

**Note:** This is Online Appendix 1 of Onyeagoziri, O.J., Shaw, C. & Ryan, T., 2021, ‘A system dynamics approach for understanding community resilience to disaster risk’, *Jàmbá: Journal of Disaster Risk Studies* 13(1), a1037. <https://doi.org/10.4102/jamba.v13i1.1037>

**Online Appendix 1: Research Cycle Two (Summary of the data collection and data analysis process)**

Online Appendix 1 is a summary of the research cycle’s milestones and the grounded theory research process used for data collections and analysis for this research study. Online Appendix 1 is for the research cycle two, and the same steps were also taken for the research cycle one to achieve the results.

**1. Summary of the Proposition Log**

No.	Ref.	Data (observation, description passage)	Relevance (to concern variable)	Impact (on concern variable) D/R	Proposition Subject- Relevance Predicate-Impact
RESEARCH CYCLE 2.1 (PROPOSITION LOG)					
1.	1	Unless more determined efforts are made to address the loss of lives, livelihoods and infrastructure, disasters will become an increasingly serious obstacle to the achievement of any form of sustainable development.	Achievement of sustainable community development depends on the efforts put by the communities to reduce disasters.	Good efforts to improving the level of resilience in a community leads to decreases in loss of lives during disasters – D.	Increased <b>Level of Determined efforts</b> towards improving the level of community resilience is needed to address the issues of disasters in the communities.
2.	1	A disaster only happens when specific individuals and groups are unable to cope with a hazard event. Hazard prevention, mitigation and vulnerability reduction are achieved by building our individual capacity to survive and bounce back, and by strengthening/improving the functioning of support systems in our communities	Strengthening and improving the functioning of support systems in our communities leads to disaster risk reduction.	The hazard events are overcome when we build our individual capacity to survive and bounce back – D.	<b>The degree of Individual capacity</b> to community resilience leads to the ability of communities to survive and bounce back during disaster.
3	1	The communities’ effective role as learning agents lies at the core of every effective DRR endeavor. Once learning transpires, communities can move forward to further their development. Communities’ collective learning of their disaster risk will prompt them to pro-actively offer risk reduction measures.	When the communities are effective in learning about the mechanisms behind the improvement of resilience, they will be able to offer disaster risk reduction measures pro-actively.	Effective and collective learning of the disaster risk by the communities will lead to the understanding of the level of systemic resilience of the communities – D.	Higher <b>degree of Proactive measures</b> to disaster risk reduction are offered by the communities when there is an <b>effective learning</b> and understanding of the level of the community’s resilience.
4	1	In Community Managed Disaster Risk Reduction (CMDRR), emphasis is placed on the interactive nature of people’s participation during the entire project cycle, while in Community Based Disaster Risk Reduction (CBDRR), information from the community is gathered to determine interventions, which are primarily dependent on external facilitators.	Interactive participation during the process of understanding and findings of the mechanisms influencing the level of the community’s resilience leads to disaster risk reduction.	Gathering of information’s from the communities determines interventions leading to the improvement of the level of systemic resilience – D.	<b>Gathering of information’s</b> from the communities and high level of <b>interactive participations</b> by the community’s leads to understanding the mechanisms influencing the level of systemic resilience in the communities.

5	1	CMDRR is a process of bringing people together within the same community to enable them to collectively address a common disaster risk and to collectively pursue common disaster risk reduction measures. CMDRR is a process that mobilizes a group of people in a systematic way towards achieving a safe and resilient community/group. Its end view is a dynamic community that equalizes power relations, binds the group cohesively in the process of making decisions, deals with conflicts, resolves issues, and manages individual and collective tasks through addressing and bouncing back from hazard events.	The process of bringing people together within the same community to enable them collectively to address a common disaster risk and disaster risk reduction measures improves the level of systemic resilience of the communities.	The process of systematically mobilizing a group of people in the communities will lead to the achievement of a safe and resilient community – <b>D</b> .	The <b>Impact of Systematical mobilization</b> of a group of people is bringing people together within the same community to address a common <b>disaster risk reduction measures</b> , which can lead to the improvement of the level of systemic resilience of the community.
6	1	In CMDRR, the facilitation process is aimed at co-coordinating the facilitators and the people in the community. The goal of CMDRR is to facilitate learning and positive change at the individual and community level. In contrast, the CBDRR process is aimed at gathering information for the goal of developing local plans and program	Facilitating learning and positive change at the individual and community level is very relevant to the level of systemic resilience of the communities.	Gathering information, learning and positive change leads to the goal of understanding the influence of systemic resilience of the communities – <b>D</b> .	<b>The degree of Positive change and facilitating learning</b> at the individual and community level can lead to the improvement of the level of systemic resilience of the communities.
7	1	CMDRR institutionalizes Participatory Planning, Monitoring and Learning (PPMEL), as a systems approach and tool, to strengthen the community's organizational capability to ultimately manage and own its DRR project(s), thereby ensuring community resilience and self-reliance. CBDRR, to some extent, depends upon an external organization's capability to manage the project; in the long run, self-reliance of the community organization is not guaranteed.	To strengthen community resilience and self-reliance, participatory planning, monitoring and learning should be used as a systems approach for the communities to handle their own disaster risk reduction projects.	The participatory planning and freedom to manage the disaster risk reduction plans will increase the level of systemic resilience in the communities – <b>D</b> .	To strengthen community resilience, <b>participatory planning, monitoring and learning</b> must be institutionalized in the communities as a systems approach.
8	1	The community decides if they are in a state of disaster: (i) if they cannot cope and need outside help, or (ii) they can cope and have the capacity to face the challenge at hand. Resiliency is not merely accumulated physical assets or secured livelihood. It is also the individual person's will to survive and claim his/her rights to be a member of a just and equitable society.	The capacity to face the challenge at hand and the decisions of the communities to survive will lead to an increase level of systemic resilience.	The communities lack of decision to survive and claim rights to be a member of the society will lead to them not coping and having the capacity to face challenges of disaster risk – <b>R</b> .	For the communities to survive and increase the level of systemic resilience in the community, there should be a <b>decision-making</b> ability and will amongst the communities.
9	1	Hazards, coupled with vulnerability and a lack of capacity to cope, translate into communities with high levels of risks. It is possible to reduce these risks. Some hazards can be prevented or mitigated. Some hazards defy prevention or mitigation, but communities can be enabled and empowered to cope and bounce back from their impact.	Enough capacity to cope, which is the level of systemic resilience will lead to the low level of risk in the communities.	When there is high capacity to cope, communities will be enabled and empowered to bounce back from disaster impacts – <b>D</b> .	<b>Enough capacity and enablement</b> will lead to a low level of disaster risk and increase the level of systemic resilience in the communities.
10	1	CMDRR is strategically important: its approach has communities become resilient and self-reliant, so that development initiatives are safe, secure and sustainable through time. CMDRR creates a sustainable intra-community working relationship, geared towards building group and community cohesiveness in achieving the task of risk reduction. People's capacity and survivability are enhanced and at the same time, dependence from external support is gradually terminated. CMDRR builds strong, self-reliant organizations and communities founded on equal power relations in all aspects of organizational and community life. It specifically reduces risk and sustains development.	For communities to be able to be dependence from external support gradually, sustainable intra-community working relationship must be created.	For communities to be self-reliant and increase the level of systemic resilience, there should not be any lack of working relationship within the communities – <b>R</b> .	<b>Intra-community working relationship</b> is needed for the communities to be self-reliant in increasing the level of systemic resilience for disaster risk to be reduced.

11	2	Recent years have witnessed community disaster resilience becoming one of the most heavily supported and advocated approach to disaster risk management. However, its application has been influenced by the lack of assessment tools. This study reviews studies conducted using the resilience concept and examines the tools, models, and methods adopted. It examines the domains, indicators, and indices have been considered in the tools. It provides a critical analysis of the assessment tools available for evaluating community disaster resilience (CDR).	The community disaster resilience has been the heavily supported and advocated approach to disaster risk reduction. However, the assessment tools to determine what influences this is lacking.	Critical analysis of the assessment tools will lead to the evaluation of the community disaster resilience – <b>D</b> .	The <b>assessment tools</b> to determine what influences the systemic resilience of the communities, needs a <b>critical analysis</b> to evaluate it, because the community disaster resilience has been the heavily supported and advocated approach to disaster reduction in recent years.
12	2	A need to use appropriate and effective methods to quantify and weigh them about their relative contributions to resilience is identified, as is a need to consider how these levels interrelate to influence resilience. Although assessment of disaster resilience especially at the community level will inform disaster risk reduction strategies, attempts to systematically do so are in preliminary phases.	To consider how the levels interrelate to influence resilience, a need to use appropriate and effective methods to quantify and weigh them about their relative contributions to resilience is identified.	At the community level assessment of disaster risk will inform disaster risk reduction strategies - <b>D</b> .	<b>Appropriate and effective methods</b> should be used at the community level to assess disaster risk and consider how levels interrelate to influence resilience.
13	2	Community disaster resilience (CDR) has become the cornerstone of hazard readiness and disaster risk reduction in developed countries. Pivotal to this new approach has been increased emphasis on enhancing community resilience to reduce impacts of disasters.	Pivotal to the new approach of community disaster resilience, emphasis on enhancing community resilience will reduce impacts of disasters.	The impacts of disasters will be reduced once there is more emphasis on how to enhance the level of systemic resilience in the communities – <b>D</b> .	<b>Enhancing</b> the level of systemic resilience in the communities will reduce the impacts of disasters in the communities.
14	2	This means not only it is important to operational resilience, how it is operationalized must be able to encompass, for example, the hazard, cultural and national diversity that prevails in an international context. In addition to developing a robust operational definition, it is important to identify why there are differences between communities about levels of resilience.	Operationalizing systemic resilience in the communities is very important, but this must be able to encompass cultural, hazards and national diversity that prevails in an international context.	There are differences between communities with regards to levels of resilience, therefore, it is important to identify this difference and why this difference – <b>R</b> .	<b>Operationalizing</b> systemic resilience is the communities is very important, but why there are differences between the communities regarding levels of resilience should be identified for the operation to be standard.
15	2	However, the lack of systemic development of operationalized model of resilience has meant that the analysis these variables such as community competence has limited (i.e. absence of robust operational definition of CDR, it is not possible to evaluate the relative importance or utility of predictor variables.	Systemic development should be employed when operationalizing the resilience models to know the levels of resilience on communities.	When the operationalization of systemic resilience is done properly, this will increase the community competence – <b>D</b> .	When operationalizing the resilience models, <b>systemic development</b> should be employed, and <b>community competence</b> should be encouraged.
16	2	Variables identified, includes religious affiliation, place of residence, spiritual ethnicity, culture, social trust, community education and empowerment, practice, social networks, familiarity with local services, physical and economical security, economic development, social capital, information and communication, and community competence are major elements of community disaster resilience.	The community competence, as well as other variables known as major elements of community disaster resilience should be identified.	When the major elements of community disaster resilience such as community education and empowerment are not identified, what is	Major elements of community disaster resilience such as <b>community competence</b> and <b>community education and empowerment</b> should be identified to know what

				influencing the level of systemic resilience might also not be identified or known – <b>R</b> .	influences the level of systemic resilience in the communities.
17	2	Consequently, identifying a set of variables that can be systematically tested is important if we are to develop a set of measures that can serve to assess and compare levels of resilience from community to community, and use this comparative knowledge to identify and develop interventions and evaluate their effectiveness. The assessment of community disaster resilience is also required to pursue the goal of measuring community progress for resilience enhancement over time and to compare different communities in a larger region as well.	Using the comparative knowledge of identifying a set of variables that can be systematically tested is important if we want to assess the levels of resilience from community to community.	This comparative knowledge will help to identify and develop interventions and evaluate effectiveness in the community progress for resilience enhancement – <b>D</b> .	Variables that can be systematically tested to assess the levels of resilience, and progress of resilience in the communities can be identified by using <b>comparative knowledge</b> .
18	2	A few models and tools for assessing community disaster resilience have been developed more than others. For example, Kafle developed a method for measuring community resilience capabilities using process and outcome indicators in 43 coastal communities in Indonesia. He emphasized that community resiliency can be measured but each measurement should be both location and hazard specific. This latter point reiterates the issue introduced above regarding the need for an all-hazards, multi-community and multi-cultural approach. Kafle’s comments introduce how CDR assessment is in its infancy that more work on quantified metrics and identifying what should be quantified, is necessary, and a broader range of case studies on the development and testing of metrics is required.	Community disaster resilience should be assessed/measured to know the level of systemic resiliency of communities, but this should be done with specific location and hazard.	We cannot assess community resilience in the east and compare it with the assessment from the west – <b>R</b> .	<b>Measurement/assessment</b> of community disaster resilience capabilities should be done both in location and hazard specific.
19	2	The first issue that needed to be dealt with when researching community resilience is considering what is meant by “community”. Although several definitions for community exist in present study, community was defined as “A group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings.	When trying to increase the level of systemic resilience in a community, we need to know the meaning of community, which includes a group of people with diverse characteristics.	When there is a link by a group of people who share common perspectives, and engage in joint action, the level of systemic resilience will be increased – <b>D</b> .	A group of people with <b>diverse characteristics</b> who share common perspective and engage in <b>joint action</b> will lead to an increase in the level of systemic resilience of the communities.
20	3	Resilience is also a useful concept in ecology where it draws attention to the ability of ecosystems to adapt to environmental stress through transformation. The study of community resilience builds on these concepts, to understand positive responses to adversity at the level of families, communities and larger social systems. Despite historical and ongoing conditions of adversity and hardship many Aboriginal cultures and communities have survived and done well.	At the level of communities, the concept of resilience helps to understand positive responses to disaster risks.	The concept of resilience has helped communities to survive and do well despite hardships, adversities and shocks – <b>D</b> .	<b>Positive responses</b> to disaster risk, has been because of the concept of community disaster resilience in an increasing level.
21	3	We then consider interventions that can promote resilience and well-being in Aboriginal communities. These include strengthening social capital, networks and support; revitalization of language, enhancing cultural identity and spirituality; supporting families and parents to insure healthy child development; enhancing local control and collective efficacy; building infrastructure (material, human and informational); Increasing economic opportunity and diversification; and respecting human diversity.	Interventions are considered for the promotion of community disaster resilience which includes strengthening cultural diversity, increasing economic opportunities and diversification and respecting human diversity.	Aboriginal communities that does not get interventions lacks an increase in systemic resilience of the communities – <b>R</b> .	For the promotion of community disaster resilience in both aboriginal communities and recent ones. <b>Interventions</b> should be considered.
22	3	Psychologists have often portrayed resilience as an individual trait. Recently though, there is increasing recognition that this individual-centered approach to resilience is problematic, because it lacks sensitivity to social and cultural context.	For the approach of resilience to be high in sensitivity, that portray of resilience as an individual trait must be avoided.	To avoid problems of individual centered approach to resilience, will reduce the lack of sensitivity to social and cultural contexts – <b>R</b> .	The approach of resilience should be high in <b>sensitivity</b> when the problem of <b>individual centered approach</b> to resilience is minimized.

23	3	A new body of work is attempting to expand the focus on resilience as a characteristic of the individual to one of resilience as a community and cultural process. This new focus on “community resilience” looks at how people overcome stress, trauma and other life challenges by drawing from the social and cultural networks and Practices that constitute communities. At the same time, it draws attention to the resilience of the community itself.	The increase or expansion of resilience is because of the individual characteristic which draws attention to the resilience of the community itself.	The focus of the level of the resilience of a community looks at how people overcome stress and shock – <b>D</b> .	The focus of the resilience of a community is because of the <b>individual characteristics</b> which draws attention to the resilience of the community itself.
24	3	Of course, there are many approaches to community resilience and not all fit with every Aboriginal setting. Each approach must be evaluated in terms of its relevance and applicability to diverse Aboriginal realities. We have emphasized those approaches that are consistent with Aboriginal values, that are relatively well developed, and that have some prospect of being measured in ways that can guide public health responses to community mental health needs and crises.	Although there are many approaches to community resilience, each of the approaches must be evaluated to fit into a community.	When the many approaches of community resilience are evaluated, it will fit each community in terms of its relevance and applicability to diverse realities – <b>D</b> .	The <b>evaluation</b> of many approaches to community resilience will fit each community in terms of its relevance and applicability to diverse realities.
25	3	The concept of resilience is a technical term that has wide currency in developmental psychology as well as in ecology and organizational studies. There are many other terms that touch on similar concepts including strength, adaptability and hardiness. The common element is the ability of an individual, system or organization to meet challenges, survive and do well despite adversity. Resilience can occur at the level of the individual, family, community, nation, or global system as well as in ecosystems.	The concept of resilience is a technical term that must do with the level of the individual, family, community, nation and global systems, as well as in ecosystems.	The concept of resilience when seen as a technical term will increase the level of systemic resilience of the community – <b>D</b> .	The <b>resilience concept</b> which is a <b>technical term</b> focuses more on the individual, family, community, nation and global systems.
26	3	Talk of resilience may lead to blaming individuals or communities as being somehow at fault for their own difficulties because they lack resilience. This ignores the complex web of factors that contribute to health and well-being. Instead, the construct of resilience aims to draw attention to positive aspects of adaptation that can be mobilized to improve outcomes.	The complex web of factors for health and well-being of communities should not be ignored and the aims of resilience should include positive aspects of mobilized adaptation.	When the complex web of factors for well-being and health of the communities are ignored, there will lack of mobilized adaptation – <b>R</b> .	<b>Positive aspects of mobilized adaption</b> to improve outcomes and the <b>complex web</b> factors for health and well-being of the communities should be the aims of improving resilience.
27	3	Understanding the characteristics of resilient individuals can help identify those features of communities that enable or facilitate individuals to thrive. At the same time, existing work on individual traits and processes provides ideas that can be applied by analogy to community resilience.	In identifying the features of the level of community resilience, understanding the characteristics of individual resilience is crucial.	Understanding the level of the individual resilience will lead to identifying the features of the level of the community resilience – <b>D</b> .	To be able to identify the features of the level of community resilience, <b>understanding</b> the <b>characteristics</b> of individual resilience is crucial.
28	3	In Section 3, we focus on “community resilience” in both the published and “grey” literature. The aim is to identify what is distinctive about communities that are “resilient” compared to those that are not. This, in turn, points to both structural and process issues Aboriginal communities.	To increase the level of resilience of communities, we must identify the distinctive nature about the communities that are resilient, compared to those that are not.	There is a different between resilient communities and non-resilient communities and this must be known to proceed – <b>R</b> .	Identifying the <b>distinctive nature</b> of resilient communities, compared to those that are not helps to assess the <b>level of resilience</b> of communities which can point to structural and process issues.
29	3	In materials science, resilience refers to the ability of something to return to its original form after having been bent or compressed. This view from physics has a parallel in Eastern philosophy where the natural symbol for resilience is bamboo—the plant can be bent to the ground but will spring back, healthy and strong, and essentially unchanged. In ecology, resilience refers to the capacity of an ecosystem to recover from environmental stresses like fires, drought, climate change, or pollution.	The ability something must recover to its normal position is what increases the level of resilience in a community.	So, when a community is unable to recover from the challenges, the level of resilience will be low – <b>R</b> .	The <b>ability</b> of a community to recover from challenges is an attribute of increasing the level of resilience in that community.

30	3	In many ecological systems, therefore, resilience involves transformation: the system responds to a challenge not simply by restoring its usual form but by changing in ways that better fit the new environmental constraints. This notion of resilience as adaptation and transformation is crucial for psychological and social resilience.	Resilience needs to be understood as a transformation, which means the community needs to respond to a challenge and not simply restoring its usual form.	Resilience doesn't necessarily mean the community will go back to its original form – <b>R</b> .	Resilience is a <b>transformation</b> , which means the community needs to adapt to increase the level of resilience than trying to return to the initial form that it was before.
31	3	Increasingly, however, researchers have critiqued these individual-centered models because they tend to ignore the larger social and cultural context in which individual development and adaptation takes place. A new body of literature is moving beyond the focus on individuals to consider the importance of social and cultural dimensions of resilience. This shift in focus is particularly relevant for Aboriginal communities, not only because of the obvious structural issues they face in response to the history of colonization (King, Smith & Gracey, 2009), but also because where indigenous notions of personhood, identity and well-being emphasize the interconnectedness of persons with each other and with the environment.	For the increase in the level of community resilience, the focus should be more on the social and cultural dimensions of resilience, because the emphases of the identity should be on the interconnectedness of persons with the individual.	When the focus on resilience is more on individual traits, it loses its social and cultural dimensions – <b>R</b> .	The <b>social/cultural dimensions</b> of the community resilience should have more importance than the individual centered model because of the <b>interconnectedness</b> of the individuals to the environment.
32	3	Any social grouping that forms a self-organizing or Self-sustaining dynamical system in which different actors or agents interact may exhibit resilience. At this abstract level, resilience is “the capacity of a system to absorb disturbance and re-organize while undergoing change to still retain essentially the same function, structure, identity and feedbacks” (Walker et al., 2002). Although different types of systems have different structures and processes, there are some general features of the dynamics of systems that are relevant to understanding resilience (Odum, 1994; Holling, 2001).	To increase the level of systemic resilience in the communities, a self-sustaining and self-organizing dynamic system should be exhibited by the communities.	The general dynamics of systems are relevant to understanding resilience of the communities – <b>D</b> .	<b>Self-sustaining</b> and self-organizing <b>dynamic system</b> should be exhibited by communities to understand or increase the level of systemic resilience in the communities.
33	3	Some communities were established quite recently, and are built out of much older, smaller scale networks of families, clans or other groups. Other communities are derived from large-scale complex societies but, in the wake of colonization, have had to adopt new forms of governance, hierarchies and social structures. In most cases, current communities bear the traces of these earlier forms of communal life and this history adds layers of complexity to community resilience.	The complexity to community resilience added by the traces of earlier forms of communal life and history can be avoided by adopting new form of structures in the communities.	The earlier forms of life have a lot to do in affecting community resilience because the new communities now were built out of the much older, small scale network families – <b>R</b> .	The <b>complexity</b> to community resilience can affect the level of systemic resilience in the communities if new structures are not developed for the communities.
34	3	Identifying the ways in which community's foster individual resilience can begin with analysis of the roots of individual resilience. The different factors that contribute to individual resilience can then be mapped onto those structures and processes of the community that promote, enable or enhance these individual-level factors.	The level of systemic resilience of the community can be increased if ways to foster individual resilience is identified.	The community resilience level can increase once the different factors that contributes to individual resilience is mapped out and known – <b>D</b> .	The <b>individual resilience</b> level factors can determine the level of systemic resilience of the community and how to improve this level of the community resilience.
35	3	Resilience of the community itself involves the dynamics of the social response to challenges that threaten to damage or destroy the community. These dynamics may involve adaptations and adjustments of individuals, groups and organizations with the community (seen as components of the community as a system) as well as interactions of the whole community with its surrounding environment, including especially other social, economic and political entities.	The dynamics of the social response to challenges of resilience of the communities may involve adaptations and adjustments of the individuals and communities.	The interaction of the whole community also includes social and economic entity which is also part of the dynamics to increase the systemic resilience of the communities – <b>D</b> .	Resilience of the communities involves <b>dynamics</b> of the <b>social response</b> to challenges which involves <b>adaptations and adjustments</b> of individuals and groups with the community.
36	3	The notion of “community resilience” has two interpretations: 1. It may look at how people overcome stress, trauma and other life challenges by drawing from social networks and cultural resources embedded in communities.	The ways the communities exhibit resilience can restore their functioning and thereby	The communities can increase the level of resilience by drawing from	The communities can increase the level of systemic resilience by <b>exhibiting resilience</b> that

		2. It may consider the ways in which communities themselves exhibit resilience, responding to stresses and challenges in ways that tend to restore their functioning.	increasing the level of systemic resilience of the communities.	social networks found in the communities – <b>D</b> .	can restore their <b>functioning</b> and by drawing from <b>social networks</b> embedded in communities.
37	3	If many individuals in a community exhibit individual resilience, this can contribute to making the whole community resilient, since they work together more easily to respond to stresses and challenges. The link may also work the other way: a community that has resilient characteristics may increase the resilience of its individual members. This may occur in part because the community Environment is conducive to healthy early child development but also because individuals can draw from community resources across their lifespan to meet new challenges.	For communities to increase the level of the systemic resilience, many individuals in a community should first exhibit individual resilience which will in turn increase the community resilience since they work together.	It is easier for communities to increase the level of systemic resilience if the individuals exhibit their individual resilience – <b>D</b> .	In a community, many individuals must exhibit <b>individual resilience</b> for the whole community to be resilient because a community that has <b>resilience characteristics</b> may also increase the resilience of its individual members.
38	3	Situations of resilience are characterized by “successful outcome” rather than the negative consequences that would otherwise be expected (Rutter, 2007, p. 205). This implies (i) an exposure to threat or adversity and (ii) the achievement of positive adaptation despite major challenges on the developmental trajectory (Luthar, Cicchetti & Becker, 2000).	The increase in the level of systemic resilience of communities are characterized by a successful outcome.	Negative outcomes are always the expectation of community resilience, which is not the case in this research – <b>R</b> .	To identify the increase of the level of systemic resilience of communities, a <b>successful outcome</b> is characterized rather than the negative consequences that is mostly expected.
39	3	Resilience is built not by avoiding stress but by facing stress “at a time and in a way that allows self-confidence and social competence to increase through mastery and appropriate responsibility” (Rutter, 1985, p. 608). In the case of more severe adversity, an individual may recover from a stress or trauma but carry a persistent “scar,” weakness or vulnerability related to the adversity they endured. In other cases, the experience of living through and overcoming a threat results in greater strength and mastery in the face of later challenges.	The communities need to master self-confidence and social competence to increase the level of systemic resilience in the communities.	Avoiding stress and shocks cannot increase the level of systemic resilience of the communities but by facing them will – <b>R</b> .	Mastering of <b>self-confidence</b> and <b>social competence</b> will help to build and increase the level of systemic resilience of the communities.
40	3	Rutter (2007), for example, suggests that resilience largely depends on mental operations and mediating processes that reflect personal agency, idiosyncratic habits, coping mechanisms, mental sets, and the ways that people deal with challenges. In other words, an individual’s source of resilience lies mainly in their personal abilities and the cognitive strategies they use to get through adversities.	The community’s source of resilience lies mainly in the individual’s personal abilities and cognitive strategies.	Resilience depends on mediating processes which reflects coping mechanism – <b>R</b> .	The <b>personal abilities</b> and <b>cognitive strategies</b> of the people in the communities helps to increase the level of systemic resilience in the communities which depends on <b>mediating processes</b> that reflects <b>coping mechanisms</b> .
41	3	Masten (2001) and others have argued that personality traits must be distinguished from more complex patterns of resilience. She suggests the contribution of personality traits be termed as “resiliency” while the dynamic process of competence can be described as “resilience” (Masten, 2001, p. 554). As Waller (2001) argues, the idea of static resilience is at odds with the human condition, since no one is resilient or non-resilient all the time. Resilience, therefore, is better described as a process occurring through time, over a developmental trajectory, and in constant interaction with adversity and with changing life circumstances.	Personality trait is a contribution to increasing the level of systemic resilience of communities.	If a community is not competent in a dynamic process, their individuals might lose the personality traits needed – <b>R</b> .	<b>Personality trait</b> is a community being resiliency, while for competence is a community being resilience.
42	3	In the <i>challenge model</i> , resilience arises from moderate exposure to risk; but the same resilience does not emerge in extreme (high or low) exposure to the same risk (for instance, a parent who uses alcohol moderately may positively influence his/her children; whereas excessive use may exert a negative influence)	For development of resilience or increasing the level of systemic resilience of a community,	If risk in a community are not mitigated moderately, then the level of systemic	<b>Moderate-risk</b> situations can prove useful when developing the systemic resilience of communities, which means the

