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– EVICTING SLUMS, 'BUILDING BACK BETTER': Resiliency Revanchism and Disaster Risk Management in Manila

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Abstract

This article examines how the politics of managing global catastrophic risks plays out in a stereotypically 'vulnerable' megacity in the global South. It analyses the disproportionate impact of the 2009 Ondoy floods on Manila's underclasses as a consequence of the failures and partial successes of twentieth-century developmentalism, in the course of which the Philippine state facilitated a highly uneven distribution of disaster risk. It argues that the selective interpretation and omission of facts underpinned a disaster risk management (DRM) strategy premised on the eviction of slum dwellers. Through the lens of aesthetic governmentality we analyse how elite and expert knowledge produced a narrative of the slum as the source of urban flood risk via the territorial stigmatization of slums as blockages. We also show how the redescription of flood risk based on aesthetics produced uneven landscapes of risk, materializing in the 'danger'/'high-risk'-zone binary. This article characterizes the politics of the Metro Manila DRM strategy by introducing the concept of resiliency revanchism: a 'politics of revenge' predicated on the currency of DRM and 'resiliency', animated by historically entrenched prejudicial attitudes toward urban underclasses, and enabled by the selective interpretation, circulation and use of expertise.

Introduction

As objects of policy, money and theory, Southern cities often appear through vocabularies of deficiencies and crises. The exercise of state power, the assumption of debt and the creation of categories proceed with the invocation of some technically articulated need—overcrowding, underprovision, poverty. Vulnerability to climate change has recently emerged as one of these deficiencies: as more poor people move to and live in underprovisioned coastal and riverine cities, and as sea levels rise and extreme weather becomes more frequent, we are likely to see more climate-related disasters. The rapid rise of this narrative had been helped along by recent catastrophic floods in Southern cities, which have had the effect of rendering visible these presaged futures in the present. Consequently, it is now in fashion to rank cities based on climate risk indices, both now and into the projected future; to attribute proximate causes of urban growth such as conflict, forced migration, or de-agrarianization to the ultimate cause of climate change; or to pledge billions of dollars toward building 'resilient' cities.

As these ideas gain wider currency in the public imagination, in policy agendas and in infrastructure budgets, we believe it is necessary to contribute to ongoing discussion about their politics (Cretney, 2014; Evans and Reid, 2014; Biermann *et al*., 2016; Allen *et al*., 2017; Leitner *et al*., 2018). Specifically, we ask: How and why do some ways of understanding urban climate risk gain traction over others? For what and to whose ends are characterizations of urban and climate crises, projects such as DRM and ideals such as resilience used and abused?

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We ask these questions—and propose answers for them—in the spirit of development criticism. The way in which the climate crisis in the global South is being constructed, and the solutions that are presented to address it, are becoming the twenty-first-century equivalent of the development project of the twentieth century: a pervasive, persuasive way of looking at the world, employing similar motifs of crisis and urgency, casts of Promethean experts and broad swathes of territories and populations 'in need'. To draw a final parallel with critics of the development project, we seek to illuminate how addressing these needs—in this case, 'vulnerability' and 'risk'—are vectors for power.

We develop our case by re-examining the catastrophic effects of the floods caused by Tropical Storm Ondoy (international codename: Ketsana) on Manila in the Philippines, in 2009. It is a story that can and has been told through familiar tropes of poor urban populations in an underbuilt and mismanaged city, and of a disaster in the present portending a volatile future climate. We then shift our focus to the politics that are enabled by these tropes, and how the floods allowed elites to redefine unwanted landscapes and populations in terms of risk and vulnerability, and then to justify selective and exclusionary exercises of state power to avert this imagined future. We develop our argument through an understanding of risk developed by Ulrich Beck (Beck, 1992; 2009; Beck and Lau, 2005) to reinterpret the disaster itself, the preexisting landscapes of need that precipitated its uneven effects, and the selective exercises of violent state power which it justified.

Development as risk conquest, resiliency as risk management

We take Bankoff's (2001) observation as our starting point—that the development discourse of the twentieth century, and the vulnerability discourse that renders significant swathes of populations and territories unsafe, share a dichotomization of the world into desirable and undesirable states—resilient and vulnerable, developed and developing—and a unilinear, evolutionary view of social change. Bankoff builds on development critics, particularly Escobar (1995), to analyse the ideological force of this discourse: how it has been used to justify technicist intervention in vulnerable societies to accomplish this process, and how it has allowed Western powers to construct poverty and inequality as natural backward states, obscuring their own role in creating these conditions.

We expand upon Bankoff's research to apply other insights from development criticism to the study of vulnerability (Esteva, 1992; Escobar, 1995): how the construction of some societies as backward, the focus on solving the problems of this condition, and the urgency implied by this task made development an ideal vehicle for implementing the interests of dominant actors. The parallels and the common lineages are often in plain sight: much of the work on the impact of climate change and disasters on the urban South has been framed by the language of policy, multilateral development goals, or through the process of quantifying climate risk (Kreimer *et al*., 2003; UNDP, 2007). Parallels can also be discerned with how moral imperatives are employed in revanchist politics against unwanted populations and places in cities, for example, 'sanitation' in nineteenth-century Paris (Sibley, 1995), crime prevention in twentieth-century São Paulo (Caldeira, 2000) or urban 'regeneration' in Britain (Slater, 2016).

The 'risk society' thesis developed by Ulrich Beck provides a promising framework for our questions, as it situates an empirical concern for environmental and distributional issues within a broader theoretical account of modernity and its unintended consequences. Its core premise is that modernity, as a period of human history, is defined by seeing the future not as a product of external, often supernatural forces beyond human control, but rather as being within the domain of human agency. Inaugurating this period required discerning unknowable, unactionable uncertainties from knowable and actionable risks. The future presents both opportunities and

dangers, and the probabilities of desirable outcomes can be quantified—and thus acted upon—through the faculties of reason (Beck, 1992: 98; 2009: 4). Modernity could thus be understood as a project of using reason to 'discipline the future' (Ewald, 1991: 207).

Under what Beck refers to as 'first modernity', which corresponds to a social order defined by the modern state, industrialization and science, uncertainties presented by natural, external forces were gradually eliminated or controlled. But the process of disciplining the future unleashed new, dangerous forces with no parallels in human history. These manufactured risks, such as climate change and global economic crises, undermine the fundamental dichotomies of first modernity, for example, between nature and society, the national and the global, and facts and values. For instance, climate change is both a natural and a social issue, manifests itself at local and global scales, and debates over it are driven not only by science, but also by clashing values (Beck and Lau, 2005; Beck, 2009: 71–76). Some of these manufactured risks are catastrophic risks, with spatially and temporally unbounded consequences, threatening the very existence of human society. Yet paradoxically, they remain imperceptible at the level of individual subjective experience and are only rendered visible within scientific knowledge. They are therefore 'open to social definition and construction' (Beck, 1992: 22–23).

The emergence of these manufactured risks leads to another transformation. Conquering risk yields to the goal of managing risk, while the pervasiveness and invisibility of risks lead to fear becoming a dominant attitude (Beck, 2009: 8–9). This shift defines a transition from industrial society to risk society; from first to second modernity (Beck, 1992; Beck and Lau, 2005). Within second modernity, the key political issues are no longer confined to scarcity and the distribution of 'goods' (physical products as well as positive effects), but extend to issues of insecurity and the redistribution of 'bads' (i.e. the negative effects of risks) (Beck, 1992: 22–23). Power is no longer merely a function of relations of production, but of *relations of definition*: the ability to define what is and what isn't a risk, who is and isn't responsible for them, what kinds of knowledge render them visible, what counts as 'proof' of risk and their consequences and what forms of action are to be taken in response to these risks (Beck, 2009: 29–36). Consequently, the media, science and law become crucial arenas through which risks are understood and acted upon (Beck, 1992: 22–23).

