

# Living with floods and coping with vulnerability

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## Abstract

**Purpose** – Using Anthropological methodology to achieve an understanding from a “local point of view” the purpose of this paper is to explore how safety is established in what clearly is, at least from the outside, a risky everyday. Floods are a recurring problem for people in Jakarta. However, for poor families living on river banks in the city center the floods also constitute a necessary condition to create a viable livelihood. The floods keep land grabbers and urban developers at bay and keep costs for living low. For the families living in these areas there is a constant “trade off” between safety and risk taking with the purpose to create a living.

**Design/methodology/approach** – The methodology applied in the paper is conventional Anthropological field work. The material is collected through participant observation and formal interviews. The data produced are of an experience near quality which is analyzed in terms of how it addresses and relate to the infrastructural policies of Jakarta and the specific project of normalizing the river Ciliwung.

**Findings** – The fact that people perceive floods as normal part of everyday life does not mean that they are unproblematic. Furthermore, the flood mitigation programs that authorities claim are “normalizing” the river system actually increase riverbank settler’s problems.

**Research limitations/implications** – Additional long-term field work on conditions for political mobilization inside and outside the formal political system in urban Jakarta is needed to better understand why organized resistance seldom materializes and how to strengthen the bargaining capacity of local communities in urban planning processes.

**Social implications** – As flood mitigation programs demand relocation of people, the argument forwarded in the paper is that general social and economic security systems have to be strengthened, enhancing capacity for mobility, before instigating flood mitigation programs.

**Originality/value** – Studies of disasters and risk often portray local subjects as either victims or losers. In this paper a more nuanced picture is presented. Vulnerability as well as livelihood is related to floods. The paradoxical situation is that people’s vulnerability as well as safety is related to their embeddedness in local socio-economic networks. People are dependent on specific networks and a specific space to produce a livelihood. However, the same embeddedness makes their livelihood vulnerable to the demands of being relocated. If relocated their networks are scattered. Just offering alternative living space and economical remuneration for lost property is not sufficient to replace a lost livelihood. Relocation without a new form for subsistence economy creates new forms of vulnerability. Hence, relocation rather than flood is perceived as the main danger by people living on river banks in Jakarta.

**Keywords** Vulnerability, Relocation, Natural hazard, Anthropology

**Paper type** Research paper

To poor people living on river banks in Jakarta, yearly floods are a burden. At the same time they are a necessary condition in creating a viable livelihood. By keeping urban land developers at bay, floods create a cheap place to live in central town. People do raise complaints about the neglect from authorities to maintain and dredge rivers. However, the flood mitigation programs that authorities claim are “normalizing” the river system actually increase riverbank settler’s insecurity as it demands their relocation. The problem defined by



Jakarta authorities is that people live in the wrong place, thus being flooded and by living on river banks they constitute an impediment to the flood mitigation projects. Therefore they have to be evicted. The main issue at stake for the people living in these areas is not the risk of being flooded but the vulnerability of their livelihoods, a livelihood that is threatened to collapse if they are relocated. To use Polanyi's (1944) terminology, they are embedded in socio-economic relations connected to a specific place and specific persons who function as their safety net in times of distress. Relocation threatens to destroy these safety nets. Hence, what constitutes their security, their embedment in local networks, at the same time makes them vulnerable to relocation plans.

This paper is explorative in nature, using Anthropological methodology to understand from a "local point of view" how safety is established in what clearly is, at least from the outside, a risky everyday, and second, what it is in the flood mitigation programs that disturb and worry people. The material, based on findings from doing field work in central Jakarta, show that although floods put a severe pressure on societies and individuals (in terms of health, emotionally, security wise and economically) they are also part of a complex space for an income generating everyday life. This makes people reluctant to move as the specific place they live in is vital for their economy. The argument forwarded in the paper is that authorities have to strengthen general socio-economic security networks, thereby enhancing capacity for mobility, before instigating flood mitigation programs that demand relocation.

### **Introduction: floods and the risky everyday**

Living in poor river bank areas in central Jakarta is truly hazardous. Apart from health risks, inadequate infrastructure, unreliable water and electricity supplies – the neighborhoods are regularly flooded. Still, asking residents about their reasons for staying the most frequent answer was that it is a safe (*aman*) place and that floods are a normal part of everyday life which they are used to (*biasa*). In a sense, the place of living was an active choice[1]. What did cause a lot of worries though, were the plans of the local (Jakarta) government to actually implement a program to regulate and mitigate floods. One could apprehend the response about being used to floods as a fatalistic acceptance of a fact that floods have always been and will always continue. However, pursuing the subject, a more complex picture emerged which was critical of the way authorities deal with both citizens and infrastructure.

