

Resilience and Risk in the Informal Economy: A study in the regulation of risk

1. Introduction

Scientific evidence confirms that climate change is already taking place (IPCC, 2007). Climate change increases the likelihood of extreme weather events such as droughts, floods and heat waves, as well as more gradual changes in temperature and precipitation (Mukheiber and Ziervogel 2007,143).

The individual and community exposure to climate change impacts has increased at rapid rates. While communities and government are struggling to adapt to these changes, the increased vulnerability to climate change is an urgent development issue in low- and middle-income economies. The poor, often with the lowest adaptive capacity, are often more vulnerable to climate change impacts because of their low economic and decision-making capacities. Furthermore research has shown that citizens in poorly governed cities are usually at greater risk than those living in well-governed cities (Huq et al. 2007).

The urban working poor are particularly vulnerable to these changes. National climate change adaptation plans have been proposed and used as a national level response to climate change. The process of adaptation is not new – nations have adapted to changing climate conditions throughout history (Mukheiber and Ziervogel 2007). However, sustainable adaptation requires good governance and multi-stakeholder buy in. The national level adaptation action(s) tend to be disparate from those at the local level.

Poor communities in many parts of the world, particularly those in Africa have moved into the informal employment and economic sectors largely as an adaptation response to global and climate changes. The limited capacity and resources of national government and city governments have resulted in unsuccessful adaptation responses, further increasing the number of poor people seeking services in the informal economy (GDRC 2010). For example, many African national governments are challenged with providing tenure and economic security to the poor in urban centres – often resulting in the poor settling in risk prone areas such as flood plains and in turn increasing their vulnerability (Satterthwaite et al. 2009).

The poor have developed innovative and sophisticated coping strategies in response to limited state interaction and service provision and natural hazards (threatening their livelihoods and economies). Despite these often-innovative responses, little attention in the literature has been paid to understanding how entrepreneurs in informal business protect their business from environmental risk and sustain their livelihoods amidst the uncertainty and risks associated with climate change. This absence of attention is particularly puzzling because of the opportunities that small informal business present to overcome the exceptionally high levels of poverty and unemployment in developing economies. For instance, the use and importance of rotating savings and credit associations as an insurance

mechanism has a longstanding history in poor communities (Ardener and Burman 1995) but has not been investigated as a risk management tool – particularly to the risks associated with climate change.

The collective risk management of the poor can be understood as insurance. After all, ‘insurance can be described as the reimbursement of an individual or business for all or part of the financial loss caused by an unpredictable event or risk. This protection is accomplished through a pooling mechanism: each person who is vulnerable to the risk pays a small amount of money (the premium) into the pool, which is then used to compensate those who suffer a loss. The risk-pooling mechanism makes it possible for the benefit amount to be much greater than an individual’s premium payments’ (Roth and McCord 2008,7). Poor entrepreneurs in this context are particularly interesting because a key issue shaping development within poor communities is the ability of entrepreneurs in these communities to effectively manage risks as they provide a significant number of goods and sustain themselves and provide work for others (Meagher 2006, Devenish and Skinner 2004) – making insurance very important for this sector.

Even with limited resources, entrepreneurs are able to build businesses based on multiple strong ties. Economists and sociologists have pointed out that in the informal sector, it is social networks that enforce norms within exchanges (Khavul et al. 2009; de Soto 2000). Despite this ability to thrive in the midst of high risks and uncertainty, ‘... the urban poor are not seen as critical parts of the city economy but as holding back the city’s success’ (Satterthwaite 2009,8).

The antagonistic relationship between urban governments and low-income groups coupled with governments’ lack of accountability to their urban populations (Satterthwaite et al. 2009,7) has had numerous detrimental results. For example, despite the knowledge and resources available through national disaster risk management departments in some countries, the uptake of risk reducing behavior has been slow and the poor remain at risk. This is in part a result of weak ties between the state and its poor constituencies, the effect of which has been an alienation of the poor. The urban poor exist largely in an ‘informal’ and unregulated economic environment. This means that ‘...much of the physical growth and economic expansion in most cities in low- and middle-income nations take place outside any official plan and outside official rules and regulations’ (Satterthwaite et al. 2009,6). An example of this is that of the increasing number of people living in illegal settlements because they cannot afford to buy, build or rent legal accommodation (ibid).