Recentering risk society in a typhoon-belt megacity

With some dislocation and reworking, we find that Beck's thoughts provide a promising framework for understanding the politics of flooding in an at-risk coastal megacity for three reasons. First, it allows links to be built between resiliency as a second modern project of risk management and development as a first modern project of risk conquest: to see the former in terms of its roots in the latter, and to allow arguments to be developed based on one and then tested to enhance further understanding of the other. On a global scale, this point is apparent in Beck's substantive focus on climate change as a product of industrial society. But it is less obvious at the scale of a city, and in the context of the global South: can cities that are typically understood in terms of irrationality—lack of planning, irrational rural–urban migrants, shoddy infrastructure—be understood in terms of modernity?

We answer this question in the affirmative, based on postcolonial urban theory: theories of modernity developed elsewhere, including the West, can have purchase on what is happening in the South. The core premises of these ideas can be accepted alongside an ability to understand difference and contingency, and there can be intrinsic value in recognizing the ways in which these ideas are incomplete projects, and how bringing them into dialogue with the experiences of the global South can enrich them (*cf.* Yeoh, 1999; Shatkin, 2007; Roy, 2009). Cast in these terms, the stereotypical features of the vulnerable Southern city can be reinterpreted in terms of first and second modernities. Developmentalism can be recast as the form taken by the first

modern project of risk conquest, applied to the postcolonial developing world; in turn, the partial successes and unintended consequences of this project can be recast as manufactured risks.

Manila—and its dysfunctions, as typically understood—serves as a case in point. It is presently the eighteenth-largest agglomeration in the world (United Nations Department of Economics and Social Affairs, Population Division, 2015). It is the primate city of a country in which recent urbanization has been driven by rural–urban migration, particularly to its peripheries (Jones, 2005; Ortega, 2014; 2016). Its landscape is defined by polarization of the population according to global-city enclaves and forgotten, bypassed informality (Shatkin, 2004; Kleibert and Kippers, 2015). Notions that Manila is 'overpopulated' by the urban poor—variously attracted by non-existent jobs, coddled as vote-banks by corrupt politicians, and taxing the city's deficient infrastructure—have wide circulation among the Philippine middle class, news media, experts and policymakers (Kusaka, 2017).

But seen through the prism of the risk society, the Southern urban crisis is manufactured: the growth of Manila and cities like it was produced not by irrationality, but rather by the successes of rational, first modern projects. Late-twentieth-century population growth can be attributed to improvements in nutrition, sanitation and immunization; de-agrarianization can be attributed to improvements in productivity created by the Green Revolution. Meanwhile, Manila's economic and demographic primacy involved modernization schemes that favoured it as a site for investment, namely a debt-driven industrialization and infrastructure spending spree in the 1970s, built by a twentieth-century cast of postcolonial dictatorships, multilateral development lenders and modernizing technocrats (Bello *et al*., 1982; Broad, 1988). The underinvestment in its infrastructure in the decades since can be traced directly to the collapse of this order from 1982 to 1986 and the focus in subsequent government budgets on servicing this debt—which, as a failed attempt to discipline the future, can itself be reinterpreted in terms of the failures of risk conquest, and how these are giving way to projects of risk management.

It is against this backdrop that the politics of climate change are being played out. Tropical storms, as well as the floods and landslides they trigger, regularly exact high human and economic tolls on the Philippines, the country consistently ranking among the countries at highest risk from both natural disasters and climate change (Guha-Sapir *et al*., 2010; Garschagen *et al*., 2016; Kreft *et al*., 2016). Owing to Manila's population size and density, deficiencies in its infrastructure, and the city's location on a low-elevation alluvial plain astride two bodies of water, it is also seen as vulnerable to climate change effects, such as stronger tropical cyclones (IPCC, 2007; Yusuf and Francisco, 2009; Muto *et al*., 2010; Thomas and Lopez, 2015). The characterizations may (and do) reflect realities—but to draw another lesson from development criticism, what kinds of politics might this knowledge enable?

Addressing this need brings us to a second reason for drawing from the risk society framework: it treats the definitional, discursive dimensions of the politics of risk, particularly climate risk, as an analytical entry point. Among manufactured risks, climate change stands apart as perhaps the best example of how the politics of risk play out under second modernity: it is an unintended, manufactured consequence of two centuries of conquering risk. It is also a catastrophic risk, and one only rendered visible through expertise. An understanding of the politics of the creation, circulation and use of expertise, therefore, opens a window onto how the social definition and construction of climate change takes place, and what forms of political action these enable.

Once again, Manila's recent history serves to illuminate this point. Two important forms that this knowledge has recently taken on are the quantification of risk and vulnerability, and the interpretation of extreme weather events in the present as presaging future climatic patterns. Based on risk and vulnerability indices, discussed

above, and when discerning the signs of a catastrophic future from the present, Manila and the Philippines have been prominent in the 'staging' of both urban and climate crises (Beck, 2009: 10, 98–100), which locates probable future threats such as climate change and unruly megacities in the realm of the certain and the present. Our analysis focuses on how an understanding of the Philippines as a vulnerable society confronting both urban and climate crises has affected how the Philippine state understands its population and territory, how it projects its efforts at multilateral development and risk management, and how its expert construction of disaster risk is rehearsed.

We further refine Beck's point about 'relations of definition' as a dimension of power under second modernity by pointing out that facts, as adjudicated in the media, science and law, often depend on aesthetic judgement. Here we draw from Ghertner's (2015: 184) notion of 'rule by aesthetics'—an 'aesthetic governmentality' or a 'mode of partitioning space' based on codes of appearance—to argue that the adjudication of facts that became the cornerstone of DRM policy and interventions relied on an aesthetics of poverty. Aesthetic governmentality pertains to ordering and governing space and populations by deploying aesthetic codes based on 'self-evident facts of sense perception' (*ibid*.: 185). To govern aesthetically is to refer to 'aesthetic norms' that constitute the 'map-like objectivity of slum unsightliness and unbelonging' as a grid for evaluating the nuisance and the dangers of a space or a population (Ghertner, 2011: 288–89; 2015: 185).

Finally, the risk society thesis allows us to understand vulnerability as a distinct axis of difference and inequality alongside established categories such as class, status, gender and race. Beck's thoughts set up questions about insecurity, and the negative effects of risks, involving its own politics. Inequalities in how risk is distributed is a distinct form of inequality, alongside (and in addition to) other, more established forms of inequality. Inequalities in risk, in turn, involve a distinct form of politics. Viewing the definition and redistribution of 'bads' under second modernity enables us to comprehend lines of inquiry into the politics of risk management, vulnerability and resiliency that cannot be understood simply in terms of material inequality and gain. It obliges us to seek out political projects that are not merely permutations of disaster capitalism, as applied to a changing climate (*cf*. Klein, 2007; Yee, 2018). At the same time, it explicitly locates the origins of these politics in the successes and failures of first modern, goods creation and distribution projects. Therefore, while inequalities in 'goods' are distinct from inequalities in 'bads', material inequalities do transmute to risk inequalities. For instance, Manila's shoddy infrastructure can be traced directly to both the unintended consequences of debt-fuelled developmentalism and the management of the 1982 debt crisis. Yet it is the poor who tend to be at higher risk from disrepair—for example, as they occupy marginal, flood-prone land along waterways and in coastal areas. As we argue, this marginality extends to the definitional and discursive aspects of risk.