Jakarta has experienced occasional floods for hundreds of years and they affect the city in many ways[2]. Although such a well-known experience, flood mitigation practices are underdeveloped and recurring major floods cause death, serious material losses and put a severe pressure on the whole city economy (Sudoyo, 2013). Main reasons for flooding are attributed to a lack of maintenance of drainage and canal system, heavy rains in the mountains that cause city rivers to flood, and high tides combined with strong winds (Ward *et al.*, 2012b). A worsening condition is that the city is literally sinking due to extraction of ground water (Hasanuddin *et al.*, 2001, 2009)[3]. Small floods disturb the traffic and intrude on the daily life of people living close to overflowing sewers, canals, rivers and sea side. With regular intervals severe floods inundates the whole city causing tremendous material and humanitarian losses. Public debate and local publications on natural hazards usually start out by establishing that Jakarta has experienced floods for centuries (e.g. Tarjuki, 2011, p. 3; Mámun, 2012, p. 23ff). Although unsubstantiated, a widespread idea, sustained in media and private conversations, is that every five years Jakarta is bound to be hit by severe floods. There is even a local expression for it, *siklus lima tahunan* (five-year cycle)[4]. BAPPEDA DKI Jakarta (Provincial Planning Agency)

has in cooperation with Action Contre La Faim Jakarta, Yayasan Layung Fajar and UNESCO produced a Practical Guide Book filled with glossy drawings and advices on how to behave before, during and after floods (UNESCO, 2008). Phone companies are selling applications to measure the risk for floods in a specific area (see, e.g. *Pulsa* no 252, January 30-February 12, 2013). *Koran Jakarta* published articles on what traffic insurances that cover flood damages (*Koran Jakarta* Saturday January 16, 2013) and how to prepare for the risk of floods at the wedding reception (*Koran Jakarta* Monday January 28, 2013). Flooding is such a common experience that flood mitigation is taught in schools, not as an emergency, but as a routine (Safer Cities, 2010, p. 5).

Although this only constitutes a brief selection of images and texts circulating in public space, to me, they signify the idea that floods are something you have to live with and take into calculation when planning everyday life as a Jakarta citizen. The city wide inundations are recurrent emergencies, albeit known as extreme forms of the normal. My interpretation – without any wish to diminish the reports on tragedies and hardship – is that living with floods has become a Jakarta attitude. The inhabitants of Jakarta (are taught to) reckon floods as “inevitable.” This idea of inevitability is a significant contextual factor to understand the fact that the immediate response people give when asked how they cope with floods, why they stay and even build new houses in the area, is that this is normal, “we are used to it” (*sudah biasa*).

The international debate on climate change has made authorities as well as citizens aware of the risk that flooding may become even worse. This insight has resulted in an acceleration of projects for flood mitigation as well as discussions about where people should live (not on river banks) and more fanciful ideas about relocating the entire capital. Policies are produced and political promises of future, more sustainable, solutions are made. Despite these efforts, flooding continues. So, Caljouw, Nas and Pratiwo have posed the obvious, almost naïve, but relevant question, “Why has the persistent problem of regular flooding in Jakarta never been solved?” (Caljouw *et al.*, 2005, p. 466).

The technology, knowledge and money are available. Jakarta is a billion-dollar economy with established connections to Dutch engineer firms and there exist today a rich body of research pointing to the importance of integrated flood management where socio-economic and political contexts has to be part of the solution. The simple answer to this question is that people controlling the resources necessary to deal with the problem do not gain enough from a solution (and there is no political power that can force them to invest). A slightly more complex answer is that the political and business communities are extremely fragmented and decisions are made in accordance to “local” (that is company or administrative specific) rationalities rather than to solve structural issues[5]. This fragmentation amounts to what Karen Bakker *et al.* (2008) has poignantly termed a governance failure. It is quite clear that the knowledge is available, what lacks is political power to take and implement decisions (Ward *et al.*, 2013).

However, neighborhoods exposed to floods have a growing population and the question remains of why people build their houses on river banks and move into locations they know will be flooded, which consequently demands a lot of their scarce resources.

### **Living with uncertainty as the normal – a view from the *kampung***

Ciliwung is one of the major rivers that flow through Jakarta and is notorious for its floods. The river has its origins in the mountains south of town and the neighborhoods (*kampungs*) in which field work took place are situated on each side of this river. The material for this paper was produced through two periods of field work (one month 2012 and two months 2013) and three *kampungs* along the river were chosen as research sites[6]. The informants

all live next to the river bank. They have experienced severe catastrophes, forcing them to evacuate their homes, as well as “regular” floods which did not necessitate eviction but entailed relocation of people and valuables to the second floor, if such was available. The *kampung*s are often perceived as run-down, with a lack of infrastructure and inhabited by socio-economic weak communities. To a certain degree this is in accordance with reality. However, the neighborhoods in this research are very complex, harboring individuals and families from a wide range of socio-economic strata’s. Satellite dishes, cars and brick houses were not uncommon.

