequently, Jakarta is secured, thanks to the colonial government and its engineers, by a complex system of dams, dikes, embankments, floodgates, and, in recent years, water pumps. This dike-and-dam system can be said to stem from the colonial Dutch belief that *banjir* is *bencana alam*, but that its impact can be minimized by technology (e.g., dams and floodgates). Such a belief survives till today. The infrastructure, however, is quite old, and is relatively ignored and only reluctantly maintained, as signified by the piles of garbage that continue to choke the floodgates. That neglect, some believe, is due to the city government’s overall poor “maintenance culture.” Others believe that the anti-flooding system is obsolete, and the city should not bother to keep investing in it.

Governor Ahok considered the colonial system of flood management not only outdated, but even somewhat responsible for *banjir*, partly because the floodgates that are central to the system rely too much on human decision-making that is often irresponsible, if not *tak masuk akal* (nonsensical). For instance, during the 2016 annual flood, Ahok asked, “why was Angke River so overflowed that it sank West Jakarta? I immediately suspect that you guys [floodgate operators] flushed all the water [*buang airnya*] to West Flood Canal.”<sup>40</sup> He noticed that several areas in proximity to the West were all dry. How could that happen?

This means you guys closed the floodgates [in certain areas]. Why did you do that when you knew that a huge volume of water was coming down from the hills? Why did you close the gates? Just for *iseng* [fun]? If you close the gates, the water will accumulate there, and when the level reaches *siaga 1* [standby 1] you guys will suddenly open them [and] Jakarta of course will sink. I have told you guys since 2014, don’t ever close floodgates anymore [during rainy season]. Let the gates stay open, all of them, but you guys never listened ... How could you still say that [gate closing] is a *protop* [old permanent procedure] from the Dutch era ... *Emang Belanda negara lu sekarang* [so is your country today Dutch’s]?”<sup>41</sup>

<sup>40</sup> As cited in Ahmad Romadoni, “Ahok Kesal Petugas Pakai Aturan Zaman Belanda Malah Picu Genangan,” news.liputan6.com, March 2, 2016, <http://news.liputan6.com/read/2449259/ahok-kesal-petugas-pakai-aturan-zaman-belanda-malah-picu-genangan>, accessed November 23, 2016.

<sup>41</sup> As cited in Romadoni, “Ahok Kesal Petugas Pakai Aturan Zaman Belanda Malah Picu Genangan.”

Despite these complaints, Ahok knew well that the Dutch floodgate system was meant to control water so that it could be flushed to the sea during the rainy season and stored during the dry season. There is some logic behind the original design of that floodgate system—in the sense that if a balance between water in and water out could be maintained, Jakarta would neither flood during the rainy season nor be without water at other times. Ahok, however, had in mind a strategy to manage both *alam* and people at the same time. Unlike the Dutch, who showed no interest in preventing the formation of *kampung* settlements along the riverside,<sup>42</sup> Ahok sought to use the floodgate system exactly for that purpose. For him, floodgates should always be open during the rainy season, because now there are reservoirs and water pumps downstream, but the gates should be closed during the dry season so that the water level would reach a point where it prevented people from building houses at the riverbanks.<sup>43</sup> The governor has his own way of appropriating Dutch engineering and reworking it to fit with his method of flood mitigation.

Mark Caljouw, Peter Nas, Pratiwo, Restu Gunawan, and A. R. Soehoed, among others, have informed us of the great works of Dutch engineers, especially Ir. Herman van Breen, who worked for Batavia's BOW (Burgerlijke Openbare Werken, city public works) and served since 1919 as a member of Batavia's Gemeenteraad (local council).<sup>44</sup> Van Breen's system of canals and floodgates was a significant sign of modernity, a symbol of humanity's capacity to exert control (to a certain degree) over the natural environment. In 1918 Van Breen designed a flood-control system to channel the flow and regulate the volume of water that goes through the city. The aim was to allocate floodwater so that it could be distributed here and there. The task was to balance water distribution in such a way that, when *banjir* occurred, not a single place would be fully inundated.

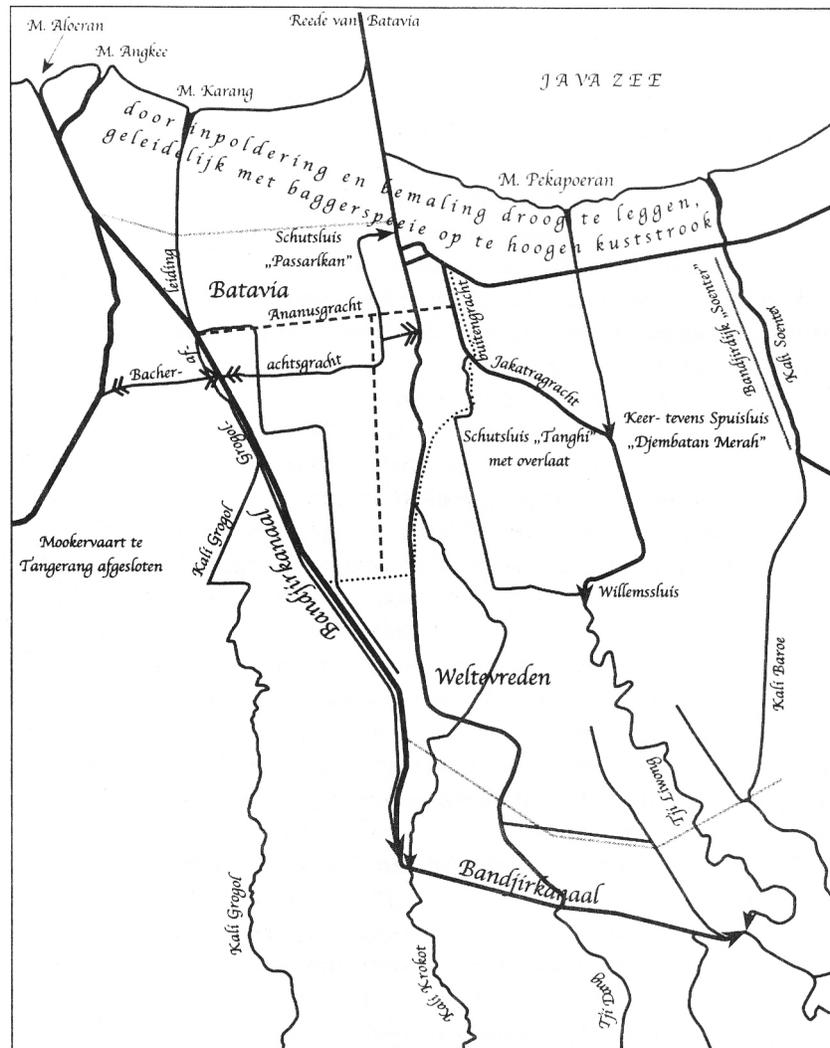
Van Breen's main focus then was the Ciliwung River, the largest river that cuts through the middle of the city. His idea was to reduce the river's volume by distributing its excess water to other rivers through one main conduit, the *bandjirkanaal* (known today as the west flood canal), around which other canals were organized. He thus sought to create a series of canal and sluice gates that would intercept the Ciliwung River's water flow so that, when its volume increased to flood level, the excess could be distributed to other rivers. His geographical imagination was active, too. By 1918, Van Breen had already projected that the city's territory would expand from its fifteen square kilometers to twenty-three square kilometers in 1949 (from less than six to almost nine square miles).

<sup>42</sup> Gunawan argues that the colonial municipality never considered ways to prevent *kampung* from flooding; see Gunawan, *Gagalnya Sistim Kanal*, 113.

<sup>43</sup> Ahmad Romadoni, "Ahok Perintahkan Pintu Air Manggarai Buka 24 Jam," news.liputan6.com, March 2, 2016, <http://news.liputan6.com/read/2449747/ahok-perintahkan-pintu-air-manggarai-buka-24-jam>, accessed November 23, 2016.