It is critical to bring the poor back into the development and climate change adaptation realm because ‘economic informality is central to the world economy, but it remains largely unexamined’ (Khavul et al. 2009), particularly in the risk management literature. Informal businesses are difficult to study - perhaps because informal business often conjures up

images of illegality, exploitation, evasion and lawlessness - (Castells and Portes 1989 in Khavul et al. 2009,1220) but how they are sustained amidst wide spread uncertainty warrants some investigation.

According to traditional economic theory, people make *rational* decisions, and the only thing that affects their behaviour is relevant information. But we know that the real world and impact are highly subjective (Cleary and Malleret 2006,59). For example, the response to the HIV/AIDS pandemic in Sub-Saharan Africa was widespread humanitarian food aid but the pandemic was poorly managed at both household and macroeconomic levels because the response overlooked the socio-economic, ecological and political conditions, which contributed to the vulnerability (Holloway 2003).

Social partnerships have been offered as the solution to the risk management problem (Coates et al. 2001). 'We need partnerships because most of the problems we will face in the 21st century will require multi-sectoral, multidisciplinary, and multi component efforts' (Richardson and Allegrante (2000) in Lasker et al. 2001,185) and the multi-level governance framework holds promise of achieving this. This analysis explores the roles of the different levels of governance in governing risk - particularly the local level's use of social networks for community resilience.

The analysis will attempt to demonstrate how poor constituencies contribute to their wellbeing and effectively mitigate and adapt to a changing climate to realise development benefits, and more importantly – community resilience. By looking closely at the use of rotating savings and credit associations (RoSCAs), and particularly burial societies poor communities are able to build social capital and provide social and welfare resources to or themselves.

The analysis reveals that the research group seems to make more use of burial societies as a savings or insurance mechanism than they do savings or credit associations. The analysis concludes within the informal institutional boundaries (e.g. rules, values, and benefits), there is greater emphasis on collective (than individual) action. This seems to have a significant bearing on the choice of risk management strategy for the poor. Furthermore, the findings suggest that the rationale for the choice of burial societies as opposed to other insurance mechanisms is largely based on a moral imperative.

2. Background and Theoretical rationale

Background

The African continent is characterised by diversity - in its history, economic and social traditions (Khavul et al. 2009). But there are also numerous commonalities such as the slow economic growth, unequal distribution of wealth. With few opportunities in the formal wage economy, many of the African poor engage in informal microenterprise. Also

common in Africa countries is that the bulk of past disasters and events have been associated with weather conditions (Ziervogel and Mukheiber 2007). It is within this broad context that we focus on how poor, informal entrepreneurs protect their livelihoods and sustain their businesses.

For the purposes of this analysis I will focus on only one research question: **What actions do poor entrepreneurs take to protect themselves from the impacts of these environmental risks?**

Risk in a broader context

Risk managers are often forced to act in situations of 'non-knowledge' or insufficient knowledge about potential outcomes of human actions or activities (Renn 2006,21). The most complex questions emerge, however, when one looks at how society and its various actors actually handle risk. In addition to knowledge gained through risk assessments and/or option generation and evaluation through risk management, the decision-making structure of a society is itself highly complicated and often fragmented.

Apart from the structure itself – the people and organizations that share responsibility for assessing and managing risk – one must also consider the need for sufficient organizational capacity to create the necessary knowledge and implement the required actions, the political and cultural norms, rules and values within a particular societal context and the subjective perceptions of individuals and groups (Renn 2006,22).

The governance of risk

The governance of risk simply indicates the rules that seek to shape conduct in relation to things identified as risks (O'Malley 2009). As O'Malley highlights however, this governance tends to decentre the state; revealing the various other agencies involved in social ordering (ibid). The shift toward governance through communities (see Osborne and Gaebler 1993), has translated into individuals taking responsibility of their own lives (as opposed to looking to the state as the key provider). This shift in governance has also changed society's compass reading of risk. "To govern something as a risk is to identify a future condition as being more or less probable, and to set in train ways of responding that will affect this probability in some way" (O'Malley 2009,4). This may include a focus on mitigating the hazard or widening the risk net using tools such as insurance.