There exist a string of well-written ethnographic accounts on *kampung* life in Jakarta (e.g. Krausse, 1975; Jellinek, 1991; Harjoko, 2009; Sihombing, 2010; Winayanti, 2010; Wilhelm, 2011a; Voorst van, 2013). However, the term, *kampung*, does not correspond to any administrative units and what actually constitutes an urban *kampung* is a debated issue (Krausse, 1975; Guinness, 2009). According to Echols and Shadily’s lexicon (Echols and Shadily, 1992), *kampung* means village. In Poerwadarminta’s Indonesian Word Book (Poerwadarminta, 1996), *kampung* is equated with *desa* (rural village) but also with uncivilized behavior and city blocks of low status. Living in an urban *kampung* is associated with poverty and backwardness (Harjoko, 2009, p. 7), even though today a certain amount of nostalgia for a traditional life style also imbues the concept (Guinness, 2009, p. 33). The origin of the *kampung* is discussed by Sullivan (1992), who made a case for the *kampung* as a “modern development of relatively recent vintage” (p. 1). He sees the Indonesian state as a main actor in providing this type of community with “its characteristic outer form – its shape and social boundaries – plus some of its internal structuring” (Sullivan, 1992, p. 11). Hence, relating the existence of urban *kampung* life to the development of modernity but also to processes of de-empowerment. Guinness (2009) argues against this idea of local agency being undermined by modernity and the state, with the *kampung* ending up as a “state construction without strong foundations among urban residents” (p. 22). In Guinness view, *kampung* societies are full of acting subjects and “strong local impulses to community” (Guinness, 2009, p. 24). Although Guinness conducted his study in Yogyakarta, his findings are echoed in Jakarta (Wilhelm, 2011a; Voorst van, 2013). In Sihombing’s thorough discussion of Jakarta *kampung*s (Sihombing, 2010, pp. 81-115), the term is used as a local expression to denote geographical belonging. As for example, “I live in *kampung* Pulo.” It is also communities defined by a high degree of “social capital” (Sihombing, 2010, p. 115). The material collected in my own field work substantiates both the view of an active community full of agency and informal authority as well as the fact that they always have to relate to the political and administrative structures put in place by the modern state. Keeping this condition in mind I will in the following use Sihombing and Guinness and approach the *kampung* as informal social relationships entangled with a specific place.

When it comes to formal political administration, the area, as the rest of Jakarta, is divided into administrative sectors of Rukun Tetangga (RT), neighborhood units. The RT are grouped into Rukun Warga, which in turn are aggregated on the Kelurahan level[7]. Each Kelurahan has a leader appointed by the Governor. An RT usually consists of a couple of hundred subjects and one administrative leader. However, the position of the RT leader is a combination of being a political representative and state bureaucrat. They are elected by the community and can be used to represent the people *vis-à-vis* the state bureaucracy. Through the RT leaders the citizens can make “proposals” to the Lurah to gain support and financing for different projects, such as renovations after a flood, or buying pumps and hoses. However, the RT leader is also invested with administrative functions. Although not provided with much formal authority or economic resources, the RT leader is important in the capacity of signing

letters and formulas necessary to get identification cards and social services. The RT officials are also supposed to mediate in conflicts and should, ideally, tend to stability and harmony in the neighborhood[8]. The RT officials also organize and distribute charity that reaches the communities (especially during states of emergency). Apart from signing different letters – maintaining connections to the Lurah and charity organizations are main functions of the RT. They operate in many ways as the “small men” reported upon by Greg Bankoff (this issue). They have a formal as well as informal role to establish and maintain networks of resource flows.

The neighborhoods in this research are in many ways typical Jakarta riverbank settlements (Vollmer and Grêt-Regamey, 2013, p. 1552) when it comes to socio-economic, political and physical structures. What marks out these *kampung*s compared with other squatter areas are their endurance and the public knowledge of them as being part of Jakarta’s history. The historic record makes it a well-established and legitimate (albeit informal) housing area. In the paper I set the material from these specific *kampung*s in relation to other researcher’s findings from greater Jakarta in order to highlight patterns of how people in poor urban neighborhoods cope with everyday risks.

### **Assembling social and physical space, security and livelihood-transience and stabilization**

Out of 14 individuals asked about their origins eight had migrated into the neighborhoods. Of the six persons born in the *kampung*s, four were married to people who had migrated to Jakarta and four of them had parents who had immigrated. Only one person did count descent from the specific neighborhood he lived in through his grandparents. Although I did not keep a conclusive record, many of the grown up children had moved out from the neighborhood where they were born. One of the neighborhood units (RT) consisted of 400 permanent residents (including children) and 50 seasonal workers. Although not caused by international migration, a high degree of diversity was present in terms of ethnic and regional origins. Spies (2011) have made a similar observation in an adjacent neighborhood, where 70 percent of the population had migrated into the *kampung*. Migration, diversity and transience are often taken to signify city life by large (Vertovec, 2007). Still, according to its residents the main benefit of *kampung* life is the fact that they know the people living there and that neighbors are an important part in their economic safety nets. Despite a high degree of mobility, people said they felt safe and knew the people in their neighborhood. Let us take a closer look into what this meant and how these notions materialized.