<sup>44</sup> Herman van Breen (in his capacity as vice-mayor of Batavia) published his works in different journals, most notably four articles in 1923 in *De Ingenieur in Nederlands*, issues 23, 26, 27, and 28. He also wrote about the history of water management in Batavia from 1610 to the 1900s. See Herman van Breen, "Kleine Werken te Verbetering Van Den Gezondheidstoestand ter Hoofplaats Batavia," *Indisch Bouwkundig Tijdschrift* September 15, 1919. See also Gunawan, *Gagalnya Sistim Kanal*.

Van Breen's 1923 map shows the attention he paid to the southwestern part of Batavia, in particular to the protection of the Menteng and Gondangdia areas (where most elite Europeans were living). He assigned the grand Manggarai floodgate the special task of distributing water through different channels (*saluran—hoofdaanvoerleiding*) to adjacent rivers. The Manggarai floodgate thus has three gates, each with a function. One gate is for distributing water from Ciliwung River to the West Flood Canal, another for maintaining the water volume of Ciliwung River, and the third gate is for flushing.



Van Breen's 1923 map shows how the *bandjirkanaal* (flood canal) was constructed around Weltevreden (the garden city of Menteng and Gondangdia), where government buildings and European neighborhoods were located. The *bandjirkanaal* serves as a main conduit to redirect water flowing from Tjiliwung (Ciliwung) River to Kali Grogol, Kali Krekot, Kali, and Tjideng. The canal thus protected Weltevreden from potential flooding. The Mangarai floodgate (not shown) is located at the meeting point of *bandjirkanaal* and the Tjiliwung/Ciliwung River. The map also shows how other canals connecting various rivers were constructed around the old coastal town of Batavia and along the *bandjirkanaal* (source: Caljouw, Nas, and Pratiwo; courtesy of BKI).

Not surprisingly, the Manggarai floodgates were guarded by security personnel during the colonial era, especially after reports that other areas of Batavia started to suffer from flooding once the Manggarai floodgates began operating. Van Breen's solution involved the differentiated distribution of risks, which, in the colonial situation, was basically a reduction of risk for those living in the Menteng area (e.g., Europeans), while increasing risks for others elsewhere. In other words, the practice of spatial differentiation through the use of infrastructure development has been in place since colonial times.

### Engineered Flooding

The system of flood control thus intertwines with the power relations embedded in the city. As *banjir* has become more frequent and gotten worse, the floodgate has shifted from being a tool for risk prevention to becoming an instrument for risk distribution. Its function has transformed from moving water to moving risks. Individuals who control the gates have to decide which areas can absorb more risks, which areas can be sacrificed as a way to control flooding elsewhere. This raises questions such as: what is the principle of, and assumptions behind, the risk distribution embedded in the floodgate system? Is the principle negotiable? Does the floodgate actually control where the water will go?



Pak Jo, a Jakarta resident and city planner, points to a command post's (*pos komondo* or *posko*) notice about a flood watch (*siaga banjir*) in a neighborhood in Kebon Kacang district. The notice consists of a map of the neighborhood in relation to the adjacent rivers within the district and information about mutual help, preventive measures, and the locations of public kitchens and evacuation sites in case of *banjir* (author's photo).

Jakarta has over fifty floodgates of various sizes on its thirteen rivers.<sup>45</sup> The water level at the upstream floodgate determines whether the gates downstream should be

<sup>45</sup> This information from a flood management technician in 2013 may not be accurate, as a newspaper had already reported in 2007 that "some ninety-three sluice gates have been constructed in thirty-four locations throughout Jakarta's river network. Some gates were built in the 1920s by the Dutch administration." See "Sluice Gates Proving to Be Profitable," *Jakarta Post*, November 14, 2007: 5.

lifted or closed. This also means that all of the floodgate controllers have to coordinate and decide which gates should not be opened until it is absolutely necessary. So, we can say that the decision is subject to a variety of conditions, ranging from one that is objective—measurable by numerical indicators of water level—to those that are calculated by economic and political stakeholders with a biased interest in protecting elite neighborhoods and the presidential palace. Flood risk may thus be externalized to areas of low economic and political significance to protect urban elites and their space in the city. At this level of operation, floodgates serve as a medium for the differentiation and rearrangement of an urban hierarchy.

The floodgate operators, all sufficiently trained and with high school degrees, are supposed to work together by sharing information (through two-way radio communication) to effect the system of flood-control management. Each floodgate is supervised around the clock. The large floodgates are watched by four to eight operators, while smaller gates are normally run by two people. Operators have a huge responsibility to carry out decisions based on the reports they receive about other gates, but often they have to use their instincts. Edhi Widodo, a gatekeeper, noted: “We have to be extremely careful in observing the water volume, especially during rainy season. While there is a procedure we must follow, we still often need to rely on our instinct in our decision to open and close the floodgates.”<sup>46</sup>

Yet, while the gatekeepers follow their calculations and instincts, they have higher masters who are responsible for making the ultimate decision. Responsibility is hierarchically allocated between units in the municipality’s office of public works (Dinas Pekerjaan Umum) and between the city and the national governments, according to the level of warning. For instance, within the municipality, different heads of the office of water management (Tata Air) are assigned different levels of responsibility in response to the degree of warning. The Kepala Seksi (section chief) is responsible for the less alarming Siaga IV; the Kepala Suku Dinas (department head) for Siaga III; the Kepala Dinas Pekerjaan Umum (the head of Public Work) for Siaga II; and, when the water level at Manggarai floodgate reaches nine and a half meters, Jakarta’s governor is responsible for Siaga I. It makes sense that Ahok was particularly attentive to the Manggarai floodgates, which were under his authority. Meanwhile, some rivers and canals as well as sluice gates are controlled only by the central government. Floodgates, like the waterways, are divided among stakeholders.

For instance, during the 2013 flooding, President Soesilo Bambang Yudhoyono (SBY) gave permission to open the gate that protected the presidential palace. This kind of decision is needed to moderate flooding in other areas. The president said: “I ask that every effort be made. The center will help.”<sup>47</sup> The decision to open the floodgate so that the presidential palace shared the burden of flooding is highly symbolic, as it served to register the idea that flooding is a shared problem and that both the elite and the poor are equally at risk. When floodwater finally reached the palace, perhaps SBY was pleased that the image of him standing in knee-high water

<sup>46</sup> For a report on the management of floodgates, see “Managemen Pintu Air Di Jakarta,” kabarinews.com, March 3, 2008, <http://kabarinews.com/manajemen-pintu-air-di-jakarta/2638>, accessed November 23, 2016.

<sup>47</sup> As cited in Agustina, et al., “Wong Solo Di Belantara Jakarta,” 32.

talking on his cellphone was widely circulated in metropolitan newspapers. After all, didn't the photo prove that Pak SBY was suffering, too?

### ***Banjir as Bocor***

By the time that SBY gave permission to open the floodgate that protected the palace, water was already everywhere else in the city. Pluit, as we have seen, was already submerged. The business district along the protocol streets of Jalan Sudirman and Jalan Thamrin was paralyzed. In some areas, the flow of water was deadly. At the United Overseas Bank Plaza, off Sudirman Avenue, two workers were killed by water that quickly filled basements. In all, eleven people died and nearly twenty thousand were displaced, and Governor Jokowi declared a state of emergency for the city. At that time a spectacular image circulated on social media that showed, from a bird's-eye view, the inundation of the Hotel Indonesia Roundabout.

The Hotel Indonesia Roundabout is the center of governmental pride, the symbol of national progress, the site of major shopping malls, and the heart of the central business district; it conveys a sense of perfection and control. It is supposed to be water resistant. Yet in 2013, it revealed most visibly the public secret that Jakarta is, after all, full of leaks. It represents the city as, in Rudolf Mrázek's phrase, a broken flushing toilet.<sup>48</sup>

As such, *banjir* can be associated with *bocor* (leaking). And when *banjir* is seen as *bocor*, *banjir* can no longer be seen as *bencana*. If *banjir* as *bencana* focuses on where the water is coming from (sent by god or the angry *alam*), *banjir* as *bocor* shifts attention to where the water will go. *Banjir* as *bocor* involves human intentionality and the capacity to allow leaks or make leaks go undetected. *Bocor* has made *banjir* more slippery, as it becomes more difficult to know where the water will go. When *banjir* is understood as *bocor*, it also suggests that something has gone wrong and humans are responsible for it. How *banjir* is eventually understood as *bocor* represents an important shift of power and knowledge.

