Report on flooding in the informal settlement 'Kosovo' in Philippi, Cape Town

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Figure1: One of the main roads in Kosovo. By flooding observer, June 2011.

Contents

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Introduction and settlement profile

The aim of this report is to provide data and a descriptive understanding of the flooding issue in one particular settlement that is affected: Kosovo in Philippi, Cape Town. It is aimed at providing some fundamental insights and data on the flooding in this informal settlement.

Kosovo is one of the largest informal settlements in Cape Town, as it encompasses approximately 6000 households. It is divided between three sections: section A to the north, section B in the middle, and section C towards the south. Most of the land is bought by local government and some upgrading has been initiated. There are, however, areas that are supposed to be relocated, particularly one part of section A, where shacks are located on railway reserve land.

Since the land was bought by local government in 2004, there have been several in-situ developments like roads and drainage systems.

Figure 2: Outline of Kosovo, extracted and modified from Google maps, 2011. The railway line can be seen in the upper part.

The data in the table below is generated through second hand data from reports, and from my own interviews with residents.

Number of shacks	CoCT informal settlement count 2008 states there are **5154** (CoCT 2011)[1], In a 2004 survey the number is estimated to **5400** (Goven 2007). Respondents from CoCT however argue that there is now approximately **6000** shacks.
Location	Philippi, Cape Town. Was on private land but was bought by CoCT in 2004
Migration to settlement	The first people moved here around 1998. Many people have moved here from backyards in neighbouring areas like Samora Machel and other areas in Philippi 14.3% rural migrants, 73.66% from surrounding settlements and 12.3% from elsewhere (Goven 2007)
Age groups	Majority of the residents fall in the 21-40 years age category, and there a large number of children below 6 years of age (Goven 2007).
Household size	There is an average of 2.13 persons per household, and 33.39% single person households (Goven 2007).
Employment	51 % unemployment estimated (Goven 2007).
Service delivery	Local government provided a new toilet system. This, however, failed (Armitage et al 2010). Other developments are roads with traffic signs and drains, and electricity boxes are installed.
Disaster experience	A DiMP (2009) focus group estimated flooding as the second most important hazard type, after fire.

Table 1 Sources: The numbers are a mix of own and second-hand data, see reference list.

Methods:

This report is based on data collected in the period between 17.08.2010 to 31.08.2011. It includes over 30 visits to Kosovo, carrying out participant observation, interviews with residents, and a survey covering most of the settlement and workshops. Additionally, one of the community leaders carried out an observation and reporting task for 6 weeks in June – July 2011.

Interviews and focus groups were useful, but what was particularly useful was both visiting the informal settlement often, including during rainy spells, to talk informally to residents. Moreover, engaging residents and community leaders as 'research assistants' / 'flooding observers', and asking them to observe, note down comments and take pictures of the issue was useful. Not only did this give interesting data and perspectives, but it also increased the confidence and interest of the assistants to work with the issue.

In addition, second hand data from other reports are drawn on (see list in the last section of this report). In connection to another research project, a survey was carried out in 2004 (see Goven 2007). Although this data are a bit old, it was decided to draw on this data instead of carry out another survey, which could have exhausted the residents.

[1] City of Cape Town, 2011. Informal dwelling count: 1993:2008, Strategic Development Information and GIS Department, Informal data (2007 and 2008) extracted and collated by Sivuyile Vuyo Rilityana. Strategic Development Information and GIS Department, 26 pages.

How and why people inhabited the area

As the maps in the DIMP (2009) report visualize, the area of Kosovo was green and empty in 1998, until it filled up with shacks in 2000. One resident explains that when she moved to Kosovo in 1999, it was still green and full of trees:

> *"My aunt saw from the train that people where cutting down trees at this place. I then ran there and started cutting. It used to be a farm here before, I think, but then they left and trees grew. So some people discovered that this could be a place to build shacks….I was one of the first people to come and settle here. We were not that many then, but now it is full.*"
> (Resident, 21.08.2010)

Since this time, the area is filled up, as vividly displayed in the DIMP report (2009: 5):

Figure 3: from DIMP Report (2009: 5).

People keep on moving to Kosovo. In most cases, people buy shacks from people who are moving out. In some cases, people bring material and build up their shacks in between other ones (but only with the permission from the community leaders). In some of the worst flooded areas, it seems that the residents have not stayed longer than a year or two.

