Report on flooding in the informal settlement, 'Egoli', in Philippi / Schaapkraal, Cape Town, 2010 and 2011



Picture 1: Egoli and the border to the neighbouring farm to the left. Since the residents do not have electricity, they make fires to keep warm. Taken 1.9.2010.

Contents

Introduction	2
Settlement profile	3
How and why people moved here	4
Nature of the flooding	5
Effects of flooding and how it is experienced	7
What residents do to cope	9
Involvement and aid from outside	13
Summary	15

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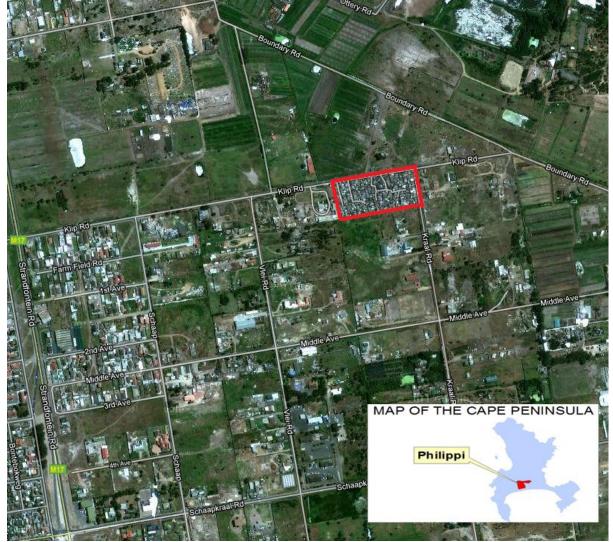
Acknowledgements: The research was carried out in collaboration with the community leaders and other residents of Egoli, who also did a great part of the data collection and monitoring. They have also read and validated this report.

More information on Egoli can be provided on request by contacting Laura.drivdal@uct.ac.za

Introduction

The aim of this report is to provide data and a descriptive understanding of flooding in one particular settlement that is affected: Egoli, in the Philippi Horticultural Area, Cape Town. By avoiding long theoretical discussions, this report provides empirical insight both for academics as well as for a wider audience on how such hazards, and other problems that are connected to this, are dealt with.

Egoli is one of the few informal settlements located in Philippi Horticultural Area,¹ which is sparsely populated since most of the area is designated to farming. As the map below shows, it looks much like an island of informal settlers, and contrasts how informal settlements in urban Cape Town usually are imagined. According to community leaders, most of these informal settlements are on private land and some are facing eviction charges.



Locality map of Egoli:

Map extracted from google maps.

¹ There are approximately 5 informal settlements in this area of Philippi and 55 in the industrial area of Philippi, counted by the CoCT GIS department in 2008. CoCT Strategic Development Information and GIS Department 2011. *Informal Dwelling Count (Based on Aerial Photography) for Cape Town in informal settlements1 (excluding Backyards) (1993 – 2008)* (unpublished report). A published count from 2007 can be accessed at: http://www.capetown.gov.za/en/stats/Documents/Informal%20Settlements%20Count.mht (Accessed 30.07.2011)

Methods

This report is based on qualitative and quantitative data collected in the period 24.08.2010 to 31.08.2011. The data collecting process includes over 35 visits to the settlement during this period, carrying out participant observation, interviews with residents, a survey covering most of the settlement, workshops and engaging a 'flooding observer'.

Interviews and focus groups were useful, but particularly useful was visiting the informal settlement often (occasionally when it was raining) and engaging in informal conversations with inhabitants. Moreover, engaging one of the young inhabitants as 'research assistant' / 'flooding observer' for six weeks during the winter 2011 was very useful. The flooding observer noted comments and took pictures of the issues she found relevant, and these notes and pictures from her form a large part of the report. Not only did this give interesting data and perspectives, but it also increased the confidence and interest of the assistant to work with the issue.

The report was also validated by the flooding observer and some of the community leaders.