I should, however, note that the understanding of *banjir* as *bocor* is as old as constructing the idea of *banjir* as *bencana*. In 1918, a massive flood hit Batavia. It overwhelmed van Breen's flood canal. Historian Gunawan indicated that illegal extortion by unscrupulous opportunists took place during the flood.

When their houses were inundated, a number of indigenous [*boemi poetra*] workers of Toko Kolff went to see their boss. They intended to borrow money to buy food, as prices went up following the flood. The boss said yes, but he demanded that a letter of reference from their *kampung* head be provided so that he could determine that his workers actually needed money. So went the workers to meet their *kampung* head (who is also a *boemi poetra*), but to their dismay, the head charged twenty-five cents for each paper work. This was not

<sup>48</sup> "Water and the Colonial Urban Imaginary: Rudolf Mrázek in Conversation with *Architecture + Adaptation*," in *Jakarta: Architecture + Adaptation*, ed. Etinne Turpin, Adam Bobbette, and Meredith Miller (Depok: Universitas Indonesia Press, 2013), 294.

only expensive, especially during difficult times, but it was also illegal. The workers had no choice but to pay.<sup>49</sup>

That kind of illegal extortion was already taking place since colonial times and is an example of *bocor*—an instance of how *banjir* is reworked by opportunists for personal benefit. The *kampung* head cared less about *banjir* as *bencana*. He was more interested in the excess he could gain from *banjir*. By extorting money, he turned *banjir* into a *bocor*. This opportunity to turn *banjir* into *bocor* has prolonged the cyclic life of *banjir*, in the sense that it allows people to benefit every year by, for example, collecting rescue fees, getting flood relief from political campaigns, and being paid to clean up after flooding, as well as the whole business of repairing potholes.

People in Jakarta are often skeptical about the city government's attempts to end *banjir*, perhaps because without *banjir* there will be no *bocor*. And can one live without *bocor* in a place like Jakarta? There is money to be made by maintaining (rather than eliminating) *banjir*, as every "project" (known more as *ngobjek*—money-making opportunity) to deal with *banjir* carries opportunities for "*bocor-ing*" money into pockets. In this sense, *banjir* brings not only misery, but also money. Thus, building an infrastructure to get rid of *banjir* once and for all is probably too ambitious and almost a utopian enterprise, as it means closing down the opportunity for the city to leak.

### ***Banjir as Berkah***

As a worker, Ari Syarifuddin had a relatively steady income due to the amount of trash that accumulated at sluice gates. He worked almost daily to push the debris off the gates. He told a reporter that "you may look at this as trash, but I see it as money."<sup>50</sup> Syarifuddin's livelihood depended on *banjir*, as the functioning of the gates depended on his management of the trash dumped into the river. His world was organized around the relations between the river, the readiness of the gates, and *banjir*, which together constituted his system for living in the city. But there are other instances where *banjir* is not so much about the amount of trash, but a "blessing" in ways that serve as a social infrastructure.

When infrastructure failed to mediate, what brought people together was *banjir*, which has become an object that cuts across different social domains—creating not only shared miseries, but also opportunities for different social groups to work together. For *banjir* to become *berkah*, it needs to bring forth a condition for people to assemble, to carry out mutual help (*gotong royong*), to "thank," which means to give and to take (*terima-kasih*). *Banjir* causes different social, political, and business groups to meet even though they have different agendas. They meet due to the absence or the lack of infrastructure. Or, for better or worse, they meet because they *are* the infrastructure. They make *banjir* social, which in turn allows *banjir* and humans to work together to sustain the presence of each other.

Out of *banjir* and the breakdown of viable infrastructure, different types of people emerged and formed a temporary assemblage, which in turn produced a kind of

<sup>49</sup> Gunawan, *Gagalnya Sistem Kanal*, 119.

<sup>50</sup> *Jakarta Post*, "Sluice Gates Proving to Be Profitable."

sociality across different agencies. Gunawan grouped them based on their activities.<sup>51</sup> Those whose houses were flooded reached out to government and politicians for help; that is, as victims, they transformed themselves as legitimate subjects to be accommodated. Those who survived *banjir* felt an obligation to help the poor who were living in high-risk areas. And, I should add, those who wished to make some money set up make-shift water taxis and charged those they considered wealthy to transport them out of the flooded area. In a nutshell, while business is involved in providing mutual help, there is an enactment of moral obligation to help people suffering from *banjir*. In this instance, individuals serve as a form of infrastructure,<sup>52</sup> and through their embodied mediation, a community of *banjir* (due to the lack of infrastructure) develops. When people (more than infrastructure) are relied on, *banjir* gains an extra meaning. It constitutes a social life.

Such social formation evolves over time. Gunawan recorded a past practice, which he considers a kind of “best practice.” During the 1918 flood, our historian narrates:

Residents of Batavia shared their food. Batavia’s philanthropic *smefonds* distributed a few thousands of monetary aid. Governor General visited inundated *kampung* and offered money. Residents offered spaces for refugees, especially along the east and west sides of Molenvliet streets. Among them were Thalia buildings, the house of Tjie Eng Hok, the building of Tiong Hoa Oen Tong Hwee, Jamaiat Khair, Kong Boe Siang Hwee, and the verandahs of several houses owned by ethnic Chinese ... *Thaliafonds* provided f300, Mr. Tjie Eng Hok tens of bags of rice. Mr. Lauw Soen Bak gave three boxes of salted fish ... Chinese Kapitan Khaw Kim An with his guards visited the flooded *kampung* and bought an entire stock of food from food stalls and distributed them to those who found refuge in different houses.<sup>53</sup>

In this scenario, *banjir* produced shared subjectivities and it suspended the divisions of a colonial city even though social hierarchy was enhanced through the relative positions of donors and recipients vis-à-vis aid. Gunawan’s story has a contemporary resonance.

Today, politicians, corporations, enterprises, and religious groups compete for a role to play in flood relief. The lack of infrastructure continues to produce opportunities for politicians and political parties to use *banjir* to gain electoral support. *Banjir* has become the occasion for political elites to meet the urban poor, and to promote themselves as advocates for the poor. Various emergency tents carrying logos and banners of organizations, political parties, and corporations accompany every relief mission. Empires work hand in hand with multitudes of nongovernmental agencies, in part to satisfy social responsibility, in part to form bonds and gain influence. In this sense, disaster carries with it opportunities, and from the perspective of enterprises and political elites, *banjir* is thus something that is problematically desirable. In some ways, one could argue that the sociality formed

<sup>51</sup> See Gunawan, *Gagalnya Sestim Kanal*, chapter 3, for a discussion of philanthropic activities during *banjir*.

<sup>52</sup> Abdou Maliq Simone, “People as Infrastructure: Intersecting Fragments in Johannesburg,” *Public Culture* 16, 3 (Fall 2004): 407–29.

<sup>53</sup> Gunawan, *Gagalnya Sestim Kanal*, 124, 125.

around *banjir* and celebrations of solidarity and mutual help have prevented mass protests against mismanaged *banjir* and the urban spatial injustices associated with it. The result constitutes a culture of living with *banjir* as something that is acceptable. Such a cultural formation relies on a circularity of time, space, and practices. It is in this sense that the question of “where will the water go” suggests that the water will return, and for political-party stakeholders who seek to increase their influence, such reliable circularity allows for anticipation, including annual budget allowances and strategic planning.