While we find the vocabulary of the risk society useful, and while we find some congruence between it and the research agenda of Southern urban studies, there has been little engagement between the two. Despite Beck's explicitly global agenda, he has retained the assumption that the leading edge of modernity remains ensconced in advanced capitalist societies. While Beck does take examples from the South, he still epistemologically privileges the West—for example, by presenting conflict between different 'risk cultures' as a conflict between America and Europe (Beck, 2009: 71–76). Meanwhile, scholarship on risks in Southern contexts tend to be dismissive of Beck's theory, given its focus on 'technological hazards … and the condition of late modernity' (Wisner *et al*., 2003: 16–18). We take the view that these issues can contribute to conversations on the urban South vis-à-vis modernity, and help identify gaps presented by disasters within Southern contexts for social and urban theory (Arabindoo, 2016; Saguin, 2017). We draw from the postcolonial urban research agenda to recognize

the plurality of modernities (Robinson, 2006)—but we also assert that these can be dysfunctional, repressive and violent in new, plural and often poorly anticipated ways. The analysis of these tendencies, in turn, require us to use concepts that attune us to the failures of modernity. Our analysis seeks to apply Beck's ideas toward this agenda, i.e. studying the violent forms of second modernity being invented in Southern cities, as told through the politics of flood risk management in Manila from 2009 to the present.

Ondoy and the floods of 2009: the facts

In the early morning of 26 September 2009, Tropical Storm Ondoy made landfall 87 kilometres northeast of Manila, with maximum sustained wind speeds of 105 kilometres per hour. Typhoon tracking and public safety systems initially did not indicate any cause for undue concern. The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), the state meteorological office, placed the areas south of Ondoy's expected path, including Metro Manila, under Signal No. 1 (PAGASA and Nilo, 2010). This is the lowest of the Philippines' four-tier tropical-storm public warning system, which translates measured wind speeds into predefined sets of expected storm effects and standardized precautionary measures. In terms of this warning, an area would be expected to experience winds of up to 60 km/h and intermittent rains within the next 36 hours: 'twigs and branches of small trees may be broken, some banana plants may be tilted or uprooted, some houses of very light materials may be partially unroofed, [and] only very light or no damage may be sustained by areas affected' (*ibid*.: n.p.n.).

Typhoons are a fixture of the wet monsoon season in the Philippines. An average of twenty storms enter the Philippine area of responsibility (PAR) annually, of which eight make landfall (PAGASA, 2009). In 2009, Ondoy was the fifteenth storm to enter the PAR (Calonzo, 2009) and the eighth to make landfall; Manila had previously been placed under Signal Nos. 1 and 2, but had experienced no major property damage (*ABS-CBN News*, 2009; *GMA News Online*, 2009). Disruptions caused by a storm of Ondoy's strength, such as floods in low-elevation areas and flight cancellations, are considered normal in the monsoon months in Manila.

But Ondoy brought an unusual amount of rain: PAGASA's rain gauge in Manila's suburbs recorded 455 millimetres of rain within a 24-hour period, equivalent to 150% of the monthly average rainfall for September between 1993 and 2008 (PAGASA and Nilo, 2010). This reading broke a record that had stood since 1967 and was subsequently described by PAGASA's meteorologists as a '180-year return period' event, scientific jargon left unexplained albeit frequently used (Government of the Republic of the Philippines *et al*., 2009). The downpour triggered unusually high and extensive floods, and districts with no living recollection of flooding were inundated by waist- and neck-high floodwaters. As the storm warning system did not include information on rainfall, it offered no indication of where the floods would hit, how high they would be, and how fast they would rise. Besides, PAGASA's capability to accurately forecast the amount of rainfall had been taken offline when a key radar installation was destroyed in a landslide (Morella and Agence France-Presse, 2009). Among the worst-hit areas were densely populated and built-up areas along the Marikina River, which drains the Sierra Madre range to the east of the city, and the coastline of Laguna de Bay, a lake that is fed by rivers from the Sierra Madre and doubles as an impoundment basin for Manila's flood control works (see map in Figure 1). A subsequent reconstruction of the flooding along the Marikina River calculated a maximum discharge rate more than twice the previous record, and a maximum flood height of 9.9 metres (Abon *et al*., 2011: 1287–88).

By 30 September, 198 out of Manila's 1,705 *barangays* (villages) reported floods affecting a total of 303,104 persons. An additional 1,924,741 persons were affected by floods in the city's adjoining regions. Altogether 254,139 persons were temporarily sheltered in 236 evacuation centres across Manila, for the most part in schools, sports

FIGURE 1 Manggahan Floodway and associated bodies of water (*source*: cartography by Jose C. Javier, reproduced with permission)

facilities and other state buildings that were ill suited to the purpose (NDCC, 2009a). On the same day, PAGASA began tracking Pepeng (international codename: Parma), another storm system (NDCC, 2010). The new storm took a northerly track, sparing Manila its

full force. But it developed into a much stronger storm and Signal No. 3 was put into effect over Manila and most of Luzon shortly before it made landfall on 2 October. At this point, *barangays* along Laguna de Bay were still flooded, and water and electricity had not been fully restored. The two storms exacted a combined toll of 956 dead, 84 missing and 736 injured (Government of the Republic of the Philippines *et al*., 2011). The Philippines sustained US $4.38 billion worth of damage and losses, a figure equivalent to 2.7% of its gross domestic product (Government of the Republic of the Philippines *et al*., 2011). In Manila, 241 people lost their lives, including 32 from drowning and 68 from leptospirosis; 14,836 homes were totally destroyed, and an additional 77,144 homes were partially damaged (NDCC, 2009b).

Discursively constituting Ondoy: the politics of facts, explanations and action

The devastation wrought by the floods set in motion processes of explanation, involving meteorologists, geologists, hydraulic engineers, city managers and architects—and of reconfiguring Manila, motivated by objectives of 'disaster risk management', 'building back better' and 'utilizing the opportunities' presented by the disaster. What follows is an examination of these processes, concerning specifically how a standardized explanation of the disaster emerged; how this explanation attributed causation and responsibility to specific processes and groups of people and not to others; and finally, how this explanation became the basis for a specific form of DRM premised on the eviction of slum dwellers across Manila.

We drew from critical discourse analysis a set of approaches that seek to understand how power is 'enacted, reproduced, and resisted by text and talk in the social and political context' (van Dijk, 2001: 352). Specifically, we utilized techniques described by Norman Fairclough (1995: 2003) to examine why some representations of events, processes and agents were sustained, and why other representations were dropped. Our analysis begins with a set of seven policy documents, which together comprised the official discursive framework from which state agencies were expected to define and manage risks associated with disasters and climate change. We traced how these policy documents drew narratives from other documents, such as international treaties, as well as how they were mentioned in other genres of texts. Through this analysis, we inductively identified a range of other texts, and the body of documents we studied came to comprise Disaster Risk Reduction and Management (DRRM) plans and frameworks; urban development laws and policies; internal reports used by state agencies and local governments; press releases, eviction notices; documents produced by experts for the Asian Development Bank, the United Nations, and the World Bank; interviews granted to the media by members of these agencies and experts; and media reports on these documents. In parallel, we also conducted an analysis of media coverage, primarily of the period between 2009 and 2013, and held interviews with experts, consultants, national and local government officials, and evicted residents between 2015 and 2017. We focus on the discourses around three relationships: between flooding and climate change, development and resiliency, and building back better and slum evictions.

– Ondoy and climate change: staging a catastrophic future

In Ondoy's immediate aftermath, two narratives about its relationship with climate change were advanced. The first was that no conclusive link between Ondoy and climate change could be drawn immediately: the conditions of its formation were not abnormal, and conclusions cannot be formed from the single data point provided by Ondoy (Legaspi, 2009). This was forwarded by Rosa Perez and Rodel Lasco, two Filipino members of the Intergovernmental Panel on Climate Change (IPCC).