Settlement profile

Egoli was formed by 64 families evicted from one of the largest farms in the area in 1995. Further evicted farm workers came to settle in Egoli in 1996. Thereafter Egoli expanded slowly, particularly when contract workers, brought to Cape Town from the Eastern Cape, abandoned their contracts due to bad working conditions. The area of the settlement used to be a soccer field, where the people that moved here first used to play. They did not know that the land was private. In 1999 the land was sold and in 2000 they received the first eviction order.

Every winter the inhabitants experience flooding, which, similar to many other informal settlements, have to do with the combination of a high water table, no drainage system and inadequate structures. And since the settlement is on private land and contesting an eviction order in court, it is difficult for local government to upgrade the land in the settlement.

The data in Table 1 below is gathered through interviews, observation, and a survey covering 180 households (approx. 52% of the households in Egoli), encompassing 708 residents:²

Table 1	
Number of Shacks	347 shacks counted by CoCT in 2009, which has increased from 331 in 2008 and 276 in $2002.^3$
Internal Shack density	On average there are 4 (3.91) occupants in each shack which is more than CoCTs general measure of occupancy rate per dwelling at 3.5. ⁴ 6.7 % are staying alone, and the highest number of residents in one shack is 13.
Population	Based on generalisation from this survey: 347 shacks multiplied by average number of residents in household (3.91) suggest that the population is approximately 1357 .
Migration to settlement	The first people moved here in 1995. The average length of stay is 10 years. The mode (the most frequent answer) is 16 years. 55.6% are born in Cape Town. 51.5% moved to Egoli from surrounding areas, 30.3% from other areas in Cape Town, 7.3% from elsewhere Western Cape, and 10.9% from outside Western Cape.

Table 1

² Report on survey with further data can be provided on request; contact Laura.drivdal@uct.ac.za

³Data received, on request, from CoCT Strategic Development Information and GIS Department, which has counted informal dwellings by counting roofs, via aerial photographs by Corporate GIS of Strategic Development Information and GIS Department,

⁴ op cit, CoCT

Age groups	The average age of the head of household is 39 years. Of the 708 inhabitants included in the survey, 21.6 % are 0-6 years, 19.2% 7-17 years, 32.6% 18-34 years, 23.9 % 35-64 years, and 2.7% 65 +.
Languages	81.9 % speak Afrikaans, 16.4 % Xhosa, 1.1% Setswana and 0.6% other languages. Many speak of 'the rainbow nation' and here you see children from different backgrounds playing together and speaking each other's languages.
Employment	In 36.1 % of the households there is no one who is employed. 47.8 % have one who is employed, 10.6 % have two who are employed and 1.1% three who are employed. Of the employed, 30% are full time, 61.8 part-time/occasionally and 8.2% self-employed
Welfare grants	63 % of the households receive grants. Of these 74 % are child grants.
Service delivery	Local government provided bucket toilets about three years ago, which were placed on the public land at roads. No electricity is installed and there are no illegal connections (due to no close-by neighbours), paraffin or fires are used.
Disaster experience	46.8 % have experienced fires and 87.2% flooding.

How and why people moved here

Statistically it is difficult to capture why people move, particularly in a survey with few answering alternatives, since each individual story is different and often complex. In the survey, four categories / values of the question 'why did you choose this area' were given, and the results were as follows: 46.4% answered "other", 30.7% "close to family", 12.3% "close to work" 8.9% "several of the alternatives" and 1.7% "close to friends". In many ways, the question why you *choose* to move here is misleading in itself, because it is in many cases not a real choice but an option of last resort. Through conversations with inhabitants three other reasons for migration to Egoli came out as central:

Evicted from nearby farms

Of those who made their response choice "other" in the survey, one central explanation why people moved there emerged through conversations with residents: as many of the first inhabitants in Egoli were farm workers who were evicted from nearby farms, they settled in an area close by. The survey confirms that many residents are born in this area: of the inhabitants, 55.6 % were born in Cape Town and 11.1 % in the Western Cape, while only 20 % were born in the Eastern Cape. Further, many of the inhabitants moved to Egoli from nearby settlements: 22,4 % moved to Egoli from a farm next to Egoli and 29,1% moved there from the nearby areas of Grassy Park, Ottery, Lotus River and Parkwood.