		(Walsh, 2006). Thus, moderate-risk situations can, in certain cases, prove useful for developing resilience.	moderate risk situations are very useful.	resilience of the community will be low – <b>R</b> .	less risk in the community might bring about low increase in resilience.
43	3	Some researchers have cautioned against constructing lists of risk and protective factors because these tend to reify resilience, implying it is a matter of fixed and deterministic traits. Further, the accumulation of risk and protective factors is not a simple, additive phenomenon (Burack et al., 2007). Rather, risk, protection and resilience are variable and dynamic.	Risk, protection and resilience are factors which reify resilience, but resilience is a fixed and deterministic trait.	Construction of list of risks tends to reify resilience – <b>R</b> .	Fixed and <b>deterministic traits</b> from the individuals increases the level of systemic resilience in the communities.
44	3	Risk and protective factors must be understood and interpreted in local, and social contexts. A given factor may be protective in one situation and confer vulnerability in another. For instance, academic performance has been shown to increase resilience in some Aboriginal youth (Strand & Peacock, 2003). However, in other cases education does not correlate with resilience outcomes (Carlton et al., 2006).	Individuals with academic performance can increase the level of systemic resilience of communities.	Although academic factors show to increase, resilience but this can be seen differently from another aspect – <b>R</b> .	It has been shown that individuals with <b>academic performance</b> can increase the level of resilience in a community, but this can also be different in another community.
45	3	Resilience may, to a large degree, be domain specific and involve trade-offs (Iarocci, Root, & Burack, 2008). Thus, youth who do well in school may do worse than their peers in social relations. The potential for these sorts of trade-offs means that resilience must be understood as multi-dimensional or, more accurately, as involving many distinct processes with potentially quite different effects on any specific outcome.	Resilience is a multi-dimensional process and does not have any effect in any specific outcome.	When resilience is a multi-dimensional process instead of seen as a static process it increases the level of systemic resilience of a community – <b>D</b> .	Resilience should be seen and understood as a <b>multi-dimensional</b> process with potential quite different effects on any specific outcome.
46	3	Some approaches to community resilience emphasize the resources available to the community. Adger (2000) refers to community resilience in terms of the quantity and quality of resources accessible to the community and the extent to which these resources can be modified to meet new challenges. Breton (2001) suggests that community resilience is dependent on the stock of human and social capital within the community. Social capital, in this context, consists of people, networks and voluntary associations that can effectively mobilize individuals to action, as well as community services and infrastructure.	Resources accessibility to the communities will also increase the level of systemic resilience of the communities.	When there are no resources available to the communities, this might affect the level of resilience of the communities – <b>R</b> .	<b>Resources availability</b> to the community and the extent to which the resources modified to meeting new challenges is a factor increasing the level of resilience of a community.
47	3	Resistance – the community may resist change, adjusting and adapting in ways that counter-act the impact of the challenge. A resilient community can withstand considerable disruption before undergoing any lasting change.	Resistance is a factor in increasing the level of resilience in a community, because a resilience community can withstand shocks.	A resilience community can withstand considerable disruption before undergoing any lasting change – <b>D</b> .	<b>Resistance</b> by communities shows that they can withstand disruption before any form of intervention is received or changes made.
48	3	Recovery – with severe or prolong challenges, the community is changed but after the challenges resolve, the community may work its way back to its original situation. A resilient community returns to its pre-disaster state more quickly than a community that is less resilient.	Recovery is a factor in increasing the level of resilience in a community, because a resilience community returns to its pre-disaster state more quickly.	A resilience community can return to its pre-disaster state more quickly – <b>D</b> .	<b>Recovery</b> by community's shows that the community can return to its pre-disaster state more quickly than a community that is less resilient.
49	3	Creativity – a community may be transformed by adversity, developing new modes of functioning that take it along a new path. A resilient community can adapt to new circumstances and create new institutions and practices that carry its values forward.	Creativity is a factor in increasing the level of resilience in a community, because a resilient community can adapt to new circumstances and carry its values forward.	A resilience community can adapt to new circumstances and create new institutions and practice that can move them forward – <b>D</b> .	<b>Creativity</b> by communities shows that they can adapt to new circumstances and create new institutions and practices that carry its value forward.



50	4	However, despite their experience to past flood-related disasters, they have not been able to enhance their coping capacity due to their limited adaptive capacity. Thus, their resilience is limited to absorb, manage and bounce back future climate-related disasters (particularly floods). In collaboration with other stakeholders, mainly the Corporation of Chennai (Municipality), community-driven participatory solutions are concluded to have beneficial effect in enhancing the resilience of communities to climate-related disasters.	Adaptive capacity can go a long way in enhancing the coping capacity of communities to disaster risk.	Limited adaptive capacity can lead to limited coping capacity and can limit the resilience of communities – <b>R</b> .	<b>Adaptive capacity</b> can lead to increase in coping capacity of communities, while limited adaptive capacity can lead to limited resilience of the communities.
51	4	Increasing the capacity of urban systems to manage disasters corresponds to ambitions stated in the Hyogo Framework for Action which was adopted by 168 UN nations in 2005. Taking decisive action by creating effective disaster management systems at national and local levels is crucial to generate the platform for ensuring communities are made disaster resilient.	For communities to be resilient, taking decisive action to creating effective disaster management system is crucial.	To create a platform for the communities to be called resilient, taking decision action will increase the level of systemic resilience of the communities – <b>D</b> .	A <b>decisive action</b> should be taken to create an effective disaster management system for the communities, which will also increase the level of systemic resilience.
52	4	By adopting the concept of resilience to describe the resilience of a community to climate-related disasters, the objective is to understand to what extent individuals are prepared and capable to respond to intense natural hazards. Communities are identified as key actors in shaping the resilience of an urban system, therefore, their ability to absorb, manage or bounce back following a disaster is crucial for the functioning of a city.	To be able to describe the level of resilience of communities faced by disasters, the concept of resilience should be adopted.	Understanding to what extent individuals are prepared and capable to respond to disasters leads to increase in the level of systemic resilience of communities – <b>D</b> .	<b>Concept of resilience</b> should be adopted to understand the level of the systemic resilience of communities.
53	4	However, all these theoretical aspects of resilience depend on the actual context in which a community is located. For an individual person physical, social and economic aspect may decide to what extent he/she can respond to a disaster. For example, the extent defining how well an individual person is integrated (social capital) into his/her community and can count on support from neighbors during a disaster is one of many aspects of social resilience. Thus, enhancing resilience of communities requires them to be better prepared to disasters	One aspect of social resilience is the aspect of how an individual is integrated into his/her community and can get support from neighbors during disasters.	When an individual does not get support from the community, the aspect of social resilience will not be met – <b>R</b> .	<b>Social resilience</b> can increase the level of community resilience when an individual is integrated in the community and is sure of getting supports from neighbors in the community.
54	4	In this context, the term adaptive capacity describes the ability of socio-ecological systems, including communities, to learn and/or improve their capacity to manage a disturbance (disaster) either through reaction following a disaster experience, or in a proactive manner where a future stress or change is anticipated before it occurs. This follows the argument that higher experience of disasters, mainly floods, enhances the preparedness of people based on a learning effect that would take place among people after they experience such events	The community should learn how to improve their capacity to manage disaster in a proactive manner even before a disaster occurs.	After the individuals has experience disaster events, this could enhance their preparedness based on the learning effect – <b>D</b> .	The communities learning how to improve their capacity to adapt to disaster in a <b>proactive manner</b> will enhance their <b>preparedness</b> based on the learning effects after the disaster.
55	4	This notion shall be integrated into the CDCRF. Finally, to enhance community resilience, social learning helps a community to increase its awareness, skills and ability to confront a future disaster in a collective approach. However, before applying aspects of resilience into a practical CDCRF, the previous thoughts (e.g. learning from a disaster) are conceptualized and integrated into a graphical representation emphasizing the theoretical approach of the later proposed CDCRF.	To increase the level of resilience, social learning helps the community to increase its awareness and ability to confront a future disaster.	The level of community resilience can improve when there is a collective approach to confront the disasters – <b>R</b> .	<b>Collective approach</b> and <b>social learning</b> can help the communities increase the level of their resilience, awareness and ability to confront future disasters.
56	4	In terms of adaptive capacity, residents who have experienced damages to their houses due to disasters are not taking more action compared to those who claim no disaster damages to their houses. This is likely due to the relatively high provision of basic services, meaning electricity, water, sanitation and solid waste management services are supplied at a	Having disaster experience can lead to an increase in the level of systemic resilience of communities.	Having disaster experience with no action taking cannot make a community more resilient – <b>R</b> .	For communities to be more resilient and have high level of resilience, they should take

		high level. To summaries briefly, households with disaster experiences are not more resilient in relation to physical aspects compared to others who do not claim damages to their houses due to a climate-related disaster.			actions after the <b>disaster experience</b> .
57	5	The consequences of urbanization are likely to increase the vulnerability of a city to a potential hazard—because of rising pressures on communities to settle in hazard-prone areas, for instance (Cross, 2001)—or generally challenge the supply of basic urban services such as water (urban drought) (Pelling, 2003). However, the principal issue is how well such a city will respond to (by absorbing and maintaining its functionality) and recover from a potential hazard or disaster (Godschalk, 2003; Vale and Campanella, 2005).	A community who absorbs and maintain its functionality will have a high level of community resilience and recover from potential hazards.	Rising pressures on communities will decrease the level of resilience due to the fact they cannot maintain functionality – <b>R</b> .	<b>Maintaining functionality</b> is the <b>principle</b> issue for a community to respond and recover from a potential hazard which will increase the level of resilience in the community.
58	5	Adaptation is thus considered to be a process of making appropriate changes to cope better with climatic uncertainties or reducing the negative effects of climate change. Understandably, the process of ‘adaptation’ to climate change may help in attaining resilience but it cannot be substituted by resilience (Surjan, Sharma, and Shaw, 2011).	To make appropriate changes and attain resilience, the process of adaptation must be understandable.	When the process of adaptation in disaster risk is not understandable, there will be a decrease in the level of resilience of communities – <b>R</b> .	<b>Understanding</b> the process of adaptation to disaster is an appropriate way to attain resilience.
59	5	The Resilience Alliance (2007) defines resilience as the ability to absorb disturbances, to change, and then to reorganize with the same identity (that is, to retain the same basic structures and ways of functioning). In this sense, resilience is defined in relation to the following three characteristics: the amount of change that the system can go through and still retain the same controls over function and structure; the degree to which the system is capable of self-organization; and the ability to build and enhance the capacity to learn and to adapt.	Increase in resilience is when the communities can reorganize with the same identity.	The degree to which the communities are capable of self-organization will impact the level of resilience in the communities – <b>D</b> .	<b>Self-organization</b> by the communities with the same <b>identity</b> will show the high level of resilience among them.
60	5	Consequently, the capacity of a community is not just defined by its ability to respond to a disaster (Twigg, 2007), but also by its ability to build faculties or strengths (adaptation) before an event, suggesting that the concept of resilience must be a cycle. After a community has recovered from a disaster, it will learn from its experience and generate greater capacity (inherent resilience) in order To be prepared for a future shock (Bruneau et al., 2003; Cutter et al., 2008).	The communities must not just respond to disasters, they must also adapt before a disaster event, by learning from its experience and generating inherent resilience (capacity) to prepare for a future shock.	When a community has recovered from a disaster, they must learn from their experience to have a high level of resilience – <b>D</b> .	The communities can adapt to disasters by generating <b>inherent resilience</b> and learn from its experiences to prepare for future disasters.
61	5	The purpose of the proposed CDRI is to understand this attribute or the strength of a city. The CDRI, described below, examines and gauges the different capabilities needed for communities, located in a city, to comprehend their resilience to climate-related disasters. The CDRI framework has five dimensions: economic; institutional; natural; physical; and social. These are like the four interrelated dimensions (economic, organizational, social, and technical) that define the framework of Bruneau et al. (2003), which is geared towards describing the disaster resilience of a community embedded in a system.	Understanding the attribute or the strength of a city is a way of knowing the level of the systemic resilience of the communities.	If the dimensions are not classified, this can lead to not understanding the reliance of the communities properly – <b>R</b> .	Understanding the <b>attributes</b> and placing them on different <b>dimensions</b> can lead to increase in the level of systemic resilience of communities.
62	5	Based on this literature review, there is no evident reason why one dimension should have parameters (or variables) than another, since all of them are fundamental elements characterizing the resilience of a city to a disaster. As a result, the same number of parameters and variables defines all the dimensions. The principal aspect of these indicators is that they are related to city services. To build or improve the resilience of a city, it is essential, therefore, to enhance their resilience or capacity.	To improve or build the resilience of communities, it is essential to enhance their capacity or resilience.	When the capacity or resilience of a community is not enhanced, it will be difficult to improve their resilience – <b>R</b> .	<b>Enhancing capacity</b> of the communities will lead to an improved resilient community.
63	5	The selection of the physical dimension (accessibility of roads, electricity, housing and land use, sanitation and solid waste disposal, and water), for example, is based on the premise that a well-functioning or disaster-resilient city can provide key services to its residents (communities). This not only lessens the probability of a shock, but also it may enhance the capacity of communities to respond to it if they are well maintained and equipped.	Well-functioning community will provide key services and will help the communities respond to disasters properly.	The community who is not maintained and equipped will not be able to respond to disasters when they happen – <b>R</b> .	A <b>well-functioning</b> community with <b>physical dimension</b> will not only lesson probability of a shock, but also it may enhance the capacity of the community to respond to disasters.

64	5	This point is also particularly relevant to the social dimension where, for instance, a good social capital base among communities (Kadushin, 2004) and the level of disaster preparedness (availability of emergency materials and voluntary support in relief activities) illustrate how well people are connected and how well they may support each other in the case of a disaster (Cutter et al., 2008).	When communities support each other, it will lead to an increase in the level of resilience of the community.	Social dimension is a very important point in increasing the level of resilience of a community – <b>D</b> .	<b>Personal support or social dimension</b> in communities will lead to an increase in the level of resilience.
65	5	The economic dimension reflects the ability of people to acquire income through employment, as well as to what extent they can transfer money into savings that can be used in a time of disaster. The availability of calamity funds from local government and funding for disaster risk reduction (DRR) activities reveal whether Systems are in place to finance issues related to disaster risk management before and after an event.	When there is no proper acquired income in a community, it will not allow the community to reach a high level of resilience.	Economic dimension is a very important point in increasing the level of resilience of a community – <b>D</b> .	<b>Financial support or economic dimension</b> in communities will lead to an increase in the level of resilience.
66	5	The institutional dimension measures the functionality of local government, Including whether disaster drills are conducted and whether a disaster management plan or an early-warning system is in situ. Furthermore, it is essential to the overall functionality of the system that the local government at the zone level can perform during a disaster, both on its own and in communication with other stakeholders (non-governmental organizations (NGOs), private organizations, or other zones, for example). Also fundamental is the extent to which the crisis management Framework can respond to a potential disaster.	The government and other disaster reduction bodies coming together to help the communities will lead to an increase in the level of resilience.	Institutional dimension is a very important point in increasing the level of resilience of a community – <b>D</b> .	<b>Government support or institutional dimension</b> in communities will lead to an increase in the level of resilience.
67	5	The natural dimension includes the fragility of the various urban ecosystems, the loss of urban green space over past decades, the existence of urban hazard maps, and efficient waste management systems. Knowing about the capacity of the environmental properties of the city is crucial to determining if a potential shock can be absorbed.	Knowing the capacity of the environmental properties of the communities is crucial in increasing the level of the resilience of communities.	Natural dimension is a very important point in increasing the level of resilience of a community – <b>D</b> .	Knowing of the <b>environmental properties or natural dimension</b> in communities will lead to an increase in the level of resilience.
68	6	Based on the empirical data, we argue that many key characteristics can be identified to assess and build urban resilience to climate change in a way that reduces the vulnerability of the citizens most at risk from climate shocks and stresses. These characteristics form the basis of a climate resilient urban governance assessment framework, and include (1) decentralization and autonomy, (2) accountability and transparency, (3) responsiveness and flexibility, (4) participation and inclusion and (5) experience and support. This framework can help to assist in the planning, design and implementation of urban climate change resilience-building programmed in the future.	The key characteristics can be used to assess and develop community resilience and these characteristics form the basis of community resilience assessment framework which will lead to the improvement of the community resilience.	The impact of the framework is that it will assist in the planning, design and implementation of community resilience development – <b>D</b> .	<b>Assessment framework</b> which will lead to the improvement of the community resilience can be assessed by many <b>key characteristics</b> .
69	6	Decentralization and autonomy: Evidence suggests that cities suited to building climate change resilience avoid cyclical political stalemates and achieve situations where national, state and city ruling parties can work together quickly and effectively to implement policies and programmed. In some cases, the decentralization of decision-making and political control creates conflicts and delays between agencies, hampering the development of climate resilient programming, yet equally, while heavily top-down decision-making structures can help to implement programmed quickly, they often fail to allow participation of those people they are designed to help. Consequently, a balance must be struck between the need to build climate resilience rapidly and the need to avoid maladaptation by ensuring marginalized voices and climate science agencies contribute to the process of decision-making, planning and implementation.	Decentralization and autonomy of decision-making and political control when implemented can help to improve the community resilience.	When the authorities are not within the local government or communities, the process of decision-making can hamper the development of the community resilience level – <b>R</b> .	<b>Decentralization and autonomy</b> of decision helps the community or local governments get involved in disasters reduction and resilience development policies, which usually are done by the central government.
70	6	Transparency and accountability: A municipal system committed to maintaining a relationship of accountability to its citizens and openness in terms of financial Management in key ‘climate sensitive’ sectors, such as waste, water and disaster risk reduction, urban planning and pro-poor service provision. Legislation and administrative systems that support the right to information must be in place to facilitate access to investigative or grievance procedures in cases where vulnerability to climate change has been increased. Independent, informed local media, with journalists who are interested in climate change, helps to hold city	Transparency and accountability in terms of financial management and others in a system is very relevant in developing a high level of community resilience	The local government must allow themselves to be held accountable for any form of disaster risk in the communities and highlights	<b>Transparency and accountability</b> is one of the key characteristics that can improve the level of community resilience if the community system or local government

		Authorities to account, pressurizes the political leadership to advance policies, and highlights the issues with citizens.		the issues with the communities – <b>R</b> .	leaders allow themselves to be held accountable to disaster risk events and also give the communities the main information they need.
71	6	<p>Responsiveness and flexibility: Climate change can spring surprises, whether in the emergence of new problems or in the impact of disasters, which may occur with a greater frequency or higher severity than the city has previously experienced. Accordingly, a city requires flexible agencies and management systems, suited to responding to and anticipating these surprises. Evidence suggests that an inter-agency, cross-government body dedicated to tackling the potential and actual impacts of climate change is desirable, and one which bases planning and programming on climate change scenarios. Highly knowledgeable officials, able to draw on the experiences of other cities, able to network across agencies, able to learn from the disaster management and response community and able to integrate the work of climate scientists all help to promote the necessary flexibility. Additionally, the ‘mainstreaming’ of climate risk Assessments and climate scenario-based planning across sectors of the city government and in the development of projects, helps to build resilience. Furthermore, in responding to disasters, future resilience to climate change should Be factored into the relief and reconstruction phases, and finances must be made available to retrofit or upgrade buildings and infrastructure to withstand future climate extremes.</p>	To be able to improve the level of resilience of a community, the system or government or agencies, but be very responsive and flexible during disasters.	When the system or agencies who are supposed to support the communities during and after disaster events, are not flexible enough and do not respond adequately, this will discourage the communities and hamper their resilience level – <b>R</b> .	<b>Responsiveness and flexibility</b> towards disaster events by the system or local governments will lead to an increase level of community resilience and allow the communities to draw on the experiences and advice of the agencies and other cities.
72	6	<p>Participation and inclusion: Authors of good urban governance studies suggest that the involvement of poor and marginalized groups in decision-making, monitoring and evaluation is a key characteristic of a city intent on improving the conditions for those living in informal settlements or living in exposed locations. As the impact of climate change in urban areas is likely to disproportionately affect the poorest and most vulnerable first and most severely, their integration in decision-making and policy processes is crucial for building climate resilience. This Characteristic is necessarily tied to citizens’ rights to information, as without information disclosure, meaningful participation and inclusion is not possible. Additionally, the quality of participation and inclusion can be somewhat difficult to ascertain (from tokenism and ‘politicized consultations’ on the one hand to citizen-led processes on the other), but climate resilience must be a product of balancing citizen-led processes with timely and efficient implementation.</p>	For the community’s resilience level to be increased, everyone in the communities and environs should be allowed to participate in making decisions regarding disaster event and policies.	When some groups are marginalized in the communities, it goes a long way to reduce the resilience level of the individuals and thereby affects the communities also – <b>R</b> .	The <b>participation and inclusion</b> of poor and marginalized groups of the communities in decision-making, monitoring and evaluation is a key characteristic of a city intent on improving the conditions for those living in informal settlements or living in exposed locations.
73	6	<p>Experience and support: The evidence suggests that cities possessing experience of developing integrated, people-centered early warning systems for extreme events are well placed to make progress toward climate change Resilience. The less event driven aspects of climate change, associated with slow growing increases of stress on water supplies, waste management systems and environmental services require a different set of relationships. In this regard, cities benefit from the experience of local, national and international NGOs and civil society organizations operating in the city, community-based groups and research organizations. External donor agencies and the availability of project financing for climate change resilience programmed helps to spur city authorities to act, but suitable systems must be in place to both utilize the knowledge held by partners And to reward these relationships. Additionally, a national government committed to tackling climate change and engaged in the UNFCCC processes appears to help with trickle-down support to municipal governments, even if it is just in clear Strategic objectives linked to climate change.</p>	Communities who have the support and experience of some agencies and warning systems go a long way in developing their level of community resilience.	Some agencies find it easy to support communities who have and learnt from past experiences of others because this increase the level of resilience of the communities – <b>D</b> .	Communities benefit from the <b>experience and support</b> of local, national and international NGOs and civil society organizations operating in the community-based groups and research organizations.
74	6	<p>Reducing vulnerability and strengthening resilience of urban centers to climate change is a function of social, economic and political processes. Key vulnerability/ resilience indicators include: Economic well-being and stability (e.g. standard of living; rate of urbanization); Demographic structure of population; Institutional stability (e.g. institutional ‘memory’; corruption); Strength of and reliance on public infrastructure (e.g. health</p>	Key resilience indicators, when taking into considerations helps to increase the level of	Reducing disaster risk and improving the resilience of communities is a function of	The functionality of <b>key resilience indicators</b> are the bases to increasing the resilience level of the

		expenditure; communication, infrastructure; financial, transport, corporate and systems; degree of centralization); Global interconnectivity (e.g. trade balance; tourism), and Natural resource dependence and regenerative ability of ecosystems (Adger and Vincent 2005; Allenby and Fink 2005; Adger <i>et al.</i> 2005).	community resilience in the communities.	the key resilience indicators – <b>R</b> .	communities and reducing disaster risk.
75	6	Huq et al. (2007b) indicate that to reduce vulnerability, urban adaptation policies should be pro-poor, reduce environmental and disaster risks, and recognize the need to manage rapid urbanization in a way that reduces future risk. Stern (2007) argues that improved urban planning and provision of public services and infrastructure are crucial for both development and the promotion of resilient cities. This are resilience characteristics.	The resilience characteristics which are improved community planning, provision of public services and infrastructure etc. are crucial for the improvement of the level of community resilience.	The policies made by the systems or governments should be made to be able to reduce future risk and if not done, it will impact the resilience levels of communities badly – <b>R</b> .	The policies and <b>resilience characteristics</b> which are improved community planning, provision of public services and infrastructure will help to increase the level of community resilience if provided.
76	6	Recent research indicates that slum residents are conscious of the climate related risks and are active in mitigating their vulnerability to such events (see for example ActionAid 2006). In El Salvador, people living in 15 disaster-prone areas understood the risks associated with floods and landslides and invested in risk reduction by diversifying their livelihoods, investing in easily sold assets, and Obtaining access to remittances (Wamsler 2007). There is need to support local capacity and to work together so that individual household efforts contribute to community-wide disaster risk reduction and climate adaptation.	To improve the level of community resilience, the communities must be conscious of the disaster related risks and be active in mitigating the disaster events.	When the communities are not aware or conscious of the related disaster risks, the level of resilience in the communities might be on a low point – <b>R</b> .	<b>Active consciousness</b> of the disaster related risks in a community by the community helps in improving the level of community resilience and reducing disaster risk in the community.
77	6	Whereas climate change mitigation is generally approached from the level of global governance moving down to the national level, Adger (2005) argues that with adaptation this flow is reversed: Because the impacts are spatially and socially differentiated, climate justice [...] is based on the individual. The actions to adapt to climate change are taken by individuals within their economic and other constraints. Thus, the appropriate governance scale is at the level of the resource user and them Management of the climate-impacted natural resource or livelihood resource, rather than a global common [...] In effect, the diversity of climate change means that the most appropriate adaptation responses will often be multi-level responses. (Adger 2005: 924) Thus, because adaptation is largely made up of individual choices at the local level, collective action at the community and municipal level is the most appropriate response for adaptation in an urban context.	Although it takes individual choices to attain adaptation or high level of resilience, collective action at the community and municipal level is the most appropriate response for adaption in a community.	Collective action helps the communities to adapt well and improve their level of community resilience – <b>D</b> .	<b>Individual choices</b> are a better way to adapt in a local level, but the <b>collective action</b> is a sure way for the communities to adapt to disaster risk and improve the level of the community resilience at the community and municipal level.
78	6	Overall, a partnership approach has become a fundamental component of the strategies adopted since the 1990s by external assistance agencies. These Strategies proclaim that local governments, NGOs and private groups should be partners in urban development and work hand in hand with all stakeholders (Milbert 2004).	Partnership approach between the stakeholders and communities helps to improve the level of the community resilience.	Lack of partnership between the stakeholders and communities will lead to a low level of community resilience – <b>D</b> .	<b>Partnership approach</b> between the stakeholders and the communities will help to improve the level of community resilience in any community exposed to disaster risk.
79	7	The death toll occurs during the winter, when people are heating up things to prevent cold, and festive periods like December and January where there is also a peak where more people die during that time. Often it is also linked to alcohol, so a lot of the people that die are intoxicated, like get drunk.	When people are aware of the danger of heating up things carelessly and taking alcohols to the point of unawareness, it will help to increase their resilience levels.	If people know that during winter period, that they need to be more careful with heating up things to prevent cold, it will save lives and hinder fire disaster risk– <b>D</b> .	<b>Eradicating alcohol use and heating</b> of things during winter will help to save lives and hinder fire disaster risk in the communities, thereby increasing their resilience level.
80	7	One thing is to reduce the burns, because burns is because of fire, because people get burned and go to d hospital and die or they become disable, so reducing it is important.	It is important to reduce the burns which is because of fire which can increase the resilience level of the communities.	People do not really die because of the fire during fire disasters, but because of the burns. So, eradicating	<b>Reducing burns</b> effects will help save lives during fire disasters, because people die due to burns and not really fire itself, which can increase the