The second narrative painted a much bleaker picture, positing a link between Ondoy and climate change—either by way of a direct causal connection, or by arguing

that Ondoy prefigures the weather of the future. A state meteorologist noted: 'This could be again a manifestation of climate change. Due to climate change, we should expect more extreme weather events like extreme rainfall' (Calonzo, 2009: n.p.n.). The cabinet secretary for the environment was quoted as stating: 'The alarm bells are ringing. This is climate change. The unprecedented amount of water that we saw over the weekend would not be the first and the last' (Dizon, 2009: n.p.n.). Other experts, such as the Southeast Asia director of Greenpeace, the chief Filipino negotiator at a United Nations Framework Convention on Climate Change (UNFCCC) meeting in Bangkok, the regional coordinator for the United Nations International Strategy for Disaster Reduction (UNISDR), and the dean of the Ateneo School of Government issued similar comments (Dizon, 2009; Fogarty and Win, 2009; Fonbuena, 2009; Tubeza, 2009). None of them, however, provided any evidence to establish this relationship. Two made references to modelling-based studies that show scenarios of what *could* happen in the future, but none of these studies utilized Ondoy as a data point (Fonbuena, 2009; Tubeza, 2009). With only some exceptions, the proponents of this view could not produce climatological science; the burden of proof in their contexts were not the same as those alluded to by Perez and Lasco, namely, the burden of establishing a pattern of extraordinary weather, or of establishing a direct causal relationship between Ondoy and a hypothesized mechanism, such as high sea water temperatures. These experts were not necessarily 'doing science' when they faced reporters or the UNFCCC. Instead, they were staging catastrophic global risk for non-scientific publics by using Ondoy and the flood to bring possible future threats of climate change into the realm of the actual and the present.

Discursive practices within the news media led to this narrative being picked up over others and eventually being subsumed into the standardized explanation for Ondoy. The narrative advanced by Perez and Lasco was initially picked up in three news pieces. In two of the three articles, the narrative was 'informationally backgrounded' (Fairclough, 1995: 106): it was not the subject of the headline, was presented as a dissenting opinion and was allocated only one paragraph at the end of each text (Ubac and Avendaño, 2009; Ubalde, 2009). In contrast, the narrative linking Ondoy to climate change was carried in at least seven full-length articles. It was also the subject of the headlines of these stories, which were all full-length. A story headlined 'No debate: deluge due to climate change' is particularly notable for denying the existence of alternative narratives and for consciously adopting a comment made by an interviewed expert as an unbracketed editorial stance (*Philippine Daily Inquirer*, 2009).

Within a year, this claim—that there was no debate—became a self-fulfilling prophecy, and the media were presenting experts as unanimous in their opinion on this matter. In retrospective pieces published on anniversaries of the disaster, the possibility of climate change being a factor had hardened into certainty, and the individual voices of interviewed experts had dissolved into pluralized, anonymized 'experts' and 'studies'. An analysis piece drily noted that 'a year ago today, [the Philippines] was caught unprepared for what experts say were the unexpected impacts of climate change' (Howard, 2010). Two years after Ondoy, the media warned that 'studies have pointed out' that the dangers of flooding 'have been exacerbated by climate change and severe change in weather patterns (Araja, 2011). These experts and studies, however, remained unnamed; establishing consensus was merely a matter of attribution, and the relationship between Ondoy and climate change was resolved through editorial practices rather than through scientific method.

Yet in the years since Ondoy, there has been no research on establishing a causal link with climate change. As the relationship between extreme weather events and climate change is studied in terms of trends and not through single events, climatology will likely remain silent on this matter.[1] But through elite opinion and the media, the floods presaged a volatile and uncontrollable future; in fact, they had become an article

1 See Villafuerte *et al*. (2015) for recent climatological research on extreme rainfall in the Philippines.

of faith of what Beck describes as a quasi-religious belief in global risks, a 'secular religion of threat' which demands action (Beck, 2009: 64, 72–73). Ondoy was a 'portent of things to come' (Dizon, 2009); future disaster events would invariably be 'worse' (Tubeza, 2009); and something had to be done to prevent this from taking place.

– Development and resilience: rhetoric and practice

The staging of climate change through Ondoy occurred alongside a parallel development in policymaking. Before Ondoy, an explicit shift in the state's attitude toward disaster risk, which emphasized managing and reducing disaster risk as opposed to merely responding to it, was gaining momentum. This was coded in the official rhetoric toward disasters based on the Hyogo Framework for Action (HFA) and was first elaborated in a document entitled Strategic National Action Plan on Disaster Risk Reduction 2009–2019 (SNAP—see NDCC, 2009c), drawn up a few months before Ondoy (Executive Order 888, 2010).

The floods deepened this rhetorical commitment: within one month of Ondoy, three national-level policy responses were set in motion. Assistance was requested from development partners at a World Bank–International Monetary Fund meeting for a post-disaster needs assessment (PDNA). These organizations, in turn, commissioned a study using a methodology first devised by the UN Economic Commission for Latin America and the Caribbean (ECLAC) (Government of the Republic of the Philippines *et al*., 2009). The Philippine president issued two executive orders for setting up a 'public–private reconstruction commission' mandated with studying 'the causes, costs, and actions to be taken … and to seek fresh aid to fund reconstruction' (Executive Orders 832 and 838 of 2009). Finally, a disaster risk reduction and management bill, which had been in legislative limbo for nine years, was taken up as priority legislation (Citizens' Disaster Risk Response Center, 2010). It was signed into law eight months later as the Disaster Risk Reduction and Management Act, or DRRM Act (Republic Act 10121, 2010), and the rules and regulations for its implementation were promulgated on the first anniversary of Ondoy. This law restructured the National Disaster Coordinating Council (NDCC), an ad hoc body that would only convene after a disaster, into the permanently staffed and funded National Disaster Risk Reduction and Management Council (NDRRMC), which was granted a mandate for formulating and implementing a National Disaster Risk Reduction and Management Framework (NDRRMF) (Republic Act 10121, 2010).

Two narratives ran consistently through these policies:[2] that disaster risks are being transformed by climate change, and that economic development is inextricably linked to DRM. An emphasis on the economic effects of disasters, as well as on the imperatives demanded by DRM, was crucial in developing this narrative and drew on the mainstays of development discourse: quantification, economic reductionism and the imperative of action. Beyond these parallels, however, what these texts established was an equivalency (Fairclough, 2003: 88) between development and DRM: without proper disaster risk management, development cannot take place; at the same time, managing disaster risk *is* development.

Based on its roots in the HFA, 'adaptation' and 'resiliency' in the Philippine DRM policy invoked rhetorical sensitivity to issues of exclusion and vulnerability, and to the inadequacies of an infrastructure-centric approach to disaster risk. A 'guiding principle' of SNAP (NDCC, 2009c: 102–103) 'requires multi-stakeholder participation … consultations [as] part of an inclusive and ongoing process that needs to be continued'. The DRRM Act likewise declared as policy that the state must 'ensure that disaster risk reduction and climate change measures are gender responsive, sensitive to indigenous knowledge systems and cultures, and respectful of human rights' (Republic Act 10121,

2 NDCC, 2009c: 16, 21-22, 33; Executive Order 832, 2009; Executive Order 838, 2009; Executive Order 888, 2010; NDRRMF, 2011: 4, 8, 14

2010). The NDRRMF described a 'paradigm shift' from a technical approach that privileged 'engineering and technological solutions' to an approach that promotes 'non-structural and non-engineering measures such as community-based disaster preparedness and early warning, indigenous knowledge and land use planning' (NDRRMC, 2011). To these ends, the PDNA recommended 'in-city' relocation for the victims of floods, and that 'participation' be a central part of this process (Government of the Republic of the Philippines *et al*., 2011: 23–24). It also noted that eviction to 'peri-urban (or rural) areas that does not take proximity to livelihoods into account has been less than successful worldwide' (*ibid*.: xiii).

But to what extent did these ideas translate into how the floods were understood, and how responses to it were selected? There was strong dissonance between the language used in these policies and the actions of state agencies, as revealed through situation assessments, accomplishment reports and media interviews, particularly in the first four years following the disaster, before the Communication Plan for Informal Settler Families (ISF) Program led by the Department of the Interior and Local Government (DILG) was finalized. The solutions that were implemented in this period reflected neither the recommendations of the PDNA nor the principles of the commitments made in the policy framework. They did, however, carry echoes of the 'paradigm shift' described in the NDRRMF: that the flood, and indeed all disasters, was not a purely meteorological phenomenon, but also a product of human and social factors. However, the ways in which these factors were selectively recognized and interpreted were rhetorically inconsistent, often to unjust ends.