Flood relief and mutual help on the occasion of *banjir* contribute to the restoration of a sense of normality. They help people to return to a normal life, and make *banjir* livable. By doing so, relief and aid also makes the coming and going of *banjir* a normal, “social” phenomenon. When people (versus things or institutions) can be relied on for relief, risks are internalized as part of one’s subjectivity. In this human embodiment of infrastructure, risks become not so risky anymore. And there is something political about this mode of subjection. It naturalizes the socio-political dimension of *banjir*. The temporary cooperation of people in time of *banjir* serves to overcome *banjir*, but without ending it. This ensures that *banjir* will return, and so will flood relief and mutual help, as well as maintenance of social relationships that, when they mutually constitute each other, are integrated into a whole system of what one would consider as a “cultural tradition”—a *budaya*.

### ***Banjir as Budaya***

In 2002, a newspaper reported that when it comes to issues of seasonal flooding, the answer is “no big deal, many folks are used to it,” even though people, such as Lani, age 35, will never forget how her fourteen-inch television, the most valuable item in the household, was carried away by the stream.<sup>54</sup> When floodwaters flow through the city and is accepted as part of regular events in urban life, *banjir* is integrated into cultural practices. It normalizes *banjir* in yet another way. When *banjir* is perceived as a “normal” phenomenon, a culture of adaptation to live with *banjir* also develops in the social environment, from techniques of building construction—such as houses on stilts and practicing flood relief through mutual assistance—to domesticating the effects of *banjir* through drawings, poems, and songs. In this mode of living with *banjir*, flooding is often represented not only as a threat or a disaster that could bring misery, but also as an adventurous and even festive and humorous event. *Banjir* thus has constituted a tradition of living with *banjir*. It becomes a phenomenon that has been integrated into customs and generalizable memories. Thus, a culture that assembles human, nature, and materiality is formed with *banjir*.

Zaenuddin H. M., a journalist, once observed that “every time *banjir* hits the capital city, everyone tends to be very engaged in the issues and debates, even though most is just talk, without solutions or any meaningful actions. But once *banjir* is over, everyone forgets instantly and no one really cares anymore.”<sup>55</sup> After the flood, most

<sup>54</sup> See Bambang Nurbianto, “Seasonal Flooding? No Big Deal, Many Jakarta Folks are Used to It” and “Jakarta Squatters Unaware They are Part of the Problem,” *Jakarta Post*, November 13, 2002.

<sup>55</sup> Zaenuddin HM, *Banjir Jakarta: Dari zaman Jendral JP Coen (1621) sampai Gubernur Jokowi (2013)* (Jakarta: Change Publication, 2013): x (author’s translation).

people resumed their daily lives and *banjir* became for many just one more story among the many other stories in everyday life.

Over time, *banjir* assumes normalcy. People know that *banjir* will come back, and they also know that it will go away again, too. Soon, any particular *banjir* loses its specificity as memories of it merge with the fragmented images of a series of other *banjir* recorded by historians and journalists. In Zaenuddin's *Banjir Jakarta*, every *banjir* is listed in a manner such that one is hardly distinguishable from others. His book is a memory work that, ironically, invites an understanding of *banjir* as a living history of the city. *Banjir Jakarta* is organized chronologically, that is, according to the flow of *banjir* over time. Zaenuddin even mentions in his introduction that notable *banjir* already took place in the fifth century,<sup>56</sup> before it gave way to the time of J. P. Coen (1618–23) and all the way up to the Jokowi era (2012–14): 1621, 1654, 1893, 1909, 1919, 1932, 1950, 1952, 1960, 1963, 1976, 1977, 1984, 1985, 1994, 1996, 1999, 2002, 2007, 2013.

Zaenuddin's book consists of a series of snapshots of *banjir* over time. It leaves us with the impression that *banjir* is an "annual" urban event, some more festive or disastrous than others. The time of its return is somewhat predictable, even as it has become more frequent today than before. Yet the manner of its arrival is always somewhat mysterious. The book also invites us to ask the question, how far back do we need to go to understand today's urban floods? *Banjir* in the area of today's Jakarta has already been recorded since the time of the Tarumanagara kingdom (358–669 CE). And what scale of analysis would make more sense—urban, regional, national, or global? Can it be analyzed in terms of who is (most) responsible for *banjir*? Who suffered and benefitted the most? Should climate change be blamed? Or is it easier and more action-oriented to blame riverbank-dwelling poor people? Zaenuddin's book, however, is not meant to be about policy. Instead, it seeks to show the recurrence of *banjir* as culture. It starts with a lyric of a 1970 song by Benjamin Sueb, a Betawi comedian, which begins with "*Jakarta kebanjiran*" (Jakarta is flooded) and ends with a normalizing acceptance of *banjir*: "*coba tenang jangan ribut; jangan pade kalang kabut*" (try to stay calm, don't fuss; don't, sir, be chaotic").<sup>57</sup> Considering the *longue duree* of the recurrence of *banjir*, one wonders whether, over time, *banjir* has not only sent water, but also produced culture. In other words, has *banjir* produced a "flood culture" that is a culture formed by disaster, by the perception or understanding of *banjir*, by the technique of managing floods, and by the opportunities *banjir* provides to reinvent tradition, to form community, to legitimize authority, to displace people, to make money, and to renew the city?

### Displacing *Banjir*

Cultural aspects of *banjir* are often seen in terms of continuity, but there are ways to see *banjir* differently. For instance, what if the time of *banjir* is understood as linear (instead of cyclical), progressing towards a catastrophic end of the world? What if *banjir* is seen as getting worse and worse from year to year, so that it and the culture

<sup>56</sup> Zaenuddin, *Banjir Jakarta*, vii.

<sup>57</sup> Zaenuddin, *Banjir Jakarta*, vii.

associated with it must be controlled or ended once and for all? A different perspective demands that we consider moments of shift and rupture against *budaya banjir*, but such a transition, as this section will show, leads only to the politics of blaming whoever is easily identified as the “agent” of *banjir*.

As indicated earlier, the scale and depth of the 2007 *banjir* put Governor Sutiyoso in a defensive position. While arguing that *banjir* is *bencana alam*, he understood that some actions were needed to minimize the impact of that natural disaster, especially when financial support was available for doing so. Iwan Gunawan, a senior disaster-management adviser at the World Bank in Jakarta, identified the *banjir* of 2007 as historic. It became “a wake-up call for decision makers.”<sup>58</sup> It started a negotiation between the Indonesian government and the World Bank that, after several years of deal-making, finally led to the first dredging program in four decades. The World Bank agreed to support the “river normalization” project with a focus on dredging with a US\$189 million grant that, after some delays, started in 2012.<sup>59</sup> The government, for its part, is expected to maintain the city waterways to control sedimentation and to prevent the return of clogging problems.

As river normalization started, the state began to turn its gaze to the “infra” structure of the city: the hidden waterways behind shopping malls, apartment blocks, and *kampung* houses along the riverbanks. By then, 70 percent of the waterways were considered blocked by “garbage, debris, and utility cables.”<sup>60</sup> The Asian Development Bank’s country director for Indonesia described Jakarta’s rivers as the “trash cans of the city.”<sup>61</sup> Such a finding demands action. Sutopo Purwo Nugroho, head of information for Indonesia’s National Disaster Mitigation Agency (Badan Nasional Penanggulangan Bencana, BNPB), explained in 2012 that:

The scope and problems of flooding in Jakarta continue to increase. Aside from the natural factors, it is anthropogenic [man-made] factors ... Nature used to be the dominant factor before the '70s. After that, the causes of floods became more complex. The combination of natural and anthropogenic [factors] is what makes the floods happen.<sup>62</sup>

<sup>58</sup> As cited in Joe Cochrane, “What’s Clogging Jakarta’s Waterway? You Name It,” *New York Times*, October 3, 2016: A4.

<sup>59</sup> The river-dredging project was initially called Jakarta Urgent Flood Mitigation Project (JUFMP), for which the state and the municipality provided some matching funds. The project was only sporadically and marginally carried out during the term of Governor Fauzi Bowo (2007–12). It was delayed (*molor*) until the legal basis of the loan was established. “Perpres Pengerukan Sungai Keluar Akhir Oktober,” *Koran Jakarta*, October 17, 2010. About “river normalization,” see also Lukas Ley, “Discipline and Drain: River Normalization and Semarang’s Fight against Tidal Flooding,” in this issue of *Indonesia*.