				the burns will increase their resilience levels – <b>D</b> .	resilience level of the communities.
81	7	The most vulnerable are the informal settlements. I mean there you find the informal settlements. They are within the city, within built up areas, like people coming to the city looking for work, people that cannot afford to rent property and they stay in the informal areas, they are close to the city and close to work opportunities. Fire disaster can happen anywhere ultimately.	The most vulnerable to fire disasters are the informal settlement and identifying this will help to increase the resilience level of the communities around the informal settlements, especially those who cannot afford to rent good houses.	Those who can't afford to rent good houses move to the informal settlements and are at risk to fire risk and other disaster risk and this can affect their resilience levels to a minimum level – <b>R</b> .	<b>Vulnerability of informal settlements</b> is common and those who are affected are those who cannot rent a proper housing and properties.
82	7	The poor, poverty has a big row to play, for those who can't afford to rent the formal dwelling that complies with the codes and standards. People might be here and their family back home and they send money back home, so definitely the poor.	When there is no poverty in the community, the communities will be able to increase the level of their resilience.	Poverty is a hindrance to communities achieving a high level of resilience since those who cannot afford rent are more vulnerable – <b>R</b> .	<b>Poverty eradication</b> happens to be the key to increasing the level of community resilience, because once people can afford good houses, they become more resilience to disaster risks.
83	7	High risk equipment should be provided to reduce fire risk, that is remove paraffin's and they should have access to electricity and that is the main source of energy that they should make use of to reduce fire risk.	If the communities have constant access to electricity or high-risk equipment's provided, this will reduce the risk of disasters and increase their community resilience level.	Making use of paraffin's by the communities can increase disaster risk in the community and decrease their resilience levels – <b>R</b> .	<b>Provision of high-risk equipment's or access to electricity</b> will help the communities to reduce fire disaster risks and increase their resilience levels.
84	7	Well, if they do have then the infrastructure will have to be restored, so if it was damaged and destroyed in the fire, then it will be a period before those things will be supplied again, because they must rebuild. Well the city yammer will provide them with what we call started kits, which is like a shark or dwelling, a panel that they can rebuild, food, blankets, some other resources that they can use for the duration of the time that they are rebuilding their homes, but it doesn't really take that long for them to rebuild their homes.	When the communities are affected by disasters, and they are aware they can be provided with starter kits, this could go a-long way to increase their resilience levels.	Rebuilding of the communities does not take long, but without the provision of the starter kits which is like a dwelling, foods, blankets and so on will really affect their resilience levels – <b>R</b> .	Provision of <b>starter kits</b> is one of the keys to increasing the resilience levels of the communities, because once they are aware this will be provided before they rebuild, then they will be able to absorb properly.
85	7	If it was the situation, one of the things they want to do is what they call re-blocking, if they do re-blocking, they create spaces between the sharks and in those instances, there is a less space for people that use to leave there. Those people will then have to be relocated and somethings those that will be relocated might be placed in what they call relocation area and that could take some time for them to be moved from that area to a more permanent site.	Rebuilding of the communities is a sure way of increasing the resilience levels of the communities, because once they are aware of this, they will be able to rebound.	To rebuild a community after disaster, they should be taking to a relocation area, during the rebuilding, although it can take longer time to rebuild the communities after disasters – <b>R</b> .	Provision of <b>relocation area</b> is very important for the community to increase their resilience levels because if the community is to be rebuilt, then there should be a place for them to leave for that period.
86	7	Variety of reasons, looking at specific causes, like candles, paraffin stoves, children playing with matches and it can also be the wildfire from the vegetation, fires from the area that could be coming to the community, it could be electrical causes, and there is actually a whole range of different causes.	The use of alcohol and other things leads to the cause of disaster risk and when this are reduced, it will increase the	Variety of reasons leads to fire disaster risk, but until the community can reduce the use of these thigs, they	<b>Intoxication or alcohol use</b> with other varieties of reasons leads to fire disaster risk, and until the communities try to be

			resilience levels of the communities.	will have less resilience level – <b>R</b> .	careful about the use of these varieties of things, they will have less resilience level.
87	7	Well, we don't blame anyone, it is what it is, and we don't blame anyone. It is a complex problem and I don't think anyone can be blamed for it. Many of them are immigrants and how can they blame the government for that when they are not even a part of the country. The only way it can be resolved is if everyone plays their roles, although many people don't even know what their role are. So, we need to educate the government, institutions and the community themselves and rely on other organization to also do more work even though we don't have authority over them.	The government and everyone involved needs to play their roles very well to help the communities build their resilience levels.	If the people and all those involved do not play their roles properly, they will end up having a decreases resilience level – <b>R</b> .	Even though some of the organizations involved in the disaster risk reduction management do not have authority over each other, it is necessary for everyone including the government to play their roles properly. <b>Playing of roles and effective participation is important.</b>
88	7	All The policies are not made by the government, there are some bi-laws from other arms of government, like the provincial and local governments. There is a procedure especially for the helicopters which goes to drop fire, so we follow the requirements and procedures before then. So we use the programmed which is called incident command system which is the system used for any incident before it becomes bigger, that helps the people working on an incident to manage and use resources effectively and within the incident command system there is a procedure to request and dispatch and mobilize and de-mobilize area support and the whole process is very quick and efficient if you follow the procedures, so it doesn't take long, it can be very quick if they work from the area command system.	The area command system should be used if the resilience level of communities would be increases, which means that the people on the scene of disaster should be able to manage the incidents before it becomes bigger.	It can take long for disaster recovery and responses to be done if the people involved in the management do not work from the area command system, which could affect the resilience levels of the communities – <b>R</b> .	The programmed, which is called <b>incident command system</b> , which is the system, used for any incident before it, becomes bigger, that helps the people working on an incident to manage and use resources effectively can help to increase the community resilience level.
89	7	Yes and No, because there are communities who would want to support the fire service by providing funding or volunteer or fight the fire themselves because they want to protect their properties. Somethings there might be quite a challenge with the communities might want to stand on the way	The communities support the people involved in the management of disasters by donating and setting out volunteers who would assist them.	This helps in building the resilience level of both the communities affected and the fire disaster management people – <b>D</b> .	The <b>community donations and volunteers</b> made available shows how high their resilience level is and helps the management centers to do an effective job.
90	7	Because of the increase in the population, more and more people are coming down to the city. There is rapid urbanization, people are moving from the rural areas from other countries to the urban areas. So, the communities are now dense because more people, less land and initially the problem was this big and now very big because of the increase in population the problem with the risk expands accordingly	If the people coming into the city are provided with enough space of land to base, this could increase the resilience level of the communities.	Because of the increase in populations and rapid urbanization, the communities become dense and this could decrease the resilience level of the communities – <b>R</b> .	<b>Increase in populations and rapid urbanization</b> makes the communities dense because of more people and less lands and this can affect the resilience levels of the communities.
91	7	I think so, I think it can be, I think like if the framework through the different levels are used, I think it will, because we have seen it, so I don't really think that, I know that. Well, the disaster management where doing this thing, we are focused on fire, but we support them, we have framework on prevention, we support different operational aspect like the incident command system and we fund and support the air craft that is used to deal with wildfire, which is called area support	It is necessary to make use of the framework on prevention properly in all areas and systems.	Support the other bodies involved and staying together on the framework can increase the level of resilience of the communities – <b>D</b> .	If the <b>framework on prevention</b> is used through the different levels, it can reduce disaster risk in the communities and increase the level of resilience in the communities.
92	7	I would not say these communities sometimes they think it is not preventable, so they take it as life and they think the risk is inherent, the fact that the structures are built in a different way, so they will not understand that, so it their normality.	When a community is aware that disaster risk can be prevented,	Lack of education to know that disaster risk can be	<b>Educational level</b> is important for the communities and others

		They do not think about is, that is why education is very important for them to know it can be prevented. It is not as if they want it to adapt to it, because they do not want to lose their families and properties in fire. So, if you look at malus hierarchy of needs, which looks at what do people focus on, what is their priorities, I think safety is number two or three and their basic priorities is food and water, so if those needs are not met, then safety is not a priority because they are looking at what to eat and it makes them so difficult to start thinking about safety. That is why poverty elevations is so important.	this will help to increase the community's resilience level.	prevented by the communities will hinder their resilience level from increasing to a high level – <b>R</b> .	to be aware that disaster risk can be prevented if they did the right things at the right times.
93	7	It depends from community to community, but it is high. But resilience in formal communities are higher because you see them rebuilding the sharks. I will not be able to put it in a scale because it is very difficult. They are very resilience because they can rebuild the sharks quickly and fetch water and so on.	The level of resilience in the depends on community to community,	Resilience level cannot really be put on a scale, but they are very resilience because you see them rebuilding the shacks – <b>D</b> .	<b>Resilience level depending on the community</b> because those who are in formal settlements starts rebuilding the shacks, while those in informal settlements can't rebuild a-times.
94	7	But there a lot of problems there, like crimes, behavior problems, so they are not too resilience. There isn't peace and tranquility and no level of normality, often people are not happy and commit suicide and there is domestic violence there, so they are not resilience because of the environment, maybe put them in a different environment they might be.	Those in the informal settlements are not resilience because there is no peace and tranquility and they are not happy often, which affects their resilience level.	If the people in the informal settlements are taking to another city, they might be able to do well and be resilience – <b>D</b> .	Due to different environments of the informal settlements, they are not resilience enough because there is no <b>peace and tranquility</b> and no <b>level of normality</b> , which affects the level of their resilience.
95	7	Often you see animals that could give them diseases and so on, maybe in other communities it can be better, like a place in Johannesburg where they had large lands and nice space and sharks, and they can add gardens and so on. Community cohesion is also an important factor of resilience, the less community cohesion, the less the resilience (sic).	There should be community cohesion to increase the level of resilience.	Often you see animals which can cause disease and small lands which is not neat enough and this can decrease community resilience and, in some communities,, it can be better – <b>R</b> .	<b>Community cohesion</b> is also an important factor of resilience, the less community cohesion, the less the resilience (sic).
96	7	No, only if they are provided with education on how to prevent it. Not knowing what to do will make them do the same thing over and over. So, unless there is intervention and there is fire and they see how they control the fire, then they learn and, in the future, they will learn. That is the whole process of training and education.	Training and education helps the community to learn how to fight disasters and once they see it, they can learn in the future.	The communities can only learn from their experience when they go through training and education – <b>R</b> .	<b>Training and education</b> will help the communities know what to do and when to do them regarding disaster risk, which can increase their level of resilience.
97	7	You know cultural believe comes because someone said something. So, there is a lot of false believe when it comes to fire, so some people believe they got burnt because of God or they cast a spell on them or because they are sinning. So, there are believes on false belief or misunderstanding.	Cultural beliefs make the communities think differently from resilience and sisters.	When the community's belief that disasters happens because of some story told, this will affect their resilience level – <b>R</b> .	<b>Cultural beliefs</b> make individuals in the communities think disaster risks are from some curses or sin, and this really affects their resilience level.
98	7	Unless there is an organization with credibility, that is who is going to provide the information's. If it is from the government, they might not agree with the government because it is the government, maybe it is a pastor, teacher or fire	The communities prefer to get information's from those they trust and believe are credible,	Community engagement and the relationship with the community is essential to	<b>Community engagement</b> is very important because the information they receive



		fighter who has built trust between the community can give those information's, that is because community engagement is essential and there must be that relationship with the community and a focus of building trust.	because when it is this way, their resilience levels increases.	increasing the level of resilience – <b>D</b> .	depends on who they trust and who is given them this credible information's, which can increase the level of their resilience.
99	7	Once a trust is built, with the community and those who will provide this information, so why they provide the information, they will be accepted by the community. People can use a phone if there are internet connections to know how to fight fire and so on, but they might not have data or know how to implement what they see. So, there should be community engagement, level of trust, credibility of the organization providing the information's.	The community can only receive information's or ideas from those or organizations they trust, therefore building trust can help increase their level of resilience.	People might know how to fight disasters but don't know what to do that. So, they need to get information on that from those who they trust – <b>R</b> .	<b>Building trust</b> with the community and those who bring information's to the community can lead to the community accepting the information's and thereby increases their resilience levels.
100	7	Does the messages talk to the risk, I can go to the community and I can teach them if their cloths got fire, I can tell them to stop, drop and roll if their cloths get fire, but maybe no one is dying that way in the community, maybe the people dying are dying because of paraffin or from the smoking relation, the toxic gas from the smoke, so how is my message going to affect any change? Now the whole community might know what to do if their cloths get fire, but maybe that is not the problem. Understanding what the risk is and making sure that the message talks to that risk and that the community can implement that. Okay, in the order hand, maybe stop, drop and roll could save lives and maybe the people who are dying are 65 years plus, are they able to stop, drop and roll? If I keep that message, can they physically stop drop and roll? Probable not, so now I identified the right risk, but the application of the message doesn't fit, they can't perform that so I will not see a reduction.	The communities get messages and if the messages do not talk to the risk, they will not understand the risk and thereby decrease their resilience levels.	Understanding what the risk is and making sure the messages talk to the risk will help to increase the resilience level of the community and help the communities to implement that – <b>D</b> .	<b>Understand the risk</b> and letting the message speak to the risk is very essential because the communities will know what to do at the right time and increase their resilience level.
101	7	So, I need to understand the target audience, the population that I am dealing with, who in those communities is most at risk, their age, gender and so on? So, I need to know who they are and why and then I can work out with the community of how to prevent that risk. So, you look at the chain of the events because this thing don't just happen, there are chains of events that leads to that, somewhere along the chain of events I can apply different types of intervention to break the chain of events because when I break the chain of event the person won't die, I will prevent the fire or whatever it is.	Understanding the target audience, the population and those at risk the most helps to increase the resilience level of the community.	Knowing those that are affected or would be affected to disaster is one of the key process of increasing the community's resilience level – <b>R</b> .	It is very important to know and <b>understanding the target audience</b> , the population, those at risk the most to increase the resilience of the communities.
102	7	It can also be done internally by dynamic community leaders, gate keepers, but it must require community engagements and building trust and identifying best practice and how to respond as a community and what characteristics of resilience can be applied in those communities. Level of poverty and if people are very poor, it will be very difficult to improve resilience, but if there is job opportunity, they can increase the level and leadership which can increase the level of resilience.	Building resilience to disaster risk can be done internally but requires dynamic leadership to making it work in the communities.	poverty and lack of job opportunities is the hindrance to building community resilience, this why they need people who can handle the processes among them – <b>R</b> .	<b>Dynamic leadership</b> is a key process to building community resilience as the communities needs to identify best practices on how to respond to disaster and need a leader who they can trust to lead the way.
103	7	The key driver of this problem is poverty, if there is employment opportunity, if people can earn more money to improve their opportunities, they will be safer. We have a programmed called working on fire, which is a working project where people are taking in the community and outside the community to fight fires. We also have high risk equipment and management control, that is having access to electricity and stop using paraffin.	If people are provided job opportunity to fade away poverty, the resilience level of the communities will increase as poverty is the key driver of this problem of disaster risk.	If people can earn more money to improve their opportunities, they will be safer, and it will increase the resilience level of the communities – <b>R</b> .	<b>Poverty eradication</b> should be the focus towards fighting disaster risk because the key driver to this problem is poverty and unemployment and if this is eradicated, the resilience level of the communities will increase to higher level.

104	7	For fire service focus on prevention, we want to change the issue of us waiting for fire to happen before we get there, so we want to go there from door to door and help them reduce the risk and show them what to do which is fire prevention, instead of seating at the station waiting on the fire, they can go into the community to help and see that people are doing the right things, the more times fire people go into the community the lesser risk of fire we have.	If the fire fighters or disaster management centers do risk prevention by going door to door to show the communities wat to do, this will increase the community's resilience level.	Instead of the disaster fighter people to seat and wait for disaster to happen, they can go into the communities to help and see that people are doing the rights – <b>D</b> .	<b>Disaster risk prevention</b> should be the focus of everyone, which means that instead of the team to wait for disasters to happen in the communities before responding, they should go door to door and help make sure the communities are doing the right things. The more times disaster risk team go into the communities, the lesser risk of disasters we have.
105	8	We have a slogan that says, “disaster is everyone’s business” that means you as a community member, myself as a police officer, the fire man, the emergency personnel, city of cape town, store mortal everyone got a role to play in disaster management. If you identify the risk, and prioritize the risk in order of number 1-5, and for that risk to be prevented from happening, then we must mitigate it that is what is called risk reduction.	Disaster is everyone’s business and when the communities and others involved are aware of this, there will be an increase he resilience level of the communities.	Risk should be mitigated for it to be prevented, which is called risk prevention, so everyone must be involved – <b>D</b> .	<b>Disaster is everyone’s business</b> so to reduce risk; the whole communities and public/government organizations must understand this and pay attention to this to increase the level of resilience of the communities.
106	8	Either, you go there, avoid that risk by awareness campaigns, or create a resilience community. e.g. if you stay in a flat line, you will interact with the local counsellors and get the community together, tell them you are staying in a flat line, and if severe weather strikes that you will probably be in danger that will cause harm to property and livelihood. Then we try to remove them, so it means taking them out of the flat line, put them up at another place. Either, you go there to avoid that risk by awareness campaigns or creating a resilience community. e.g., if you stay in a flat line, you will interact with the local counsellors, and get the community together and tell them you are staying in a flat line, and if severe weather strikes that, you will probably be in danger that will cause harm to property and livelihood. Then we try to remove them, so it means taking them out of the flat line, put them up at another place. Sometimes you find that the community are very resilience to move, they do not want to move, so what we do is e provide them with a steal plate instead of small shacks, they make a way for the water to flow out, so they must try to look after themselves.	Awareness campaigns helps the community be aware of what to do and for them to stay their conditions, which will increase the level of resilience.	When the disaster management teams are aware of the conditions, they will try to remove the affected individuals, even though the individuals might be reluctant to move – <b>R</b> .	<b>Proper awareness campaigns</b> from the community and the disaster management teams keeps everyone at alert and knowing what to do and what to report on, which helps to increase the level of community resilience.
107	8	Sometimes you find that the community are very resilience to move, they do not want to move, so what we do is to provide them with a steal plate instead of small shacks, they make a way for the water to flow out, so they must try to look after themselves. Therefore, it means that everybody is vulnerable to disasters and it is stated in the disaster management framework, that all states, private companies and private securities must have a disaster management plan (SIC).	Disaster management plan should be the focus of the private, government and all involved, which can help to build community resilience.	Without disaster management plan, there will be so many wrong things going on in the – <b>R</b> .	It is necessary for everyone, including the private, and government organizations and the communities to have a <b>disaster management plan</b> in place to combat disaster and increase level of community resilience.
108	8	Okay, the cause of the disasters, like the natural disasters, it can be due to negligence, like people smoking and causing things to bring up fire. For example, you do an experiment to put a dry grass on a bottle and scratch them you will notice it can bring fire. Therefore, negligence and it can be human made, that is when it comes to all-natural disasters, it has to do with climate change. Manmade disasters can be caused by terrorism, attacks, for the train, ignoring the signals in the train,	Negligence and not being careful has always been the real cause of disaster risk, because people know what to do and still not do them due to negligence.	People might know what to do but they will not do it because of negligence which affects the level of resilience of the communities – <b>R</b> .	<b>Negligence</b> to the causes of disaster risk will lead to disaster events occurring regularly, thereby affecting or decreasing the community resilience level.

		and for the road, negligence by the drivers and so on. They a hazard. Fire is a hazard, car accident is a hazard, and boat capsids is a hazard (SIC).			
109	8	People die because of panic. When fire comes, people run out of the house without checking what to do. Poverty factor is also another reason why they die, for example, if you have a shack, you can paint it with the fire resistance paint. When there is fire from inside or outside, it can withhold that fire and your shack will not be very demolished.	If people can avoid panic during disaster risk, then they can go a long way to increase the resilience level of the community because they run away without thinking of what to do.	Poverty is another factor which can affect the community resilience level as they will not be able to paint their shacks with the fire paint which withhold the fire – <b>R</b> .	<b>Panic and poverty</b> are the factors behind death tolls in the community and if the community can avoid panic and if poverty could be eradicated, the level of their resilience will be increased.
110	8	The other factor is the knock and drop, which is we go to the informal settlements, knock, and tell them that before they go to bed, they switch off the paraffin and other things. They also die due to alcohol when they get drunk, they do not know they push the fire down, that is how fire starts, and they die (SIC).	The community are told what to do even at their own doors. They are remembered not to leave the paraffin off and candles before going to bed.	The communities die due to the reasons and the reason of alcohol, as they drink and forget to put of the paraffin or fire. This decreases the community resilience level – <b>R</b> .	The <b>knock and drop</b> method in the informal settlement is a method which requires the disaster management team to go to the community, door-to-door and tell them what they must do before going to sleep and leaving the house. This increases the resilience level of the community.
111	8	Because it is very expensive to fight fire, especially using the helicopter to drop water which cost 25000 rand per hour, so we have a working agreement with the south African defense corps that whenever there is a fire they can arrange choppers for us to do the work. The western cape has only two choppers, but it is not enough for western cape. We have dedicated team that can deal with shack fires and when there is a shack fire, you will see all government organizations and our fire paramedics all coming there to save lives. However, if you have response capacity, you can always mitigate that risk to further things as soon as possible, so I am satisfied with the government policy regarding disaster management, and we were announced as the best team towards disaster management (SIC).	The disaster management team should have response capacity to respond to disasters properly. This will help to increase the resilience level of the communities.	When the disaster management teams cannot arrangement for resources like the choppers to combat disasters, they end up causing a decrease in the community resilience level – <b>R</b> .	<b>Response capacity</b> is very important for the response teams and all involved as not having the capacity to respond, like the provision of some response equipment like choppers will really reduce the level of community resilience.
112	8	I think disaster risk is increasing because we do not have systems in place, when incidents are being reported. Now we have got systems in place on local levels where all incidents are reported, that is why we have increase in disaster related incidents, because everybody are reporting whenever there is a shack fire, it is being reported and documented and so for other disasters.	There should systems in place to handle the reports of disaster risks, so when incidents happen, people can have and now where to report such incidents for proper response.	When there is system to handle the reports of disaster irks, this will cause more trouble as nobody can do anything without a proper system in place – <b>R</b> .	<b>Putting systems in place</b> for people to report disasters properly will help for proper response and proper recovery will help to improve the resilience level of the communities.
113	8	We have contingent plan in place where all are reported, and everyone can activate these contingent plans. I think what is also important is people see we are very serious about disaster management, that is why we have regular exercises to see if we have the capabilities and abilities to see if we can deal with these disasters. They say practice makes it perfect that is why we do stimulation exercises (SIC).	There should be contingent plan where even those who reported a disaster and those who are to activate them can use as this can improve the resilience level of the community.	When there is no contingent plan, both those who reported the disaster and those who are to activate will not be able to help, thereby decreasing the resilience level of the communities – <b>R</b> .	<b>Availability and activation of contingent plans</b> will help the communities and response teams combat disaster risk properly as they will all know what to do and not to do, thereby increasing the resilience level of the communities.