– 'Building back better'

As in much of Manila's modern history, the issue of the interpretation of factors to unjust ends comes into focus through the matter of slum clearance and evictions. The president ordered the implementation of MMETROPLAN, a World Bank-funded plan dating back to 1977 to 'rid Metro Manila of tens of thousands of informal settlers' (Esguerra and Aurelio, 2009), and began a *balik probinsya* (return to the provinces) scheme, which involved giving the equivalent of 60 days' minimum wage to beneficiary families in exchange for leaving the city—a scheme that was continued by the next administration (Bordadora, 2011; Morelos, 2012). In the state's final report on Ondoy, it listed among its accomplishments the relocation of 1,286 families from Metro Manila to its outer suburbs and the transfer of an additional 269 families through *balik probinsya* (NDCC, 2010).

The narrative that underpinned these schemes was a discursive construction of Manila's slum-dwelling poor putting not only themselves at risk, but also putting the rest of the city at risk. The failure of the Manggahan Floodway, a flood-control infrastructure project downstream from the Marikina River, is a key narrative in this regard. Built in the 1970s in response to another flood disaster, it is an emblematic example of the infrastructure-centric approach to conquering natural hazards that had been prevalent in the twentieth century. It had been designed to control flooding along the Marikina River by opening another drainage channel that exited to Laguna de Bay, diverting water that would otherwise exit through the Pasig River on its way to Manila Bay (Pante, 2016) (see Figure 1).

But flooding along the Marikina River was evidence of the floodway's failure—which experts, in turn, blamed on the slums that had been illegally constructed along its length. Blaming slums for Manila's perennial floods has since become an annual exercise accompanying the arrival of typhoon season: a year after Ondoy, the chief engineer of Quezon City argued that local governments and the national government should 'join hands in driving out informal squatters away from rivers, ponds, canals, *esteros*,[3] and easements of other major waterways' (Chavez, 2010). Three years later,

3 While *estero* literally denotes an estuary, in everyday usage in Manila, the term refers particularly to degraded streams that are used for sewerage.

a new administration sought to relocate 104,219 informal settler families living in 'danger zones' (personal interview with Oplan LIKAS official, 16 February 2016), and a new Public Works secretary was quoted as saying that he 'received instructions from the President that if push comes to shove, we will have to blast these houses' (Ubac, 2012). Shortly thereafter, in December 2012, the National Technical Working Group on Informal Settler Families (ISF–NTWG), an inter-agency committee headed by the DILG, was formed through a presidential directive (Gamil, 2012; personal interview with Oplan LIKAS official, 16 February 2016) to implement and 'hasten' (ISF–NTWG, 2014) the removal and transfer of slum dwellers from 'danger zones'. It centred its efforts on the 62,590 ISFs along waterways (ICF International, 2014), particularly on the 40,000 families living along the eight priority waterways (personal interview with Oplan LIKAS official, 16 February 2016) under the Metro Manila Flood Management Project (MMFMP). The eviction of riparian settlements was carried out under Oplan LIKAS (Operation Plan Evacuate), a massive slum eviction and resettlement scheme marketed both as a 'preemptive' and 'voluntary' evacuation programme and a social housing programme for Manila's vulnerable yet undesirable populations. The 'paradigm shift' to human and social aspects of risk was thus reduced to offloading blame on informal settlements. Slums, which carried with them legacies of stigmatized landscapes and populations, were thought to endanger not only their own residents but the city's residents too. As an official of Oplan LIKAS (personal interview, 16 February 2016) put it: 'The situation of ISFs is like this: they are the most vulnerable to flooding, but at the same time, they are also—let's admit it—they are one of the reasons why unfortunately, flooding solutions can't be developed'.

– Slum-as-blockages: eviction as 'building back better'

Yet throughout the efforts to isolate and address the flooding in Manila in (and through) its slums, traces of alternative narratives regarding the underlying causes of the floods, and how the landscape should be altered, could be found. The ways in which these narratives were dropped while others were carried forward as efforts moved through different genres of text—from studies and international frameworks to policies, and then from policies to the landscape, through state action—reveal a preoccupation with slum removal in implementing flood risk management. The narrative of slum-as-blockages is crucial to this fixation. In what follows, we elaborate how informal settlements came to be equated with blockages. Through the prism of 'rule by aesthetics' or 'aesthetic governmentality' (Ghertner, 2015), we show how the blockages that mattered and that were *made* to matter were only those of the slum, simultaneously ignoring the obstructions of the rich.

– Slum blockages: encroachment, degradation and failed infrastructure

The initial search for explanations of the disaster involved attention to the role of infrastructure in the origin and extent of the flooding. The Manggahan Floodway could have either been simply inadequate for the rainfall (Gilbuena *et al*., 2013) or, by functioning as designed, it could have contributed to the flooding. Fernando Siringan, a geologist with the University of the Philippines-Diliman, argued that the design of the Manggahan Floodway led to increased flood risk along the shores of Laguna de Bay (Siringan, 2010): it not only displaced excess water into the lake, but its use as an impoundment basin for waters carrying high silt loads had also led to high siltation levels in the lake. Rodolfo and Siringan (2006) had previously called attention to the impact of land subsidence on flood risk. Likewise, other experts had debated faith in engineering and urban planning: architect and urban planner Anna Maria Gonzales (2009) questioned the validity of treating the MMETROPLAN, which was merely a 32-page report with rather vague recommendations, as the basis for evictions and infrastructure projects.

Floodway residents were blamed for the disaster. However, they refuted allegations that the Manggahan Floodway had failed: if it had failed, they reasoned, the East Bank could have served neither as evacuation site for residents of the lower portion of the embankment, nor as alternate route at the height of Ondoy (Maningo, 2015: 119). The embankment, in fact, was turned into a parking lot for the vehicles of residents from nearby flooded subdivisions (Oplan LIKAS consultant, personal interview, 3 December 2015; East Bank resident, personal interview, 30 October 2015). Traffic also increased in the wake of the disaster as residents of Greenwoods Executive Village, an expansive gated community near the West Bank, were directed to the less frequented 'back exit' and rerouted to the Floodway service roads. By portraying Manggahan Floodway as a failure, elite and expert narratives effectively depicted it not so much as inadequate as fragile—that is, as an otherwise robust infrastructure made fragile by slum encroachment. However, despite the inundated shanties 'on top of the water' (that is, on the waterways), the Floodway was one of few areas that remained passable as Metro Manila was brought to a standstill for days.

Alternative explanations and counter-narratives existed, but the notion that the floods could have been averted had infrastructure simply worked as designed, and the persuasion that informal settlements were to blame, persisted. The head of the University of the Philippines' National Hydraulic Research Center pointed out that without informal settlements, the Manggahan Floodway would not have overflowed, as it could have conveyed up to 3,000 cubic metres of floodwaters per second (Sisante, 2009). The general manager of the Laguna Lake Development Authority (LLDA) likewise declared that the slums had narrowed the floodway from 260 to 220 metres, reducing storm water flows from the Marikina River to Laguna Lake (*ibid.*). The official thus cited riparian slums as blockages, recommending the expulsion of 400,000 'squatters' living on the edge of the lake and along the waterways that drain into the lake to relieve 'constricted' drainage channels and solve Manila's flooding problem (Morella and Agence France-Presse, 2009). These narratives of slum-as-blockages and of compromised designed capacities were reiterated elsewhere: by other personnel of the LLDA (Bongco, 2009), by the Secretary of Public Works (Depasupil, 2009), and by flood mitigation experts of the Japan International Cooperation Agency (Minoru, 2009).