The growing concern and interest around risks associated with societal progress and modernization such as those associated with global climate changes further challenge the way in which risk is governed. The uncertainty associated with modernization risks makes the prediction of their occurrence difficult at best. The governance of risk is therefore largely under conditions of uncertainty despite the interest and commitments of governments and scientists to identify the risks.

The governance of risk has taken different forms at differing levels of government – this is particularly the case with risks associated with modernization such as climate change. However at all governance tiers, power has been decentralized from the state. One way of grasping this decentering of the state can be found in Foucault’s work on power – particularly disciplinary power. ‘Discipline is a mechanism of power which regulates the behavior of individuals in the social body. This is done by regulating the organization of space, time and people’s activity and behavior and is enforced with the use of complex systems of surveillance (O’Farrell 2007). Foucault emphasizes the use of institutions to enforce discipline in society, for example, churches, schools and prisons.

At the global level, *governance embodies a horizontally organized structure of functional self-regulation encompassing state and non-state actors bringing about collectively binding decisions without superior authority* (Wolf 2002, Rosenau 1992). At this level, the climate change discourse has been debated through the UNFCCC with greater focus on climate change adaptation and increased participation by policy makers and academics (Ziervogel and Mukheiber 2007,145). For example, agreements such as the Kyoto Protocol bind national governments to agreements meant to reduce the vulnerability of their populace. Such agreements inherently assume that national governments have the required capacity to execute their plans. In other words, there is the assumption that the institutions called upon to take part in reducing nations’ vulnerability to climate change are disciplined enough to carry out their duties but where this is found to be untrue, they can be expected to fulfill these expectations because they are bound by agreements.

At the national and municipal scales, *governance describes structures and processes for collective decision-making involving governmental and non-governmental actors* (Nye and Donahue 2000). Governing choices in modern societies is seen as interplay between governmental institutions, economic forces and civil society actors (such as NGOs). In this perspective non-state actors play an increasingly relevant role and become more important, since they have decisive advantages of information and resources compared to single states (Renn 2006,22). For example, the City of Cape Town’s Municipal Adaptation Plan (MAP) for climate change calls for an integrated adaptation plan. The plan further highlights the need for integrating the expertise of government, stakeholders, researchers, the private sector and civil society (Ziervogel and Mukheiber 2007). All of this suggests then that the urban poor - who most hard hit by the impacts of climate change, are an important part of the risk governance structures in their communities. This suggests that the poor are able to take up a regulatory role which would hold other stakeholders to account for commitments made to prioritizing the needs of the poor.

Following the idea of informality, the weak state and the severed relations between state and society, poor communities govern risk in ways that are appropriate to them as communities. These governance strategies are often driven by individual and collective understanding of what the risk is and the resources available to respond to it.

Risk Management and response in poor communities

Risks are *mental 'constructions'* (OECD 2003,67). They are not real phenomena but originate in the human mind. The invention of risk as a mental construct is contingent on the belief that human action can prevent harm in advance. Humans have the ability to design different futures, i.e. construct scenarios that serve as tools for the human mind to anticipate consequences in advance and change, within constraints of nature and culture, the course of actions accordingly. The status of risk as a mental construct has major implications on how risk is looked at and responded to (Renn 2006,23).

What counts as a risk to someone may be an act of God to someone else or even an opportunity for a third party. Therefore societies have been *selective* in what they have chosen to be worth considering and what to ignore (Thompson et al. 1990; Douglas 1990; Beck 1994,9). This selection process is not arbitrary. It is guided by cultural values (such as the shared belief that each individual life is worth protecting), by institutional and financial resources (such as the decision of national governments to spend money or not to spend money on early warning systems against highly improbable but high-consequence events) and by systematic reasoning (such as using probability theory for distinguishing between more likely and less likely events or methods to estimate damage potential or distribution of hazards in time and space)(Renn 2006,24).