#### *Being used to floods-information and knowledge*

A functional Early Warning System was established in the area. Information from upstream measure points as well as from the Manggarai sluice gate further down the river was routinely communicated to the societies and shown on notice boards. In case of emergency, warnings were communicated through the mosques’ loudspeaker systems. However, there was no evidence of any regular, formal education of rescue proceedings or programs for standardizing behavior during floods. They were autodidact as one informant expressed it. Almost all informants provided the same answers to how people coped with floods by moving valuable belongings to the second floor, transporting motorcycles and cars to safe parking lots, that they resisted evacuation and even in hazardous circumstances preferred to leave one of the men in the house to protect valuables. As Roanne van Voorst shows in her article “Risk-handling styles in a context of flooding and uncertainty in Jakarta, Indonesia: an analytical framework to analyse heterogenous risk-behaviour” (this issue), on a personal-level individuals deal with risk in

specific ways. However, perceptions on how one should behave were quite clear and presented in focus interviews. Two of the neighborhoods had made quite extensive preparations to access roads and houses during floods. Ropes were strapped between poles to navigate boats (and hold on to when walking). Ladders were attached to the second floor to be able to descend and ascend the houses via boats.

All informants knew how they were supposed to behave during floods, how to protect their belongings and how to respond to and interpret the information they received through the Early Warning System. According to the interviews, people have an extensive and detailed knowledge about what causes floods and distinguish between local and trans-local factors. They acknowledged that building houses on river banks, the absence of protective walls (*turap*) and dredging, as well as throwing waste into the river enhanced the risk of flooding. However, they were also aware of the fact that high tides, deforestation and amount of water let through the Manggarai sluice affected their situation. Most of the informants also complained about the lack of maintenance of the river and hoped for this to improve with the new political leadership that was established in Jakarta autumn 2012. The floods they experience were termed *kiriman*, meaning that they are caused by high water levels further up in the river system. *Kiriman* means “sending” and implies the fact that the floods are “sent” by the upstream areas and caused by deforestation in the mountains south of Jakarta. Other terms for different sorts of floods are *genangan* and *rob*. *Genangan* means that floods are caused by heavy rains and an under dimensioned drainage systems. *Rob*s are caused by elevation of sea levels.

So, being used to floods means to have a specific terminology (which they to a large extent shared with a larger population in Jakarta), knowledge, information systems, behavioral patterns and material conditions to deal with the practical problems they are causing. There existed a shared knowledge about concepts for floods that made it a familiar and recognized part of life. It was possible to deal with floods in a cognitive manner, discussing and reflecting on the issue together with others as well as knowing how to behave and organize the physical surroundings in order to protect livelihoods. However, as will be shown later, this adjustment to and familiarity with floods did not remove the hazards or preempt the hardship caused by them.

#### *Feeling safe and knowing people – socio, economic networks*

As mentioned, one of the main reasons for staying in the neighborhoods was that people felt safe, often concretized in terms of knowing ones neighbors. Knowing people meant several things, the most important being that one could depend upon them in times of distress. As Sunayah, an elder woman, expressed it, “Here I have people who care about me and take care of me although I am poor.” Asking about how she raised resources to rebuild her house after it was swept away by the flood, she answered that it was through help from neighbors and relatives in the area. The same answer was repeated by many, especially permanent residents – help was received by relatives in the area. As it turned out they were not always blood relatives, but as one informant put it “they behave like relatives.”

After floods, collective work has to be executed in order to clean streets and drainage systems. This work, termed *Kerja Bakti* or *Gotong Royong* was declared to be swiftly conducted when people knew each other and did not have to be persuaded or forced to participate. This was also confirmed by observations made after floods where the neighborhoods were swept and cleaned of mud in less than 24 hours. As shall be evident further on, the state bureaucracy played a minor, although sometimes important, role in the everyday coping with floods in the community. Cleaning up and repairing houses was organized by local society with occasional help of state officials.

The strategic location was a second characteristic emphasized by the informants that made life in the *kampung* a positive choice. Being close to work and services such as hospital, shops and schools reduced costs for transportation. A majority of the informants survived on petty trade, selling, for example, food and cell phones and by providing simple services as parking guards, or through cleaning and laundering. For their trade they were dependent on regular customers in nearby markets and neighborhoods. The petty traders all had established selling routes in the area that provided a small but steady income and the parking guard was connected to a lot adjacent to the *kampung*. Living in the specific area was considered having a strategic advantage since it was well situated in relations to customers, markets and transports.

Many of the informants did own their houses although built illegally on state owned land. This meant that they only paid a minor property tax every year for housing. Several of the informants had small kiosks (*warung*) in their homes, selling food, snacks and everyday commodities. A chicken vendor used his house as a butchery. According to a survey conducted in the same area by Suganda *et al.* (2009), 48 percent of the respondents used their house for some kind of home industry. See also Harjoko (2009, pp. 68-69) for examples of how housing and workplace merge.

In all these cases the specific location played an important role in the security, livelihoods and income of the informants. Moving would inevitably entail a lot for their abilities to access their networks, adjustments in working conditions and increased transportation costs.