114	8	Yes, disaster can be reduced, and we can create a resilience community, by just keeping people aware, inform people and train people, and identify enough volunteers. In the case of disaster, there is a resigned doctor, geographers, geological people, etc., that are in the community and we can utilize them as our benefits to help in case of disaster management.	When people are aware and trained properly, then there is a possibility of reducing disaster and increasing the community resilience level.	The community and disaster management teams when not trained and aware of things about disaster risk will end of decreasing the level of community resilience – <b>R</b> .	Disaster risk can be reduced and the level of resilience of the community can be improved by <b>training and awareness</b> of the communities and disaster management teams.
115	8	Many skilled people are in the community who are not working. We can utilize them to create a resilience community, which is why it is important to interact with the community, create awareness for especially on shack fires and on flat lines, show them what can happen and what they can do to make their own place safer. In addition, to keep disaster aid tools in the house, that is when disaster strikes, they take those tools and fight the disasters. In that small toolbox, they have underwear's, foods, and pair of shoes for others and other things in there that they can use for themselves. So, when they say there is a disaster, you do not worry about a TV or anything, you carry your tools box and move to a safe place and they can be enough for you for two or three days before the interventions.	There are skilled and can help in fighting disaster risk. When a community have this people, they can go a long way to increase the resilience level of the communities.	Keeping disasters aid tools and making use of the skill individuals in the communities can help to increase the resilience level of the communities – <b>D</b> .	<b>Utilization of skilled individuals</b> in the community to fight disasters before and after the disaster response teams comes, and <b>provision of aided tools</b> will help to increase the resilience level of the communities.
116	8	The thing is that the African people are very traditional people; they stay in a place and decide not to move from there because their families have been there for a long time and they do not want to leave their family behind. That is the system and it is about the family they leave not their lives and property. Therefore, you must train people and create awareness for them to know what to do (SIC).	The traditional beliefs that families should not move from where they grew up makes the communities remain in a place for a very long time amidst disaster risk.	The belief by some community individuals that moving out of a place will affect them breaks the system of increasing their resilience level – <b>R</b> .	<b>Traditional beliefs</b> make some individuals not think about their safety and lives but thinking about families and lands they occupied for a long time.
117	8	In Western Cape especially when it comes to shack fire, I think we are on the scale of 7/10 because if you look at what the Western Cape has done with the awareness campaigns, they paint their houses to make them stay safe and most of the houses have smoke detectors like in the shacks. Since 2007 until now there is a huge improvement in the disaster reduction and resilience building, we make steps forward to create a resilience community and we still have one or two incidents on weekly basis but are improved (SIC).	Painting of houses with fire resistance paint helps the shacks not to burn so quickly and completely once, there is fire, thereby increasing the resilience level of the communities.	The awareness of painting and adding smoke detectors will help to increase the community resilience level – <b>D</b> .	<b>Provision of paintings and smoke detectors</b> keeps the community at alert when there is disaster risk, thereby increasing their community resilience level.
118	8	Yes, yes, what we normally do is to have a debriefing session where we discussed and find out the exact cause of the disasters. Then we go back to the community and say, listen here, this are the cause of the fire and we will provide you with the things and trainings you need and prefer that you do not do those things that causes the disaster next time (sic).	There is need for the disaster management teams to discuss what the causes of the disaster is and let the community be aware of such.	When communities are aware of the causes of the disasters in their community and adhere to the instructions, their resilience level will increase.	Having a <b>debriefing session</b> to know at the cause of disasters are and coming back to the communities to inform them about this will really help to increase the resilience level of the communities.
119	8	We measure resilience by creating a scenario and see how the people respond to it. So, if you want to see, go to a block in a community and tell people there is a fire and you see how the people respond. Do they know where to go? Where to go? What to do? In addition, from there you know what to inform them about, so with this you can even know how many people will die in a disaster or survive, that is the number of people who did not respond well are the people who will not survive (SIC).	It is possible to measure resilience by creating a scenario where you test how people respond to disaster risk alert.	When individuals in the communities know what to do or where to go during disaster alerts, this will help to increase their community's resilience levels – <b>D</b> .	To measure resilience, <b>creating scenario</b> can help to know if the communities know where to go, what to do and who to call when disaster happens, which can improve the resilience level of the communities.

120	8	I think when it comes to disaster management, as soon as we can create a mind-set for the public out there that disaster management is not my function or your function, but that disaster is everybody’s business, and everyone must cater for himself and protect its own family and township or whatever. So, we all must see how we can make the place safe for us, so disaster management is everyone’s business and we all make sure we do not do the things that causes disasters and remember to keep your too kits (SIC)	The communities should have a mind-set that disaster risk can be reduced before or during disaster, which can increase their resilience level.	Disaster is everyone’s business, so the communities must be aware that disaster risk can be reduced to fight disaster properly and increase their resilience level – <b>D</b> .	<b>Positive mind-sets</b> are needed to be created by the disaster management teams; because the communities must know that disaster-risk can be reduced before they can increase the community resilience level.
-----	---	---	--	---	---

2. Summary of the Categories

RESEARCH CIRCLE 2.2 (CATEGORISATION)

NO	CATEGORY	PROPOSITION					MEMO
1.	Impact of vigorous <b>Determined efforts</b> to adapt to disasters	Increased Determined efforts towards improving the level of community resilience is needed to address the issues of disasters in the communities.	<b>Disaster is everyone’s business</b> so to reduce risk; the whole communities and public/government organizations must understand this and pay attention to this to increase the level of resilience of the communities.				The communities need to be really determined to put in efforts that will increase the level of systemic resilience for disaster risk to be reduced.
2.	Degree of <b>Individual response capacity</b> to contribute to disaster risk reduction	The Degree of <b>Individual capacity</b> to community resilience leads to the ability of communities to survive and bounce back during disaster.	<b>Enough capacity</b> and <b>enablement</b> will lead to a low level of disaster risk and increase the level of systemic resilience in the communities.	The approach of resilience should be high in sensitivity when the problem of <b>individual centered approach</b> to resilience is minimized.	The focus of the resilience of a community is because of the <b>individual characteristics</b> which draws attention to the resilience of the community itself.		The individuals must have the capacity to survive and the will to bounce back to improve the level of systemic resilience in the communities.
3	Degree of <b>Proactive measures</b>	Higher degree of Proactive measures to disaster risk reduction are offered by the communities when there is an <b>effective learning</b> and understanding of the level of the community’s resilience.	The communities learning how to improve their capacity to adapt to disaster in a <b>proactive manner</b> will enhance their <b>preparedness</b> based on the learning effects after the disaster.				The communities need to understand and learn ways to improve the level of resilience for proactive measures to be identified.
4	<b>Community engagement</b>	<b>Gathering of information’s</b> from the communities and high level of interactive participations by the community’s leads to understanding the mechanisms influencing the level of systemic resilience in the communities.	To strengthen community resilience, <b>participatory planning, monitoring and learning</b> must be institutionalized in the communities as a systems approach.	<b>Intra-community working relationship</b> is needed for the communities to be self-reliant in increasing the level of systemic resilience for disaster risk to be reduced.	<b>Community engagement</b> is very important because the information they receive depends on who they trust		Everyone in the community and outside must participate in interactive sessions, planning and monitoring by giving information that will lead to understanding the mechanisms influencing the

	Level of <b>Interactive participations</b>				and who is given them this credible information's, which can increase the level of their resilience.		level of systemic resilience in the communities.
5	Impact of <b>Systematical mobilization</b>	The Impact of Systematical mobilization of a group of people i.e. bringing people together within the same community to address a common <b>disaster risk reduction measures</b> , can lead to the improvement of the level of systemic resilience of the community.					In a community, a group of people must come together to address a common disaster risk reduction measures, which will lead to the improvement of the level of systemic resilience in the community.
6	<b>Effective participation and inclusion</b> of poor and marginalized groups  Level of <b>Decision-Making</b> during pre-disasters to post-disaster	For the communities to survive and increase the level of systemic resilience in the community, there should be a high level of decision-making ability and will amongst the communities.	A <b>decisive action</b> should be taking to create an effective disaster management system for the communities, which will also increase the level of systemic resilience.	The <b>participation and inclusion</b> of poor and marginalized groups of the communities in decision-making, monitoring and evaluation is a key characteristic of a city intent on improving the conditions for those living in informal settlements or living in exposed locations.	Even though some of the organizations involved in the disaster risk reduction management do not have authority over each other, it is necessary for everyone including the government to play their roles properly. <b>Playing of roles and effective participation is important.</b>		The ability to make decisions that will show they want to survive and improve the level of resilience.
7	Degree of <b>Critical analysis</b> of community resilience and disaster assessment tools	The assessment tools to determine what influences the systemic resilience of the communities, needs a critical analysis to evaluate it, because the community disaster resilience has been the heavily supported and advocated approach to disaster reduction in recent years.	<b>Appropriate and effective methods</b> should be used at the community level to assess disaster risk and consider how levels interrelate to influence resilience.				The assessment tools that determines what influences the systemic resilience of the communities must be critically analyzed.

8	Degree of <b>Standardized operationalization</b> of resilience models	Operationalizing systemic resilience in the communities is very important, but why there are differences between the communities regarding levels of resilience should be identified for the operation to be standard.	When operationalizing the resilience models, <b>systemic development</b> should be employed, and community competence should be encouraged.	<b>Putting systems in place</b> for people to report disasters properly will help for proper response and proper recovery will help to improve the resilience level of the communities.			There is difference between the communities regarding levels of resilience.
9	Impact of <b>Comparative knowledge</b> for progress of community resilience levels.	Variables that can be systematically tested to assess the levels of resilience, and progress of resilience in the communities can be identified by using comparative knowledge.					To be able to identify the levels of resilience of communities, we need to compare knowledge from others i.e. procedural knowledge which is the knowledge exercised in the performance of the task of improving resilience levels.
10	Degree of <b>Assessment framework on prevention</b>	<b>Measurement/assessment of community</b> disaster resilience capabilities should be done in both location and other hazard prone areas.	<b>Assessment framework</b> , which will lead to the improvement of the community resilience, can be assessed by many <b>key characteristics</b> .	If the <b>framework on prevention</b> is used through the different levels, it can reduce disaster risk in the communities and increase the level of resilience in the communities.			Approach or assessment methods are to be done in all areas of the communities to fit each community and to know the level of resilience.
11	Degree of <b>Positive mind-set</b> at individual and community level	The degree of Positive change and facilitating learning at the individual and community level can lead to the improvement of the level of systemic resilience of the communities.	Positive responses to disaster risk, has been because of the concept of community disaster resilience in an increasing level.	<b>Positive mind-sets</b> are needed to be created by the disaster management teams; because the communities must know that disaster-risk can be reduced before they can increase the community resilience level.			First, there must be a positive response and acceptance of positive change.
12	Degree of <b>Behavioral Interventions</b> to reduce disaster risk	For the promotion of community disaster resilience in both aboriginal communities and recent ones, preventive <b>interventions</b> should be considered.	Resistance by communities shows that they can withstand disruption before any form of <b>intervention</b> is received or changes made.				There should always be interventions from government or disaster management agencies during and after disaster to reduce



							disaster risk, which will also increase the level of resilience.
13	Impact of <b>Resilience Concept</b>	<b>Concept of resilience</b> should be adopted to understand the level of the systemic resilience of communities.	The resilience concept which is a technical term focuses more on the individual, family, community, nation and global systems				Resilience focuses on those patterns.
14	Level of <b>Understanding</b> of individual resilience and dimensions	To be able to identify the features of the level of community resilience, understanding the <b>characteristics</b> of individual resilience is crucial.	The level of <b>understanding</b> of the process of adaptation to disaster is an appropriate way to attain resilience.	<b>Understanding the attributes</b> and placing them on different <b>dimensions</b> can lead to increase in the level of systemic resilience of communities.			It is very important to know the characteristic of individual resilience before relating it to the community resilience.
15	Level of <b>Distinctive nature</b> of resilient communities	Identifying the distinctive nature of resilient communities, compared to those that are not helps to assess the <b>level of resilience</b> of communities, which can point to structural and process issues.					Knowing the difference or what differentiate between the resilient communities and non-resilient communities helps to increase community resilience.
16	<b>Utilization of skilled individuals</b>  Impact of <b>Ability</b> to recover	The ability of a community to recover from challenges is an attribute of increasing the level of resilience in that community.	<b>Utilization of skilled individuals</b> in the community to fight disasters before and after the disaster response teams comes, and <b>provision of aided tools</b> will help to increase the resilience level of the communities.				The community need to recognize that they will need or have the attributes to recover from challenges.
17	Degree of non-rigid <b>Transformation</b> of communities	Resilience is a transformation, which means the community needs to adapt to increase the level of resilience than trying to return to the initial form that it was before.					The community need to adapt to the situation to make a change, instead of concentrating more on returning to the initial position.

18	Degree of <b>Cultural dimensions</b> of community resilience	The social/cultural dimensions of the community resilience should have more importance than the individual centered model because of the <b>interconnectedness</b> of the individuals to the environment.	Resilience should be seen and understood as a <b>multi-dimensional</b> process with potential quite different effects on any specific outcome.	<b>Social resilience</b> can increase the level of community resilience when an individual is integrated in the community and is sure of getting supports from neighbors in the community.			The social/cultural aspects of the community should be priority than the individual model of resilience because the individual is connected to the community.
19	Level of <b>Adaptations and Adjustments</b> of individuals and the communities	Resilience of the communities involves <b>dynamics</b> of the <b>social response</b> to challenges, which involves adaptations, and adjustments of individuals and groups with the community.	Positive aspects of <b>mobilized adaption</b> to improve outcomes and the complex web factors for health and well-being of the communities should be the aims of improving resilience.				The individuals and groups found in the communities must be ready to adjust and adapt to increase the level of resilience.
20	Level of <b>Individual resilience characteristics</b>	The <b>individual resilience</b> level factors can determine the level of systemic resilience of the community and how to improve this level of the community resilience.	In a community, many individuals must exhibit <b>individual resilience</b> for the whole community to be resilient because a community that has <b>resilience characteristics</b> may also increase the resilience of its individual members.	The communities can increase the level of systemic resilience by <b>exhibiting resilience</b> that can restore their <b>functioning</b> and by drawing from <b>social networks</b> embedded in communities.	The policies and <b>resilience characteristic, which are improved community planning, provision of public services and infrastructure</b> , will help to increase the level of community resilience if provided.		The individuals must first be resilience before they can talk of community resilience because a resilience community increases the level of individual resilience and verse visa.
21	Level of <b>Coping mechanisms</b> to disaster risk	The <b>personal abilities</b> and <b>cognitive strategies</b> of the people in the communities helps to increase the level of systemic resilience in the communities which depends on <b>mediating processes</b> that reflects coping mechanisms.	<b>Adaptive capacity</b> can lead to increase in coping capacity of communities, while limited adaptive capacity can lead to limited resilience of the communities.	<b>Moderate-risk</b> situations can prove useful when developing the systemic resilience of communities, which means the less risk in the community, might bring about low increase in resilience.			There should be ways and methods, which the communities should develop to withstand shocks and stress and disasters to increase the level of resilience.

22	<b>Appropriate Personality trait</b> to improve resilience	High level of appropriate Personality trait is a tool for an individual to enhance community resilience.	Fixed and <b>deterministic traits</b> from the individuals increases the level of systemic resilience in the communities.	<b>Creativity</b> by communities shows that they can adapt to new circumstances and create new institutions and practices that carry its value forward.			The individuals in the community must be determined personally to be resilience to have a resilience community.
23	<b>Training and Public education</b>  Impact of <b>Academic performance</b> to resilience awareness and improvement	It has been shown that individuals with academic performance can increase the level of resilience in a community, but this can also be different in another community.	Major elements of community disaster resilience such as <b>community competence and community education and empowerment</b> should be identified to know what influences the level of systemic resilience in the communities.	<b>Educational level</b> is important for the communities and others to be aware that disaster risk can be prevented if they did the right things at the right times.	<b>Training and education</b> will help the communities know what to do and when to do them regarding disaster risk, which can increase their level of resilience.	The way to stop the disasters and the drought issue in western cape is by <b>public education and awareness.</b>	If the people in the community are educated about disaster and resilience, it can increase the level of resilience in the community.
24	Degree of <b>Resources availability</b> to confront future disasters	Resources availability to the community and the extent to which the resources are modified to meeting new challenges is a factor in increasing the level of resilience of a community.	The <b>complexity</b> to community resilience can affect the level of systemic resilience in the communities if new structures are not developed for the communities.				Resources should be made available and not only that, his resources should be modified to meet the challenges ahead.
25	<b>Community cohesion</b>  Impact of <b>Collective action and approach</b> by the communities to confront future disasters	Collective approach and <b>social learning</b> can help the communities increase the level of their resilience, awareness and ability to confront future disasters.	A group of people with <b>diverse characteristics</b> who share common perspective and engage in joint action will lead to an increase in the level of systemic resilience of the communities.	<b>Individual choice</b> is a better way to adapt in a local level, but the <b>collective action</b> is a sure way for the communities to adapt to disaster risk and improve the level of the community resilience at the community and municipal level.	<b>Community cohesion</b> is also an important factor of resilience, the less community cohesion, the less the resilience (sic).		The communities must have an approach that will work for them and they must carry out this approach collectively to improve their resilience.

26	Impact of <b>Disaster experience and support</b>  Impact of <b>Disaster experience</b>	For communities to be more resilient and have high level of resilience, they should take actions after the disaster experience.	The communities can adapt to disasters by generating <b>inherent resilience</b> and learn from its experiences to prepare for future disasters.	Communities benefit from the <b>experience and support</b> of local, national and international NGOs and civil society organizations operating in the community-based groups and research organizations			The communities should learn from their previous disasters that has occurred to have high resilience to others.
27	Impact of <b>Maintaining functionality</b> for the community to respond to disasters	Maintaining functionality is the <b>principle</b> issue for a community to respond and recover from a potential hazard, which will increase the level of resilience in the community.	<b>Recovery</b> by community's shows that the community can return to its pre-disaster state more quickly than a community that is less resilient.	A <b>well-functioning</b> community with <b>physical dimension</b> will not only lesson probability of a shock, but also it may enhance the capacity of the community to respond to disasters.			For a community to respond to disasters, the principle thing is to maintain their functionality or way of life.
28	Impact of <b>Self-organization</b>	Self-organization by the communities with the same <b>identity</b> will show the high level of resilience among them.	Mastering of <b>self-confidence</b> and <b>social competence</b> will help to build and increase the level of systemic resilience of the communities.	Communities to understand or increase the level of systemic resilience in the communities should exhibit self-sustaining and self-organizing dynamic system.			When the individuals are organized personally as a unit, there is a chance of improving resilience
29	Level of <b>Dimensions of resilience</b>	<b>Personal support</b> or social dimension in communities will lead to an increase in the level of resilience.	<b>Financial support</b> or economic dimension in communities will lead to an increase in the level of resilience.	Government support or institutional dimension in communities will lead to an increase in the level of resilience.			The level of dimensions shows the areas or classifications of different aspect of community resilience development.
30	Degree of <b>Evaluation</b> of community resilience approaches	The <b>evaluation</b> of many approaches to community resilience will fit each community in terms of its relevance and applicability to diverse realities.					The community resilience approaches will fit each community according to its relevance if there is proper evaluation.

31	Impact of characterized <b>successful outcome</b>	To identify the increase of the level of systemic resilience of communities, a <b>successful outcome</b> is characterized rather than the negative consequences that is mostly expected.					The community should exhibit some atom of belief in their work and successes.
32	Degree of <b>Capacity enhancement</b> of communities	<b>Enhancing capacity</b> of the communities will lead to an improved resilient community.	Enhancement of the level of systemic resilience in the communities will reduce the impacts of disasters in the communities.				Increasing the skills and abilities of the communities to fight disasters.
33	<b>Decentralization and autonomy</b> of decision making	<b>Decentralization and autonomy</b> of decision-making helps the community or local governments get involved in disasters reduction and resilience development policies, which usually are done by the central government.					During decision-making, all involved, including the communities should be made to contribute.
34	<b>Transparency and accountability</b>	<b>Transparency and accountability</b> is one of the key characteristics that can improve the level of community resilience if the community system or local government leaders allow themselves to be held accountable to disaster risk events and give the communities the main information they need.					There should be transparency, and the communities and government should allow themselves to be held accountable to disaster risk events and provide the right information.
35	<b>Responsiveness and flexibility</b>	<b>Responsiveness and flexibility</b> towards disaster events by the system or local governments will lead to an increase level of community resilience and allow the communities to draw on the experiences and advice of the agencies and other cities.	<b>Response capacity</b> is very important for the response teams and all involved as not having the capacity to respond, like the provision of some response equipment like choppers will really reduce the level of community resilience.				When there is adequate response rate and open mindedness by both the community and stakeholders.
36	The level of <b>Key resilience indicators</b>	The functionality of <b>key resilience indicators</b> are the bases to increasing the resilience level of the communities and reducing disaster risk.	<b>Resilience level depends on the community</b> because those who are in formal settlements starts rebuilding the shacks, while those in informal settlements can't rebuild a-times.				
37	<b>Active consciousness</b>	<b>Active consciousness</b> of the disaster related risks in a community by the community helps in improving the level of community resilience and reducing disaster risk in the community.					When both the communities and government organizations are actively conscious of the disaster risks.

38	<b>Partnership approach</b>	<b>Partnership approach</b> between the stakeholders and the communities will help to improve the level of community resilience in any community exposed to disaster risk.					The community and stakeholders need to partner together to help fight disaster risk.
39	<b>Eradication of Intoxication or alcohol use</b>  <b>Eradication of alcohol use and heating</b>	<b>Eradicating alcohol use and heating</b> of things during winter will help to save lives and hinder fire disaster in the communities, thereby increasing their resilience level.	<b>Intoxication or alcohol use</b> with other varieties of reasons leads to fire disaster risk, and until the communities try to be careful about the use of these varieties of things, they will have less resilience level.				When they are drunk, they sleep off and forget to put off the heater or hit the fire down and this brings fire disaster.
40	<b>Reduction of burns</b>	<b>Reduction of burns</b> effects will help save lives during fire disasters, because people die due to burns and not really fire itself, which can increase the resilience level of the communities.					What really kills people are the burns and not really the fire, because some people might come out of the fire alive and still die because of the burns.
41	<b>Vulnerability to informal settlements</b>	<b>Vulnerability to informal settlements</b> is common and those who are affected are those who cannot rent a proper housing and properties.					The informal settlements are more vulnerable to disasters.
42	<b>Poverty and panic eradication</b>	<b>Poverty eradication</b> happens to be the key to increasing the level of community resilience, because once people can afford good houses, they become more resilience to disaster risks.	<b>Poverty reduction</b> should be the focus towards fighting disaster risk because the key driver to this problem is poverty and unemployment and if this is eradicated, the resilience level of the communities will increase to higher level.	<b>Panic and poverty</b> are the factors behind death tolls in the community and if the community can avoid panic and if poverty could be eradicated, the level of their resilience will be increased.			When there is poverty, it is difficult for them to afford good houses and it makes them vulnerable to disaster. When the people panic, they forget what to do and becomes more exposed to danger.
43	<b>Provision of high-risk equipment's</b>	<b>Provision of high-risk equipment's or access to electricity</b> will help the communities to reduce fire disaster risks and increase their resilience levels.					When they have access to electricity or the equipment's, that can keep them out of risk.

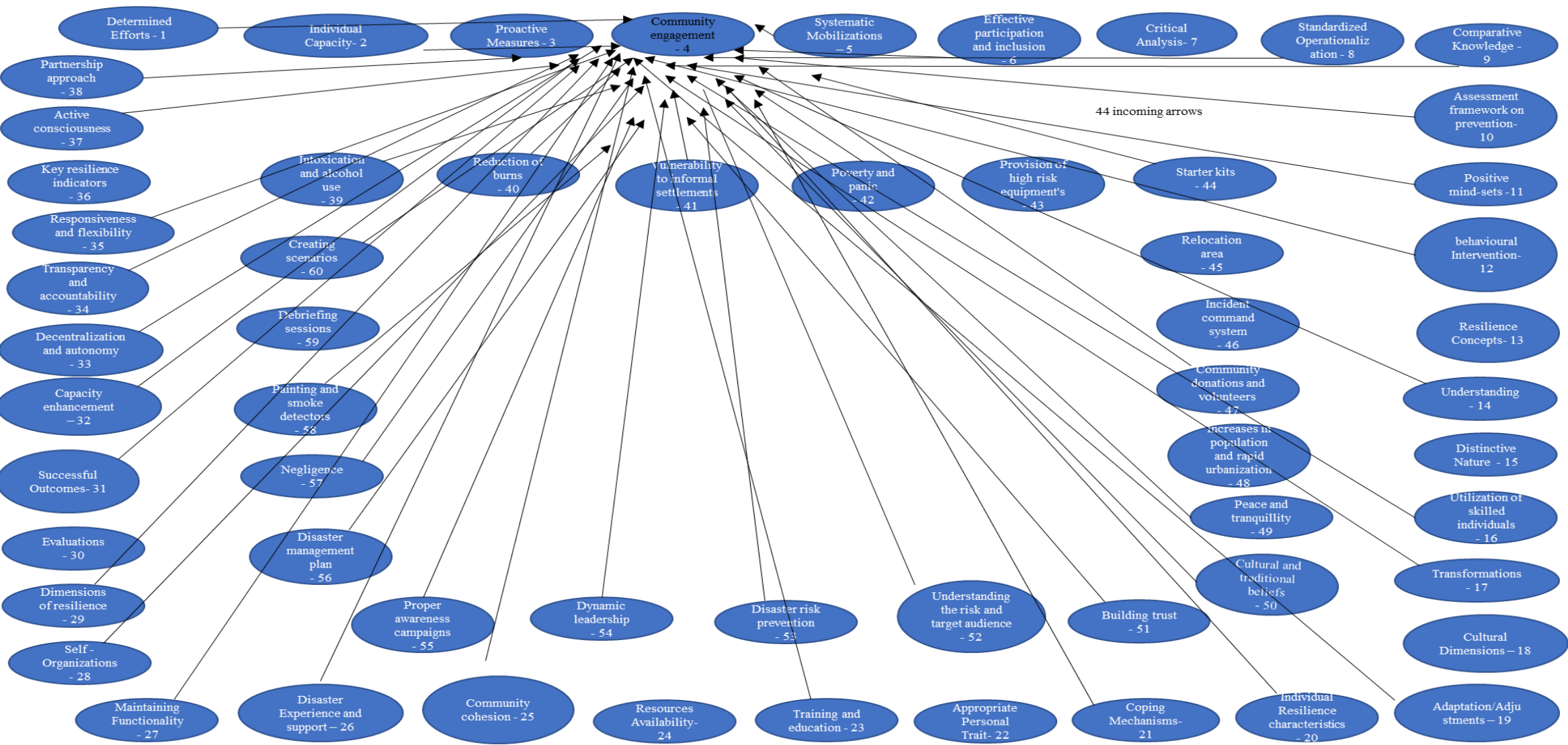
44	<b>Starter kits</b>	Provision of <b>starter kits</b> is one of the keys to increasing the resilience levels of the communities, because once they are aware this will be provided before they rebuild, then they will be able to absorb properly.					They communities affected should have something to rest on until the communities are rebuilt.
45	<b>Relocation area</b>	Provision of <b>relocation area</b> is very important for the community to increase their resilience levels because if the community is to be rebuilt, then there should be a place for them to leave for that period.					There should be a place for the people affected to remain before the community or their houses are rebuilt.
46	<b>Incident command system</b>	The programmed, which is called <b>incident command system</b> , which is the system, used for any incident before it, becomes bigger, that helps the people working on an incident to manage and use resources effectively can help to increase the community resilience level.	The <b>knock and drop</b> method in the informal settlement is a method which requires the disaster management team to go to the community, door-to-door and tell them what they must do before going to sleep and leaving the house. This increases the resilience level of the community.				Before a disaster incident becomes bigger, the system used for the incident to manage the resources. That is using them for the necessary and immediate cases.
47	<b>Community donations and volunteers</b>	The <b>community donations and volunteers</b> made available shows how high their resilience level is and helps the management centers to do an effective job.					The community donates to those affected and have volunteers from among them to help others.
48	<b>Increase in populations and rapid urbanization</b>	<b>Increase in populations and rapid urbanization</b> makes the communities dense because of more people and less lands and this can affect the resilience levels of the communities.					People come into the place and makes the communities dense and this causes poverty and increase in disaster risk.
49	Impact of <b>Peace and tranquility</b>	Due to different environments of the informal settlements, they are not resilience enough because there is no <b>peace and tranquility</b> and no <b>level of normality</b> , which affects the level of their resilience.					When there is no peace and tranquility in a community, it is difficult to be resilience and this most is because of the environments.
50	<b>Cultural and traditional beliefs</b>	<b>Cultural beliefs</b> make individuals in the communities think disaster risks are from some curses or sin, and this really affects their resilience level.	<b>Traditional beliefs</b> make some individuals not think about their safety and lives but thinking about families and lands they occupied for a long time.				This belief makes people think disaster risk is a curse or think they can't leave a place during relocations.