Risk management in poor economies is important yet fragile because starting an entrepreneurial venture is clearly a risky economic activity, and under conditions of uncertainty, individuals pursue risk reduction strategies that rely on strong ties (Ingram & Roberts, 2000; Lerner, Khavul, & Hisrich, 2007 in Khavul 2009 et al. 1223) However, risk can also be seen as a 'productive technology – the technology of profit and innovation' (O'Malley 2009,15). The concept of social capital makes sense of these ties as links to actual or potential resources whose profits accrue from membership in the group and are the basis of the solidarity (Portes 1998, Bourdieu 1985). Therefore, the stronger the ties in the network, the stronger the social capital and the greater benefits to be derived in the group.

Liberal thinking has increasingly promoted risk taking for greater entrepreneurial-ism but herein lies the dilemma that risk-taking may equal recklessness (see Wilson 2000). Wilson suggests that to overcome this dilemma, governments and business alike have attempted to create a certain moral culture through which business will regulate itself. Here, entrepreneurs are depicted in terms of their entrepreneurial fairness, commitment to community values, and innovation to morality and ethics – making them a critical part of the social networks within which they operate.

The ties that bind social networks together vary in their strength (Granovetter 1973). Weak ties are “superficial or causal and normally involve little emotional investment . . . they can be thought of as arm’s-length relationships whose handshake we seek but whose support we cannot count on” (Aldrich 1999,84). Although weak ties are built on “thin-trust” (Anheier & Kendall 2002), they do link individuals with others whose resources are not likely to be similar to their own (Burt 2005). On the other hand, the defining feature of strong ties is that they are “not governed by short-term calculations of self-interest . . .

[and] contain an implicit principle of reciprocal obligation” (Khavul 2009 et al. 1222; Aldrich 1999,82).

The preceding case study demonstrates the use and preference for strong ties by poor informal business owners in Philippi, Cape Town as a risk management mechanism against economic and climate-related risks.

3. Method

Data Source

This analysis is based on data generated from unstructured, in-depth interviews with small business owners in Philippi, Cape Town. The interviews are part of an ongoing case study to examine how entrepreneurs in (urban) informal settlements define and respond to flood and fire hazards; what actions they take to protect themselves from the impacts of these environmental impacts; and what shapes these actions and how, when and by whom or what mechanisms these actions are supported.

The interviews took place between June and August 2010. I examined 18 cases – 17 of which were interviews with informal entrepreneurs while one was with a representative of a burial society in the area. The interviews typically lasted approximately 3 hours and were conducted at the respondents’ place of business or home. 3 of the 17 businesses were no longer in operation though the business owners indicated that they were interested in re-opening them. This research method allowed me to analyze the characteristics of resilient informal business by comparing the risk management strategies used in business still in operation. Also, the cases provide a clear contrast in the choice of support mechanisms used by the entrepreneurs in times of need to manage eminent risks.

The respondents were asked to identify other (past and current) small business owners in their community. The case study method is used in this project because it attempts to explain holistically, the dynamics of a social group (in this case the urban, informal poor) or area of action (environmental change and risk).

Analysis

The data analysis followed the data triangulation method to draw on multiple data sources (O’Donoghue and Punch 2003; Denzin 1978). Specifically, the analysis builds on key concerns as identified through the interview questions as they relate to the actions to protect businesses and the mechanisms through which these actions are supported. An interview guide was used to guide the discussions and subsequent questions were based on the respondents’ willingness to talk about the mechanisms and actions employed in their business to manage risk. Based on the most commonly occurring concerns of the respondents and information counter to expectation I then built and modified the research theme categories. The categories and insights were then shared with my research assistant for cross verification. Where there have been inconsistencies in the interview information and with the literature, I have been revisiting the respondents for clarification.

4. Case study: Victoria Mqenge, Phillippi township - Cape Town

Philippi is one of the largest townships in Cape Town, South Africa. The area is situated in what is known as the Cape Flats. The term "*Cape Flats*" refers to a large area in the Cape Town Metropole that appears to be essentially flat when viewed from afar. (Capeflats Nature 2009). Like most black South African Townships, the history and development of Philippi is linked to apartheid policies. For example, most people in Philippi townships came from the former Ciskei and Transkei homelands in order to be closer to key services such as healthcare, employment and schools (City of Cape Town, 2007 in Anderson et al. 2009).