Therefore, compared to other settlements I have visited, it seems that many of the inhabitants are very connected to the area. This might be because the area is different from the typical urban areas of Cape Town, as it is an island of sparsely populated farmland in the middle of densely populated industrial and residential areas. The emotional connection to the area is particular strong with the old evicted farm workers, which this statement by an elderly man who has lived in Egoli for 16 years shows:

"I used to live in the house over there but the boer kicked me out. We hired the place, we paid money but they still kicked us out. All my children are born here still live here and go to school and work nearby. I was born here, on a farm over there." (Inhabitant, 10.08.2011)

Consequently, although the settlement is crowded and lacks facilities, many wish to continue staying in the area if the conditions were improved (better houses, electricity and sanitation facilities). But they are worried:

"We know we will never get this area. Because of the rich people here. The poor people were the ones that built this area, now we are not good enough. Around here you see mansions – they will not allow us to build RDP houses here...For the horses – all the stalls for the horses have electricity, even the pigs have electricity. Life is very unfair. Who make it unfair?"

(Community leader, 11.10 2010)

Job opportunities

As 12.3 % answered "close to work" in the survey, it is clearly an important reason for some of the migrants. Community leaders have indicated that some of the more recent inhabitants from the Eastern Cape have been brought or moved to Cape Town to work. Statistically this explanation fits when comparing language and reason for migrating to Egoli: while 27.6% of the Xhosa-speaking respondents answered "close to work", only 8.3% of the Afrikaans-speaking respondents chose this option.

I do not have data on this issue, but it might be that since there are not many other informal settlements in the area, the job opportunities (particularly short-term jobs on farms, etc.) are better in this settlement.

Financial problems

Lastly, during interviews, it came up that a few residents moved here due to financial problems. These inhabitants used to live in houses with electricity, but since the loss of jobs, or other problems, they had to live cheaply and therefore came to this informal settlement.

Nature of the flooding

Every winter, during rainfall, the water rises, covers the paths and flows into some of the shacks. During this winter, the flooding observer reported that after two days of rain: *"there are about 10 shacks flooded already but when I got to the shacks people had already started scoop out the water with buckets."* (Flooding observer, 4.6.2011).

As most of the shacks are made of old materials, many of wood and some of "zinc" (corrugated iron) rain water also leaks through the roofs and walls.



Picture 2: June 2011: "*Water lying everywhere, it's hard to get out of our house.*" (Flooding observer 19.6.2011)



Picture 3: "Water coming thorough from underneath." (Flooding observer 19.6.2011)

When discussing these problems with the inhabitants, they often explain the rising water by saying that this is a low-lying wetland area: "*This place is a wetland, water comes from underground. Children suffer a lot.*" (Inhabitant, 17.11.2010). Like most informal settlements in low lying areas, the problem is that the water does not drain, because of the high water table, and, particularly when it is cold, the water does not evaporate. Instead it stays in the paths and becomes still-standing grey-coloured water, mixed with dirt and rubbish. There are a lot of children in this settlement, and they often play in the paths.



Picture 4: Children playing in still-standing water. Taken 1.9.2010, illustrating how the water stays in the paths of the settlement after only one night of rainfall.

The flooding varies considerably, both between years and between areas in the settlement. Some years are worse than others, and many talk particularly about the winter of 2009, a year it rained more than usual:

"In 2009 everyone was in water. And nobody came to help. The water comes from underground." (Inhabitant, 17.3.2011).