However, the drainage problems that experts attributed to informal riverine settlements were neither merely about their location in the water nor about their encroachment into the water, for the problem of failed infrastructure as well as the problem of the slum were understood to be fundamentally a problem of the existence of the slum. This existence materialized not only in encroachment but also in waterway degradation, which elite and expert knowledges designated to be the cause of the infrastructure failure. Based on this view, it was not only that informal settlements constricted waterways and impaired flows; it was also that these unruly spaces simultaneously degraded waterways, thereby choking drainage channels, disrupting flows and ultimately aggravating flooding. This simplification is repeated across texts, notably in a Project Information Document of the MMFMP, the implementation of which is premised on the clearance of informal settlements (World Bank Group, 2017: 3) and whose main sectors are waste management (51%) and sanitation (41%) (World Bank Group, 2018). Narratives of blame thus draw on the 'territorial stigmatization' (Wacquant, 2007) of the slum as encroacher and polluter to magnify the flawed 'socioecological relationship' of these spaces to the water (Rademacher, 2009: 516).

Yet, as it turns out, no methods existed to identify, quantify or trace the pollution load directly generated by riverine informal settlements, as distinct from other sources, precisely because slums were categorized as indirect polluters (Manila Bay Coordinating Office personnel, personal interview, 22 March 2016). It is therefore impossible, as a technical personnel of the Manila Bay Coordinating Office (MBCO) revealed, to

directly measure the contribution of riparian slums to waterway degradation. This impossibility is further compounded by the inadequacy of sewerage and sanitation infrastructure across the capital region. As of the first quarter of 2018, sewerage coverage by wastewater service providers stands at a meagre 14.5% for the east zone of Metro Manila, including the province of Rizal, and 16% for the west zone of Metro Manila, including parts of Cavite (Metropolitan Waterworks and Sewerage System, 2018). Besides indicating the impoverished state of sewerage in the capital region and some of its most urban provinces, the low coverage clearly implicates formal, legal and even elite properties in the pollution and degradation of waterways. Thus, the argument that littoral informal settlements are the primary source of waterway degradation because they discharge untreated sewage directly into the water, is in fact applicable to planned spaces and prime developments too. Only when the scope of degradation is narrowed to solid waste—as elite and expert narratives of slum-as-blockages are wont to do—does the blame shift on slums. But even then the volume of untreated sewage stemming from poor sewerage infrastructure remains a significant component of undifferentiated blockages and flow impediments.

Experts, however, clung to their certainty regarding the primary culpability of the slum despite the incongruence between their conclusions and the facts they themselves produced, disclosed and acknowledged. Foregrounding evidence that pointed to informal settlers, elite knowledges assembled culpability for waterway degradation based on the location of the slum (along waterways and on top of the water), the conditions of habitation (absence of sanitation facilities) and the appearance and sensory experience of filth (garbage-strewn waters and open defecation). Aesthetic categories 'naturalized' (Rademacher, 2009: 519) the slum as the primary source of waterway degradation, rendering calculative bases for pollution loads not only unnecessary but frivolous. Evicting agencies declared scientific studies unnecessary in ascertaining the primary culpability of the slum for 'clogging' waterways (personal interview with Pasig River Rehabilitation Commission official, 18 March 2016). The existence of slums alone—of shanties and squatters[4] who used waterways as open sewers—made for compelling evidence (MBCO personnel, personal interview, 22 March 2016). Such brazen declarations uncover the wilful production of ignorance (Proctor and Schiebinger, 2008; Slater, 2016) that frames public (mis)understandings of waterway degradation as principally about domestic waste. It suggests that municipal sewage and solid waste comprise much of the total volume of waste. It displaces the question of industrial waste and identifies indirect polluters—whose waste cannot be quantified—as the main agents of waste. The deference of elite and expert knowledges of degradation to the metric of aesthetics reveals the deeply political nature of measurement, which in this instance derives from a desire to rid the landscape of a specific source of pollution. In the absence of inscriptive methods, the sensory simultaneously replaced and constituted the empirical (Ghertner, 2015). 'Calculating without numbers' via aesthetic governmentality (Ghertner, 2010) enabled the impossible: it rendered the unmeasurable legible by creating a mechanism for indirect pollution to be unquestionably traced and unequivocally attributed to an indirect pollution source.

Questions about whether slums were in fact the major source of water degradation and blockages, and the primary cause of failed infrastructure, remained open, and may have been unanswerable. But these were foreclosed as soon as the notion of slum-as-blockages was established as fact.

4 Our use of the toponym 'squatter' is meant to remark on certain key informants' evasive yet subtle dramatization of the existential difference between legitimate spaces and the slum. Liza Weinstein's (2014: 8) explanation of the 'power of words' and her ambivalent use of the toponym 'slum' inspired us to think carefully about our own use of the terms 'squatter' and 'slum'. Some participants who otherwise used the terms 'informal settlements', 'informal settlers' or 'slums' reverted to 'squatter' to emphasize encroachments by and the undesirability of this specific sociospatial group.

– Elite blockages: paved-over drainage channels, infilled waterways and obstructed flows

The fixation on eliminating slums equally ignored blockages generated and aggravated by the informalities and illegalities of private developments and elite landscapes. Malls, luxury condominiums, gated residential developments and mixed-use enclaves for Manila's upper and middle classes have also been built along the Marikina River and the shores of Manila Bay, in some instances right on the edge of waterways or directly on top of tributaries. Notably, the Metro Manila Development Authority (MMDA), the state agency with primary responsibility for Manila's development and among the most strident proponents of slum evictions, has in fact produced knowledge that many blockages were the result of unscrupulous practices of property developers. These range from filling in natural drainage channels and altering the course of waterways to create new saleable plots of land, to building security walls across waterways to enforce the separation of their developments from adjacent informal settlements (Bagayaua-Mendoza, 2009). In a press release a month before the Ondoy floods, the head of the MMDA Flood Control and Sewerage Management Office urged the strict monitoring of property-development construction, citing the pervasive violation of permits and the unauthorized alteration of approved plans (*ibid.*). This information was, however, ignored in the aftermath of the disaster. The search for explanations, particularly conclusions about blockages as cause, evaded the blockages of planned developments. And yet these transgressive landscapes posed far more serious consequences for urban metabolic flows—unlike slums, middle- and upper-class spaces did not merely encroach on easements and waterways: they consisted of concreted-over catchment basins, which slowed down water flows and diverted them artificially, often permanently blocking drainage arteries, impairing drainage and flood-control infrastructure networks and ultimately increasing the city's long-term flood risk.

This unevenness is magnified through the preferential treatment of elite enclaves. Among the most severely inundated areas of Metro Manila were gated communities built on an escarpment and on the floodplains on the right bank of the Marikina River. In Pasig City, one of the worst-affected districts of Metro Manila, these were the gated communities in Barangay Sta. Lucia, an area bounded by the Manggahan Floodway to the south and Buli Creek to the east. Much of the city remained under water for days, while two *barangays* experienced extreme flooding, with flood levels reaching over 1.5 metres: Manggahan, home to several subdivisions, and Santolan, site of one of the city's biggest riverine informal settlements. On the city's flood susceptibility map, this riverside slum was demarcated as being highly susceptible to flooding, but so was an affluent portion of Barangay Sta. Lucia. If flood hazard maps had been informing flood mitigation, and if homes along waterways, encroached easements, sewer blockages, obstructed drainage channels and aggravated flood risks had justified the eviction of slums, then this set of arguments could conceivably be applied with equal if not greater force to elite and middle-class enclaves. Instead, in the few instances where some action was demanded, residents were simply advised to vacate their property or dismantle the portions encroaching on easements (personal interview, Pasig City Housing Regulatory Unit official, 29 March 2016). Furthermore, despite the legal mechanisms at the disposal of local governments to declare an erring property a public nuisance under the Civil Code, this process is complex and tedious. It involves declaring the location of the property a flood-prone area, demonstrating that it obstructs water flow and causes flooding, and proving that it endangers other people (personal interview, Manila Bay Clean-Up, Rehabilitation and Preservation Program personnel, 15 March 2016). This due process may be contrasted with the swiftness with which government adjudicated informal settlements to be the main culprit of degradation, the major source of blockages or the primary cause of flooding. As these instances of differential treatment illustrate, evidence and science are invoked and process and redress are upheld only in defence of elite informality and illegality.