In sum, their way of coping with misfortunes such as unemployment, accidents, floods, etc., were to rely on the networks of friends, neighbors and relatives, and to reduce costs. So, even if the neighborhoods at a first glance may seem as transient urban landscapes, with a high degree of migration and diversity, the lack of any general social security system made people dependent on skills and competence in establishing and maintaining social and economic networks (see Simone and Fauzan, 2012 for corroborating observations in other districts). These networks were in most cases tightly connected to the specific place where they lived (and worked). Certain variations occurred, of course. The networks of recent migrants stretched back to their communities of origin and they made investments in buildings as well as social relations back home. Yet, their security depended on networks rather than a community, state or administrative bureaucracy[9]. However, one level of the formal state administration was important to the informants, especially in times of emergency, and that is the RT. Having a good relation to the RT leader can be of crucial importance to mitigate effects of floods (Plate 1).

#### *Returning to "normal"*

After each flood, streets and houses had to be cleaned from mud and garbage. In two of the neighborhoods, systems of pumps and hoses were available to facilitate cleaning. After major floods government authorities may send in human and technical resources to help cleaning up, but as far as I could understand this was with quite irregular and unpredictable intervals.

Maintenance was a recurring problem. Pumps broke down and hoses wore out, inflatable boats were punctured and there was nor the competence or economic resources to keep the equipment in shape. During field work, the RT officials made repeated visits to the Lurah to apply for material and help.

As mentioned, the expression *sudah biasa* was the instantaneous expression used when asking about floods. However, *capek banjir* (tired of floods) was just as common. As a kind of subtext to the interviews were the stories about hardship. Although mentioned in the



**Source:** Photo by author

**Plate 1.**

In times of flood ropes with floaters are stretched between poles and used to hang on to while walking the street and for navigating boats

interviews they tended to come out more offhanded in casual conversations. These included stories from RT officials about how they mediated in cases of domestic violence which they understood partly as consequences of the psychological pressure that floods put on families. They complained about emotions going out of control and the responsibility they had to tend to people's basic needs during floods and the difficulties they experienced in dividing gifts of charity. People repeatedly told about the annoyance of not having electricity as it was routinely cut during floods, thereby also cutting of supplies of water for cleaning and washing, the exhausting work of cleaning out mud, etc.. The list could go on. And, even if the environment was cleaned just hours or at the most a day after the water resided, there remained renovation of broken windows, replacement of destroyed woods, bricks and cement. There was also the uncertainty of not knowing if the authorities would provide support or not. For several months people kept their belongings on the upper floor as they knew that floods would reoccur. So, returning to "normal" (informants inserted the English word "normal" in Indonesian sentences) did not mean returning to the actual situation before flooding but most often a less favorable situation, at least in economic terms. As will be shown in the next section the concept of "normal" carries a lot of ambiguities for the *kampung* dwellers.



In sum, to mitigate the effects of the everyday risk that floods constitute, establishing (maintaining and stabilizing) social and material relations with friends, neighbors and RT leaders was crucial. In this sense everyday socio-economic networks meshes with the capacity to cope with expected, but straining, everyday natural disasters. Assembling and maintaining specific networks gave opportunities to tap into resources in terms of economic and human support and access to information. Through the RT representative the society established access to cleaning material, pumps, hoses, medicines and external donors. Although each network is constituted by a distinct set of relations, there are regularities in how to establish and maintain these networks. For example, neighbors and relatives were usually the main actors. The networks also have a temporality that goes beyond the individual as people are born into social relations. They also stretch past the horizon of the individual. The RT official may (or may not) have good relations with charity organizations, which in turn influence the life of the individual knowing the specific RT person. These networks protect but also constrain the individual. The networks are personal, individual identity cannot be substituted with a social security number and they do not exist outside specific social relations (as e.g. house structures or general social security systems do), but, that also means that they in a sense tie the individual to a certain place and social space. It is, often, an active choice to move in and to build a house in the *kampung*, but the choice to move out is much more difficult. There are many compelling reasons to stay (see also Marschiavelli, Mone Iye Cornelia, 2008, p. 40); access to the city, to safety, to transport, to work and work space, it is cheap, they can own their houses and mitigate dips in income.

However, changes that may have far-reaching consequence are appearing on the horizon. Joko Widodo was elected Governor of Jakarta in September 2012 and started an ambitious reform program. Still, for the flood victims the dawn of more effective governance also creates new uncertainties. The slumbering flood mitigation program (*Normalisasi Sungai* – River Normalization) for Ciliwung has been reactivated by Widodo and if implemented it will mean a lot of changes for people in the *kampung*s.

### “Normalisasi sungai” – when normalization creates uncertainty

As Texier (2008) has shown, floods reveal mismanagement and passivity in governance and put an extreme pressure on everyday livelihood capacities. On the other hand, actually taking political decisions to mitigate floods may also put pressure on these capacities. The societies presented here are exposed to recurrent floods as well as (seemingly) benevolent development projects aiming for normalization. However, normalization is an ambiguous concept, in some cases also causing uncertainty.