Between 1996 and 2001, the population in Philippi grew by 48.6% (Erasmus 2005). The percentage of unemployed people grew by 15.1% from 1996 to 43.1% in 2001. Of the population group between ages 15 to 65, 58.59% are unemployed, and 41.41% of the total population is employed. The income of the employed in Philippi is low - 82.80% of the employed population earns between 0-R1600 a month (Anderson et al. 2009,16).

The total number of people living in shacks is 54.97%, meaning that more than half of the Philippi population lives in shacks (Anderson et al. 2009,19). In terms of service delivery, 8.5% of people have water in their dwellings, 53.2% have access to piped water on site and 32.7% access water from public taps (ibid).

The bulk of businessmen and women in Philippi operate their enterprises from their homes while others work in rented premises. There were no statistics around this at the time of writing this paper.

Safety nets for the Poor by the Poor

As in most black townships in South Africa, RoSCAs are popular in Philippi and they take various forms which include rotating savings clubs, non-rotating savings clubs, burial societies, stokvels and others (Burman and Lembete 1996). Whatever form they are in, the RoSCAs are characterised by regular contributions of a fixed amount to a common pool for mutual financial, social or entertainment functions (Lukehele 1990). While membership in these associations is voluntary, there is a heavy emphasis on honesty and reliability. As a result of their highly regulated membership, the associations are often formed by neighbors, colleagues or members of a church congregation (Lukhele 1990,1). It is these bonds that keep the associations in existence.

RoSCAs are not new to South Africans; in fact they can be traced back to as far as the 1930s (Mosala 1986) when they were used as a response to the high mortality rates associated with insanitary living conditions in the new mining towns on the Rand. These societies soon grew in following along tribal, religious and even political lines (Lukhele 1990). Of late, the composition of RoSCAs is often mixed in their age group, gender and income group composition.

Masakhane¹: Savings Societies as insurance

Amongst the 16 entrepreneurs that were interviewed in Philippi, 4 were either members of a savings society or had accessed it in the past. Respondents mentioned a number of savings and money lending societies in the community. The savings societies had similar characteristics:

- The groups had a committee - usually its founding members. The committee made the rules of the society and enforced them through rules stated in a constitution. The committee also decided who could become a member and this was largely based on how well they were known to the committee member or in the community.
- The groups had regular meetings – usually weekly, fortnightly or monthly. Both the members of the society and the committee were expected to attend these meetings, as issues around the use and or lending of the moneys were discussed. Failure to attend or late attendance was penalized by a fine. These penalty fees were used to increase the income of the society.
- The meetings were opened and closed with a prayer by one of its members.
- Members of the society wore a uniform to the meetings; this too was enforced by imposing a fine.
- Members of the savings society had to borrow money at least once in the society's financial year. Members could also borrow money to lease out to others outside of the society but this was highly regulated to ensure repayment.
- The respondents said that there were more women than men in the savings societies. There was one particular savings society initiated by a group of young people under the age of 18. This society had members of school going age.
- The savings societies did not bank any of their money – all money was kept with the treasurer.

Despite the widespread availability of savings societies in this community many entrepreneurs were not members. When asked where they got help at times of need for their businesses, many respondents mentioned that they called upon family members because their family members would not require immediate repayment, nor would they demand interest on the loan. The interest rate on a loan in one of the savings societies was 50%. Furthermore, in one savings society the failure to service a loan resulted in one's personal/household items being confiscated. The confiscated items are typically stored for 2 months after which they sold to recover the member's debt, thereafter; the member's membership is terminated. Those entrepreneurs who could not get help from their families

¹ A political slogan of solidarity, Xhosa word for 'Stand together' (see: <http://www.danger-point-peninsula.co.za>)

had either lost their businesses or the business had survived without any intervention that is additional financial input.

The decision to do nothing at a time when the business was not going well and in need of an income spur was very common among the entrepreneurs. This group of entrepreneurs is of particular interest in this research because they challenge my initial research hypothesis that entrepreneurs make heavy use of savings and lending institutions at times of need. Instead, this group introduced the ideas of 'faith' and 'optimism' to the research. As many of the respondents in this group would say: '...if I don't have something today, I have hope that tomorrow I will have it'.