In interviews with residents, several reasons for moving to Kosovo were mentioned. A common reason is that they 'needed an own place'. Some moved here as they could not afford to pay rent for living in backyards. It is argued that it is better to stay in a shack here than in a backyard, because here they have their own place, don't have to pay rent and electricity, and don't have problems with landlords. Others stated they moved here because they had trouble with their family: "*We have stayed here since 2001, Kosovo was already full then. I fled from an abusive father..*" (Resident, 21.08.2010)

Lastly, Armitage (et al 2010) note that the location of Kosovo might be more attractive than other areas, as it is close to the railway station. Hence, despite that many residents want to be

relocated, they at the same time seem reluctant to move if it is further away from town and from public transport facilities.

Nature of the flooding

For the most part, flooding affects the paths and public spaces, but the water also enters the homes. Notably, as Kosovo is a very large settlement, particular areas are worse-affected by flooding than others, like the lower laying areas in section A and C. In a group interview in April 2010, residents noted that in section A, there is a detention pond blocked by garbage and sand. There is also a broken pipe that leaks clean drinking water. In section B, there is always water around a water pump station, the drains are always blocked, and a dip that was dumpsite before gets flooded. In section C, a dam flows over to this side, there is a detention pond leaks, and drains that are blocked. Furthermore, the shacks next to the main roads often get flooded as the water flows from the roads into the homes. As explained by a flooding observer, "*the people living in flooded shacks, and the car push the water to the house because it was a lot of water*." (Flooding observer, 25.6.2011).

Figure 4 and 5. Roads in Kosovo. Taken by flooding observer, June 2011.

Figure 6: *A shack by the road – the water is pushed inside because the drains are blocked* (Flooding observer, 25.6 2011).

It is reported that the flooding in Kosovo is related to a high water table, problems with the drainage system, and that some of the area used to be wetlands before people started living here (Solomon 2011, Armitage et. al 2010, DIMP 2009).

Many residents recognize the problem of the high water table and the wetland area. Further, some explain that the flooding is worse now because of the increased population density: "*The first people came here in 1999. The flooding is worse now because there is more people now*. (Resident, 6.10.2010). Another resident argued that the flooding intensified due to the change done to the natural environment:

> *"There was a forest here. People moved here and chopped trees – they took away the roots of the trees (since 1999). The roots used to take the water, now they are not here. You can see the holes."*
> (Resident, 6.10.2010)

Moreover, many residents complain about the drainage system. In assessments of the drainage and sanitation system in Kosovo, Armitage et al (2010), Beauclair (2010) and Tanig et al (2011) note a relatively sophisticated urban sewage and drainage system was provided in Kosovo in 2008/9, comprising vacuum sewerage and a combination of open channels and pipes. However, they further describe that there are several difficulties with this system, particularly: inadequate capacity of the drainage systems (such as the pipes are too small), inadequate expertise on the new system, but mainly an inadequate understanding of the circumstances, lack of interaction and communication between residents and local government and the engineers (Armitage et al 2010, Beauclair 2010, Tanig et al 2011). Therefore flooding is still a problem, as described by a community leader:

> *"In 2007 they started the work, placed the drainages. The contractors came and told us what they were doing. It became a little bit better afterwards, but when it rains too much it does not help. Last year all this area flooded."*
> (Community leader, 23.08.2010).

Complaints about the drains are frequent, and are also mentioned by the flooding observers: "*24 hrs raining, and there is flooding, the streets are full of water and the drains are not working properly."* (Flooding observer, 31.5.2011).

Worries and what residents do to cope

Flooding is experienced every winter. Therefore, many residents follow the weather forecast provided by TV, radio and newspapers, and worry about the flooding that might come.

Besides stress and damage to belongings, health is one of the major worries connected to flooding: "*The problems are diseases are TB and rashes. When it rains, there is grey water, and there is a lot of mosquitoes."* (Residents, 9.9.2010) A woman in a health workshop noted that "*on the other side the people, every winter, they have to move away because drainage enters their shacks."* (Woman, 21.08.2010)
The problems of sanitation and health when flooding is also described by Armitage et al:

> "*Heavy winter rainfall resulted in the shacks being surrounded, and sometimes inundated, by a toxic cocktail of stormwater mixed with greywater (from the tap stands), urban refuse and even faecal matter from the inadequate sanitation provision".*
> (Armitage et al 2010:3)

Figure 7: "*Water enters a home*."(Flooding observer, June 2011).