51	<b>Building trust</b>	<b>Building trust</b> with the community and those who bring information's to the community can lead to the community accepting the information's and thereby increases their resilience levels.					When there is no trust, the communities might not believe or take the information brought to them by those they do not trust.
52	<b>Understanding the risk and Target audience</b>	<b>Understand the risk</b> and letting the message speak to the risk is very essential because the communities will know what to do at the right time and increase their resilience level.	It is very important to know and <b>understanding the target audience</b> , the population and those at risk the most to increase the resilience of the communities.				Understanding the risk, the people who are mostly affected and sending messages directly to the risk and the people is what this is about.
53	<b>Disaster risk prevention</b>	<b>Disaster risk prevention</b> should be the focus of everyone, which means that instead of the team to wait for disasters to happen in the communities before responding, they should go door to door and help make sure the communities are doing the right things. The more times disaster risk team go into the communities, the lesser risk of disasters we have.					The key one way for disaster risk prevention is the team going door to door to let the community members know what to do or reminding them, instead of remaining in the station and waiting for disaster to happen.
54	<b>Dynamic leadership</b>	<b>Dynamic leadership</b> is a key process to building community resilience as the communities needs to identify best practices on how to respond to disaster and need a leader who they can trust to lead the way.					A leader who can pass information's and direct the communities and stand up for them is really needed in all communities.
55	<b>Proper awareness and campaigns</b>	<b>Proper awareness campaigns</b> from the community and the disaster management teams keeps everyone at alert and knowing what to do and what to report on, which helps to increase the level of community resilience.	Disaster risk can be reduced and the level of resilience of the community can be improved by <b>training and awareness</b> of the communities and disaster management teams.				Regular awareness campaign can keep both the community and disaster management teams in check and ready to fight disasters.
56	<b>Disaster management plan</b>	It is necessary for everyone, including the private, and government organizations and the communities to have a <b>disaster management plan</b> in place to combat disaster and increase level of community resilience.	<b>Availability and activation of contingent plans</b> will help the communities and response teams combat disaster risk properly as they will all know what to do and not to do, thereby increasing the resilience level of the communities.				Every organization, private and government, should have disaster management plans in place.



57	<b>Negligence</b>	<b>Negligence</b> to the causes of disaster risk will lead to disaster events occurring regularly, thereby affecting or decreasing the community resilience level.					The communities know the causes of disaster but are not careful or trying to avoid those causes.
58	<b>paintings and smoke detectors</b>	Provision of <b>paintings and smoke detectors</b> keeps the community at alert when there is disaster risk, thereby increasing their community resilience level.					When the shacks are painted with the fire resistance paint which do not allow fire burn so fast, they can still survive to escape and when there is smoke detector, they can be aware before the fire starts.
59	<b>Debriefing session</b>	Having a <b>debriefing session</b> to know the cause of disasters and coming back to the communities to inform them about this will really help to increase the resilience level of the communities.					After a disaster, it will be good to find out in a session what the causes are and going back to the communities to let them know to beware of those causes.
60	<b>Creating scenario</b>	To measure resilience, <b>creating scenario</b> can help to know if the communities know where to go, what to do and who to call when disaster happens, which can improve the resilience level of the communities.					This is a test that can be done when you want to find out the level of resilience in a community. Create a scenario of false alarm and see how many people knows what to do and so on.

3. Summary of the Reduction Sampling (Step 1)



4. Summary of the Reduction Sampling (Step 2)

RESEARCH CIRCLE 2.3 STEP 2 (REDUCTION SAMPLING)

CATEGORIES	Determined efforts	Community engagement	Positive mind-set	Training and public education	Disaster experience and support	Transparency and accountability	Building trust	Understanding the risk and target audience	Dynamic leadership	Disaster management plan
REF. NO:	1	4	11	23	26	34	51	52	54	56
RENAMED CATEGORIES	Impact of contribution of individual resilience	Degree of community engagement	Degree community of positive mind-sets	Level of public education and awareness	Ability to learn from disaster experiences	Level of transparent/accountable governance	Level of perceived self-efficacy	Degree of contextual understanding of target audience	Level of responsive shared leadership	Effectiveness of disaster management framework
	Increased Determined efforts towards improving the level of community resilience is needed to address the issues of disasters in the communities.	<b>Community engagement</b> is very important because the information they receive depends on who they trust and who is given them this credible information's, which can increase the level of their resilience.	<b>Positive mind-sets</b> are needed to be created by the disaster management teams; because the communities must know that disaster-risk can be reduced before they can increase the community resilience level.	<b>Training and education</b> will help the communities know what to do and when to do them regarding disaster risk, which can increase their level of resilience.	For communities to be more resilient and have high level of resilience, they should take actions after the disaster experience.	<b>Transparency and accountability</b> is one of the key characteristics that can improve the level of community resilience if the community system or local government leaders allow themselves to be held accountable to disaster risk events and give the communities the main information they need.	<b>Building trust</b> with the community and those who bring information's to the community can lead to the community accepting the information has and thereby increases their resilience levels.	<b>Understand the risk</b> and letting the message speak to the risk is very essential because the communities will know what to do at the right time and increase their resilience level.	<b>Dynamic leadership</b> is a key process to building community resilience as the communities needs to identify best practices on how to respond to disaster and need a leader who they can trust to lead the way.	It is necessary for everyone, including the private, and government organizations and the communities to have a <b>disaster management plan</b> in place to combat disaster and increase level of community resilience.
	<b>Disaster is everyone's</b>	<b>Gathering of information's</b> from	The degree of Positive change	It has been shown that	The communities	Operationalizing systemic resilience in the	Maintaining functionality	It is very important to	<b>Utilization of skilled</b>	<b>Availability and activation of contingent plans</b> will

	<b>business</b> so to reduce risk; the whole communities and public/government organizations must understand this and pay attention to this to increase the level of resilience of the communities.	the communities and high level of interactive participations by the community's leads to understanding the mechanisms influencing the level of systemic resilience in the communities.	and facilitating learning at the individual and community level can lead to the improvement of the level of systemic resilience of the communities.	individuals with academic performance can increase the level of resilience in a community, but this can also be different in another community.	can adapt to disasters by generating <b>inherent resilience</b> and learn from its experiences to prepare for future disasters.	communities is very important, but why there are differences between the communities regarding levels of resilience should be identified for the operation to be standard.	is the <b>principle</b> issue for a community to respond and recover from a potential hazard, which will increase the level of resilience in the community.	know and <b>understanding the target audience</b> , the population and those at risk the most to increase the resilience of the communities.	<b>individuals</b> in the community to fight disasters before and after the disaster response teams comes, and <b>provision of aided tools</b> will help to increase the resilience level of the communities.	help the communities and response teams combat disaster risk properly as they will all know what to do and not to do, thereby increasing the resilience level of the communities.
	The Degree of <b>Individual capacity</b> to community resilience leads to the ability of communities to survive and bounce back during disaster.	To strengthen community resilience, <b>participatory planning, monitoring and learning</b> must be institutionalized in the communities as a systems approach.	Positive responses to disaster risk, has been because of the concept of community disaster resilience in an increasing level.	Major elements of community disaster resilience such as <b>community competence and community education and empowerment</b> should be identified to know what influences the level of systemic resilience in the communities.	Communities benefit from the <b>experience and support</b> of local, national and international NGOs and civil society organizations operating in the community-based groups and research organizations.	When operationalizing the resilience models, <b>systemic development</b> should be employed, and community competence should be encouraged.	<b>Recovery</b> by community's shows that the community can return to its pre-disaster state more quickly than a community that is less resilient.	To be able to identify the features of the level of community resilience, understanding the <b>characteristics</b> of individual resilience is crucial.	The ability of a community to recover from challenges is an attribute of increasing the level of resilience in that community.	Higher degree of Proactive measures to disaster risk reduction are offered by the communities when there is an <b>effective learning</b> and understanding of the level of the community's resilience.
	<b>Sufficient capacity and enablement</b>	<b>Intra-community working</b>	For the promotion of	<b>Educational level</b> is	Variables that can be	<b>Putting systems in place</b> for people to report	A <b>well-functioning</b>	The level of <b>understanding</b>	The <b>personal abilities</b> and	The communities learning how to improve their

	will lead to a low level of disaster risk and increase the level of systemic resilience in the communities.	<b>relationship</b> is needed for the communities to be self-reliant in increasing the level of systemic resilience for disaster risk to be reduced.	community disaster resilience in both aboriginal communities and recent ones, preventive <b>interventions</b> should be considered.	important for the communities and others to be aware that disaster risk can be prevented if they did the right things at the right times.	systematically tested to assess the levels of resilience, and progress of resilience in the communities can be identified by using comparative knowledge.	disasters properly will help for proper response and proper recovery will help to improve the resilience level of the communities.	community with <b>physical dimension</b> will not only lesson probability of a shock, but also it may enhance the capacity of the community to respond to disasters.	of the process of adaptation to disaster is an appropriate way to attain resilience.	<b>cognitive strategies</b> of the people in the communities helps to increase the level of systemic resilience in the communities which depends on <b>mediating processes</b> that reflects coping mechanisms.	capacity to adapt to disaster in a <b>proactive manner</b> will enhance their <b>preparedness</b> based on the learning effects after the disaster.
	The approach of resilience should be high in sensitivity when the problem of <b>individual centered approach</b> to resilience is minimized.	The Impact of Systematical mobilization of a group of people i.e. bringing people together within the same community to address a common <b>disaster risk reduction measures</b> , can lead to the improvement of the level of systemic resilience of the community.	Resistance by communities shows that they can withstand disruption before any form of <b>intervention</b> is received or changes made.	The way to stop the disasters and the drought issue in western cape is by <b>public education and awareness</b> .	Resilience is a transformation, which means the community needs to adapt to increase the level of resilience than trying to return to the initial form that it was before.	Resources availability to the community and the extent to which the resources are modified to meeting new challenges is a factor in increasing the level of resilience of a community.	Due to different environments of the informal settlements, they are not resilience enough because there is no <b>peace and tranquility</b> and no <b>level of normality</b> , which affects the level of their resilience.	<b>Understanding the attributes</b> and placing them on different <b>dimensions</b> can lead to increase in the level of systemic resilience of communities.	<b>Adaptive capacity</b> can lead to increase in coping capacity of communities, while limited adaptive capacity can lead to limited resilience of the communities.	The assessment tools to determine what influences the systemic resilience of the communities, needs a critical analysis to evaluate it, because the community disaster resilience has been the heavily supported and advocated approach to disaster reduction in recent years.
	The focus of the resilience of a community is	For the communities to survive and	Identifying the distinctive nature of	The <b>evaluation</b> of many approaches to	<b>Personal support</b> or social	The <b>complexity</b> to community resilience can affect the level of	<b>Cultural beliefs</b> make individuals in	<b>Active consciousness</b> of the disaster	<b>Moderate-risk</b> situations can prove useful	<b>Appropriate and effective methods</b> should be used at the community level to

	because of the <b>individual characteristics</b> which draws attention to the resilience of the community itself.	increase the level of systemic resilience in the community, there should be a high level of decision-making ability and will amongst the communities.	resilient communities, compared to those that are not helps to assess the <b>level of resilience</b> of communities, which can point to structural and process issues.	community resilience will fit each community in terms of its relevance and applicability to diverse realities.	dimension in communities will lead to an increase in the level of resilience.	systemic resilience in the communities if new structures are not developed for the communities.	the communities think disaster risks are from some curses or sin, and this really affects their resilience level.	related risks in a community by the community helps in improving the level of community resilience and reducing disaster risk in the community.	when developing the systemic resilience of communities, which means the less risk in the community, might bring about low increase in resilience.	assess disaster risk and consider how levels interrelate to influence resilience.
	The <b>individual resilience</b> level factors can determine the level of systemic resilience of the community and how to improve this level of the community resilience.	A <b>decisive action</b> should be taking to create an effective disaster management system for the communities, which will also increase the level of systemic resilience.	Resilience of the communities involves <b>dynamics</b> of the <b>social response</b> to challenges, which involves adaptations, and adjustments of individuals and groups with the community.	<b>Enhancing capacity</b> of the communities will lead to an improved resilient community.	<b>Financial support</b> or economic dimension in communities will lead to an increase in the level of resilience.	<b>Provision of high-risk equipment's or access to electricity</b> will help the communities to reduce fire disaster risks and increase their resilience levels.	<b>Traditional beliefs</b> make some individuals not think about their safety and lives but thinking about families and lands they occupied for a long time.	<b>Eradicating alcohol use and heating of</b> things during winter will help to save lives and hinder fire disaster in the communities, thereby increasing their resilience level.	<b>Decentralization and autonomy</b> of decision-making helps the community or local governments get involved in disasters reduction and resilience development policies, which usually are done by the central government.	<b>Measurement/assessment of community</b> disaster resilience capabilities should be done in both location and other hazard prone areas.
	In a community, many individuals must exhibit <b>individual resilience</b> for the whole community to be resilient	The <b>participation and inclusion</b> of poor and marginalized groups of the communities in decision-making, monitoring and	Positive aspects of <b>mobilized adaption</b> to improve outcomes and the complex web factors for	Enhancement of the level of systemic resilience in the communities will reduce the	Government support or institutional dimension in communities will lead to an increase in the	The program, which is called <b>incident command system</b> , which is the system, used for any incident before it, becomes bigger, that helps the people working		<b>Intoxication or alcohol use</b> with other varieties of reasons leads to fire disaster risk, and until		<b>Assessment framework</b> , which will lead to the improvement of the community resilience, can be assessed by many <b>key characteristics</b> .

	because a community that has <b>resilience characteristics</b> may also increase the resilience of its individual members.	evaluation is a key characteristic of a city intent on improving the conditions for those living in informal settlements or living in exposed locations.	health and well-being of the communities should be the aims of improving resilience.	impacts of disasters in the communities.	level of resilience.	on an incident to manage and use resources effectively can help to increase the community resilience level.		the communities try to be careful about the use of these varieties of things, they will have less resilience level.		
	The communities can increase the level of systemic resilience by <b>exhibiting resilience</b> that can restore their <b>functioning</b> and by drawing from <b>social networks</b> embedded in communities.	Even though some of the organizations involved in the disaster risk reduction management do not have authority over each other, it is necessary for everyone including the government to play their roles properly. <b>Playing of roles</b> and effective	High level of appropriate Personality trait is a tool for an individual to enhance community resilience.	<b>Vulnerability to informal settlements</b> is common and those who are affected are those who cannot rent a proper housing and properties.	Provision of <b>starter kits</b> is one of the keys to increasing the resilience levels of the communities, because once they are aware this will be provided before they rebuild, then they will be able to absorb properly.	The <b>knock and drop</b> method in the informal settlement is a method which requires the disaster management team to go to the community, door-to-door and tell them what they must do before going to sleep and leaving the house. This increases the resilience level of the community.		<b>Reduction of burns</b> effects will help save lives during fire disasters, because people die due to burns and not really fire itself, which can increase the resilience level of the communities.		If the <b>framework on prevention</b> is used through the different levels, it can reduce disaster risk in the communities and increase the level of resilience in the communities.
	The policies and <b>resilience characteristic, which are improved community planning, provision of public services and infrastructure</b> , will	The social/cultural dimensions of the community resilience should have more importance than the individual centered model because of the <b>interconnectedness</b>	Fixed and <b>deterministic traits</b> from the individuals increases the level of systemic resilience in the communities.	<b>Proper awareness campaigns</b> from the community and the disaster management teams keeps everyone at	Provision of <b>relocation area</b> is very important for the community to increase their resilience levels because if the community is			<b>Poverty eradication</b> happens to be the key to increasing the level of community resilience, because once people can		<b>Concept of resilience</b> should be adopted to understand the level of the systemic resilience of communities.

	help to increase the level of community resilience if provided.	of the individuals to the environment.		alert and knowing what to do and what to report on, which helps to increase the level of community resilience.	to be rebuilt, then there should be a place for them to leave for that period.			afford good houses, they become more resilience to disaster risks.		
	Self-organization by the communities with the same <b>identity</b> will show the high level of resilience among them.	Resilience should be seen and understood as a <b>multi-dimensional</b> process with potential quite different effects on any specific outcome.	<b>Creativity</b> by communities shows that they can adapt to new circumstances and create new institutions and practices that carry its value forward.	Disaster risk can be reduced and the level of resilience of the community can be improved by <b>training and awareness</b> of the communities and disaster management teams.	<b>Disaster risk prevention</b> should be the focus of everyone, which means that instead of the team to wait for disasters to happen in the communities before responding, they should go door to door and help make sure the communities are doing the right things. The more times disaster risk team go into the communities, the lesser risk			<b>Poverty reduction</b> should be the focus towards fighting disaster risk because the key driver to this problem is poverty and unemployment and if this is eradicated, the resilience level of the communities will increase to higher level.		The resilience concept which is a technical term focuses more on the individual, family, community, nation and global systems.



					of disasters we have.					
	Mastering of <b>self-confidence</b> and <b>social competence</b> will help to build and increase the level of systemic resilience of the communities.	<b>Social resilience</b> can increase the level of community resilience when an individual is integrated in the community and is sure of getting supports from neighbors in the community.	To identify the increase of the level of systemic resilience of communities, a <b>successful outcome</b> is characterized rather than the negative consequences that is mostly expected.	Having a <b>debriefing session</b> to know the cause of disasters and coming back to the communities to inform them about this will really help to increase the resilience level of the communities.				<b>Panic and poverty</b> are the factors behind death tolls in the community and if the community can avoid panic and if poverty could be eradicated, the level of their resilience will be increased.		The functionality of <b>key resilience indicators</b> are the bases to increasing the resilience level of the communities and reducing disaster risk.
	Communities to understand or increase the level of systemic resilience in the communities should exhibit self-sustaining and self-organizing dynamic system.	Collective approach and <b>social learning</b> can help the communities increase the level of their resilience, awareness and ability to confront future disasters.	<b>Responsiveness and flexibility</b> towards disaster events by the system or local governments will lead to an increase level of community resilience and allow the communities to draw on the experiences and advice of the agencies	To measure resilience, <b>creating scenario</b> can help to know if the communities know where to go, what to do and who to call when disaster happens, which can improve the resilience level of the communities.				<b>Increase in populations and rapid urbanization</b> makes the communities dense because of more people and less lands and this can affect the resilience levels of the communities.		<b>Resilience level depends on the community</b> because those who are in formal settlements starts rebuilding the shacks, while those in informal settlements can't rebuild a-times.

			and other cities.							
		A group of people with <b>diverse characteristics</b> who share common perspective and engage in joint action will lead to an increase in the level of systemic resilience of the communities.	<b>Response capacity</b> is very important for the response teams and all involved as not having the capacity to respond, like the provision of some response equipment like choppers will really reduce the level of community resilience.					Provision of <b>paintings and smoke detectors</b> keeps the community at alert when there is disaster risk, thereby increasing their community resilience level.		
		<b>Individual choice</b> is a better way to adapt in a local level, but the <b>collective action</b> is a sure way for the communities to adapt to disaster risk and improve the level of the community resilience at the community and municipal level.	<b>Negligence</b> to the causes of disaster risk will lead to disaster events occurring regularly, thereby affecting or decreasing the community resilience level.							
		<b>Community cohesion</b> is also an important factor of								

		resilience, the less community cohesion, the less the resilience (sic).								
		<b>Partnership approach</b> between the stakeholders and the communities will help to improve the level of community resilience in any community exposed to disaster risk.								
		The <b>community donations and volunteers</b> made available shows how high their resilience level is and helps the management centres to do an effective job.								

5. Summary of the Theoretical Sampling

RESEARCH CIRCLES 2.4 (THEORETICAL SAMPLING)

CATEGORIES	Determined efforts	Community engagement	Positive mind-set	Training and public education	Disaster experience and support	Transparency and accountability	Building trust	Understanding the risk and target audience	Dynamic leadership	Disaster management plan
REF. NO:	1	4	11	23	26	34	51	52	54	56
RENAMED CATEGORIES	Impact of contribution of individual resilience	Degree of community engagement	Degree community of positive mind-sets	Level of public education and awareness	Ability to learn from disaster experiences	Level of transparent/accountable governance	Level of perceived self-efficacy	Degree of contextual understanding of target audience	Level of responsive shared leadership	Effectiveness of disaster management framework
	"An analogy of resilience is a rubber bar. When hit by an object, rubber may be stressed (bent), but it can bounce back to its original shape position, over time, rubber can also be molded to change its original shape and position, keeping some aspects and improving others"	Because we believe that good physical and mental health, social, emotional and economic well-being, and community cohesiveness are keys to absorbing and rebounding from shocks of any kind, our interest is in testing ideas that enable all individuals and communities to equitably develop and	Keeping a positive attitude can mean the difference between life and death, plain and simple. Focusing on how bad things are and all the problems you have will get you killed just as easily as dehydration or malnourishment will. This doesn't mean you should take a drugged-up, overly enthused take on everything because that's	In our current times, to communicate risks effectively with populations, communities, families and individuals is essential for everyone to be better prepared when disaster and crisis hit. This is a challenging task, as normally people don't want to hear about "dangerous things". Some are afraid of even thinking about the possibility of an earthquake, a tropical cyclone, floods, landslides, tsunamis or even	This anecdote illustrates primary hypothesis that personal experience of traumatic events shapes how a person views financial risk-taking.  A manager's ability to assess and cope with risk has pervasive effects on corporate decision-making and CEOs are  Arguably among the	The term Accountability to Affected Populations (AAP) features prominently in humanitarian policies and programming but most studies suggest that there are still significant challenges in creating real  Accountability to aid recipients, particularly in conflict-affected countries.  18 Echoing previous research,  local people interviewed reported that corruption, bias and favoritism were major impediments to them  Receiving aid.	Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive,	Climate science is warning us and as we are seeing with our own eyes, hazards are on the rise in both frequency and intensity with increasing impacts on livelihoods and well-being. It is our duty to support people to understand the risks, and their important role in protecting themselves and being more resilient.	Community leaders therefore are becoming an important part of their communities. A community leader is perceived to represent the community's interests and plays the role of protecting them. This role could be paid for or voluntarily, most communities have held this role as a voluntary one.	The national disaster management framework is the legal instrument specified by the Act to  address such needs for consistency across multiple interest groups, by providing 'a coherent,  transparent and inclusive policy on disaster management appropriate for the Republic as a

	<p>(Gurwitch et al. 2007).</p> <p>In both individuals and communities, resilience means this same thing; the ability to not only bounce back but to also change to be more resistant to further problems. Obtaining community resilience involves a lot more work than individual resilience does though because this is about many people coming together to be resilient together.</p>	<p>grow these assets.</p>	<p>just hiding the real emotions. What you need to do is accept what is going on and keep a positive attitude that you will not only get through it but thrive in it as well.</p>	<p>the most common household hazards, such as fire, hitting their homes.</p>	<p>most influential corporate decision-makers. Across several corporate policies and a diverse set of formative events, there is a growing consensus that past life experiences affect CEOs’ attitudes toward risk.</p>		<p>motivational, affective and selection processes.</p>		<p>Community leaders have a vast range of roles that range from mobilizing communities for a common cause to designing courses of action to overcome common challenges.</p>	<p>Whole’ (section 7(1)).</p> <p>Introduction: A policy framework for disaster risk management in South Africa</p> <p>2</p> <p>In this context, the national disaster management framework recognizes a diversity of risks and disasters that occur in southern Africa, and gives priority to developmental measures that</p> <p>Reduce the vulnerability of disaster-prone areas, communities and households. Also, in keeping with international</p>
--	--	---------------------------	---	--	---	--	---	--	---	--