The February 9, 2012 the (now former) Governor of Jakarta held a press conference in which he announced that Jakarta, in cooperation with the World Bank (covering the costs of US\$139.64 million), would re-initiate the Jakarta Urgent Flood Mitigation Project (JUFMP). This is not a new plan (Silver, 2008), but now it was financed. In total, 10,000 people had to be relocated and 1,185 houses destroyed. In several recent articles (e.g. *Koran Jakarta* Tuesday 22 January, Saturday 26 January and Tuesday January 29, 2013) the new Governor, Widodo, reinforced this ambition and signaled for an immediate implementation of the project. As compensation the families should be offered rental flats and the relocation should be done in accordance with the World Bank Resettlement Policy Framework (RPF)[10].

The project is known by its acronym JUFMP, but in public debate and media the term “Normalisasi Sungai,” Normalization of Rivers, is often used (see, e.g. *Tempo* 21-27, January 2013:32; *Tempo* 28, Januari-Februari 2013:3; *Indradie* 2013:65; *Prihatin* 2013:71; *Koran Jakarta* Tuesday 29 January). The meaning of “normalisasi” relates to the idea of

restituting the width and depth of the river to an earlier stage. However, as the project also entails new roads on each side of the river and concrete river embankments (*turap*) the restitution, or normalization, is rather a transformation of the river and river banks from a present state into a regulated and controlled flow.

The relocation plans stirred up a lot of distress and Ciliwung Merdeka (an established NGO in the area) summoned people to a meeting with the World Bank. At the meeting several concerns were formulated by the citizens. First of all, it was emphasized that they were legal residents and refused to be labeled squatters. The area is known for hosting large informal settlements, with unclear tenure status but they were determined to fight the view of themselves as squatters. Although their houses were built on state own land and with no official building permit they considered themselves as house owners rather than squatters. Having paid property taxes for several years, having papers subscribing to the ownership of their houses signed by the Lurah (highest level of state representative in the *kampung*), having their own RT address (meaning that they were an official administrative unit) and being part of the voting process for local leaders – they defined themselves as citizens with rights[11]. Being defined as squatters would undermine claims for tenure and ownership of houses, making any compensation very uncertain[12]. Second, they voiced concerns about living in rental flats. This was mainly a question about working space. The income generated by having a small store, butchery or manufacturing business in the house evened out dips in other incomes. Moving to a flat would remove access to this kind of space (and most likely to their customer network). They were also worried about having to pay a specific rent each month. As incomes fluctuated it was necessary to be able to adjust spending in accordance with these variations.

The concerns voiced at the meeting with the World Bank, later mirrored in interviews, illustrate problems related to flood mitigation and relocation, where technological solutions devised for preventing “natural” hazards and respect for Human Rights (right to housing and livelihood) do not necessarily agree with each other[13]. The main issues at stake for these people are, obviously, not the risk of being flooded but the vulnerability of their livelihoods. Wilhelm concludes in his thesis on resilience and adaption among urban poor in Jakarta that “Kampung dwellers commonly state that they do not perceive floods as a serious problem, but rather as something ‘normal’” (Wilhelm, 2011a, p. 51). Instead, “[...] loss of the daily earned income appears to be the major difficulty” (Wilhelm, 2011a, p. 50)[14].

However, neither the JUFMP project nor the Jakarta authorities address economic vulnerability as a root problem in flood mitigation. The problem defined by the World Bank and Jakarta authorities is that people live in the wrong place, thus being flooded and by living on river banks they constitute an impediment to the normalization project. However, the risk object (the source of threat) for people in the *kampungs* is not the flood but, in this case, the authorities and the World Bank. The object at risk is their livelihoods[15]. The World Bank and the authorities define this relationship slightly different. To them, the risk object is the flood and the object at risk is the city infrastructure.

When discussing flood prevention with authorities in Jakarta (interviews with people at the Ministry for Public Work and the Regional Disaster Management Agency) their interest was on infrastructural projects such as canals, dams and sea walls and that people living in affected areas had to be educated (in how to dispose of garbage and where to locate buildings) or moved. Poverty was never a main issue. These predilections also transpire in written policies such as *The Jakarta Master Plan for Preventing Floods* and *The Guide for Mitigating Floods in Jakarta*. Both documents are produced by the Ministry for Public Work in 2009 and focus on infrastructural issues, dams, drainage, information and organization. As Texier puts it, from the Jakarta government’s point of

view what appears necessary when it comes to poor people living in flood prone areas is “first to educate them and secondly to relocate them” (Texier, 2008, p. 368).

The informants affected by the program of normalizing Ciliwung realized the necessity of technical and infrastructural improvements in order to mitigate floods. They often voiced disappointment over the lack of dredging, how buildings on the river banks constrained the flow of the river and the emotional and economical stress caused by floods. However, discussing the relocation plans in beginning of 2013, they still did not have a clear picture of the project. They did not resist the plans as such but lacked information and were worried about what kind and amount of compensation they would receive.