Residents take different measures to deal with or prevent flooding. Many use sand, put silicon in the holes in the roof, take out water manually, dig trenches etc. Some of these coping methods are also described in the report by DIMP (2009) and by Solomons (2011).
The most popular is to lift raise the shack with sand and rubble, or securing the edges of the shack with cement:

> *"They overcome the floods by organizing rubble and put sand on the top. They got a plan for themselves because no one helping them, and long time they are on floods. They become angry because of flooding"* (Flooding observer, 31.5.2011)

Figure 8*: "Here is a place where there was water, so they put cement around the edges of the shack."* (Flooding observer 15.6.2011)

Sometimes, the rubble is brought by "*companies that don't have anywhere to dump the rubble, so they come here and we use it*." (Community leader, 27.7.2011). Other times, neighbours collaborate on organizing rubble for filling the areas that are flooded:

> *"I got the rubbish myself. I went with the car to Muizenberg, there I talked with to the people that worked there with a truck, I talked to the driver. These workers were demolishing a building and are taking the leftovers to away. I got these leftovers from them. I will lift the whole house now."*
> (Resident, 22.8.2010)

This however requires some resources, and it is noted that residents that cannot organize rubble, fetch sand from a nearby area: *"The people who don't have money, they dig sand under the railway line to put in their shacks*." (Flooding observer, 15.6.2011)

Figure 9: "*Loading sand of a truck"* (flooding observer 9.7.2010).

It is pointed out that lifting one area can lead the water to other people shacks: "*If you lift your own area, your neighbour can get affected"* (community leader, 22.08.2010). Therefore, individual rising of homes sometimes contributes to tension between neighbours.

Moreover, as the filling of rubble is also somehow is related to illegal dumping of waste, it might create problems in relation to local government:

> *"You cannot see frogs there anymore because we put rubble there. But the City Council don't want us to do that, they would fine us then. Because it is public land, they don't want private people to dump here. But is saved us against the flooding, it helped a lot."* (Flooding observer, 22.07.2011)

Besides filling areas with rubble, most people understand that garbage is one of the main causes for flooding since it blocks the drains. Cleaners that are residents in Kosovo are appointed by the City of Cape Town, but they complain that there is too much work and too few cleaners.

A third way to deal with the flooding is to move the shacks: One man, who had moved his home to a dryer location within the settlement, explained: "*I moved here with my family last*

week because it was flooded where we stayed. It is a bit better here, but it is also some moist." (Resident, 22.08.2010)

Other resident are moving to other areas in Cape Town: "*Some people moved last year because of the flooding, to Khayelitsha and Delft – to other informal settlements there."* (Resident 6.10.2010)

When the flooding hits, residents take out the water manually, which however not seems to be very helpful: "*If you throw water out it comes in again. Nothing can be done. I stand on the bed and it is cold."* (Resident, 14.4 2010)

Figure 10: "*Trying to get the water out of the home." (*Flooding observer, June 2011.

Some relocate to a community hall, but it seems to be common conception that this might be dangerous because:

> "s*ometimes it is better to stay at home because people can steal your stuff Woman: At the hall it is cold and the food is not good for everybody. There is no privacy and ne security."* (Resident 14.4 2010)

External involvement and collaboration issues

Kosovo, compared to some informal settlements in the area, has received more attention from local government, NGOs and researchers.
Particularly, there have been several rounds of negotiations between the residents, community leaders and local government officials. This interaction is however not straight forwards, especially because of diverging expectations. This also became evident in the interaction around the drainage issue. Here, the residents blame local government for not cleaning the drains, while local government officials blame residents for blocking the drains by throwing garbage into them. On the residents' side, it was typically argued that

> *"the problems with the drains that make some shacks close to the road overflow: We called the people to repair the drains. If they would keep them all the time there would not be floods."* (Community leader, 17.8.2011).

On the local government side, officials wondered why it could not be controlled that people don't throw waste in into the drains. They suggested that the leaders perhaps could 'fine' people who dump illegally. The community leaders did not directly oppose these ideas, but it was later explained that this could be difficult and cause tension. Further, the blocking is caused by issues that are hard to control: It is often sand that blocks the drains, some of the places where residents deposit the rubbish for collection are next to the drains, and when the rubbish is not collected in time by the contractors, street dogs tear the rubbish bags and spread the rubbish. However, some residents did also indicate that:

> "*the drains are not working, because people are throwing garbage and food there…. Taps are leaking; I don't know who is responsible for this problem. Also taps are vandalized."* (Resident, 6.9.2010)

Another suggestion by local government was to relocate the residents living in the worst flooded areas to another section of the settlement. An area was prepared, but after two years, residents were still not relocated:

> "*The people that stayed in that open area next to the super shack were allocated; about 300 were relocated to Mfuleni, waiting for RDP blocks… they wanted the open space because they want to develop it. Other people stayed in the road, and they had to move them.…But nothing has happened there for a year now."*(Community leader, 25.5.2011)

This delay seems to be due to mixed messages from different external connections and due to internal disagreements on who should be relocated. Many residents, and also some external government officials, suggested rather relocating residents living on a private land to this space. They are to be evicted anyway, and even though there is little flooding in that area, other concerns, especially of hygiene (lack of toilets) and safety (next to roads and railway line).