										<p>best practice, the national disaster management framework places</p> <p>explicit emphasis on the disaster risk reduction concepts of disaster prevention and mitigation</p> <p>as the core principles to guide disaster risk management in South Africa</p>
	<p>We urgently need to understand the confluence of factors that helps communities of all sizes to recover and thrive. Throughout the Gulf region, communities large and small have come together to</p>	<p>Community engagement and community cohesion are both current public policy priorities. However, there have been gaps in our understanding about how to promote community representation in ways that take account of</p>	<p>There are a few keyways to prepare your mind to stay positive and to deal with stress, and just like those other ways of prepping, they need to be started now.</p> <p>1. Plan and prepare: One of the easiest ways to stay positive</p>	<p>Every organization and government engaged in disaster risk reduction awareness must plan and communicate harmonized messages – a key element to avoid confusion. Therefore, we increase people’s confidence in acting to make themselves safer. It starts with one individual, a</p>	<p>Early-life exposure to the consequences of environmental risk may either increase or decrease a CEO’s risk-taking</p> <p>Behavior. CEOs with exposure to fatalities from natural disasters may be more</p>	<p>In Somalia and Afghanistan, affected people repeatedly reported to the research teams</p> <p>Stories of community power holders or ‘gatekeepers’ misusing aid assets for patronage purposes. Aid</p> <p>Staff working in these countries have insufficient awareness of the extent of these practices, reflecting a general tendency within aid agencies to emphasize upward accountability to</p>	<p>A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious</p>	<p>Equally there is no need to wait for the experience of a disaster to understand the inherent level of disaster risk. We can take a page from the insurance industry’s book here. Just as no insurer would base an underwriting decision on</p>	<p>1. Self-awareness. A good community leader should be knowledge of his or her strengths and weaknesses. This will enable the leader to exploit better his abilities while seeking help from others for his</p>	<p>Disaster risk management</p> <p>The term ‘disaster risk management’ refers to integrated multispectral and multidisciplinary administrative, organizational and operational planning processes and</p>

	tackle adversity in its many forms.	diversity and population change.	<p>is to plan for your survival and prepare the best that you can. The more mentally well off you are when the SHTF the easier it will be to stay positive and get through it.</p> <p>Make the plan and go over it on a regular basis. The more familiar you are with your plan and the prep that goes along with it, the easier time you'll have dealing with stress and staying positive. It's a lot easier to stay positive when you have a plan for survival versus when you're caught off guard and don't</p>	family, neighbors, the whole community, a city, a country and even the whole region.	<p>sensitized to the consequences of risk, and therefore be wary of decisions that increase firm risk. However, it is also plausible that childhood exposure</p> <p>to natural disasters may give the CEOs experience in dealing with risky situations and increase their confidence</p> <p>When making decisions involving firm risk.</p>	donors at the expense of the kind of downward accountability to affected communities that could identify these problems.	outlook fosters intrinsic interest and deep engrossment in activities. They set themselves challenging goals and maintain strong commitment to them. They heighten and sustain their efforts in the face of failure. They quickly recover their sense of efficacy after failures or setbacks. They attribute failure to insufficient effort or deficient knowledge and skills which are acquirable. They approach threatening situations with assurance that they can exercise control over them. Such an efficacious outlook produces personal accomplishments, reduces stress	recent claims experience alone, so member nations should not allocate scarce DRR capital without due consideration of all the dimensions of risk: hazard, vulnerability, exposure, and capacity to respond.	<p>or her weak areas. Leading others with the knowledge of self-ease's a leader's job since it allows for the selection of the best-fit roles and the sharing of responsibilities with others.</p> <p>2. Eagerness to learn and adapt. As a community leader, earning respect from members is one of the key enablers of one's roles. To do so, learning to listen from others, appreciating their input and changing courses of action is essential.</p>	<p>capacities aimed at lessening the impacts of natural hazards and</p> <p>Related environmental, technological and biological disasters. This broad definition encompasses the definition of 'disaster management' as it is used in the Disaster Management Act, 2002 (Act No. 57 of 2002). However,</p> <p>where appropriate, the more updated term 'disaster risk management' is preferred in this framework because it is</p> <p>Consistent with the use of the term internationally.</p>
--	-------------------------------------	----------------------------------	--	--	--	--	---	---	---	---

							and lowers vulnerability to depression.			
	<p>If an individual has a duty to fulfil to effectively have community resilience and they are unable to do it due to their lack of resilience, it can have a negative impact on the community.</p> <p>For example, if a member of the community is responsible for spreading the word about what has happened but is unable to do so because they are crushed by what happened and are not able to bounce back quickly then it</p>	<p>This research explores:</p> <p>whose views were being heard and whose were not;</p> <p>what were the barriers to being heard and how they could be overcome;</p> <p>How these barriers could be addressed in ways that would promote community cohesion, rather than increasing competition within and between communities.</p>	<p>2. Assess the situation: When things go bad you need to really assess the situation. Often our brains make things far worse than they are. It's surprising what we humans can get through, and how in the face of it, can seem totally un-survivable.</p> <p>Stop, take a breath, and really take an inventory of what is going on and what you can do to counter it. By thinking this way, you don't let your brain get into a negative place and when you finally come up with a solution</p>	<p>We should never forget a basic lesson of communication: a message will only turn into real action if it's clearly understood and believed by the people who receive it. Knowing that there are consistent actions that you can take to make YOU, your family, and your friends safer is the foundation to change behavior.</p>	<p>Hence, it is not immediately obvious how exposure to natural disasters</p> <p>Affects subsequent CEO behavior. We hypothesize that the relationship is in fact, non-linear, that CEOs with</p> <p>disaster experience that is not significantly fatal develop a higher risk tolerance, whereas those with exposure to</p> <p>major fatal disasters would be sensitized to the negative consequences of risk and</p>	<p>Of the four case studies, the Afghan affected population indicated they were</p> <p>Particularly marginalized from the aid process. In this context, the local population reported that they were</p> <p>generally unaware of the level and timing of aid entitlements and were not aware of any formal feedback</p> <p>mechanisms being used; and where they have been used the critique was that complaints were not</p> <p>Followed up on or that some of the mechanisms were not appropriate for the Afghan context. Together</p> <p>These gaps suggest major problems for the quality of aid, including serious corruption risks.</p>	<p>In contrast, people who doubt their capabilities shy away from difficult tasks which they view as personal threats. They have low aspirations and weak commitment to the goals they choose to pursue. When faced with difficult tasks, they dwell on their personal deficiencies, on the obstacles they will encounter, and all kinds of adverse outcomes rather than concentrate on how to perform successfully. They slacken their efforts and give up quickly in the face of</p>	<p>There are lots of examples of governments working closely with commercial providers of risk analytics. I have personally had the privilege of working around the globe at all levels of government (from cities to sovereign states), using the capabilities my organization offers, to help officials – elected and staff – to own a view of the risks they face. Factors such as independence, reputation, and the ability to talk the language of the markets are all valued and help to accelerate conversations</p>	<p>3. Empathy. As a leader it's important that you recognize how the community perceives you as their leader. Empathy allows one to imagine different viewpoints from the community members as well as understand their feelings. With this perspective, a leader may be perceived as one who cares, and this will increase his or her creditability in the community.</p> <p>4. Honesty and integrity. A leader must</p>	<p>The national disaster management framework comprises four key performance areas (KPA's)</p> <p>And three supportive enablers required to achieve the objectives set out in the KPAs. The</p> <p>KPAs and enablers are informed by specified objectives and, as required by the Act, key performance</p> <p>Indicators (KPIs) to guide and monitor progress. In addition, each KPA and enabler concludes with a list of guidelines</p>



	puts the whole community in danger.		or at least a plan, you'll already be in that positive place.		therefore tend to behave more  Conservatively.		difficulties. They are slow to recover their sense of efficacy following failure or setbacks. Because they view insufficient performance as deficient aptitude it does not require much failure for them to lose faith in their capabilities. They fall easy victim to stress and depression.	with providers of risk capital.	ensure that he is trustworthy to the community and to other leaders. Trust facilitates productive space for discussions and desired social change. Once trust is broken, respect is diminished, and productivity is eliminated.	that will be disseminated by the NDMC to support the  Implementation of the framework in all three spheres of government.
	Individual resilience is just as important as community resilience for several reasons. For a community to be resilient, things like disaster action plans and volunteering may be necessary. A collective effort from community	Government policies for community engagement have been high profile, as have community cohesion agendas – but these have been developed in parallel. This study explores the challenges of bringing them together. It examines ways of enabling new	3. Relaxation: his seems like an odd entry into this list, but yoga and other relaxation techniques are proven ways to get your brain relaxed and focused. Survival is stressful, so getting rid of some of that stress on a regular basis is just as	As part of our mission is to improve the lives of vulnerable people by mobilizing the power of humanity, providing lifesaving information is a crucial element of our work. Beyond helping people understand hazard risks, we must support people to act. It is not enough to make people just aware of the risks.	We find that those CEOs with “moderate” exposures to disaster-related fatalities are more likely to be tolerant to firm risk-taking: they are more likely to engage in acquisitions; their firms hold more debt and less cash as a percentage of assets, and their stock	Humanitarian donors play a potentially important role in mitigating corruption in humanitarian assistance,  But it is a challenging role for a variety of reasons. These include donors’ own practices and policies, the pressures to spend, and the fact that in high risk settings donors themselves are constrained in them movement which limits the level and quality of information donors have to identify and assess strategies for managing	Social media provides a digital space – a meeting place, for  Different people, often representing one or more groups in a society. The use of this space during a disaster, especially where information needs are high and the availability of factually	Here is no point in reinventing the wheel here. Using widely accepted, objective risk analytics will encourage the public and the private sector alike to strengthen disaster risk governance. It will also enable governments and corporations to articulate their growing	5. Dedication. As a community leader, who most likely is playing a voluntary role, it’s important that you recognize your own benefits from the role. Time spent on a community role can only be beneficial if it’s seen to create space for desirable	Severe floods in Cape Town’s historically disadvantaged Cape Flats in June 1994 profiled the urgency for legislative reform in the field of disaster risk management, stimulating a consultative  Process which resulted in Green and White

	<p>residents, local government, and local authorities is required for community resilience. However, if a person is not individually resilient, he or she may not have the capacity to fulfil their duties.</p>	<p>arrivals to become involved, promoting solidarity and cohesion rather than competition and conflict between newer and more established communities.</p>	<p>necessary as water.</p> <p>Staying in a constant mode of stress is bad for you physically as well as emotionally. You can't survive when you never relax. Take the time now to learn some yoga and breathing systems because while it's easy to find these on the Internet and TV now, that won't be the case in a survival situation.</p>	<p>SAFETY AND RESILIENCE DEPENDS ON INFORMATION THAT TURNS INTO REAL ACTION.</p>	<p>returns are more volatile.</p> <p>In contrast, those CEOs with "extreme" exposures tend to be more cautious in their risk-taking based on these outcomes.</p>	<p>corruptions risks and practices.</p>	<p>accurate and ethically sourced data is scarce, has increased</p> <p>Substantially over the last 5-10 years.</p> <p>Social media is becoming an integral part of disaster communication plans for emergency management agencies, and many other public and private sector enterprises.</p>	<p>resilience to the financial markets in a language the markets understand.</p>	<p>social change both for the leader and the community.</p> <p>This recognition will create energy and dedication to one's roles given the sometimes difficulty and draining role of community leadership.</p> <p>6. Service. Involving oneself in general community services is a yet another great quality of a community leader. As a leader being seen to serve your own members creates respect and legitimatizes one's role in the community.</p>	<p>Papers on Disaster Management. These</p> <p>important discussion and policy documents afforded opportunity for consultation with multiple stakeholder groups and provided the platform for development of draft legislation in</p> <p>2000 that was consistent with emerging international trends in disaster risk reduction.</p> <p>Such sustained, committed and concerted efforts with regard to disaster risk management reform by the government and</p>
--	---	--	---	--	--	---	--	--	---	--

										a wide range of stakeholders were reflected in the promulgation of the Disaster Management Act, 2002 (Act No. 57 of 2002) on 15 January 2003.
	Individual resilience is important in overcoming adversity. A person must be able to cope with the negative events; otherwise, their ability to help the community will be hindered. It is important that we teach people how to be individually resilient by teaching them how to deal with their emotions and personal	The government is committed to promoting community engagement. However, services are being delivered by an increasingly diverse range of providers, with correspondingly diverse opportunities for user and community involvement. There is growing concern about how to join up these different structures of local	4. Don't ignore reality: The reality of a survival situation is that life and death are on the line. While you're relaxing you can't forget this. Staying positive is a method of survival, not a way to forget about it. Face your fears now and keep a firm grip on reality.  When the SHTF you need to assess the reality of a situation to ever be positive about it.	The focus of campaigns is to provide uniform, large-scale impact with standard messages. There are many examples of large-scale national and international public awareness campaigns that have led to massive social change. Examples include childhood immunization, the wearing of seat belts in cars, and smoking restrictions.  Campaigns comprise a set of activities that may include: • publications, including billboards, posters, newspaper or magazine	Recent medical research suggests a possible mechanism underlying these patterns. First, neuroscience and epigenetics studies indicate that adverse experiences affect subsequent behavior at least partly due to permanent  Physiological and biological changes in the brain. Second, evolutionary biologists argue	This section uses a typology for analyzing corruption that draws from the Literature on security strategies in humanitarian relief. This framework uses three categories, deterrence, protection and acceptance, for improving security (Van Brabant 2000).  By deterrence we mean strategies to discourage people from being corrupt, by Imposing penalties. This would include using the legal system to convict people found to be embezzling funds; internal mechanisms to investigate possible corruption and to discipline and dismiss staff	Dube showed that the use of Social media can provide valuable information during a crisis.  This is particularly relevant when the information comes from a trusted source with an established, and perhaps trusted, media presence who can tell a story (in addition to communicating a large quantity of facts) [19].  Since Hurricane Bonnie, newer social media	Understanding what the risk is and making sure that the message talks to that risk and that the community can implement that. Okay, in the order hand, maybe stop, drop and roll could save lives and maybe the people who are dying are 65 years plus, are they able to stop, drop and roll? If I keep that message, can they physically stop drop and roll? Probable not, so now I identified the	7. Interpersonal skills. A community leader should be able to interact with other members of the community with ease. This calls for good communication and collaboration skills. Being able to negotiate, mediate, listen to others, and articulate arguments and to work with members external to the community is	The Act provides for:  • an integrated and coordinated disaster risk management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, preparedness, rapid and effective response to disasters, and post-disaster recovery  • the establishment of

	health and well-being during times of extreme adversity.	governance, through Local Strategic Partnerships (LSPs), for example.	Keeping a positive attitude is more about assessing the situation and filing away stress until you need it, not ignoring stressful things until it's too late.	coverage, information cards, flyers, bookmarks and brochures • curricula, modules and presentations, including slide presentations and oral presentations • e-learning • performing and cultural arts • games and competitions • audio and video materials • web pages and activities • social media and telecommunications.	that biological systems with an original function commonly adapts to different functions, a phenomenon known as 'co-option'. Hence, if brain development and function are physiologically altered by trauma; it is plausible that the brain functions affected by Non-economic risk may be subsequently co-opted to deal with economic risk.	found to be engaged in corrupt activities; or ways of naming and shaming other actors involved in corruption.  This is often referred to as 'enforcement' in the anti-corruption literature.	technologies, including Twitter, Flickr and Instagram, have been used, sometimes in an ad hoc manner, at subsequent natural disasters.	right risk, but the application of the message doesn't fit, they can't perform that so I will not see a reduction.	essential. 8. Forward-thinking. Forward thinking is about being visionary as a leader, one should dream for his community and effectively share the dream. He should be able to think of the future and set sustainable goals by developing his/her own critical thinking skills and involving the younger generations.	national, provincial and municipal disaster management centers  • disaster risk management volunteers  • Matters relating to these issues.  The Act recognizes the wide-ranging opportunities in South Africa to avoid and reduce disaster losses through the concerted energies and efforts of all spheres of government, civil Society and the private sector. However, it also acknowledges the crucial need for uniformity in the approach taken by such a
--	--	---	--	--	--	--	--	--	---	--

										<div>diversity of role players and partners.</div> <div>The national disaster management framework is the legal instrument specified by the Act to address such needs for consistency across multiple interest groups, by providing ‘a coherent, transparent and inclusive policy on disaster management appropriate for the Republic as a whole’ (section 7(1)).</div>
	Individual resilience is necessary for a community to overcome adversity because of the connection and influence individuals have on their community.	However, there has been less focus upon the implications of engaging service users and communities effectively when communities are themselves	So, here’s the truth: a positive mind-set really does have the potential to dramatically impact your life and your practice for the better. This doesn’t just mean thinking	Most successful campaigns require a sustained, repeated and consistent thematic set of messages repeated over a long period of time, through activities in the public, education, private and civic sectors. These are	Humans are empathetic beings. We experience emotional pain when confronted with others’ suffering. Our empathy also extends to animals. Even	By protection we mean the systems and procedures that agencies put in place to try to minimize the risks of corruption in the first place. This would include  Logistics and accounting systems, tender procedures, independent and internal audit functions, monitoring systems and management procedures. This is often	What has emerged in the last ten years is that the citizen/victim can and does provide valuable information during and after a disaster whilst authorities have failed to use the	So, I need to understand the target audience, the population that I am dealing with, who in those communities is most at risk, their age, gender and so on? So, I need to know	9. Intelligence. A competent leader is seen as one who can take care of the tough stuff that may happen to him or the community. Intelligence here is beyond	Disaster management aims to prevent or reduce the risk of disasters, mitigate the severity or consequences of disasters, ensure emergency preparedness, rapidly and

	<p>There is a clear relationship between the well-being of an individual and the well-being of a community. Community resilience requires people to come together and volunteer.</p>	<p>diverse, with differing needs and priorities. Globalization has been associated with increasing migration, although these changes are difficult to measure, owing to gaps in the available data. This poses major challenges for the community engagement and community cohesion agendas.</p>	<p>happy thoughts about your day. It means adopting an attitude that fosters a positive environment throughout your work and life in general.</p>	<p>often built by a unifying coalition under a single umbrella. Some recur seasonally (for example, in the case of hurricane season). Others are ongoing, and select an annually changing sub-theme, or a monthly calendar with 10–12 messages per year.</p>	<p>environmental disasters that don't directly impact people can cause emotional distress.</p> <p>Although there is nothing good about disasters, there is a silver lining: Disasters tend to bring out the best in humanity.</p> <p>That's because our sense of empathy compels us to do something to alleviate suffering. One of the most common ways to do that is by donating to disaster relief organizations.</p> <p>Unlike most other charities, disaster relief requires swift action because</p>	<p>referred to as 'prevention' in the anti-corruption literature.</p>	<p>communications infrastructure effectively [5]. This two-way citizen/authority (interrupted) dialogue is critical for disaster management [20].</p> <p>The dialogue is a form of communication between an often panic-stricken public and bodies of authority who need to retain order.</p>	<p>who they are and why and then I can work out with the community of how to prevent that risk. So, you look at the chain of the events because this thing don't just happen, there are chains of events that leads to that, somewhere along the chain of events I can apply different types of intervention to break the chain of events because when I break the chain of event the person won't die, I will prevent the fire or whatever it is.</p>	<p>being smart to include high levels of both emotional and social intelligence.</p> <p>10. Motivation. Lastly, a great leader inspires as to create the desired social change. He does this in a variety of ways but always remembers to include others in his thought process and courses of action.</p>	<p>effectively respond to disasters, and provide for post-disaster recovery and rehabilitation.</p>
--	--	--	---	--	---	---	---	--	--	---

					lives are often on the line.					
	<p>If people cannot cope with their own personal adversities, how could they possibly help others out in their community? Individuals need to know how to bounce back from their problems, so they can have a positive influence on their community. If a person has a strong sense of resilience, they will be able to make a strong commitment to their community and actively contribute. A person must be able to recover from</p>	<p>New communities want their views to be heard, and they want to participate. For many new arrivals, ‘being heard’ means being recognized, having a safe space to meet, providing mutual support and gaining the knowledge, confidence and skills to engage more widely. ‘Being heard’ also means being listened to with respect, knowing that resources are being allocated with visible fairness. Established communities typically share this view of community</p>	<p>A positive mind-set, however, assumes a more optimistic focus and looks for all the ways you might succeed. As a result, it allows you to see possibilities and options when you’re faced with a challenge. Rather than focusing on how difficult something is, you look for many creative potential solutions.</p> <p>Positive and negative attitudes have a direct impact on brain responses to situations. A negative mind-set focuses on the problem directly in front of you and examines it in a</p>	<p>Where campaigns are short term and time limited because they successfully meet their goals (as with Thailand’s measles eradication campaign), the tools developed can then be adapted and used at another time or place, when a similar intervention is needed.</p> <p>Because campaigns need newsworthy moments and high visibility, participation is often focused around designated days such as a commemorative event, a community-wide drill, a festival, fair or exhibition, or through demonstrations and simulations. In between these focal events, volunteers continue to deliver the key messages</p>		<p>By acceptance we mean the extent to which humanitarian actors are accepted within the societies in which they are working. Are they seen as fair game for? Exploitation, or as effectively trying to save lives in ways that command local support? Strategies to increase acceptance include awareness, information and beneficiary participation in project planning and implementation.</p> <p>These three areas are not entirely distinct, and many strategies will involve a combination of approaches, but they provide a useful tool for analyzing the wide number of ways in which corruption risks can be minimized.</p>	<p>Thus, during a disaster event, where matters of life, limb and property, have to be made on the word of one person – either a disaster operative or a citizen – trust plays a key role. The political</p> <p>Scientist, Eric Uslaner, has suggested that ‘Trust solves bigger problems than getting people to hang out with people like themselves. It connects us to people with whom we don’t hang out’ [23]. Trust is linked with risk-taking and with developing relationships with unknown actors [6] [8].</p>		<p>I am of the view that initiating local level actions in relation to extreme weather events should not be visualized only through a technological lens (concerning new local urban infrastructure, transfer of technology, urban structural modifications). Whereas a technological approach may be essential to successful disaster management in urban local governments at a later stage, it will not be useful without first establishing</p>	

	his or her own setbacks.	engagement, and they also face problems in getting their views heard, but newer communities find it even harder.	pessimistic light. You automatically assume the worst, whether you'd admit that or not. This closes your mind to possibilities and increases the likelihood that you'll create a self-fulfilling prophecy of failure.	through live interactions.					the context through a visionary leadership for disaster risk reduction. Also, managing and/or reducing disasters at the local government level require close consultation between government, business, planners, scientists and local communities, as disaster risk reduction involves acting to minimize the negative impacts of extreme events.	
	Individual resilience and community resilience are interconnected primarily because	Groups particularly at risk of not having their views heard effectively were asylum seekers	So, what should we do differently? The panel offered an abundance of ideas.	People are especially motivated by approaches in which they themselves participate in a solution, and especially when they					The new study (making cities resilient report 2012) also finds that "leadership is more	



	<p>community resilience is dependent on community members being resilient themselves. Community members must be able to overcome personal difficulties when faced with adversity and hardship to contribute to community resilience. Community resilience is dependent on individuals overcoming personal troubles and collaborating to successfully "bounce back" from adversity.</p>	<p>and refugees, and new migrant workers from the accession states, such as Poland. Amongst these groups, women and younger people were identified as having even less chance of being listened to than older men. Meanwhile some established minority communities, and some established white working-class communities, had been less successful than others in making their views heard had.</p> <p>These findings highlight the importance of linking strategies that</p>	<p>For one, we must change mind-sets. This Forum has repeatedly heard that inter-connected challenges need inter-connected solutions. If disaster risks and human development are intertwined, reducing risk and vulnerability will require addressing all aspects of development.</p> <p>Rovins cited a study by Forensic Investigation of Disasters (FORIN) showing that in Japan, children discuss disasters and what to do in class, and loss of lives was exceptionally low in those age groups. "When you grow up in</p>	believe it is their own idea. The focus of participatory learning is to engage people in discovery and problem solving for disaster risk reduction. At the heart of these activities is the community's own experience of empowerment.					<p>important than a city's wealth when it comes to protecting the lives and economic assets of cities and towns from disasters". As a starting and practical point in urban local governments, local leaders can take immediate steps to seek the support of various stakeholders for initiating the local government-wide disaster risk reduction actions. Such actions should aim to augment the urban local governments' capability to uphold their innate leadership in efficiently analyzing,</p>	
--	--	---	--	--	--	--	--	--	--	--

		<p>promote community engagement with strategies that promote community cohesion. Otherwise, the result could be increased competition for scarce resources between established communities and newer arrivals.</p>	<p>a risk-reduction mind-set, you perpetuate that from generation to generation,” she argued.</p>						<p>minimizing and managing climate-related risks, and in turn, grasping various local level opportunities.</p>	
	<p>Individual resilience is the fundamental component to achieving optimal community resilience. If individual community members are successfully able to demonstrate resiliency in the face of adversity, they then can</p>	<p>Governance structures have a key role to play in challenging racism and promoting community cohesion. Minority communities expressed anxieties about racism, based upon experiences of harassment and discrimination. Suspicions</p>	<p>While recognizing that citizen involvement can happen in many ways, those most directly affected by conditions on the ground need to play a meaningful role in defining their own problems, designing the interventions intended to solve them and shaping</p>	<p>The focus of informal education is taking advantage of brief moments and encounters to stimulate thinking and engage people in discovery of actions and behaviors to increase safety and resilience. Informal education in communities and schools is the most flexible of all approaches with respect to setting,</p>						

	<p>contribute to community resiliency. Individuals contribute to community resilience in numerous ways, including enacting emergency disaster plans and assisting fellow community members who are having difficulty with their own individual resiliency. It is crucial that individuals be well educated on strategies of resiliency to properly cope with adverse situations. If an individual is unable to properly demonstrate individual resiliency, they are then hindered in contributing</p>	<p>about unfair access to resources can also fuel resentments against newcomers, highlighting the importance of visible fairness through accountable forms of governance.</p> <p>On the positive side, there were examples of strategies to promote mutual support and solidarity, to ensure fairness and equality of treatment in the provision of services and employment opportunities and to facilitate community engagement, enabling diverse views to be heard in the structures of</p>	<p>research questions that test those.</p>	<p>audience and timeframe.</p> <p>Peer-to-peer activities work equally well with adults, youth and children. Much of the best informal education has cross-generational appeal. Often the energy, enthusiasm and curiosity of children and youth are the hooks for adult involvement. Tools can, and should, be attention grabbing, engaging, participatory and practical, so that learning and acting become one and the same thing</p>						
--	---	---	--	--	--	--	--	--	--	--

	towards community resiliency; thus, becoming part of the problem as opposed to contributing to the solution.	local governance.								
--	--	----------------------	--	--	--	--	--	--	--	--

6. Summary of the Concept Development and Analysis (step 1 and 2)

RESEARCH CIRCLES 2.5, STEP 1 (CONCEPT DEVELOPMENT)

CATEGORIES	Determined efforts	Community engagement	Positive mind-set	Training and public education	Disaster experience and support	Transparency and accountability	Building trust	Understanding the risk and target audience	Dynamic leadership	Disaster management plan
REF. NO:	1	4	11	23	26	34	51	52	54	56
RENAMED CATEGORIES	Impact of contribution of individual resilience	Degree of community engagement	Degree community of positive mind-sets	Level of public education and awareness	Ability to learn from disaster experiences	Level of transparent/accountable governance	Level of perceived self-efficacy	Degree of contextual understanding of target audience	Level of responsive shared leadership	Effectiveness of disaster management framework
KEY CONCEPTS	Individual resilience	Community engagement	Positive mind-sets	Public education and awareness	Disaster experience	Transparency and accountability	Self-efficacy	Understanding target audience	Responsive shared leadership	Disaster management framework
	"An analogy of resilience is a rubber bar. When hit by an object, rubber may be stressed (bent), but it can bounce back to its original shape position, over time, rubber can also be molded to change its original shape and position,	Because we believe that good physical and mental health, social, emotional and economic well-being, and community cohesiveness are keys to absorbing and rebounding from shocks of any kind, our interest is in testing ideas that enable all	Keeping a positive attitude can mean the difference between life and death, plain and simple. Focusing on how bad things are and all the problems you have will get you killed just as easily as dehydration or malnourishment will. This doesn't mean you should take a drugged-up, overly	In our current times, to communicate risks effectively with populations, communities, families and individuals is essential for everyone to be better prepared when disaster and crisis hit. This is a challenging task, as normally people don't want to hear about "dangerous things". Some are	This anecdote illustrates primary hypothesis that personal experience of traumatic events shapes how a person views financial risk-taking.  A manager's ability to assess and cope with risk has pervasive effects on	The term Accountability to Affected Populations (AAP) features prominently in humanitarian policies and programming but most studies suggest that there are still significant challenges in creating real accountability to aid recipients, particularly in conflict-affected countries.  18 Echoing previous research, local people interviewed reported that corruption, bias and	Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and	Climate science is warning us and as we are seeing with our own eyes, hazards are on the rise in both frequency and intensity with impacts on livelihoods and well-being. It is our duty to support people to understand the risks, and	Community leaders therefore are becoming an important part of their communities. A community leader is someone who is perceived to represent the community's interests and plays the role of protecting them. This role	The national disaster management framework is the legal instrument specified by the Act to  address such needs for consistency across multiple interest groups, by providing 'a coherent, transparent and inclusive policy on disaster