Put bluntly, floods are in a way beneficial for the urban poor. If the floods are mitigated living costs would increase and force them to find alternative living space at other locations. Even a short geographical move, a change of tenure ship (from owning to renting) or altered form of living space (moving into apartments) threatens to shatter their socio-economic networks and constrain the opportunities to use their homes as working space.

### **Conclusion: two sides of embeddedness**

In sum, people are living with a risky everyday as the normal state of being in, at least, two different ways. First, in their own terms, floods are *biasa*, a normal occurrence of everyday life, which they have adapted to and cope with, still making their livelihoods uncertain and risky. Second, they live with the danger that the flood mitigation project to regulate the river Ciliwung will force them to relocate, a risk about which they have very scant and uncertain information.

The term normal has an aspect of intrinsicallity built into it (it does not exclude development but change is something that happens in an expected and familiar way). Risk, on the other hand, includes an aspect of potential discontinuity or contingency (it inserts a question mark upon the continuity of the normal)[16]. However, in the *kampung*s the normal is to live with risk, were one cause of uncertainty (the flood) is a constant recurrence and, I argue, also a prerequisite to establish normality. The normal life in the *kampung* is not a state lost by floods and not a state arrived at if floods are avoided. Normality includes a risky everyday life. Resilience in the case of the *kampung*s at Ciliwung entails reestablishing a situation of uncertainty. If the flood arrives it is “normal” (*biasa*) but also puts pressure on livelihoods, it breaks of opportunities for income-making activities and creates expected but straining expenses. However, in the sense that they form a place where the uncertainties of living make land cheap and accessible the floods also provide an opportunity to normalize life and establishing a livelihood. Hence, the uncertainties as well as livelihoods of people are related to how the floods shape their place of living. If the flood mitigation projects are successful, and the floods do not arrive anymore, the locations will be more secure but also more expensive and out of reach for the communities used to live there[17]. So, the end of floods would entail relocation, not an establishment of a secure everyday life. Hence, situating everyday life in a dangerous place is a strategy to create and maintain a livelihood. Relocation rather than flood is perceived as the main danger by people living on river banks in Jakarta.

A key in all this is vulnerability. Being socio-economic weak makes people vulnerable to hazards in the meaning that a rational choice is to live in a dangerous place (in order to create a sustainable livelihood, based on low costs and central location). A main point Ben Wisner, Piers Blaikie, Terry Cannon and Ian Davies make in their book *At Risk: Natural Hazards, People's Vulnerability and Disasters* (Wisner et al., 2004) is that natural events do not constitute hazards, or even risks, until a vulnerable group of people is exposed to them.

A main problem experienced in the *kampung*s is socio-economic vulnerability. Living in a flood prone area is often a sign of having a low and instable income[18]. Being dependent on local networks for economic security makes people reluctant to move and weak influence over government and local institutions make infrastructural problems, health and environmental issues unsolved. Still, the issues of socio-economic vulnerability are not raised in policy work on flood mitigation in Jakarta, which deals mainly with technological matters, infrastructure, information and organization.

The ethnography presented here, to my mind, brings out two things. First, the recurrent floods make livelihood uncertain, and a normal routine in the *kampung* includes the necessity to reestablish the everyday after floods, a capacity often termed resilience. However, second, these reestablishments entail costs for the households and tend to reproduce vulnerability since the structures for producing the uncertainty, or vulnerability, are not altered (see also Wisner *et al.*, 2004). Formulating these processes in terms of resilience tend to hide the reproduction of vulnerability as well as the costs (emotional and material), as the term implies going back to a healthy state from a temporary disturbance.

The government structures that kick in during emergency (but to a large extent is absent in “normal” cases of flooding) and the charity pouring in during these events also reproduce vulnerability rather than addresses its causes. This conclusion corresponds closely with Pauline Texier’s findings where she concludes that “The official policy of the Jakarta government to face flooding does not address the deep causes of vulnerability but rather emphasizes natural hazards” (Texier, 2008, p. 369). Few formulates a similar critique, “it is the socio-political processes by which people are made vulnerable that are most relevant to mitigation strategies” (Few, 2003, p. 48).

For example, moving to and living in rental apartments pre-supposes a change in livelihood strategies as it entails a change in socio-economic environment (see Simone and Fauzan, 2013, p. 116 and Winayanti, 2010 for similar conclusions). Living in a flat requires the tenant to have an income independent of the place for living. Paying monthly rent also demands an economic system that can even out risks of seasonal drops in income (in form of general social security insurances or saving systems, for example). Not being able to make this change of a livelihood strategy is a root cause of their vulnerability. In Polanyi’s (1944) sense the *kampung* residents are not uprooted, dis-embedded citizens, or standardized, exchangeable, autonomous and anonymous economic units. The paradoxical situation is that their vulnerability as well as safety is related to their embeddedness of personal relations in socio-economic networks. People are dependent on specific networks (or actually their skills to establish networks) and a specific place (in which they can use their home as a production unit) to produce a livelihood. However, the same embeddedness makes them vulnerable to the demands of being prepared and ready to be moved and deployed in new locations. So, even though the focus of media and perhaps also scientists is on floods, it is really the relocation that is most threatening and which, as it is not an everyday risk, people are least prepared to handle.