<sup>60</sup> Cochrane, “What’s Clogging Jakarta’s Waterways?”

<sup>61</sup> Cochrane, “What’s Clogging Jakarta’s Waterways?” Cochrane also indicates: “On a recent day, the pile of trapped trash bobbing on the surface [at Manggarai’s floodgate] included a motorcycle helmet, sandals, soccer balls, styrofoam containers, a bicycle inner tube, and a pillow. There was some natural debris, too: banana trees and a dead rat. Jakarta’s clogged waterways are not just a minor irritant and eyesore. They amount to a serious urban environmental problem that has killed dozens of people during flooding in recent years, caused countless illnesses, displaced more than one million people, and led to billions of dollars in losses” (page A4).

<sup>62</sup> As cited in Rizki Saleh, “Banjir Tetap Intai Jakarta, Penyebabnya Lebih Kompleks,” *berita2bahasa.com*, December 23, 2012, <http://berita2bahasa.com/berita/01/1912312-banjir-tetap-intai-jakarta-penyebabnya-lebih-kompleks>, accessed June 20, 2017.

Shifting the gaze from nonhuman forces to human activity, BNPB has blamed the dumping of household garbage and industrial waste into Jakarta's rivers on anthropogenic forces.<sup>63</sup> And just as society itself is structured unevenly, the blame is soon directed predominantly to the most vulnerable citizens: those people who occupy the riverbank. The focus on people who live on the riverbanks has contributed to a fixation on their habitual practice of throwing household garbage into the Ciliwung River. As one resident indicated, "We do not know where else to throw our household garbage because there is no garbage dump in this area. We throw it onto the riverbank so it will be washed away."<sup>64</sup>



"Dumping of rubbish into rivers invites flooding"—  
publicity campaign linking *banjir*, garbage, and the river  
during the time of Governor Jokowi (author's photo)

The focus on human behavior and the concomitant river normalization project have led to a belief that riverside dwellers are the main cause of *banjir*. They are the perpetrators. They are the problem that has caused the city to leak. However, everyone also knows that riverside dwellers are flood victims themselves. So, as both victims and perpetrators, dwellers of irregular settlements are subjected to what Foucault would call a "regulatory discipline."<sup>65</sup> And they become "docile subjects," open for transformation. They get from the government this message (and this is what Governor Ahok would say to justify the eviction of riverside *kampung* dwellers and relocating them to high rises): "Move away permanently from the riverbank; it is dangerous for you and, furthermore, it is actually causing floods in the city." The river normalization project thus serves as a prelude to displacement—without which, according to this narrative, the river flooding cannot be managed.

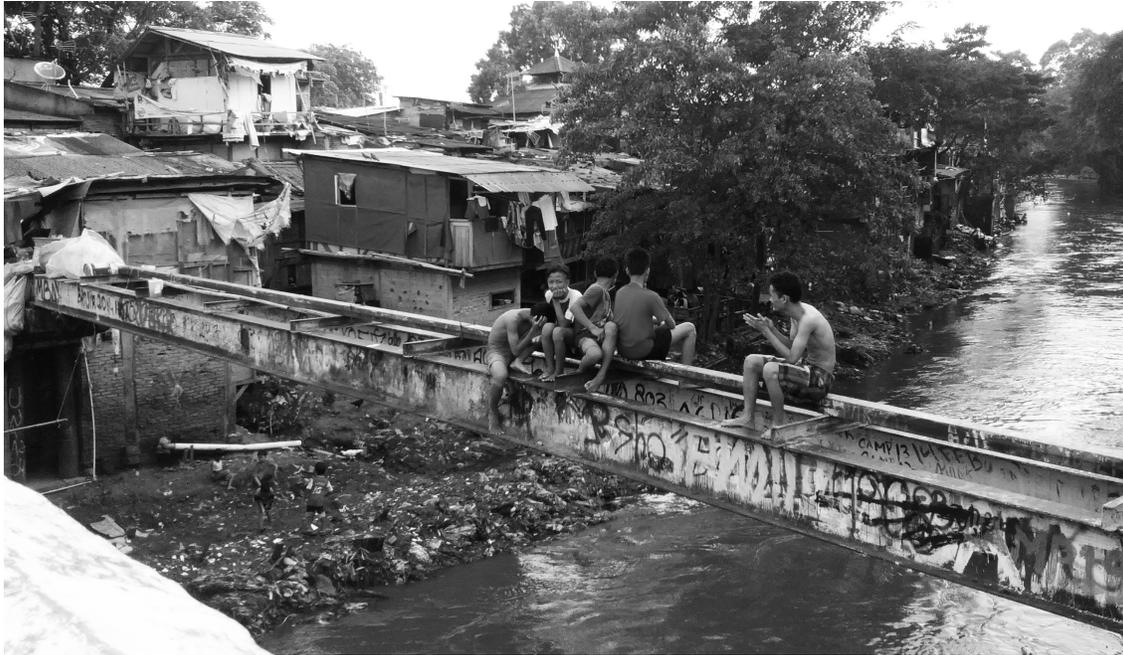
The critique of anthropogenic forces entails an identification of problems that, in turn, has led to the eviction and relocation of *kampung* dwellers. As *Kompas* put it, "the

<sup>63</sup> See also Bambang Nurbianto, "Blue, Black, and Red Rivers Run through Jakarta," *Jakarta Post*, November 13, 2002.

<sup>64</sup> "Residents Continue to Use Ciliwung as a Garbage Dump," *Jakarta Post*, March 26, 2008.

<sup>65</sup> Foucault discusses the relationship between a docile body and disciplinary acts that sought to transform it in *Discipline and Punish: The Birth of the Prison* (New York: Pantheon Books, 1977).

normalization of the river requires the removal of *kampung* settlements on riverbanks.”<sup>66</sup> Riverside dwellers became the subject of disciplinary practices, and relocating their settlements was considered a “more realistic approach than creating new reservoirs.” As a result, according to *Kompas*, about seventy thousand Jakarta households along the Ciliwung River would need to be relocated so that the river could be widened to accommodate more water and to allow for an inspection path on both sides of the river.<sup>67</sup>



“My river, my *kampung*.” Before the eviction, Kampung Pulo, 2014 (author’s photo)

The *Kompas* article was accompanied by a map of settlements along the Ciliwung River in the central part of Jakarta. The map also provided the names of the areas and the numbers of people targeted for relocation. It also calculated the number of apartment units needed to resettle those being evicted. Governor Jokowi instructed that the two sides of the river should be kept free of any structure to allow for an “inspection path” and “this year we start from Kampung Pulo and Kalibata”; the mayor of Central Jakarta confirmed that in one year, “there will be no settlement from Karet floodgate to Tanah Abang bridge”; and the city government declared that “river normalization will start from its territorial boundary at Depok down to Manggarai. However, our priority for now is Kampung Pulo.”<sup>68</sup>

Kampung Pulo was identified as the most vulnerable area during the rainy season, as it retained water from upstream areas that flowed into the Ciliwung River. In

<sup>66</sup> “Relokasi Warga, Syarat Normalisasi Sungai” (Relocation of residents is required for normalization of river), *Kompas*, February 3, 2014, <http://megapolitan.kompas.com/read/2014/02/03/1340285/Relokasi.Warga.Syarat.Normalisasi.Sungai>, accessed June 20, 2017.

<sup>67</sup> “Relokasi Warga, Syarat Normalisasi Sungai.”

<sup>68</sup> “Relokasi Warga, Syarat Normalisasi Sungai.”