Although some of the entrepreneurs sought money to support their business – all the entrepreneurs interviewed had done nothing else to mitigate against the risks that they indicated as most common. Economic and weather related risks were mentioned as the most damaging by the entrepreneurs. The most common economic risk was that of a lack of income or financial reserve to support the business when necessary and rain was named as the most damaging weather-related risk as it destroyed sale goods in the often-fragile trading structures. In fact, one respondent indicated that he would not invest any money into improving his trading premises because it would not add to his profits. Therefore, despite the fact that the rain was destroying his sale items as a result of unsuitable trading premises, the respondent did not want to invest money towards fixing the premises.

The low uptake and use of savings societies as safety nets and the lack of mitigative action to protect one's business raises a key question in risk management amongst poor entrepreneurs, namely around the mentalities which influence action - such as not taking any mitigative action to save the business from collapse – rational. Initial analysis suggests that the role of spirituality is what largely influences the worldviews of poor entrepreneurs and that these views are influenced and propelled by other social institutions. In Philippi, burial societies are one such institution that is built on and upholds this type of rationality.

Of Dignity and Optimism: Burial societies as Insurance

Unlike savings societies, the use of burial societies was very common amongst the respondents. There are two main burial societies operating in the Victoria Mqenge area of Philippi, they are *Ncedo Burial Society* and the *Victoria Mqenge Burial Society* (VMBS). Both burial societies had operated in Philippi and its surrounds for over ten years and therefore had a large following. 14 of the respondents indicated that they were members of a burial society. Only two of the respondents were members of Victoria Mqenge Burial Society while the other 12 indicated that they were members of Ncedo Burial Society. A

committee member of Ncedo was interviewed but members of the Victoria Mqenge burial society were not been available for interview.

The rules that guided the operation of the burial societies were very similar to those of the savings societies. However, the Ncedo burial society operates slightly differently to the savings society in that the society holds a bank account into which members make their monthly contributions. However the moneys generated from penalties such as tardiness are kept with the society treasurer. The monthly contributions in Ncedo are the same of those of the Victoria Mqenge burial society (R120.00) and principal members pay the same amount of money as their dependents. This amount is set by the society committee and increases after every couple of years (also determined by the committee).

According to the Ncedo burial society committee member, Ncedo is cheaper than getting a policy with a formal insurance company, which is why people prefer it. The respondent went on to draw out some of the reasons why Ncedo was a preferred insurer and these included:

- Members are buried in the Eastern Cape at no extra cost²;
- The burial society takes an active part in the burial of its members and even assists in the food preparation on the day of the burial;
- Members that receive disability grants from the government are allowed to pay in the second week of the month when they receive their grants;
- When members are unable to pay, they are allowed to approach the committee to state reasons for which they are unable to make their contributions. If their reasons are acceptable to the committee, they are given a grace period of up to 3 months within which they can pay;
- The burial society hosts a party at the end of the year and members are allowed to bring their dependents and other family and friends to the party. Through this the society members from all branches meet and socialize.

Apart from these services, the respondent emphasized the fact that 'Ncedo is not a policy'. According to the respondent, ' a policy is not tied to any personal relationships – all you need to do is pay your monthly contributions. That's it.' The respondent had clearly drawn a line between the formal institutions' idea of insurance and how it was disbursed and the way in which insurance was disbursed in her community. In her view as I am sure is a view

² The bulk of the members of Ncedo are originally from the Eastern Cape and they prefer to have traditional burials in their hometowns.

shared by many of the members of Ncedo, formal institutions were difficult to engage therefore there could never be a relationship to bind the agreements of the insurance contract. This was later echoed by another entrepreneur, who when asked of his role in his burial society said: 'My duty is to bury people...my responsibilities include guiding members and being a role model to new members by giving them knowledge on the history of the society'.

This view resonates very strongly with theoretical ideas around ties in social networks commonly found used in the social network analysis literature. Social network analysis emphasizes the relationship of the actors in the social system over their individual priorities. Therefore, individual actors invest in relations within the social system with expected returns (Lin 1999). Lin suggests that this networked investment enhances the outcomes because, amongst other things, 'social relations are expected to reinforce identity and recognition' (ibid,31).