The conclusion to be drawn is that flood mitigation policies have to start with building general socio-economic sustainability, thereby enhancing the capacity for mobility and creating viable conditions for mobility before instigating programs of relocation.

## Notes

1. Simone has noted similar sentiments in other parts of Jakarta, “Even when households may have enough money to rent decent accommodation in areas at the edge of the city, they may prefer to live in makeshift accommodation under toll roads, along creeks, [...]” (Simone, 2010, p. 89).
2. See Ward *et al.* (2012b) for Jakarta climate characteristics.

3. About 40 percent of Jakarta is situated below sea surface.
4. For an example, see PosKota <http://poskota.co.id/berita-terkini/2011/11/30/waspada-banjir-siklus-lima-tahunan>
5. All informants in NGOs and local societies agreed on a grave distrust toward government authorities, especially in Jakarta. Steinberg from ADB makes a similar conclusion, "The biggest challenge ahead for Jakarta's modernization is probably not so much an issue of financial resources but rather the demand for more transparency and real partnership between citizens, the private sector and the city administration" (Steinberg, 2007, p. 354). This view of Indonesian political and economic powers as highly fragmented is also substantiated in a recent article by Aspinall (2013).
6. I have used a mixture of participant observation, interviews, casual conversations, structured and unstructured observations. A total of 22 formal, recorded, interviews have been conducted with people living in the three *kampungs*. Each series of interviews was initiated by a focus group consisting of four to five people. After the initial meeting with the focus group, individual interviews were conducted with each of the participants. In addition, interviews with the administrative leaders of each *kampung* were also conducted. Apart from the three sites in which the series of interviews were carried out I regularly visited two additional *kampungs*. One in which I lived, where cooperation was established with a representative of a local NGO focussed on search and rescue activities. In a fifth *kampung* I had several meetings with an NGO focussed on poverty reduction and social work. In the meetings with the two NGOs a variety of issues ranging from search and rescue procedures to eviction and socio-economic strength of the communities were discussed. Apart from formal interviews, observations and casual conversations on the subject of flooding were pursued throughout field work. These include everyday conversations with people living and working in the neighborhoods as well as with the informants from the focus groups (but without recording devices and pre-formulated questions). The observations were directed to account for equipment available for flood mitigation and signs of flood prevention in the architecture and physical setting of the villages. Notes taken on these observations and conversations were compiled in a field diary. A series of meetings with government authorities, NGOs and international organizations based in Jakarta were also conducted. Navigating through the mass of actors engaged in water management turned out to be a research project in itself, but it provided a good overview of how the issue of flooding was perceived and formulated by actors outside the neighborhoods. During field work, I also monitored public information on flooding as it was conveyed in the daily news of *Koran Jakarta*, *Jakarta Post*, TV news, the web sites of Urban Poor Consortium and the official web site for Regional Government.
7. The RT/RW system was introduced by the Japanese occupation forces during second world war and modeled on a Japanese administrative system (Yoshihara, 2003)
8. A good example of the enmeshment of formal and informal authority is described by Antlöv (1995).
9. These findings correlate well with research among other vulnerable urban populations and their strategies for risk management (Jellinek, 1991; Sullivan, 1992; McCarthy, 2003; Wisner *et al.*, 2004; Lont, 2005; Koning and Hüsken, 2006; Guinness, 2009; Wilhelm, 2011a, b).
10. The RPF is an attempt to provide reasonable compensation to people affected by relocation. It replaces assets or gives compensation in cash for buildings and land to provide a livelihood compatible (or better) compared to the one experienced before relocation.
11. Without an RT address they would be denied an identity card, without which they cannot enroll their children in school or obtain any other assistance (Winayanti and Lang, 2004).

12. The fragile tenure situation of the *kampung* dwellers is explored by Winayanti (2010).
13. Natural is here put in quotation marks as the hazards, at least when it comes to flooding in Jakarta, are man-made.
14. See also Few (2003, p. 49) and Jellinek (1991, p. xx).
15. The terms risk object and object at risk are borrowed from Boholm and Corvellec (2010).
16. This does not imply any evaluation as such, uncertainty can be, as Boholm (2003, p. 167) notices, “for better or for worse.”
17. In the *kampung* with a protective river embankment (*turap*) the cheapest housing construction were absent, indicating that the most vulnerable section of the population had moved out.
18. This is not always the case, in the *kampung* also lives people with quite stable and good incomes. I only have a few of these as informants but my impression is that they are, in the same way as more vulnerable families, dependent on exactly the same kind of localized networks, which is one reason to stay.

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