Uneven landscapes of risk: the 'danger'/'high-risk'-zone binary, and the redistribution of risks and resiliencies

The key to this double standard was the concept of 'danger zones' that had been defined in the 1992 Urban Development and Housing Act (UDHA), which 'discouraged' evictions and demolitions, except in situations 'when persons or entities occupy danger areas such as *esteros*, railroad tracks, garbage dumps, riverbanks, shorelines, waterways, and other public places such as sidewalks, roads, parks, and playgrounds'. The task of defining the 'danger zone' and of demarcating the areas that are 'danger zones' came to the ISF–NTWG, which was formed to expedite the 'removal' and 'transfer' of informal settlers living in 'danger areas' (ISF–NTWG, 2013). The ISF–NTWG, drawing the definition of a fundamental DRM category from a clause on eviction and demolition, made eviction DRM policy. It acted upon the PDNA's recommendation to 'build back better', but reinterpreted the creation of housing solutions for ISFs, the implementation of effective land management, and the establishment of a monitoring and sanction system for local governments in terms of slum removals (Government of the Republic of the Philippines, 2011: 53–54). These tasks were accomplished through the crucial first step of defining and declaring informal settlements as 'danger zones'. 'Building back better' meant demolishing and ridding Metro Manila of its slums—interventions which the state later rescripted as 'evacuation', 'removal' and 'resettlement' of 'vulnerable' populations.

Despite expert declarations of a 'scientific' DRM guiding the formulation and implementation of projects and plans (Pasig City Government and Earthquake and Megacities Initiative, 2012: 27), flood risk was in fact aestheticized. Inscribing waterways with danger (Grove, 2014) while simultaneously emphasizing the fragile materiality and precarious construction of structures in these environments meant that slums and *only* slums were in danger. Just as the culpability of the slum for Ondoy in particular and for floods in general was resolved in terms of aesthetics, adjudicating flood risk likewise relied on sensory verification: decrepit shanties in 'dangerous' environments commanded a 'map-like objectivity' of 'self-evident facts of sense perception' (Ghertner, 2015: 185). Deferring to the visual and replacing it for the empirical, as experts did, encouraged notions of danger as affectively and discursively aesthetic. This in turn allowed for the designation of 'danger zones' to disproportionately emphasize the risks of encroachment by the poor while diminishing the flood risks generated and aggravated by elite encroachment. It did not matter that middle- and upper-class homes were also built on the edges of waterways in flood-prone areas, or that these violated easement, environmental and planning laws.[5] Transgressive formal spaces were not classified as 'danger zones', simply because they did not *look* like they were in danger: the appearance and materiality of their structures neither evoked a sense of danger nor conformed to the 'aesthetic consensus' (Ghertner, 2015) of danger.

While key informants from local government and member agencies of the ISF–NTWG acknowledged that these affluent spaces were also at risk, they maintained that their residents were nonetheless more 'resilient' owing to their socioeconomic background—a view contested by residents of Riverside Village, a flood-prone subdivision in Pasig City that was submerged during Ondoy (Riverside Village DRRM officer, personal interview, 9 November 2015). Durable homes and financial resources indicated greater adaptive capacities to recover from disasters. In this sense, the flood risk of private enclaves in low-lying, flood-prone areas is minimized by a 'resilience' that is understood in terms of the architecture of homes and the social and economic capital of residents. By this logic, not only are the rich always more 'resilient' in relation to the poor—they are naturally 'resilient' too. Conflating affluence with resilience not

5 Article 51 of Presidential Decree 1067 (the Water Code); Article 635 of Republic Act 386 (the Civil Code); and several design parameters provided in the Implementing Rules and Regulations of Presidential Decree 957 or the Subdivision and Condominium Buyers' Protective Decree (Housing and Land Use Regulatory Board, 2009)

only displaced techno-managerial formulas and notions of risk—it also differentially negotiated the flood risks of the poor and the rich. Regardless of whether official hazard maps demarcated both slums and subdivisions as highly susceptible to flooding, middle- and upper-class spaces evaded the 'danger zone' label, for they were merely regarded as areas with high flood risk. Crucially, this risk did not portend danger.

This distinction between 'high-risk' and 'danger' is key to understanding risk inequalities, because each category implies particular relationships, interventions and outcomes that create unequal 'hazardscapes' based on class (Mustafa, 2005; Collins, 2009; 2010; Saguin, 2017). These parallel categories evoke specific ideas and affects. The 'danger zone' label recalls the messy informality and spatial illegality of the vulnerable poor. Danger was coded according to the visual appearance of the slum (Ghertner, 2011): the decrepit and fragile appearance of shanties in degraded waterways signalled danger, activating a territorial stigma (Slater, 2016: 23) that justified eviction as a logical, necessary and humane DRM and urban 'resilience' intervention. In contrast, the idea of a 'high-risk' area suggests a neutrality that fails to convey the same urgency of danger, and therefore demands a nuanced approach to thinking about and relating to risk. It foregrounds the 'propriety of property' (Ghertner, 2012), emphasizes the rights and entitlements of citizenship and requires a more considerate set of interventions that are beneficial rather than punitive. Thus, as slums in 'danger zones' were demolished, subdivisions in high-flood-risk areas were invested with 'resilience'.

Uneven responses to the flood risk for middle- and upper-class landscapes were framed in terms of rights: the right to private property and the right to a 'resilient' city.[6] However, the subtext of this framing is that the 'resilient' class has the right to remain in transgressive property and to amass both new and revitalized resiliencies in the form of improved drainage and flood-control infrastructure. While local and national government officials argued the obligation of the state to make the city 'resilient', specifically by improving and building vital infrastructure, they cautioned that efforts to build 'resilience' must uphold property rights. This emphasis on the duty of the state to protect people *and* property is echoed across government texts—from the DRRM Act, flood mitigation project documents and resettlement action plans, to eviction notices. However, evicting certain populations and destroying certain properties while allowing specific others to remain on the basis of property rights provokes critical questions of citizenship. As the state drew a boundary between 'danger zones' that required eviction and high-flood-risk areas that merited infrastructural intervention, the mandate of protecting people and property deepened the divide between 'squatter' and citizen: it clarified that urban citizenship—'the right to the city' (Lefebvre, 1996), 'the right to stay put' (Weinstein, 2014), and the right to 'intent to reside' (Bhan *et al*., 2014)—is based on private property.

Flood-proofing Pasig City was guided by this principle. The local government neither demolished nor evicted gated communities, condominiums or elite enclaves obstructing waterways. Rather, it built, repaired and upgraded infrastructure. It dug out and moved drainage lines occupying portions of private land as real-estate firms retrieved these segments for construction (Pasig City Flood Control official, personal interview, 27 May 2016). It searched for other possible locations of drainage lines that may bisect planned developments (*ibid*.). Put simply, it moved and removed infrastructure for 'more valuable' uses and bodies, as it moved and removed 'less valuable' others.

As 6,171 informal settler families in Pasig City were evicted between July 2011 and February 2016 (Pasig City Housing Regulatory Unit, n.d.) in the name of flood

6 These views were echoed in interviews with participants from Manila Bay Clean-Up, Rehabilitation and Preservation Program (15 March 2016); the DILG-ISF Project Management Office, Resettlement Governance Team (22 February 2016); the Pasig River Rehabilitation Commission (18 March 2016); the Pasig City Housing Regulatory Unit (29 March 2016) and the Pasig City Urban Poor Affairs Office (8 April 2016).

mitigation and disaster 'resiliency', the local government embarked on a series of engineering projects. Rivers and *esteros* were cleared for dredging and desilting works, as infrastructure was built, repaired, and upgraded: pumping stations, ripraps, revetment walls and concrete hollow-block fences were constructed along waterways, as drainage lines were installed and improved. In 2014 alone, 31 flood-control infrastructure projects were implemented, nine of which were located in gated communities (Pasig City Flood Control Office, n.d.-a). As of May 2016, it had built more than twenty pumping stations, a number of them constructed after Ondoy (Pasig City Flood Control Office, n.d.-b). At the national level, structural interventions under big-ticket infrastructure projects, particularly the MMFMP and the Pasig–Marikina River Channel Improvement Project, were implemented by the MMDA and the Department of Public Works and Highways. Spread throughout the city, these new structural resiliencies directly benefited the residents of these areas. But the gains accrued to also benefit those who were permitted to remain and those who were thought to possess the legitimate right to remain.