Some areas of the settlement are usually worse affected than others. It is confirmed that the flooding 'at the back' is usually worse (the part facing west). However, this is not always the case, as this year the 'front' part, facing east, was also badly affected:

"Some people in the front flooded this year. The water comes from underneath. I don't know how but it went through to there, and there was more flooding there than usual this year. The people in the back, they were prepared, but not the people in the front. Nobody knows why it flooded there in the front this year." (Flooding observer, 20.07.2011)

A further problem, similar to many other informal settlements, is that there are leaking taps and that residents throw the water after washing into the paths:

"It is always wet here, people just throw the water after washing and when it is raining it gets worse." (Communityleader 17.11.2010).

Effects of flooding and how it is experienced

<u>Health:</u> In addition to damage to property, the most significant consequences of flooding is said to be health effects. In the winter when it is wet and cold, none of the residents have access to electricity for heating, not even illegal connections (like in most informal settlements) since there are no formal houses neighbouring them that could sell them electricity. For heating, a few shacks (often *spazas* or *shebeens*) have generators, others make

use of wood to make fires outside the shacks (see picture 1).To heat the inside of the shacks, most people use paraffin, but since it has become more expensive than last year, many may not always be able to afford it, and will stay wet and cold throughout the winter. Therefore, the level of diseases is high: the survey showed that, with regard to illnesses related to flooding, 80 % of survey respondents answered "cough / flu", 42.8 % "runny stomach", 29.4% "TB" and 20.6 % "rashes". Also, a newspaper article from 2008 stated that a monthold baby girl died of pneumonia because she stayed in a flooded shack in Egoli (*Cape Argus* 11.9.2008).⁵

Many residents are particularly worried about their children, who play in the dirty water: *"It's cold, wet and my children are getting sick I'm tired of living in the cold and wet. When are we gonna get seen by the government?"* (Inhabitant 17.6.2011)

"We can't even sleep nicely in the morning when we have to stand in the water with our feet. It's not nice because our children are getting sick." (Inhabitant 19.6.2011)

The flooding observer particularly expressed worries for the old inhabitants staying in cold and wet shacks (see picture 7 and 8). The survey, interviews and observation indicate that there are many pensioners and disabled people living in Egoli.⁶ This is probably related to the fact that, compared to other settlements, many of the inhabitants here were born in the Cape Town area, and they cannot send children or elderly people to other areas.⁷

<u>Getting to school and work</u>: Since the paths outside the shacks are flooded, people get wet when going to school and work. A resident complains: "*I must get out of the wet to go to work. I struggle to get out of my house. By the time I get to work I'm wet from my head to my feet.*" (Inhabitant, 15.62011).

This is also confirmed by the article in *Cape Argus* newspaper: "Many children had not attended school on Wednesday because their uniforms were wet, residents said. Instead, the children were wading through pools to help their parents bail out water from the shacks." (*Cape Argus* 11.9.2008)

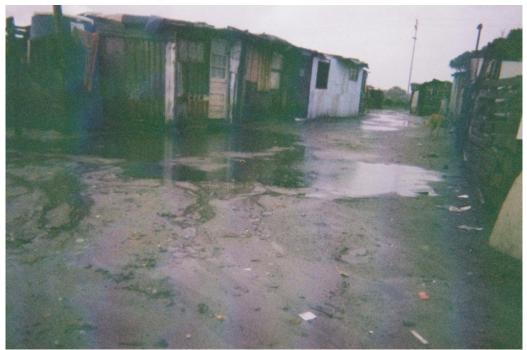
Shacks become wet inside when it rains due to leakages in the roofs and walls. One inhabitant explains: "*here's just leaking roofs everywhere, everyone's clothing is getting wet*".(Inhabitant, 3.7.2011)

In addition, as many remain ill during the winter, they stay home from work, and it becomes a vicious circle, since then they cannot afford paraffin for heating.