August 2015, the city government determined to seize Kampung Pulo's occupied land from its residents in order to expand the river's capacity. The eviction was marred by a clash between officials from the Public Order Agency and residents who fought to stay along the river. Almost one thousand households were evicted, and some of those were relocated to the two newly built sixteen-story low-cost apartment towers, about a kilometer from Kampung Pulo. Governor Ahok claimed that the eviction was meant to "save the residents from flooding, so that Kampung Pulo will never *banjir* again."<sup>69</sup>

The dissolution of one infrastructure thus has led to another infrastructure. In this sense, the raging floodwater is not only destructive but also transformative. The old world of Kampung Pulo cannot be maintained, according to city officials, if a new world is to be born. Apartment buildings, as symbols of urban modernity, are built at different places to accommodate the relocated *kampung* dwellers. Yet all of those who are "saved" remain attached to their old world: they are still poor, and now are even more dependent, for sure, on an infrastructure that was built solely to justify their displacement and over which they have no control.

### The New Urban Form

In 2005, ten years before the eviction of Kampung Pulo's residents, I was involved in a one-week training workshop for members of the Urban Poor Consortium, a community-activism organization. One of the issues concerned the relationship between *banjir* and the disappearance of the city's green open spaces and water catchment areas. The discussion led to questions about *kampung*, its dwellers, and their relationships to the river. The community organizers indicated that the urban poor were perfectly aware of how they were perceived by the middle class and city government officials. In 2005, a community leader said something like this to me (reproduced from my field notes):

We know that there is a tradition of blaming the urban poor—that they have narrowed the river, and they threw garbage into the river, and so on. But this charge is no longer new to us. We have heard this kind of charge very often to the point that the people who charged them are also getting tired of this understanding. The scale of *banjir* today is just too big to be caused solely by the irregular settlements on the riverbank! There must be other practices that have also caused *banjir*, such as the deforestation up- and downstream; and the disappearance of green spaces in the city caused, not so much by houses [built] along the river, but by the development of commercial enterprises, such as shopping malls and condominiums, many of which violated land use [regulations]. And a substantial area for water catchment [was] converted to commercial complexes.

Accordingly, from the perspective of the Urban Poor Consortium, the elites, too, contributed to *banjir*. They, too, violated land-use rules. Developers were involved in backdoor deals with government officers to obtain permits for development in green areas. Members of the consortium were perfectly aware that the business elites who

<sup>69</sup> Basuki Tjahaja Purnama (Ahok), "Mereka Ingin Mentahanya, Bos ..." *Tempo*, September 6, 2015: 40.

built superblocks, new towns, and housing by taking up green spaces are the main contributors of *banjir*.<sup>70</sup>

In the history of Jakarta, the 1990s was the height of city zoning infringements.<sup>71</sup> Since the 1980s, upstream areas have taken massive advantage of the weak spatial zoning in greater Jakarta. “As a result,” as Rita Padawangi and Mike Douglass point out, “Jakarta’s open green area was reduced from 40 percent in 1985 to 9 percent by 2002.”<sup>72</sup> Many villas, hotels, and shopping centers were built during this period by kicking aside zoning rules. Meanwhile, downstream areas had already started violating zoning since the 1970s, with water-collection areas transformed into commercial opportunities for housing compounds, industrial complexes, recreation sites, and shopping centers. Bunyamin Ramto, Jakarta’s vice governor (1984–88), confessed that half of the twelve-hundred hectares (4.6 square miles) of North Jakarta’s off-limit areas was filled in and used to build residential areas.<sup>73</sup> Developers knew that their properties were being built in a known flood area, but houses were still built and sold rapidly.

Buyers seemed to believe that flood control infrastructure, such as canals and pumps, would reduce the risk of flooding, so why not buy those houses? I related earlier the stories from Tjhi Fat Khiong, about how his area, Pluit, was constructed by Endang Wijaya (Acai) in the 1970s, with a blessing from Ali Sadikin. Over the years, with the city government, the residents there set up three pumping stations, which they named after planets—Mars, Venus, and Jupiter.<sup>74</sup> They also built a 100-meter-long embankment three meters high and ten meters thick, on which stood some additional pumping stations. The height of the embankment has been raised three times in the course of twelve years, all of which is to prevent the area from becoming a total flood zone.<sup>75</sup> Such engineering support is predicated on the assumption that technology (and *hoki*) can control *banjir*. But, alas, as we have also seen, Pluit was inundated in 2013.

Today’s developers nevertheless continue the brave legacy of Pluit by engineering their built environment to beat *banjir* with their own systems of flood mitigation. In most property development today, we see the grading and leveling of open land so that water will flow out of the space to the surrounding lower areas. This privatized

<sup>70</sup> Developers’ violation of land-use regulations recalls the practice of informality, which, according to Ananya Roy, applied to both the formal and the informal sectors. See Ananya Roy, “Urban Informality: Toward an Epistemology of Planning,” *Journal of the American Planning Association* 71, 2 (2005): 147–58.

<sup>71</sup> Major violations of land use regulations were already evident in the 1980s. Rio Tambunan, who was head of the City Administration Office (Dinas Tata Kota) from 1971 to 1975, revealed (in an interview in 2002) how “land use was changed following the wishes of property developers who were allowed to make profit from selling lands.” See Rio Tambunan, “Tata ruang Jakarta diubah atas pesan sponsor,” *Suara Pembaharuan*, March 3, 2002. For reports on violations in the 1980s and the 1990s, see: Bernard Dorleans, “Urban Land Speculation and City Planning Problems in Jakarta before the 1998 Crisis,” in *The Indonesian Town Revisited*, ed. Peter J. M. Nas (Munster: LIT Verlag and ISEAS, 2002): 41–56; and Mike Douglass, “Globalization, Mega-Projects, and the Environment: Urban Form and Water in Jakarta,” *Environment and Urbanization ASIA* 1, 1 (2010): 45–65.

<sup>72</sup> Padawangi and Douglass, “Water, Water Everywhere,” 531.

<sup>73</sup> Mahardika Satria Hadi, “Kisah Tentang Rawa yang di Uruk,” *Tempo*, February 3, 2013: 54.

<sup>74</sup> *Tempo*, “Diterjang Rob, Dientak Amblesan Tanah,” *Tempo*, February 3, 2013: 53.

<sup>75</sup> *Tempo*, “Diterjang Rob, Dientak Amblesan Tanah.”

and localized (and uncoordinated) method of flood mitigation has compromised the old flood-gate canal system. It has made obsolete van Breen's invention. We do not know much yet about the impact of the discursively built, private systems of flood control, but we know that today's *banjir* is more unpredictable than ever before. The flow of water is more difficult to control because the contours of the city are changing due to the uncoordinated leveling of ground by individuals and property developers who care only about their property. They don't care where the water goes provided it goes outside their property lines. This approach has motivated even more self-styled methods of flood mitigation throughout different neighborhoods, especially among those property owners who have been left alone to find their own solution. This includes middle-class neighborhoods in Northwest Jakarta, where my parents are living (see photo, below). Everyone (including those who live in the *kampung*) raises the floor inside their houses to reach the high-water line and, consequently, the sidewalk outside follows the individually designed flood-migration path. Such leveling (*peninggian*) requires no permit. It is a pure, bottom-up approach to flood mitigation with no need for an environmental impact assessment.