A perhaps more successful initiative was to employ locals to clean the internal area and the drains. However, disagreements and suspicion increased about the employment, and some community leaders were accused of patronage and employing only 'their own friends'. Some residents claimed that the employment practise was not transparent and fair. This tension led to internal protests and violence, and the cleaners could not do their job for a couple of weeks. It was resolved after some months, but suspicion is still high between some community leaders and fractions of residents.

Lastly, there is some disappointment with aid: "*When they come with the sand, they don't come on their own, only when somebody call them. They come usually, but they come late."* (Resident, 22.08.2010).
Some residents are even showing resentment to external involvement, and indicate frustration with developers and researchers that 'just come and look and give nothing back': A woman explains that "*lately they just come with the camera and construct some kind of database with information and then they go back to their luxury houses."* (Resident, 14.4.2010).

Summary

Kosovo is one of the largest informal settlements in Cape Town, and there has been some in-situ upgrading like installation of roads, electricity and a drainage system. Despite this upgrading, instances of flooding occur every winter when it rains, due to the high water table,

the wetlands areas and the sometimes malfunctioning and blocked drains. Health problems are the major concerns related to flooding. The flooding has also been described in other reports and theses (Solomons 2010, DIMP 2009). In addition to the regular coping mechanisms, raising areas with rubble and sand is popular. This is however easier for residents with contacts and some resources. It is also problematic in relation to local government, as it can be seen as illegal dumping on public land.

In connection with the in-situ upgrading initiatives, like installing drains, employing cleaners, and relocating residents internally, there has been more interaction between community leaders and local government departments. This is an important, but interaction and collaboration is not straightforward, due to problems with interaction around technical issues and conflicting expectations (Beauclair 2010, Armitage et al 2010). The case of Kosovo thereby highlights the importance, but also difficulties, of cross-scale interaction (interaction between residents/ community leaders and local government).

Resources on Kosovo

Armitage, N., Beauclair, R., Ashipala, N. and Spiegel, A. (2010). Draining the shantytowns; lessons from Kosovo informal settlement, Cape Town, South Africa. NOVATECH 2010: 7th International Conference on Sustainable strategies and techniques in urban water management. Available from: http://documents.irevues.inist.fr/bitstream/handle/2042/35630/12202-282ARM.pdf?sequence=1 [Accessed 20. June 2011].

Beauclair, R. (2010). Developments and disappointment: and ethnographic study of Kosovo informal settlement's water and sanitation system upgrade. Master thesis, UCT

DIMP -Disaster Mitigation for Sustainable Livelihoods Programme (2009). Report on a Community Risk Assessment undertaken by DiMP students in collaboration with Urban Matters and the Philippi Youth Forum Kosovo, Cape Town, 23/24th June, 2009 University of Cape Town

Goven, G. (2007). Green Urbanism: Kosovo informal settlement upgrade case study. Cape Town ARG Design. Available from: www.holcimfoundation.org/Portals/1/docs/F07/WK-Grn/F07-WK-Grn-allpapers01.pdf [Accessed 13.May.2011].

Goven, G. (2010). Kosovo informal settlement upgrade: sustainability towards dignified communities. Pp 146-159 in Pieterse, E. (ed). *Counter Currents: Experiments in sustainability in Cape Town Region.* Cape Town.

Solomon, FJ. (2011). Examining the feasibility of informal settlement flood early warning systems: Focus on the urban flood-risk experience of Kosovo and Masiphumelele residents, Cape Town South Africa. M.Phil Thesis Submitted to the Faculty of Science, Department of Environmental and Geographical Science, University of Cape Town

Tanig, L., Armitage, N. P. and Spiegel, A. (2011). Cape Town's problematic vacuum sewer: A reflection on the technical, social and institutional blockages that constrain municipal management. 12th International Conference on Urban Drainage, Porto Alegro, Brazil.

Available from:
http://web.sbe.hw.ac.uk/staffprofiles/bdgsa/temp/12th%20ICUD/PDF/PAP005300.pdf
[Accessed 20. December 2011].