⁵Cape Argus 11.9.2008: *South Africa: Baby Girl Dies in Flooded Shack*. http://www.iol.co.za/news/south-africa/baby-girl-dies-in-flooded-shack-1.416081 Accessed 25.08.2010

⁶ 64.6 % of the inhabitants included in the survey receive social grants. Of these, 55.7 % are child support, 17.4% disability, 15.7 % both child and disability grants, 8.7 % pension grants, and 2.6 % both child and pension grants. Compared to enumerations of other settlements, the disability and pension grants are higher here (see enumeration of Graveyard Pond, and SDI enumerations of, e.g. Sheffield Road and Barcelona, which can be found at http://www.sasdialliance.org.za/projects/informal-settlement-upgrading/

⁷ It seems to be a tendency for informal settlers originating from the Eastern Cape to send children or elderly people back to Eastern Cape if they cannot work or provide for themselves.



Picture 5: *"Water everywhere, you can't even walk around your place."* (Flooding observer 19.6.2011)



Picture 6: It gets wet and cold inside many of the shacks.(Flooding observer 16.6.2011)

What residents do to cope

Practical coping mechanisms:

As residents know that this problem is coming every winter, they usually prepare before the winter and when the rain starts. Most residents make use of several practical improvements to the shacks and the paths between the shacks during rainfall:

"Some people scoop out the water with buckets, and dig trenches and get rubble. Trucks fill water holes with rubble." (Flooding observer, 4.6.2011).

"People throwing rubble and raising their shacks and digging trenches. When rain stopped people had to fix roofs." (Flooding observer, 17.6.2011)

The following pictures show some of these coping measures:



Picture: 7: Taking water out: "*His house is wet and filled with buckets, because the shack is leaking.*" (Flooding observer 16.6.2011). Some residents also scoop out the water in the shacks with buckets.



Picture 8: Protecting belongings from getting wet: "*Covering clothes and bed with plastic.*" (Flooding observer 19.6.2011)



Picture 9: Attempting to prevent the water entering the shack by securing the edges and doors. (Flooding observer 2.7.2011)



Picture 10: Putting plastic on floor: "*At the back, water coming through the floor, here they have put plastic on the floor to keep it out.*" (Flooding observer 19.6.2011)



Picture 11: Raising shack on stilts. 28.8.2010

However, not everyone is able to carry out this kind of work. While there is, for example, a carpenter that has built a shack with a good foundation, others live in old and very run-down shacks. As mentioned earlier, in addition to the issue common to informal settlements that income and employment levels are low, there are several old and disabled people in Egoli, who are particularly dependent on help from other inhabitants. However, as pointed out by the flooding observer, it is difficult to do much:

"I think it's very sad that people have to live like this. I wish I can help but I'm living the same way. "(Flooding observer 3.7.2011)

Collective efforts and internal aid:

<u>Filling paths:</u> In August 2011 several inhabitants came together and filled all the main paths in the settlement with rubble. This makes a difference for many, as they don't get wet when going to work. However, as one of the residents indicated, the filling of paths can cause unforeseen problems for some:

"Fill the paths. But filling also brings problems; because when paths get higher the water goes into the shacks that are lower." (Inhabitant, 18.11.2010).



Picture 12: Filling paths and edges of shacks with rubble: *"Rubble people have thrown to prevent water from coming in."* (Flooding observer, 11.06.11)

<u>Relocating to internal shelter</u>: During the worst years of flooding, such as 2009, residents whose shacks were totally flooded slept in the shack church that was built by one of the community leaders. This church is at the end of the settlement where there is less flooding (the east side), and the church is usually used to hold community meetings. However, residents prefer to stay put to protect their belongings. Staying temporarily in the church is preferred above going to communal halls to stay with strangers.

<u>Warnings:</u> Many make preparations before the winter, and worry about the possible flooding that will come. On the question of whether they receive any warnings about flooding, 59.1 % answered "yes", then usually refer to things they have read in newspapers or information they have received from neighbours and community leaders. The community leaders seem to be important figures here, and it was explained that they are the ones who have to phone Disaster Risk Management. In addition, the community leaders help inhabitants relocate to the local church.

Involvement and aid from outside

Similarly to many informal settlements, inhabitants hope that the **government** will aid them:

"We are sick of living in conditions like this. The government doesn't even worry about us. Our children are getting sick because of the water in front of the shacks, they can't even play outside." (Inhabitant, 2.7.2011).