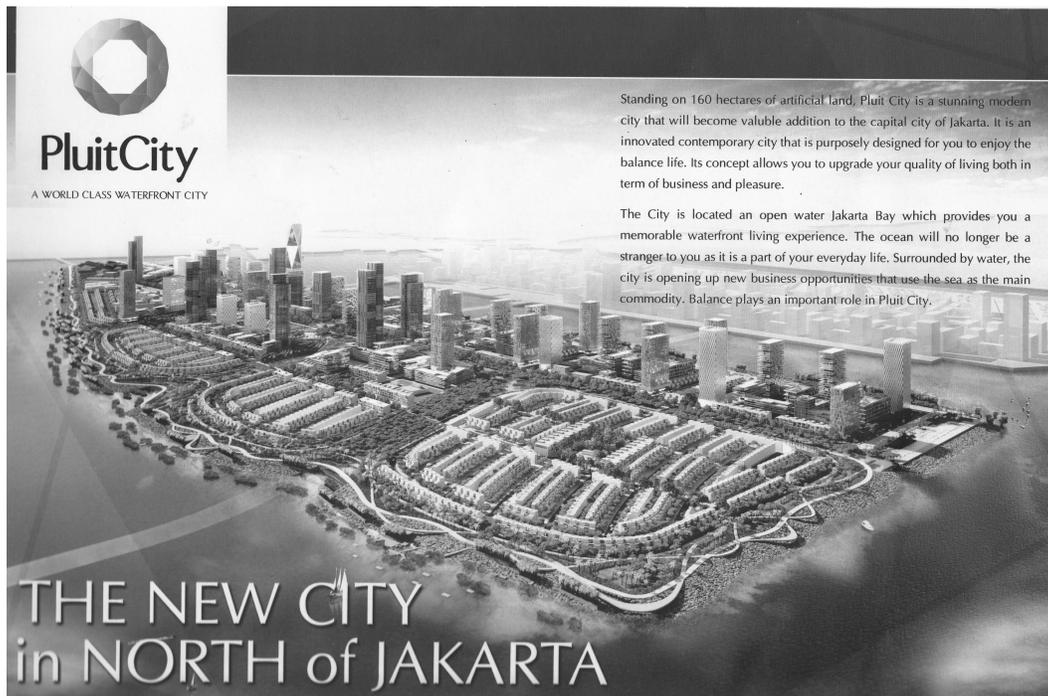


Leveling the sidewalk (author's photo)

For individual households, *peninggian* is costly, and there is a limit to how high one may go by raising an existing floor or adding a new one above the old floor. Property developers know this very well. They thus offer a much grander and yet simpler "solution": just leave the sinking neighborhoods and move to a new city. The historic 2013 *banjir* in Pluit thus has not prevented developers from developing property in coastal areas. Right after the great deluge in Pluit, PT Agung Podomoro Land Tbk, a major real estate company (which at one point branded itself around the motto "back to the city," with superblocs in Jakarta), started to promote a mega project called the New Pluit City. The notion of "new" gained substance after the flood, which sank the property values of the now "old" Pluit. New Pluit City will be located on reclaimed land surrounded by sea, away from Jakarta. It will be like an unsinkable ship leaving behind the drowning mainland Jakarta. The company's "New City" brochure declares:

The City is located [on] an open-water Jakarta Bay which provides you a memorable waterfront living experience. The ocean will no longer be a stranger to you as it is a part of your everyday life. Surrounded by water, the city is opening up new business opportunities that use the sea as the main commodity. Balance plays an important role in Pluit City.

There are all kinds of metaphors and allusions to water and ocean as not being a threat, but as giving a new life (even as it is valued more as a commodity), and *banjir* Jakarta would no longer be part of everyday life. Here we see again an instance of how the breaking down of one infrastructure has led to another. Property goes, property comes—just as normal as *banjir* that goes and comes regularly, but New Pluit City won't be relying on the water pumps of Tjhi Fat Khiong's generation. New Pluit City is for yet another "Jakarta Baru." Unlike that of Jokowi and Ahok's, this one will not be in Jakarta. It will be on an island of its own, where the ocean will become a friend, and the "old" Jakarta will be a stranger. PT Agung Podomoro is doing its best to make consumers feel safe. The company brought in Boskalis and Van Oord, the Dutch contractors who built Palm Jumeirah and the World, in Dubai, and claims a history of building the port city of Surabaya in 1911. And perhaps more importantly, so the promotion continues, the New Pluit City will be protected by the Giant Sea Wall, in the shape of mighty bird of Garuda (see the following section), in case nature ever dares again to strike back (*alam mengamuk*).



"Pluit City, A World Class Waterfront City—The New City in North of Jakarta"  
(source: brochure)

But New Pluit City's construction did not get underway without controversy and challenge. Protests took place in Lontar village, Banten province, where Boskalis and Van Oord were mining sand. Meanwhile, bribery and corruption charges against those

trying to take advantage of sketchy law enforcement led to the imprisonment of Agung Podomoro Land's CEO. But by then, according to the Save Jakarta Bay Coalition (Koalisi Selamatkan Teluk Jakarta), "in 2015 alone there were 113 cases of forced evictions that occurred in Jakarta affecting 8,145 families and 6,283 micro businesses."<sup>76</sup>

### The Great Sea Wall

Since the great flood of 2007 (considered to be a different kind of flood, for it included the rushing through of sea water), Dutch and Indonesian experts have been discussing a coastal development plan, but it was only in 2014 (at the end of SBY's term) that the project gained recognition. In November 2013, Mark Rutte, prime minister of the Netherlands, brought 150 business people from 106 companies, the "biggest ever Dutch delegation to visit Indonesia" (including Van Oord, who was just awarded the contract for New Pluit City), to Indonesia to stimulate trade and development.<sup>77</sup> That visit was followed by one by Melanie Schultz van Haegen, the Dutch Minister of Infrastructure and the Environment, in April 2014. By then, the master plan of National Capital Integrated Coastal Development (NCICD), declared as a joint project of the Indonesian and Dutch governments, was officially presented. The artist's rendering shows how the master plan's infrastructure could take the shape of Indonesia's national symbol, the mighty Garuda bird of Hindu-Javanese mythology.

On April 1 and 2, during Minister Haegen's visit, a high-level roundtable meeting was held in Jakarta, involving the Coordinating Ministry for Economic Affairs, National Development Planning Agency, Ministry of Public Works, and City Government of Jakarta. It was attended by 150 experts (consisting of academics, government officials, private-sector representatives, and twenty young professionals) from Indonesia, South Korea, Japan, China, and the Netherlands. The presentation revealed that the master plan is ...

... truly Indonesian in its design, reflecting Indonesian culture and matching Indonesia's rising status, as the Garuda will protect the city and will bring safety and prosperity to the National Capital. It will offer Greater Jakarta a new image clearly visible and recognizable from the sky ... It is the first image of Indonesia which foreigners and Indonesian expats will see when landing over the Bay of Jakarta. It is shaped to provide space for growth and connectivity ... A capital ready for the 21st century. To be proud of and to be enjoyed by all ... This is more than just an ornament or a landmark. The Great Garuda protects the National Capital of Indonesia against the sea ... [At the ground level] the Great Garuda will be the prime location for investors. For new residents, it will be a new, modern place to live; and for Jakarta residents, the place to escape

<sup>76</sup> See "Joint Letter of Concern on the Government of the Netherlands Support on Reclamation of 17 Artificial Islands and NCICD Project in Jakarta Bay," October 28, 2016, available at [https://www.tni.org/files/article-downloads/concern\\_on\\_the\\_gov\\_of\\_the\\_netherlands\\_support\\_on\\_reclamation\\_of\\_17\\_artificial\\_islands\\_and\\_ncicd.pdf](https://www.tni.org/files/article-downloads/concern_on_the_gov_of_the_netherlands_support_on_reclamation_of_17_artificial_islands_and_ncicd.pdf), accessed June 21, 2017.

<sup>77</sup> For a brief report by the Embassy of Indonesia at The Hague on Mark Rutte's visit, see <http://new.indonesia.nl/index.php/en/all-category/84-asean-multilateral/532-dutch-prime-minister-visit-to-indonesia-version-2-0-of-the-bilateral-relationship>, accessed June 21, 2017.

the crowded city without traveling for hours to spend some time on the waterfront with clean sea water and a fresh breeze.<sup>78</sup>

The series of presentations by experts from the different units were sustained by colorful statistics, maps, tables, graphs, diagrams, images, projections, and predictions—all of which ultimately helped to, in the words of NCICD’s team, “turn threats into opportunities.” On the last slide of the second day’s concluding panel, the audience read these encouraging words: “Action for protection is required *now!!* It is possible: *Ya kita harus bisa!* (“Yes we can!”).<sup>79</sup>

Infrastructure is an irresistible sign of the modern, ideally put in place by the government to symbolize that power is still in its hand. As indicated at the beginning of this essay, Jokowi once dreamed of a deep tunnel as his infrastructural ideal. Two weeks after winning Indonesia’s presidential election, Jokowi returned to his obsession with infrastructure for the city. He jumped-started his leadership by endorsing the plan for a Great Sea Wall to save Jakarta from drowning. But, just two weeks before Jokowi was sworn in, outgoing President SBY, wishing to register the project as the legacy of his own administration, had already signed off on this plan.<sup>80</sup> He instructed the coordinating minister for economic affairs, Chairul Tanjung, to perform the groundbreaking on October 9, just ten days before Jokowi took office.