Burial society members and committee members especially, are highly regarded in the community. As one respondent indicated, 'people might come to the meetings drunk but after doing it once or twice they realise that this is not the place for that – they start to behave and come dressed smartly in their uniforms'. It became clear that the rules of the burial society went beyond influencing the conduct of members while at meetings and actually spilled into their personal lives and the choices they make. For instance, the members of Ncedo Burial society are encouraged to be married to their partners if they are living with them or have children with them. The reasons for this are that when people are unmarried, their families and those of their partners often fight over their estate and this is seen as both shameful and devious. To avoid this, the members must have a partner and children that are known to the society and they will receive the payout of their insurance. Therefore, children born into a member's family have to be reported to the burial society as soon as possible and when one gets married they have to alert the society.

Even though the rules of the burial society were made by the committee, they were embedded in a broader social construct – one which made sense of patriarchal lineage, of social harmony and most importantly, of reciprocity. According to Gulati and Gargiulo (1999), this type of embeddedness refers to the degree of cohesion in a network – how close members in the network are and thus operates like a sub-culture. Embeddedness therefore implies the importance of belonging to a concrete set of dyadic relations (Ansell 2003,126). In the Ncedo burial society this social constructs are upheld by penalizing members for not reporting the birth of children or new marriages, they were penalized for not attending others' funerals and they were encouraged to hold prayer members for members' families that were grieving and even assist in the preparations for the funeral.

Despite members' time invested in the society, they seemed to be happy to do this for other members. As one respondent said: "I already know that I cannot do anything on Saturdays because there is always a funeral to attend... I want to be buried in dignity and I want a lot of people to come so I have to go to the funerals of others". One can conclude that by investing in the funeral society, society members are recognized as dignified members of the community. Individuals clearly invest in these social relations by way of committing their time but it is unclear how they capture the resources and privileges that are embedded in the relations to gain return. This warrants further investigation.

Temporally, the longstanding existence of the burial societies in the community suggest that the individual members and the organization itself 'have developed in a particular communal context. Presumably, the longer a person or organization has been situated in a given context, the more they have been socialized into the norms of that context and the more time they have had to develop informal, locally-specific knowledge and strategies for working in that context' (Ansell 2003,127).

The large following and time committed to burial societies suggests that they play a critical role in the lives of their members. Together with their long-standing operation in the community, burial societies seem to be more than just a safety net and rather an institution to ensure that common moral ethos are upheld. Perhaps another way of looking at these burial societies could be as institutions of moral insurance.

Notwithstanding their commitment to burial societies and negligible use of savings societies - it is very clear that the risks of fire and flooding are not the most pressing to informal entrepreneurs. If anything, the entrepreneurs seemed more interested in insuring against hardship of their families after their passing, to protect their position in the community and ensuring that they led moral lives. There is greater emphasis on investing in a future life over current or medium-term lived or probable experiences.

At this stage of the research it is difficult to make sense of the entrepreneurs' preference for death insurance over a means of saving and growing capital for future consumption.

5. Conclusion

The current enthusiasm for climate change, particularly the concept of climate change adaptation and its application to different social problems and processes is not likely to diminish soon. The interest is warranted in part because of the real and important response to the phenomena. It is also useful in that it offers a lens through which to look closely at issues at the environment-society nexus.

I have suggested that there is a need for closer interrogation of individual and local level adaptation strategies – where social ties can bring about greater control over wayward behavior and provide access to resources (Portes 1998). The use of burial societies as one such institution suggests their usefulness in promoting group resilience and regulating risky behavior. In my view, social capital has a place in the theory around building multi-level resilience from risk. The case study has demonstrated how this is promoted and enforced in an informal context but its transferability and incorporation in the formal context is yet to be examined in this ongoing research.

Despite its positive effects, it is unclear how and whether individuals extract the benefits born of their investments into the social network. In the case of burial societies one can perhaps say that they benefit by getting cover at the time of death. However, the analysis suggests that individuals are also interested in intangible benefits such as community recognition and respect. Also, the role of other social institutions such as religion and culture in risk management and decision-making warrants further investigation. This is particularly important because as the case study reveals, the temporality of the institution plays a significant role in decision-making because they are closely associated with their knowledge and choice of decision-making strategy.

The effects and downsides of the institutions of social capital need to be examined further in order to reveal the most realistic ways in which they can be used to promote resilient economies and communities that are better adapted to the impacts of climate change.