The Red Cross, which is paid by provincial government, has been providing flood relief by donating food and clothes, but this does not seem to happen every year. In 2011, a committee member phoned the Mustadafin Foundation, which came and donated food, blankets, bread, etc.

However, inhabitants are not happy with the 'government's effort' and complain they don't understand the situation:

"Disaster Management comes sometimes, but they don't come into the settlement to see the flooding because they don't want to get wet." (Inhabitant 18.11.2010).

Nevertheless, local government involvement in this settlement is difficult, since it is located on private land and is subject to eviction proceedings. The problem that many of the residents point out, is that upgrading of the settlement, like putting in drains, is impossible because they are staying on private land. This is also the reason why the bucket toilets were not placed inside the settlement.

There are, however, other outside actors that are involved in aiding the residents of Egoli, particularly **religious organizations**, and NGOs, which sometimes bring food parcels, clothing, wood for fires and material for upgrading shacks.

Additionally, the **media** has been to Egoli and covered stories on the flooding.⁸ However, the inhabitants do not seem to be happy about the follow up to the media coverage: "*We called the Argus paper, they came and took pictures, but nothing happened*..." (Inhabitant, 18.11.2010)

Regarding aid to take basic upgrading preventative measures, it seems that the most important help comes from **individuals and private companies** that deliver leftover rubble, which the residents use to fill the paths. One inhabitant explains that they come every year:

"The trucks throw it here in the front, so people take wheelbarrows and bring it to their houses.

- Who brings the sand?

"People who want to get rid of stuff, companies that break down houses. Some of the people here work at the companies, and they tell them to bring the rubble." (Inhabitant, 20.7.2011)

Relocation plans: Since proper upgrading of the area is difficult, many of the inhabitants talk about the relocation plans for Egoli, but these are a bit confusing to understand. Some talked about being relocated to Pelican Park. During the eviction court case, there have been talks about relocating to Khayelitsha. However, especially the elderly are worried about and afraid of moving. One elderly man, born in the area, and who has lived in Egoli since it started stated:

"They will move us there at the end of the world... The school is here, the jobs are here... And here everybody knows everybody. We don't know that area. There they will rob us..." (Inhabitant, 10.08.2011)

Another younger inhabitant comments:

"We are going to get in trouble if we are moved there, because people who stay in that area wants to use the land..." (Inhabitant, 10.08.2011)

The latest news on this issue is that the inhabitants will be taken to view a location, which has been identified for their relocation in January / February 2012. They will then have to make a decision if they want to be relocated to this plot or not. If they decide against it, the court case will continue.⁹

⁸ See footnote 5

⁹ This process will be observed and reported on.

Summary

The inhabitants of Egoli experience flooding every winter, as the rainwater does not sink, but stays in the paths and shacks. Since the settlement is on private land, which restricts local government's intervention possibilities, there has not been proper upgrading, such as the installation of drainage systems. In addition, since there is no electricity and inhabitants often cannot afford paraffin or generators, the combination of being wet and cold throughout the winter affects the general health of many.

Inhabitants seem to deal with the flooding in different ways, and they do get warnings and a little aid from each other, the community leaders, Disaster Risk Management (municipality) and NGOs. However, this help is not sufficient, as the shacks and paths are in a bad condition. Moreover, relocation as an option is also problematic. Since many of the inhabitants were born and grew up in the surrounding areas, many are very connected to the place, and expressed that they are afraid to be relocated to an area with which they are not familiar.

Further directions

As this area is affected by water problems and the coping mechanisms are not sufficient, this suggests that more collaboration with other scales is needed. However, collaboration and interaction is not a simple issue, particularly since the settlement is on private land and subject to an eviction court case. The development of this settlement will be followed up by the FliCCR project in forthcoming research.

Pictures: Own pictures: 1, 4, 11 Taken by flooding observer 2011: 2, 3, 5, 6, 7, 8, 9, 10, 12