While Indonesia’s post-Suharto presidents all wish to register their legacy in and through the Giant Sea Wall, little did they care that just such a project was first initiated in the 1990s under Suharto’s regime of private enterprises. Thus, the basis of the Giant Sea Wall is actually a Presidential Decree from 1995, and it has been kept alive as the legal foundation for all the subsequent land reclamation projects. Little did these post-Suharto leaders realize, too, that Suharto’s decree was not really intended to help the state save the city. Instead, it was meant to promote and protect another, perhaps final, round of capitalist accumulation for private developers, many of who were partners of Suharto’s family. After the city’s creative destruction and peri-urbanization that is beyond repair, the sea is the “last frontier” for everything that is new and hopeful. Yet, sitting uneasily between illegality and the desire for law enforcement and capitalist rationale, the status and governance of the Giant Sea Wall are just too complicated to clarify.<sup>81</sup> Thus, until today, no one seems to know what is justifiable in the reclaimed land.<sup>82</sup>

<sup>78</sup> Power Point presentation prepared by the team from National Capital Integrated Coastal Development for the high-level roundtable meeting, reporting on the master plan, its current status, and implementation (Jakarta; April 1 and 2, 2014).

<sup>79</sup> Presentation of Dr. Ir. M. Basoeki Hadimoeljono, director general of spatial planning, ministry of public works, “Key Messages from the Expert Meeting,” National Capital Integrated Coastal Development’s High Level Roundtable Meeting, Jakarta, April 2, 2014.

<sup>80</sup> Bill Tarrant, “The Great Wall of Jakarta,” *Reuters Asia*, December 22, 2014, <http://www.reuters.com/article/us-environment-jakarta-seawall-idUSKBNOK017420141222>, accessed June 21, 2017.

<sup>81</sup> For a critical discussion of the NCICD, see Rachel Thompson, “A Dutch Garuda to Save Jakarta? Excavating the NCICD Master Plan’s Socio-environmental Conditions of Possibility,” in *Jakarta: Claiming Spaces and Rights in the City*, ed. Jorgen Hellman, Marie Thynell, and Roanne van Voorst (New York: Routledge, 2018), 138–56.

<sup>82</sup> For some reports on the controversy, see: “Arguments For, Against Reclamation,” *Jakarta Post*, November 6, 2015; “Reklamasi Teluk Jakarta: Berharap Solusi Menuai Kontroversi,” *Properti Indonesia* 24, 274 (special report, May 2016): 20–33; and interview with Rizal Ramli, coordinating minister for maritime affairs, “Jangan Semua Dibawa ke Presiden,” *Tempo*, July 18–24, 2016: 100–3.

Much of the sea wall's presumed justification resides in the prophetic language of saving Jakarta from sinking. While capitalist logic has certainly made the design for such a mega project possible, *banjir* has made the project desirable. The city will sink without it, so the argument goes. This argument alone, however, releases many more aspirations, which often surpass the issues of *banjir*. Its technical fix will certainly surpass Van Breen's canal and floodgate system in function and symbolism, but its real power resides in establishing a new set of fantasies about the longevity of Jakarta: that a new life, a new city can be imagined and created again and again. Much like the annual return of the old *banjir* that eluded critical scrutiny, the idea of the Great Sea Wall eclipses critiques of the conditions that have led to *banjir*.

Naomi Klein, after mentioning Jakarta's 2007 *banjir*, once wrote that "after each new disaster, it's tempting to imagine that the loss of life and productivity will finally serve as a wake-up call, provoking the political class to launch some kind of 'new New Deal.'"<sup>83</sup> The sea wall that promises a new global city is just such a new New Deal, which for Klein is a form of "disaster capitalism" with ties to economic reengineering. Be that as it may, this essay suggests that resolving Jakarta's *banjir* requires much more than a wake-up call. Nor is it meant to be a silver bullet to resolve the city's flooding woes once and for all. Instead, more pervasively, it shows simply the expansive potential of *banjir*, how much political power and money can be generated by maintaining (instead of eliminating) the floodwaters' circuits of coming and going.<sup>84</sup> With *banjir*, there will always be another new New Deal to make.

Ironically, the new Giant Sea Wall cannot even be considered as a proper "new deal" project. As Koalisi Selamatkan Teluk Jakarta points out, "the land reclamation project didn't have any Strategic Environmental Assessment (SEA, or KLHS [Kajian Lingkungan Hidup Strategis]), has had no public participation in the process of the Environmental Impact Assessment (EIA), and there was no fulfilment of the rights to information on the potential threats of environmental damages and losses."<sup>85</sup> Coalition members also believe that with a focus on fighting the sea water, the sea wall will just "hinder the outlet of the thirteen rivers discharging in Jakarta Bay. The reclamation project will exacerbate, rather than solve, the floods which occur yearly during the rainy season."<sup>86</sup> As such, the Giant Sea Wall project brings us back to the question that continues to haunt Jakarta, which is, where will the water go?

<sup>83</sup> Naomi Klein, "Disaster Capitalism: The New Economy of Catastrophe," *Harper's Magazine*, October 2007: 48.

<sup>84</sup> In a study of flooding in Semarang, Lukas Ley uses the term "borrowed time" to describe the politics of maintenance in the neoliberal time. See Lukas Ley, "Building on Borrowed Time: The Temporal Horizons of Infrastructural Breakdown in the Delta of Semarang" (PhD Dissertation, University of Toronto, 2017).

<sup>85</sup> Koalisi Selamatkan Teluk Jakarta, "Joint Letter of Concern on the Government of the Netherlands Support on Reclamation of 17 Artificial Islands and NC1CD Project in Jakarta Bay," October 28, 2016, [https://www.tni.org/files/article-downloads/concern\\_on\\_the\\_gov\\_of\\_the\\_netherlands\\_support\\_on\\_reclamation\\_of\\_17\\_artificial\\_islands\\_and\\_nc1cd.pdf](https://www.tni.org/files/article-downloads/concern_on_the_gov_of_the_netherlands_support_on_reclamation_of_17_artificial_islands_and_nc1cd.pdf), accessed June 21, 2017.

<sup>86</sup> Koalisi Selamatkan Teluk Jakarta, "Joint Letter of Concern."

**In the End ...**

This essay suggests that the discursive nature of Jakarta's infrastructure has shaped multiple narratives of *banjir*. There are thus all sorts of readings, interpretations, and subjectivities to come to terms with *banjir* as *bencana*, *bocor*, *berkah*, *budaya*, and so on. At different moments the Queen of the South Sea has been blamed, as has urbanization, the urban poor, capitalist modernization, and property developers. At another time or simultaneously, blame has fallen on the contour and topography of the land, the typology and morphology of the built environment, the moon, and climate change. All of those have been seen as the causes of flooding. Environmentalists, green activists, and the urban middle class see the lack of green space as partly responsible for the floods, and the governor blamed those living in irregular riverside settlements for clogging the waterways. All of that just goes to show how people, at different times and under different circumstances, assign "agency" to human activity, nature, the supernatural, and infrastructure. These different explanations and imaginations provoke anxieties, the responses to which have different effects—they cause evictions and new multi-million dollar projects; they give political legitimacy and social life to the divided city; they beget culture, which links *banjir* and everyday life with the cosmos; and they convey to project engineers and managers conflicting messages, as, after all, there are benefits to and profits to be made from keeping *banjir* alive. Like water, when touched, the manifold responses to flooding flow one into another, and leave the city in a state of flux. In the end, none are reliable to counter the thoroughgoing deterioration of the city's social, natural, and built environments.