	<p>keeping some aspects and improving others" (Gurwitch et al. 2007).</p> <p>In both individuals and communities, resilience means this same thing; the ability to not only bounce back but to also change in order to be more resistant to further problems. Obtaining community resilience involves a lot more work than individual resilience does though because this is about many people coming together to be resilient together.</p>	<p>individuals and communities to equitably develop and grow these assets.</p>	<p>enthused take on everything because that's just hiding the real emotions. What you need to do is accept what is going on and keep a positive attitude that you will not only get through it but thrive in it as well.</p>	<p>afraid of even thinking about the possibility of an earthquake, a tropical cyclone, floods, landslides, tsunamis or even the most common household hazards, such as fire, hitting their homes.</p>	<p>corporate decision-making and CEOs are arguably among the most influential corporate decision-makers. Across several corporate policies and a diverse set of formative events, there is a growing consensus that past life experiences affect CEOs' attitudes toward risk.</p>	<p>favoritism were major impediments to them receiving aid.</p>	<p>behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes.</p>	<p>their important role in protecting themselves and being more resilient.</p>	<p>could be paid for or voluntarily, most communities have held this role as a voluntary one. Community leaders have a vast range of roles that range from mobilizing communities for a common cause to designing courses of action to overcome common challenges.</p>	<p>management appropriate for the Republic as a whole' (section 7(1)).</p> <p>Introduction: A policy framework for disaster risk management in South Africa</p> <p>2. In this context, the national disaster management framework recognizes a diversity of risks and disasters that occur in southern Africa, and gives priority to developmental measures that reduce the vulnerability of disaster-prone areas, communities and households. Also, in keeping with international best practice, the national disaster management</p>
--	--	--	--	---	---	---	--	--	--	--

										<p>framework places</p> <p>explicit emphasis on the disaster risk reduction concepts of disaster prevention and mitigation</p> <p>as the core principles to guide disaster risk management in South Africa</p>
	<p>We urgently need to understand the confluence of factors that helps communities of all sizes to recover and thrive. Throughout the Gulf region, communities large and small have come together to tackle adversity in its many forms.</p>	<p>Community engagement and community cohesion are both current public policy priorities. However, there have been gaps in our understanding about how to promote community representation in ways that take account of diversity and population change.</p>	<p>There are a few keyways to prepare your mind to stay positive and to deal with stress, and just like those other ways of prepping, they need to be started now.</p> <p>1. Plan and prepare: One of the easiest ways to stay positive is to plan for your survival and prepare the best that you can. The more mentally well off you are</p>	<p>Every organization and government engaged in disaster risk reduction awareness must plan and communicate harmonized messages – a key element to avoid confusion. Therefore, we increase people’s confidence in acting to make themselves safer. It starts with one individual, a family, neighbors, the whole community, a city, a</p>	<p>Early-life exposure to the consequences of environmental risk may either increase or decrease a CEO’s risk-taking behavior. CEOs with exposure to fatalities from natural disasters may be more sensitized to the consequences of risk, and therefore be</p>	<p>In Somalia and Afghanistan, affected people repeatedly reported to the research teams stories of community power holders or ‘gatekeepers’ misusing aid assets for patronage purposes. Aid staff working in these countries have insufficient awareness of the extent of these practices, reflecting a general tendency within aid agencies to emphasize upward accountability to donors at the expense of the kind of downward accountability to affected</p>	<p>A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook fosters intrinsic interest and deep engrossment in activities. They</p>	<p>Equally there is no need to wait for the experience of a disaster to understand the inherent level of disaster risk. We can take a page from the insurance industry’s book here. Just as no insurer would base an underwriting decision on recent claims experience alone, so member nations should not</p>	<p>1. Self-awareness. A good community leader should be knowledge of his or her strengths and weaknesses. This will enable the leader to exploit better his abilities while seeking help from others for his or her weak areas. Leading others with the knowledge of self-ease’s a leader’s job</p>	<p>Disaster risk management</p> <p>The term ‘disaster risk management’ refers to integrated multispectral and multidisciplinary administrative, organizational and operational planning processes and capacities aimed at lessening the impacts of natural hazards and related environmental, technological and</p>

			<p>when the SHTF the easier it will be to stay positive and get through it.</p> <p>Make the plan and go over it on a regular basis. The more familiar you are with your plan and the prep that goes along with it, the easier time you'll have dealing with stress and staying positive. It's a lot easier to stay positive when you have a plan for survival versus when you're caught off guard and don't</p>	<p>country and even the whole region.</p>	<p>wary of decisions that increase firm risk. However, it is also plausible that childhood exposure to natural disasters may give the CEOs experience in dealing with risky situations and increase their confidence when making decisions involving firm risk.</p>	<p>communities that could identify these problems.</p>	<p>set themselves challenging goals and maintain strong commitment to them. They heighten and sustain their efforts in the face of failure. They quickly recover their sense of efficacy after failures or setbacks. They attribute failure to insufficient effort or deficient knowledge and skills which are acquirable. They approach threatening situations with assurance that they can exercise control over them. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression.</p>	<p>allocate scarce DRR capital without due consideration of all the dimensions of risk: hazard, vulnerability, exposure, and capacity to respond.</p>	<p>since it allows for the selection of the best-fit roles and the sharing of responsibilities with others.</p> <p>2. Eagerness to learn and adapt. As a community leader, earning respect from members is one of the key enablers of one's roles. To do so, learning to listen from others, appreciating their input and changing courses of action is essential.</p>	<p>biological disasters. This broad definition encompasses the definition of 'disaster management' as it is used in the Disaster Management Act, 2002 (Act No. 57 of 2002). However, where appropriate, the more updated term 'disaster risk management' is preferred in this framework because it is consistent with the use of the term internationally.</p>
--	--	--	---	---	---	--	--	---	--	--



	<p>If an individual has a duty to fulfil to effectively have community resilience and they are unable to do it due to their lack of resilience, it can have a negative impact on the community.</p> <p>For example, if a member of the community is responsible for spreading the word about what has happened but is unable to do so because they are crushed by what happened and are not able to bounce back quickly then it puts the whole community in danger.</p>	<p>This research explores:</p> <p>whose views were being heard and whose were not;</p> <p>what were the barriers to being heard and how they could be overcome;</p> <p>How these barriers could be addressed in ways that would promote community cohesion, rather than increasing competition within and between communities.</p>	<p>2. Assess the situation: When things go bad you need to really assess the situation. Often our brains make things far worse than they are. It's surprising what we humans can get through, and how in the face of it, can seem totally un-survivable.</p> <p>Stop, take a breath, and really take an inventory of what is going on and what you can do to counter it. By thinking this way, you don't let your brain get into a negative place and when you finally come up with a solution or at least a plan, you'll already be in that positive place.</p>	<p>We should never forget a basic lesson of communication: a message will only turn into real action if it's clearly understood and believed by the people who receive it. Knowing that there are consistent actions that you can take to make YOU, your family, and your friends safer is the foundation to change behavior.</p>	<p>Hence, it is not immediately obvious how exposure to natural disasters affects subsequent CEO behavior. We hypothesize that the relationship is in fact, non-linear, that CEOs with disaster experience that is not significantly fatal develop a higher risk tolerance, whereas those with exposure to major fatal disasters would be sensitized to the negative consequences of risk and therefore tend to behave more conservatively.</p>	<p>Of the four case studies, the Afghan affected population indicated they were particularly marginalized from the aid process. In this context, the local population reported that they were generally unaware of the level and timing of aid entitlements and were not aware of any formal feedback mechanisms being used; and where they have been used the critique was that complaints were not followed up on or that some of the mechanisms were not appropriate for the Afghan context. Together these gaps suggest major problems for the quality of aid, including serious corruption risks.</p>	<p>In contrast, people who doubt their capabilities shy away from difficult tasks which they view as personal threats. They have low aspirations and weak commitment to the goals they choose to pursue. When faced with difficult tasks, they dwell on their personal deficiencies, on the obstacles they will encounter, and all kinds of adverse outcomes rather than concentrate on how to perform successfully. They slacken their efforts and give up quickly in the face of difficulties. They are slow to recover their sense of efficacy</p>	<p>There are lots of examples of governments working closely with commercial providers of risk analytics. I have personally had the privilege of working around the globe at all levels of government (from cities to sovereign states), using the capabilities my organization offers, to help officials – elected and staff – to own a view of the risks they face. Factors such as independence, reputation, and the ability to talk the language of the markets are all valued and help to accelerate conversations with providers of risk capital.</p>	<p>3. Empathy. As a leader it's important that you recognize how the community perceives you as their leader. Empathy allows one to imagine different viewpoints from the community members as well as understand their feelings. With this perspective, a leader may be perceived as one who cares, and this will increase his or her creditability in the community.</p> <p>4. Honesty and integrity. A leader must ensure that he is trustworthy to the community and to other leaders. Trust facilitates</p>	<p>The national disaster management framework comprises four key performance areas (KPA) and three supportive enablers required to achieve the objectives set out in the KPAs. The KPAs and enablers are informed by specified objectives and, as required by the Act, key performance indicators (KPIs) to guide and monitor progress. In addition, each KPA and enabler concludes with a list of guidelines that will be disseminated by the NDMC to support the implementation of the framework in all three</p>
--	---	--	--	---	---	--	---	---	--	---

							following failure or setbacks. Because they view insufficient performance as deficient aptitude it does not require much failure for them to lose faith in their capabilities. They fall easy victim to stress and depression.		productive space for discussions and desired social change. Once trust is broken, respect is diminished, and productivity is eliminated.	spheres of government.
	Individual resilience is just as important as community resilience for several reasons. For a community to be resilient, things like disaster action plans and volunteering may be necessary. A collective effort from community residents, local government, and local authorities is required for	Government policies for community engagement have been high profile, as have community cohesion agendas – but these have been developed in parallel. This study explores the challenges of bringing them together. It examines ways of enabling new arrivals to become involved, promoting solidarity and	3. Relaxation: his seems like an odd entry into this list, but yoga and other relaxation techniques are proven ways to get your brain relaxed and focused. Survival is stressful, so getting rid of some of that stress on a regular basis is just as necessary as water.  Staying in a constant mode of stress is bad for you physically as well as	As part of our mission is to improve the lives of vulnerable people by mobilizing the power of humanity, providing lifesaving information is a crucial element of our work. Beyond helping people understand hazard risks, we must support people to act. It is not enough to make people just aware of the risks.  SAFETY AND RESILIENCE DEPENDS ON INFORMATION THAT	We find that those CEOs with “moderate” exposures to disaster-related fatalities are more likely to be tolerant to firm risk-taking: they are more likely to engage in acquisitions; their firms hold more debt and less cash as a percentage of assets, and their stock returns are	Humanitarian donors play a potentially important role in mitigating corruption in humanitarian assistance, but it is a challenging role for a variety of reasons. These include donors’ own practices and policies, the pressures to spend, and the fact that in high risk settings donors themselves are constrained in them movement which limits the level and quality of information donors have to identify and assess strategies for managing corruptions risks and practices.	Social media provides a digital space – a meeting place, for different people, often representing one or more groups in a society. The use of this space during a disaster, especially where information needs are high and the availability of factually accurate and ethically sourced data is scarce, has increased substantially over	Here is no point in reinventing the wheel here. Using widely accepted, objective risk analytics will encourage the public and the private sector alike to strengthen disaster risk governance. It will also enable governments and corporations to articulate their growing resilience to the financial markets in a language the	5. Dedication. As a community leader, who most likely is playing a voluntary role, it’s important that you recognize your own benefits from the role. Time spent on a community role can only be beneficial if it’s seen to create space for desirable social change both for the leader and the community. This recognition will create	Severe floods in Cape Town’s historically disadvantaged Cape Flats in June 1994 profiled the urgency for legislative reform in the field of disaster risk management, stimulating a consultative process which resulted in Green and White Papers on Disaster Management. These important discussion and policy documents

	<p>community resilience. However, if a person is not individually resilient, he or she may not have the capacity to fulfil their duties.</p>	<p>cohesion rather than competition and conflict between newer and more established communities.</p>	<p>emotionally. You can't survive when you never relax. Take the time now to learn some yoga and breathing systems because while it's easy to find these on the Internet and TV now, that won't be the case in a survival situation.</p>	<p>Turns into real action.</p>	<p>more volatile. In contrast, those CEOs with "extreme" exposures tend to be more cautious in their risk-taking based on these outcomes.</p>		<p>the last 5-10 years.</p> <p>Social media is becoming an integral part of disaster communication plans for emergency management agencies, and many other public and private sector enterprises.</p>	<p>markets understand.</p>	<p>energy and dedication to one's roles given the sometimes difficulty and draining role of community leadership.</p> <p>6. Service. Involving oneself in general community services is a yet another great quality of a community leader. As a leader being seen to serve your own members creates respect and legitimizes one's role in the community.</p>	<p>afforded opportunity for consultation with multiple stakeholder groups and provided the platform for development of draft legislation in 2000 that was consistent with emerging international trends in disaster risk reduction.</p> <p>Such sustained, committed and concerted efforts about disaster risk management reform by the government and a wide range of stakeholders were reflected in the promulgation of the Disaster Management Act, 2002 (Act No. 57 of 2002) on 15 January 2003.</p>
--	--	--	--	--------------------------------	---	--	---	----------------------------	--	--

	<p>Individual resilience is important in overcoming adversity. A person must be able to cope with the negative events; otherwise, their ability to help the community will be hindered. It is important that we teach people how to be individually resilient by teaching them how to deal with their emotions and personal health and well-being during times of extreme adversity.</p>	<p>The government is committed to promoting community engagement. However, services are being delivered by an increasingly diverse range of providers, with correspondingly diverse opportunities for user and community involvement. There is growing concern about how to join up these different structures of local governance, through Local Strategic Partnerships (LSPs), for example.</p>	<p>4. Don't ignore reality: The reality of a survival situation is that life and death are on the line. While you're relaxing you can't forget this. Staying positive is a method of survival, not a way to forget about it. Face your fears now and keep a firm grip on reality.</p> <p>When the SHTF you need to assess the reality of a situation to ever be positive about it. Keeping a positive attitude is more about assessing the situation and filing away stress until you need it, not ignoring stressful things until it's too late.</p>	<p>The focus of campaigns is to provide uniform, large-scale impact with standard messages. There are many examples of large-scale national and international public awareness campaigns that have led to massive social change. Examples include childhood immunization, the wearing of seat belts in cars, and smoking restrictions.</p> <p>Campaigns comprise a set of activities that may include:</p> <ul style="list-style-type: none"> <li>• publications, including billboards, posters, newspaper or magazine coverage, information cards, flyers, bookmarks and brochures</li> <li>• curricula, modules and presentations, including slide presentations and oral presentations</li> <li>• e-learning</li> <li>• performing and cultural arts</li> <li>• games</li> </ul>	<p>Recent medical research suggests a possible mechanism underlying these patterns. First, neuroscience and epigenetics studies indicate that adverse experiences affect subsequent behavior at least partly due to permanent physiological and biological changes in the brain. Second, evolutionary biologists argue that biological systems with an original function commonly adapts to different functions, a phenomenon</p>	<p>This section uses a typology for analyzing corruption that draws from the literature on security strategies in humanitarian relief. This framework uses three categories, deterrence, protection and acceptance, for improving security (VanBrabant 2000).</p> <p>By deterrence we mean strategies to discourage people from being corrupt, by imposing penalties. This would include using the legal system to convict people found to be embezzling funds; internal mechanisms to investigate possible corruption and to discipline and dismiss staff found to be engaged in corrupt activities; or ways of naming and shaming other actors involved in corruption.</p> <p>This is often referred to as 'enforcement' in the anti-corruption literature.</p>	<p>Dube showed that the use of social media can provide valuable information during a crisis.</p> <p>This is particularly relevant when the information comes from a trusted source with an established, and perhaps trusted, media presence who can tell a story (in addition to communicating a large quantity of facts) [19].</p> <p>Since Hurricane Bonnie, newer social media technologies, including Twitter, Flickr and Instagram, have been used, sometimes in an ad hoc manner, at subsequent natural disasters.</p>	<p>Understanding what the risk is and making sure that the message talks to that risk and that the community can implement that. Okay, in the order hand, maybe stop, drop and roll could save lives and maybe the people who are dying are 65 years plus, are they able to stop, drop and roll? If I keep that message, can they physically stop drop and roll? Probable not, so now I identified the right risk, but the application of the message doesn't fit, they can't perform that so I will not see a reduction.</p>	<p>7. Interpersonal skills. A community leader should be able to interact with other members of the community with ease. This calls for good communication and collaboration skills. Being able to negotiate, mediate, listen to others, and articulate arguments and to work with members external to the community is essential. 8. Forward-thinking. Forward thinking is about being visionary as a leader, one should dream for his community and effectively share the dream. He should be able</p>	<p>The Act provides for:</p> <ul style="list-style-type: none"> <li>• an integrated and coordinated disaster risk management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, preparedness, rapid and effective response to disasters, and post-disaster recovery</li> <li>• the establishment of national, provincial and municipal disaster management centers</li> <li>• disaster risk management volunteers</li> </ul>
--	--	---	---	---	---	---	---	---	--	--

				<p>and competitions • audio and video materials • web pages and activities • social media and telecommunications.</p>	<p>known as ‘co-option’. Hence, if brain development and function are physiologically altered by trauma; it is plausible that the brain functions affected by non-economic risk may be subsequently co-opted to deal with economic risk.</p>				<p>to think of the future and set sustainable goals by developing his/her own critical thinking skills and involving the younger generations.</p>	<p>• Matters relating to these issues.</p> <p>The Act recognizes the wide-ranging opportunities in South Africa to avoid and reduce disaster losses through the concerted energies and efforts of all spheres of government, civil society and the private sector. However, it also acknowledges the crucial need for uniformity in the approach taken by such a diversity of role players and partners.</p> <p>The national disaster management framework is the legal instrument specified by the Act to address such needs for consistency</p>
--	--	--	--	---	--	--	--	--	---	---

										across multiple interest groups, by providing ‘a coherent, transparent and inclusive policy on disaster management appropriate for the Republic as a whole’ (section 7(1)).
	Individual resilience is necessary for a community to overcome adversity because of the connection and influence individuals have on their community. There is a clear relationship between the well-being of an individual and the well-being of a community. Community resilience requires people to come	However, there has been less focus upon the implications of engaging service users and communities effectively when communities are themselves diverse, with differing needs and priorities. Globalization has been associated with increasing migration, although these changes are difficult to measure, owing to gaps in the available data. This poses major challenges for	So, here’s the truth: a positive mind-set really does have the potential to dramatically impact your life and your practice for the better. This doesn’t just mean thinking happy thoughts about your day. It means adopting an attitude that fosters a positive environment throughout your work and life in general.	Most successful campaigns require a sustained, repeated and consistent thematic set of messages repeated over a long period of time, through activities in the public, education, private and civic sectors. These are often built by a unifying coalition under a single umbrella. Some recur seasonally (for example, in the case of hurricane season). Others are ongoing, and select an annually changing sub-theme, or a monthly calendar	Humans are empathetic beings. We experience emotional pain when confronted with others’ suffering. Our empathy also extends to animals. Even environmental disasters that don’t directly impact people can cause emotional distress.  Although there is nothing good about disasters,	By protection we mean the systems and procedures that agencies put in place to try to minimize the risks of corruption in the first place. This would include logistics and accounting systems, tender procedures, independent and internal audit functions, monitoring systems and management procedures. This is often referred to as ‘prevention’ in the anti-corruption literature.	What has emerged in the last ten years is that the citizen/victim can and does provide valuable information during and after a disaster whilst authorities have failed to use the communications infrastructure effectively [5]. This two-way citizen/authority (interrupted) dialogue is critical for disaster management [20].  The dialogue is a form of	So, I need to understand the target audience, the population that I am dealing with, who in those communities is most at risk, their age, gender and so on? So, I need to know who they are and why and then I can work out with the community of how to prevent that risk. So, you look at the chain of the events because this thing don’t just happen, there are chains of	9. Intelligence. A competent leader is seen as one who can take care of the tough stuff that may happen to him or the community. Intelligence here is beyond being smart to include high levels of both emotional and social intelligence.  10. Motivation. Lastly, a great leader inspires as to create the desired social change. He does this in a variety	Disaster management aims to prevent or reduce the risk of disasters, mitigate the severity or consequences of disasters, ensure emergency preparedness, rapidly and effectively respond to disasters, and provide for post-disaster recovery and rehabilitation.

	together and volunteer.	the community engagement and community cohesion agendas.		with 10–12 messages per year.	<p>there is a silver lining: Disasters tend to bring out the best in humanity.</p> <p>That’s because our sense of empathy compels us to do something to alleviate suffering. One of the most common ways to do that is by donating to disaster relief organizations.</p> <p>Unlike most other charities, disaster relief requires swift action because lives are often on the line.</p>		communication between an often panic-stricken public and bodies of authority who need to retain order.	events that leads to that, somewhere along the chain of events I can apply different types of intervention to break the chain of events because when I break the chain of event the person won’t die, I will prevent the fire or whatever it is.	of ways but always remembers to include others in his thought process and courses of action.	
	If people cannot cope with their own personal adversities, how could they possibly help others out in their community?	New communities want their views to be heard, and they want to participate. For many new arrivals, ‘being heard’ means	A positive mind-set, however, assumes a more optimistic focus and looks for all the ways you might succeed. As a result, it allows you to see	Where campaigns are short term and time limited because they successfully meet their goals (as with Thailand’s measles eradication campaign), the tools developed can then		By acceptance we mean the extent to which humanitarian actors are accepted within the societies in which they are working. Are they seen as fair game for? Exploitation, or as effectively trying to save	Thus, during a disaster event, where matters of life, limb and property, must be made on the word of one person – either a disaster operative		I am of the view that initiating local level actions in relation to extreme weather events should not be visualized only	

	<p>Individuals need to know how to bounce back from their problems, so they can have a positive influence on their community. If a person has a strong sense of resilience, they will be able to make a strong commitment to their community and actively contribute. A person must be able to recover from his or her own setbacks.</p>	<p>being recognized, having a safe space to meet, providing mutual support and gaining the knowledge, confidence and skills to engage more widely. ‘Being heard’ also means being listened to with respect, knowing that resources are being allocated with visible fairness. Established communities typically share this view of community engagement, and they also face problems in getting their views heard, but newer communities find it even harder.</p>	<p>possibilities and options when you’re faced with a challenge. Rather than focusing on how difficult something is, you look for many creative potential solutions.</p> <p>Positive and negative attitudes have a direct impact on brain responses to situations. A negative mind-set focuses on the problem directly in front of you and examines it in a pessimistic light. You automatically assume the worst, whether you’d admit that or not. This closes your mind to possibilities and increases the likelihood that you’ll create a self-fulfilling prophesy of failure.</p>	<p>be adapted and used at another time or place, when a similar intervention is needed.</p> <p>Because campaigns need newsworthy moments and high visibility, participation is often focused around designated days such as a commemorative event, a community-wide drill, a festival, fair or exhibition, or through demonstrations and simulations. In between these focal events, volunteers continue to deliver the key messages through live interactions.</p>		<p>lives in ways that command local support? Strategies to increase acceptance include awareness, information and beneficiary participation in project planning and implementation.</p> <p>These three areas are not entirely distinct, and many strategies will involve a combination of approaches, but they provide a useful tool for analyzing the wide number of ways in which corruption risks can be minimized.</p>	<p>or a citizen – trust plays a key role. The political scientist, Eric Uslaner, has suggested that ‘Trust solves bigger problems than getting people to hang out with people like themselves. It connects us to people with whom we don’t hang out’ [23]. Trust is linked with risk-taking and with developing relationships with unknown actors [6] [8].</p>		<p>through a technological lens (concerning new local urban infrastructure, transfer of technology, urban structural modifications). Whereas a technological approach may be essential to successful disaster management in urban local governments at a later stage, it will not be useful without first establishing the context through a visionary leadership for disaster risk reduction. Also, managing and/or reducing disasters at the local government level require close consultation between government,</p>	
--	--	---	---	---	--	--	--	--	--	--



									business, planners, scientists and local communities, as disaster risk reduction involves acting to minimize the negative impacts of extreme events.	
	Individual resilience and community resilience are interconnected primarily because community resilience is dependent on community members being resilient themselves. Community members must be able to overcome personal difficulties when faced with adversity and hardship to contribute to community	Groups particularly at risk of not having their views heard effectively were asylum seekers and refugees, and new migrant workers from the accession states, such as Poland. Amongst these groups, women and younger people were identified as having even less chance of being listened to than older men. Meanwhile some established minority communities,	So, what should we do differently? The panel offered an abundance of ideas.  For one, we must change mind-sets. This Forum has repeatedly heard that inter-connected challenges need inter-connected solutions. If disaster risks and human development are intertwined, reducing risk and vulnerability will require addressing all aspects of development.	People are especially motivated by approaches in which they themselves participate in a solution, and especially when they believe it is their own idea. The focus of participatory learning is to engage people in discovery and problem solving for disaster risk reduction. At the heart of these activities is the community's own experience of empowerment.					The new study (making cities resilient report 2012) also finds that “leadership is more important than a city’s wealth when it comes to protecting the lives and economic assets of cities and towns from disasters”. As a starting and practical point in urban local governments, local leaders can take immediate steps to seek the support of various stakeholders for	

	<p>resilience. Community resilience is dependent on individuals overcoming personal troubles and collaborating to successfully "bounce back" from adversity.</p>	<p>and some established white working-class communities, had been less successful than others in making their views heard had.</p> <p>These findings highlight the importance of linking strategies that promote community engagement with strategies that promote community cohesion. Otherwise, the result could be increased competition for scarce resources between established communities and newer arrivals.</p>	<p>Rovins cited a study by Forensic Investigation of Disasters (FORIN) showing that in Japan, children discuss disasters and what to do in class, and loss of lives was exceptionally low in those age groups. “When you grow up in a risk-reduction mind-set, you perpetuate that from generation to generation,” she argued.</p>						<p>initiating the local government-wide disaster risk reduction actions. Such actions should aim to augment the urban local governments’ capability to uphold their innate leadership in efficiently analyzing, minimizing and managing climate-related risks, and in turn, grasping various local level opportunities.</p>	
	<p>Individual resilience is the fundamental component to achieving optimal</p>	<p>Governance structures have a key role to play in challenging racism and promoting</p>	<p>While recognizing that citizen involvement can happen in many ways, those most directly affected</p>	<p>The focus of informal education is taking advantage of brief moments and encounters to stimulate thinking</p>						