Besides accounting for the role of infrastructure, the kinds of obstructions along waterways, and the actions to be taken to 'build back better', the one political objective that remained consistent was not flood risk mitigation; if it had been, then demolishing wealthier neighbourhoods choking drainage channels, and halting the construction of developments encroaching upon easements or obstructing waterways, would have been enacted. Instead, it was the clearance of slums that became the focus of Manila's flood-proofing efforts, and indeed, this has proceeded apace, even though the landscapes created by the evictions and relocations may in fact have exacerbated the risks for evictees.

An unreleased resettlement study conducted by the Presidential Commission for the Urban Poor (PCUP) in 2015 surveyed 20 resettlement sites for 'danger-zone' evictees, detailing the risks residents faced in terms of housing, water facilities, education, health and exposure to geohazards (PCUP, 2015a; 2015b). Despite a commitment to 'in-city' relocation, only three new areas were built in Metro Manila; the rest were located in the suburbs of Bulacan, Cavite and Rizal. All 'off-city' housing projects were constructed using substandard materials, while one resettlement site, San Jose del Monte Heights in Bulacan, was built near a cliff (PCUP, 2015b). In-city relocation did not escape this fresh disrepair: two of the three projects were also poorly built. In Paradise Heights in Tondo, Manila, storm water accumulated in the fifth-floor hallway and drained into the ground floor, flooding lower-level units (PCUP, 2015b). In the open spaces of new 'social' housing developments, in the 'permanent', 'safe', and 'decent'[7] homes of former squatters, walls and floors cracked, doors and doorknobs broke, sinks clogged, roofs leaked, electrical wirings dangled loose. Where there were septic tanks, pipes were choked, rendering them useless. Earthquake risks either replaced or accompanied flood risks. Consistent with construction practices of relocation housing in the Philippines, slum conditions persisted amidst promises of 'safe futures'. Thus, the relocation of eligible informal settlers led to the relocation of the slum to the suburbs and to new urban tenements. Infrastructural deficits, sanitation and sewerage inadequacies and new housing precarities came to nest in the fragile concrete shells of the new suburban and vertical slums. The 'vulnerable' informal settlers the state 're-places' (Rademacher, 2009) away from danger, only to replace them with linear parks, access roads and 'flood-resilient' infrastructure ultimately do not escape the 'death zones' (Ellao, 2013; Dalisay and De Guzman, 2016) of disaster. On the contrary, their displacement, re-placement and replacement embeds them further in these deathscapes via the amplification of existing vulnerabilities (Allen *et al*., 2017) and the redistribution of disaster risks.

7 The 1SF One Safe Future Program, on which 'danger zone' evictions are based, aims to 'secure the safety of ISF communities by ensuring the provision of safe and decent housing and instituting community-based disaster preparedness' (One Safe Future, n.d.).

'Resiliency' in Manila: a cosmopolitan moment, or a politics of revenge?

In this article we examined how the politics of managing global catastrophic risks plays out in a stereotypically 'vulnerable' megacity of the global South. We analysed the disproportionate impact of the 2009 Ondoy floods on Manila's underclasses as a consequence of the failures and partial successes of twentieth-century developmentalism, which saw the Philippine state facilitate a highly uneven distribution not only of 'goods' but also of 'bads', particularly disaster risk. We argued that the selective interpretation and omission of facts underpinned a DRM strategy that was premised on the eviction of slum dwellers. Using the lens of aesthetic governmentality, we demonstrated how elite and expert knowledges constructed the narrative of the slum as the source of urban flood risk via the territorial stigmatization of the slum-as-blockages. We also showed how the redescription of flood risk based on aesthetics produced uneven landscapes of risk, materializing in the 'danger'/'high-risk'-zone binary.

Experiences in Metro Manila attest to the complexities of and tensions inherent in responding to the demands and political exigencies of climate change and DRM in deeply unequal, 'at-risk' Southern cities. It shows how the urgent humanitarian business of climate change mitigation, adaptation, DRM and resilience building has deepened existing inequalities through the 'necessary' eviction of 52,254 families across Metro Manila (National Housing Authority–National Capital Region, 2012; 2013; 2014; 2015; 2016; 2017) and 6,171 in Pasig City alone. As the MMFMP proceeds apace, some 51,965 families across the capital region remain at risk not so much of flood disasters or climate change, but of dispossession owing to the revanchist politics on which solutions to climate change and disasters are based. The slum is the theatre where the threat of climate change in Southern cities is staged. However the 'vulnerable' urban poor are not simply being displaced by rising waters or similar climate impacts; their displacement is not so much due to the devastation brought about by disaster events—rather, it is attributable to anticipation and mitigation of crisis and catastrophe. As the climate crisis plays out in Manila, we see that its casualties are dispossessed rather than displaced. To confront this crucial distinction is to unveil the active production of this catastrophic loss of life and home, to acknowledge the weaponization of climate change against the poor and vulnerable, and to recognize the political expediency of flooding, disaster, climate risk and 'resilience' as a vehicle of exclusionary urban transformation.

Beck (2009: 57) argued that representations of global risks by the mass media can have the power of 'enforcing enlightenment' by lending a voice to the marginalized. By rendering global risks visible, the media creates 'shared involvement and shared suffering' (Beck, 2010: 26). But once recurrent Ondoy-type flooding was constructed as Manila's almost-certain future, it was used to enact the opposite: to take back the city from a devitalized, degenerate and undesired social group, which figures elsewhere as squatter, polluter, encroacher (Bhan, 2009; Ranganathan, 2015), invader (Rademacher, 2009) and nuisance (Ghertner, 2012). Manila's experience thus presents one possibility for how revanchist urbanisms can be enacted through the vocabularies of 'vulnerability', 'adaptation' and 'resilience' within and against 'at-risk' cities.

Instead of a cosmopolitan moment, what we instead see is the climate-proofing, resilience-building and disaster-risk-management efforts in Manila as enabling a resiliency revanchism: a 'politics of revenge' unleashed by urban elites against social groups that undermine their vision of the city (Smith, 1996), predicated on the currency of DRM and urban 'resiliency', animated by historically entrenched stigmatization of the urban underclass and enabled by the selective interpretation, circulation and use of expertise. Evictions in the name of 'beautification' have long been a feature of life in Manila, most notably during Imelda Marcos's attempt to transform Manila into a 'city of man' (Berner, 1997; Lico, 2003). But the language of adaptation, risk management and 'resiliency' has merely allowed this revenge to take on new forms: as a reduction

of bodies, homes and resiliencies to obstructions to the managed flow of water, or to vulnerabilities ripe for benevolent intervention.

Here we have identified three components of resiliency revanchism to characterize the politics of Metro Manila DRM: an urgency demanded by a riskier, more hazardous future; the discursive enrolment of resiliency toward revenge; and the transmutation of material inequalities to risk inequality, prior to the disaster and in its aftermath. The overriding objective of DRM was not to make Manila safe, but to make Manila clean: the wanton disregard of flood risks generated and aggravated by transgressive middle- and upper-class spaces, alongside the unequal redistribution of risks and resiliencies along axes of class, betrays pronounced objectives of safety and draws attention instead to the wilful intent to expel and dispose of undesired bodies and landscapes.

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