	<p>community resilience. If individual community members are successfully able to demonstrate resiliency in the face of adversity, they then can contribute to community resiliency. Individuals contribute to community resilience in numerous ways, including enacting emergency disaster plans and assisting fellow community members who are having difficulty with their own individual resiliency. It is crucial that individuals be well educated on strategies of resiliency to</p>	<p>community cohesion. Minority communities expressed anxieties about racism, based upon experiences of harassment and discrimination. Suspicions about unfair access to resources can also fuel resentments against newcomers, highlighting the importance of visible fairness through accountable forms of governance.</p> <p>On the positive side, there were examples of strategies to promote mutual support and solidarity, to ensure fairness and equality of treatment in the provision of services and</p>	<p>by conditions on the ground need to play a meaningful role in defining their own problems, designing the interventions intended to solve them and shaping research questions that test those.</p>	<p>and engage people in discovery of actions and behaviors to increase safety and resilience. Informal education in communities and schools is the most flexible of all approaches with respect to setting, audience and timeframe.</p> <p>Peer-to-peer activities work equally well with adults, youth and children. Much of the best informal education has cross-generational appeal. Often the energy, enthusiasm and curiosity of children and youth are the hooks for adult involvement. Tools can, and should, be attention grabbing, engaging, participatory and practical, so that learning and acting become one and the same thing</p>							
--	---	---	--	---	--	--	--	--	--	--	--

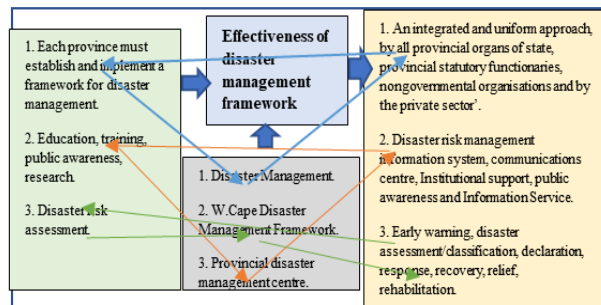
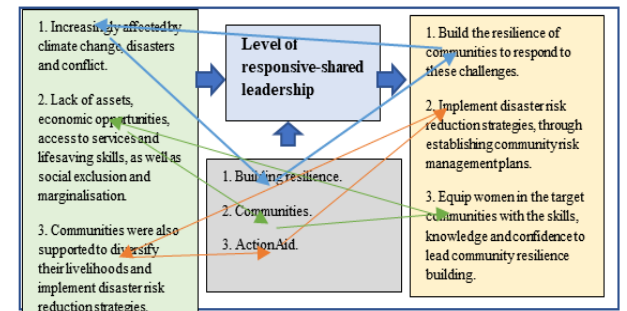
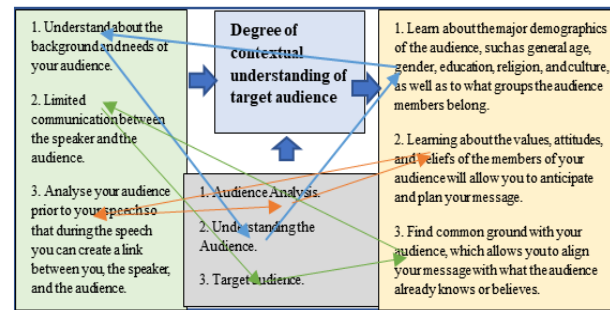
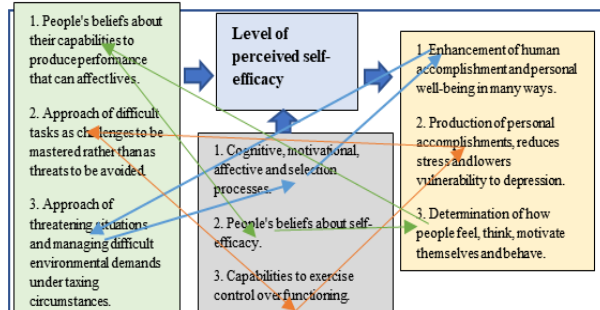
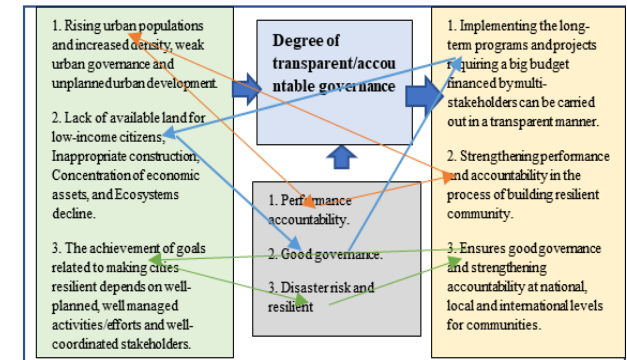
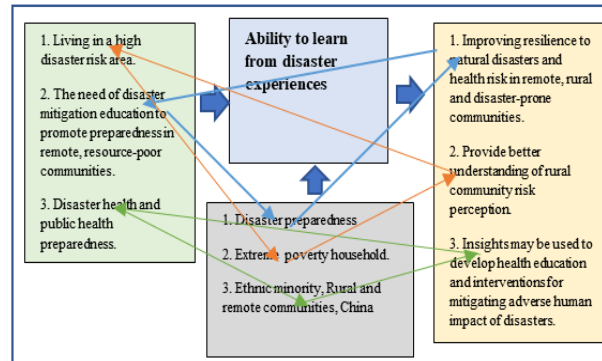
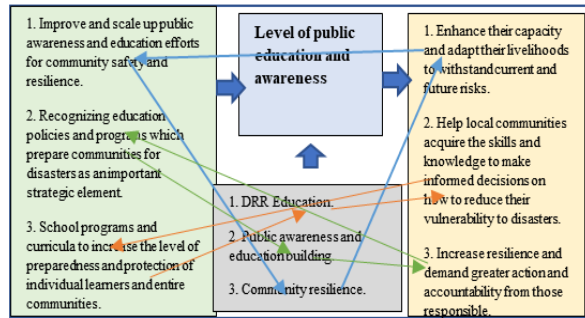
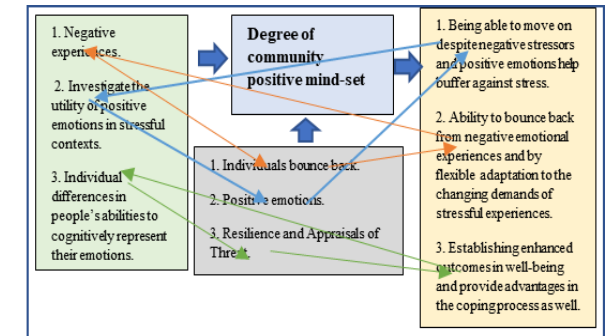
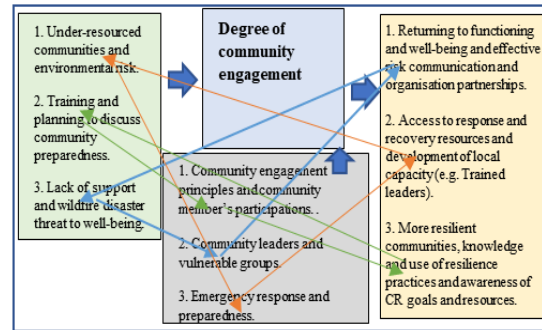
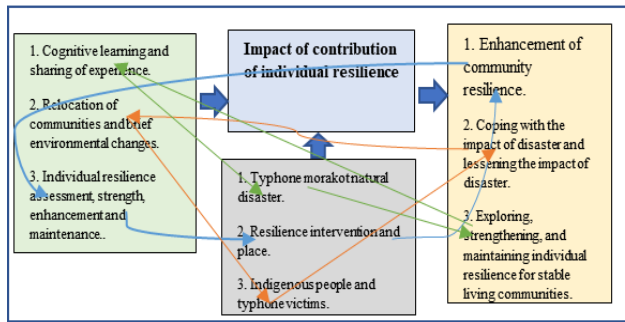
	properly cope with adverse situations. If an individual is unable to properly demonstrate individual resiliency, they are then hindered in contributing towards community resiliency; thus, becoming part of the problem as opposed to contributing to the solution.	employment opportunities and to facilitate community engagement, enabling diverse views to be heard in the structures of local governance.								
--	--	--	--	--	--	--	--	--	--	--

RESEARCH CIRCLES 2.5, STEP 2 (CONCEPT ANALYSIS)

	Individual resilience	Community engagement	Positive mind-sets	Public education and awareness	Disaster experience	Transparency and accountability	Self-efficacy	Understanding target audience	Responsive shared leadership	Disaster management framework
ANTECEDENTS	Cognitive learning and sharing of experience.	Under-resourced communities and environmental risk.	Negative experiences.	Improve and scale up public awareness and education efforts for community safety and resilience.	Living in a high disaster risk area.	Rising urban populations and increased density, weak urban governance and unplanned urban development.	People's beliefs about their capabilities to produce performance that can affect lives.	Understand about the background and needs of your audience.	Increasingly affected by climate change, disasters and conflict.	Each province must establish and implement a framework for disaster management.
	Relocation of villages and communities and brief environmental changes.	Training and planning to discuss community preparedness.	Investigate the utility of positive emotions in stressful contexts.	Recognizing education policies and programs which prepare communities for disasters as an important strategic element.	The need of disaster mitigation education to promote preparedness in remote, resource-poor communities.	Lack of available land for low-income citizens, Inappropriate construction, Concentration of economic assets, and Ecosystems decline.	Approach of difficult tasks as challenges to be mastered rather than as threats to be avoided.	Limited communication between the speaker and the audience.	Lack of assets, economic opportunities, access to services and lifesaving skills, as well as social exclusion and marginalization.	Education, training, public awareness, research.
	Individual resilience assessment, strength enhancement and maintenance.	Lack of support and wildfire disaster threat to well-being.	Individual differences in people’s abilities to cognitively represent their emotions.	School programs and curricula to increase the level of preparedness and protection of individual learners and entire communities	Disaster health and public health preparedness.	The achievement of goals related to making cities resilient depends on well-planned, well managed activities/efforts and well-coordinated stakeholders.	Approach of threatening situations and managing difficult environmental demands under taxing circumstances.	Analyze your audience prior to your speech so that during the speech you can create a link between you, the speaker, and the audience.	Communities were also supported to diversify their livelihoods and implement disaster risk reduction strategies.	Disaster risk assessment.

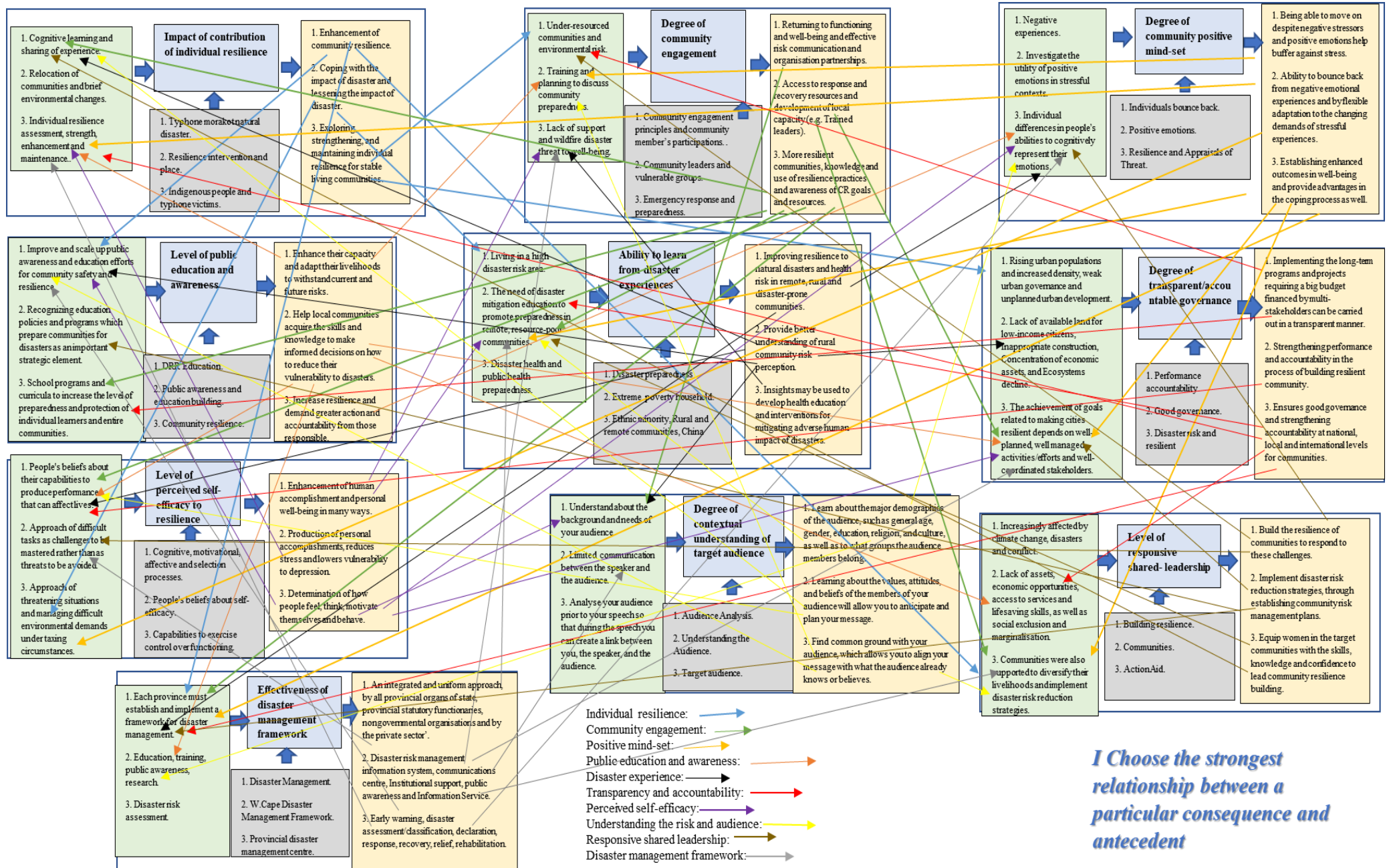
ATTRIBUTES	Typhone morakot natural disaster.	Community engagement principles and community member's participations.	Individuals bounce back.	DRR Education	Disaster preparedness	Performance Accountability	Cognitive, motivational, affective and selection processes.	Audience Analysis.	Building resilience.	Disaster Management.
	Indigenous people and typhone victims.	Community leaders and vulnerable groups.	Positive emotions.	Public awareness and education building.	Extreme poverty household	Good Governance.	People's beliefs about self-efficacy.	Understanding the Audience.	Communities.	W.Cape Disaster Management Framework.
	Resilience intervention and place.	Emergency response and preparedness and community resilience.	Resilience and Appraisals of Threat	Community resilience.	Ethnic minority, Rural and remote communities, China	Disaster Risk, Resilient.	Capabilities to exercise control over functioning.	Target audience.	ActionAid.	Provincial disaster management Centre.
CONSEQUENCES	Enhancement of community resilience.	Returning to functioning and well-being and effective risk communication and organization partnerships.	Being able to move on despite negative stressors and positive emotions help buffer against stress.	Enhance their capacity and adapt their livelihoods to withstand current and future risks.	Improving resilience to natural disasters and health risk in remote, rural and disaster-prone communities.	Implementing the long-term programs and projects requiring a big budget financed by multi-stakeholders can be carried out in a transparent manner.	Enhancement of human accomplishment and personal well-being in many ways.	Learn about the major demographics of the audience, such as general age, gender, education, religion, and culture, as well as to what groups the audience members belong.	Build the resilience of communities to respond to these challenges.	An integrated and uniform approach, by all provincial organs of state, provincial statutory functionaries, nongovernmental organizations and by the private sector'.
	Coping with the impact of disaster and lessening the impact of disaster.	Access to response and recovery resources and development of local capacity	Ability to bounce back from negative emotional experiences and by flexible adaptation to the	Help local communities acquire the skills and knowledge to make informed decisions on	Provide better understanding of rural community risk perception.	Strengthening performance accountability in the process of building resilient community.	Production of personal accomplishments, reduces stress and lowers	Learning about the values, attitudes, and beliefs of the members of your audience will allow you to	Implement disaster risk reduction strategies, through establishing community risk	Disaster risk management information system, communications center, Institutional support, public awareness and Information Service.

		(e.g. Trained leaders).	changing demands of stressful experiences.	how to reduce their vulnerability to disasters.			vulnerability to depression.	anticipate and plan your message.	management plans.	
	Exploring, strengthening, and maintaining individual resilience for stable living communities.	More resilient communities, knowledge and use of resilience practices and awareness of CR goals and resources.	Establishing enhanced outcomes in well-being and provide advantages in the coping process as well.	Increase resilience and demand greater action and accountability from those responsible.	Insights may be used to develop health education and interventions for mitigating adverse human impact of disasters.	Ensures good governance and strengthening accountability at national, local and international levels for communities.	Determination of how people feel, think, motivate themselves and behave.	Find common ground with your audience, which allows you to align your message with what the audience already knows or believes.	Equip women in the target communities with the skills, knowledge and confidence to lead community resilience building.	Early warning, disaster assessment/classification, declaration, response, recovery, relief, rehabilitation.

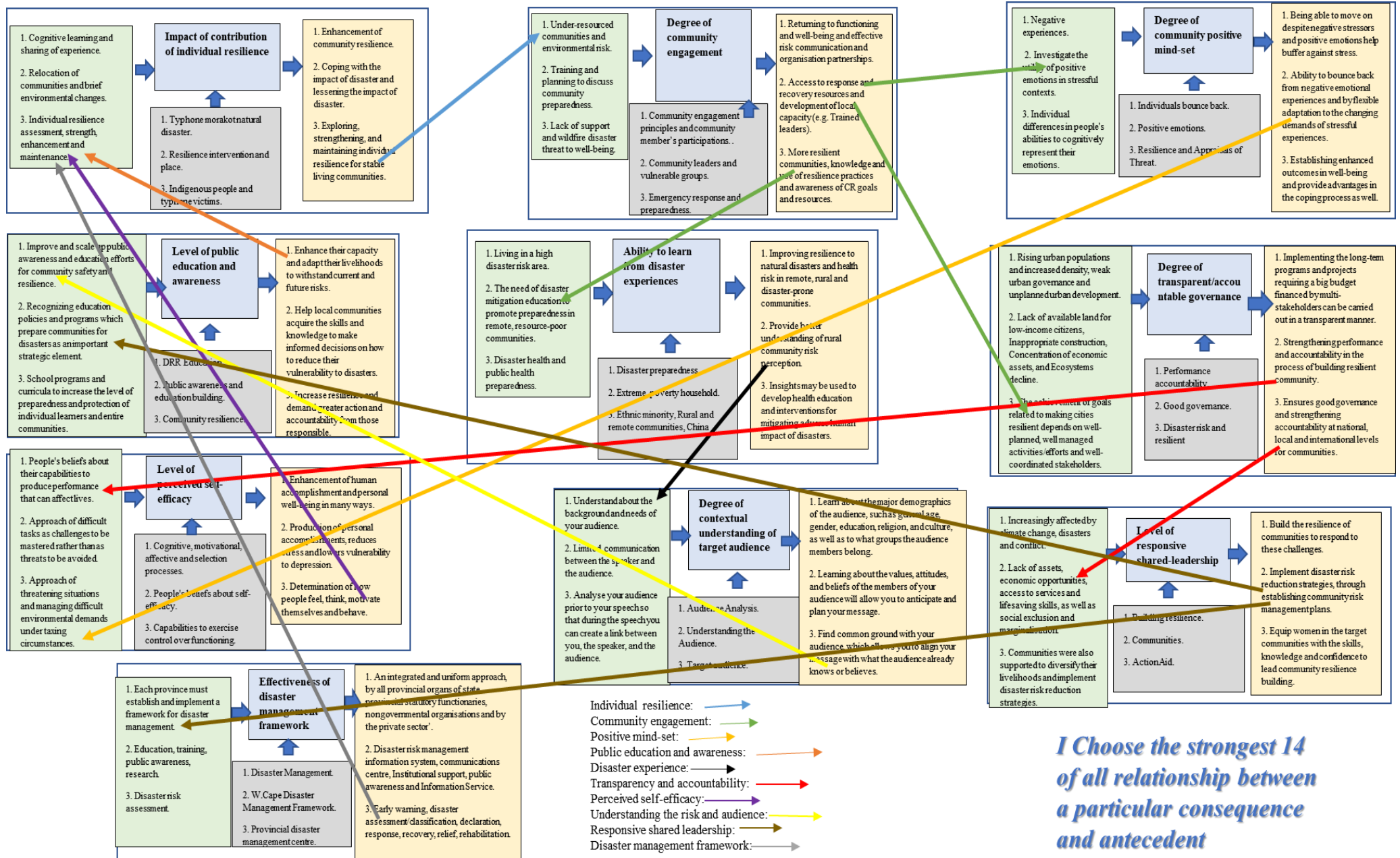


*Concept Analysis of my Core Variable*



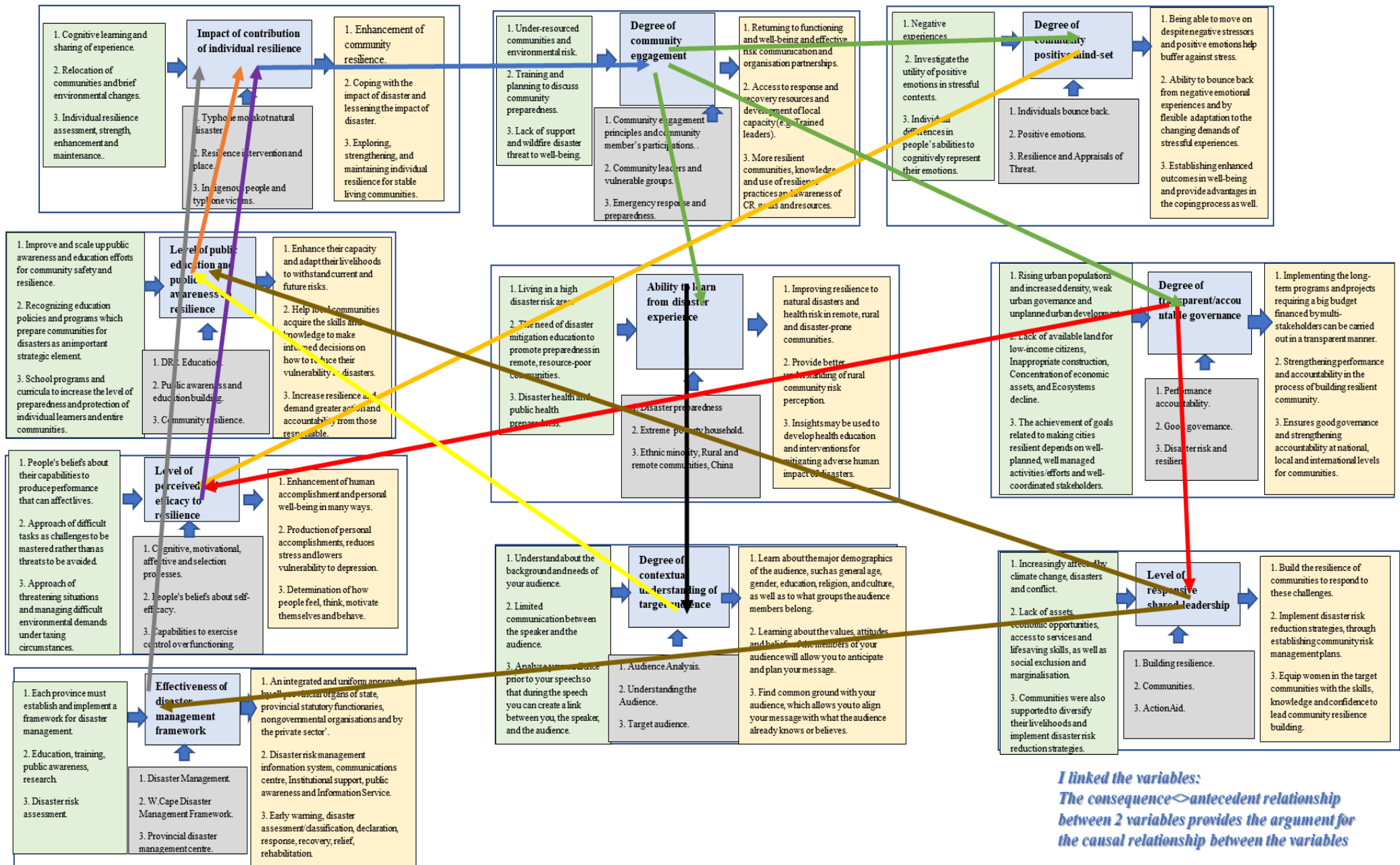


*I Choose the strongest relationship between a particular consequence and antecedent*



*I Choose the strongest 14 of all relationship between a particular consequence and antecedent*





## **A7: List of References (Cycle Two)**

1. Cabot et al., 2012. The economics of early response and disaster resilience: lessons from Kenya and Ethiopia. London.
2. Rustico B. 2013. Understanding Community Managed Disaster Risk Reduction. Evolution of disaster risk reduction Media library.
3. Ostadtaghizadeh A, Ardalan A, Paton D, Jabbari H and Khankeh HR, 2015. Community Disaster Resilience: a Systemic Review on Assessment Models and Tools. PLOS Currents Disasters.
4. Laurence J. Kirmayer et al, 2009. Community Resilience: Models, Metaphors and Measures. National Aboriginal Health Organization (NAHO). Journal de la santé autochtone, November 2009.
5. Jonas Joerin et al, 2012. Assessing community resilience to climate-related disasters in Chennai, India. International journal of disaster risk reduction. India.
6. Jonas Joerin et al 2014. The adoption of a climate disaster resilience index in Chennai India.
7. Tanner, T., T. Mitchell, E. Polack, and B. Guenther (2009) Urban Governance for Adaptation: Assessing Climate Change Resilience in Ten Asian Cities. Institute of Development Studies, Brighton.
8. Rodney, 2018. Disaster management Centre. Fire brigade department. [Interview].
9. Capt. Venter, 2018. Disaster management. South African police department. [Interview].