

CHIPINGE TOWN COUNCIL

RESILIENCE FRAMEWORK FOR ACTION (RFA)



Framework of Action Towards Building Chipinge Town Council's Resilience to Disasters

Compiled by E. Munjanga; J. Mutemera; S. Masuku; P. Ngani; H. Hokoza

Contents

FOREWORD	3
ACKNOWLEDGEMENTS	3
CHAPTER 1	4
1.0 INTRODUCTION	4
1.1 Background	4
1.2 Regional Location and Vulnerability	5
1.3 The Framework for Disaster Management in Zimbabwe	7
1.4 Urban Resilience	9
CHAPTER 2	10
2.0 GAZA HIGH DENSITY'S RESILIENCE PROFILE	10
CHAPTER 3	12
3.0 CHIPINGE TOWN COUNCIL'S CITYRAP TOOL ROLL-OUT PROCESS	12
3.1 Phase 1	12
3.2 Phase 2	13
3.3 Phase 3	15
3.4 Phase 4	17
3.5 PRIORITY ACTIONS MATRIX FOR CHIPINGE TOWN COUNCIL BASED ON THE BASELINE ASSESSMENT	19
CHAPTER 4	21
4.0 INTRODUCTION	21
4.1 INFRASTRUCTURE DEVELOPMENT	22
4.2 SOLID WASTE MANAGEMENT	24
4.3 FINANCE	25
4.4 LOCAL ECONOMIC DEVELOPMENT	26
4.5 EARLY WARNING SYSTEMS	27
4.6 CONCLUSION AND WAYFORWARD	29
REFERENCES	30

FOREWORD

Having realised the devastating effects of natural disasters on municipal growth and development, Chipinge Town Council has prioritized the importance of managing them through improved preparedness, response and recovery in its organizational routine. Because of engagement with its stakeholders, Chipinge Town Council collectively agreed to embrace the responsibility of ensuring that the impact of climate change disasters which result in loss of life, damage to economic assets and the physical environment are minimized in a bid to attain sustainable development of the town.

Accordingly, Chipinge Town Council crafted and adopted the (City Resilience for Action Planning) CityRAP tool which will be used to safeguard residents from the impacts of natural disasters. The CityRAP tool was used in preparing this Resilience Framework of Action (RFA), spelling out clear objectives, priority areas and action plans to be implemented in the vulnerable areas within Chipinge communities, the urban local authority being one of them. It is the Council's anticipation that the RFA will strengthen Council's response, resilience and its stakeholders' ability to jointly rally efforts towards restoring the development during and after disaster cycles.

ACKNOWLEDGEMENTS

The Council acknowledges UN-Habitat for choosing it among the urban local authorities in Zimbabwe to participate in this program which could have easily been made a preserve for well-developed and favourably geographically located cities. The crafting of the Chipinge Town Council Resilience Framework of Action (RFA) was done jointly by the Council (including policy makers, staff and management), stakeholders drawn from the 8-ward Council area and the United Nations Development Program's UN-Habitat. The stakeholders, in active consultation with the focal point persons engaged in, critical inquiry, deliberations and debate to produce this RFA.

Special mention goes to UNDP through the United Nations Regional local offices (UN-Habitat) which funded the whole process, seconded technical facilitators (Mr. A. Chileshe and Mr P. Mutavati) and provided the Google maps which were used during the process. The Council further appreciates the effort and commitment of the Ministry of Local Government and Public Works official Ms A. Takaendesa and City of Mutare who seconded Ms Kim Sithole as a resource person. Further gratitude is extended to various government departments and agencies; the Agricultural Technical and Extension Services, Women Affairs, Gender and Community Development, Environmental Management Agency, Public Service, Labour and Social Welfare, Meteorological Department, Zimbabwe Republic Police, Ministry of Primary and Secondary Education and Non-Governmental Organizations for their role in providing expertise in community engagement, guidance and insight on government policy with regards to resilience building in Chipinge Town.

His Worship the Chairperson of the Chipinge Town Council Councillor Zivanai Nyakuchena, the Town Secretary Dr. Susan Dube and all Heads of Departments, Councillors and staff members who contributed to the production of the framework of action document are appreciated for their input. Chipinge Town Council is indebted to the dedication by the ten (10) focal point persons namely Mrs S. Masuku, Mr. T. Maoneke, Mrs. L. Zimunya, Mr. H. Hokoza, Mr. M. Mutapati, Mrs. M. Maburukwa, Mr. P. Kochiwe, Mr. P. Ngani, Mr. J. Mhlanga and Mr. E. Munjanga.

CHAPTER 1

1.0 INTRODUCTION

Chipinge Town Council's Resilience Framework of Action (RFA) document is a product of the participation of several stakeholders that came out of the City Resilience Action Planning process (CityRAP) held from December 2019 to October 2020. The process could have been concluded earlier but was prolonged due to the Covid-19 disturbances. The CityRAP process was conducted to gather information on the state of vulnerability of Chipinge Town so as to come up with interventions targeted at reducing the vulnerability of the urban dwellers, infrastructure and the environment in the town. The process was participatory and inclusive with a total of forty-eight (48) participants drawn from residents, formal and informal businesses, government representatives and Council staff and policy makers. The RFA outcome document was finalised at the Goldfields conference centre on the 30th of October 2020.

The CityRAP process exploits the CityRAP Tool which was developed by the Office for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) in partnership with UN-Habitat (UN-Habitat, 2018). The tool is effective and concisely articulates the vulnerability of affected communities. With the rise in natural and human induced hazards, the tool advances the resilience of the communities which it was built on. The RFA empowers the town to integrate and realign resilience issues in its present and future strategic plans, budgets, institutional structures and actions. This is expected to result in improved urban planning capacities, institutional growth and development as well as disaster risk assessment.

1.1 Background

Chipinge urban settlement was established in 1946 as a District Council, largely to cater for a few white farmers surrounding the settlement and to offer administrative service to the same. By design, the infrastructure (mainly roads, housing, water and sewer systems, social and recreational facilities and urban development land) was meant to cater for a small population of approximately 10,000 people. From early 2000s, there was rapid population growth in the urban settlement, and this put pressure on the existing, aging and overwhelmed infrastructure. The estimated population of the town, using an annual growth rate of 3% is 32,039 up from the 25,292 recorded in the 2012 national census (Population Survey: 2012), meaning the demand for municipal services has become very high.

Chipinge Town Council's existence is defined in terms of the Constitution of Zimbabwe and the Urban Councils Act [Chapter 29:15] and attained its town status in 2002 through Presidential Proclamation Number 18 of 2002. The total land area of Chipinge Town Council covers 1800 hectares, which is divided under eight administrative wards. Of the eight wards, six are in the high density, where approximately 65% of the population is concentrated in a small area. The high-density population of 20,525 is concentrated on approximately 266 hectares. The 266 hectares is made up of nearly 60% (160ha) which is habitable, with 20% being service infrastructure and the remaining 20% is inhabitable due to undulating terrain. The densely populated 160ha is heavily vulnerable since it is putting pressure on water supply, waste water, roads and solid waste management. Generally, the vulnerability of the town to climate induced shocks is almost the same

due to the terrain and the amount of rainfall which is received (average annual level of precipitation in Chipinge surpass the national average of 900mm). The impacts are extremely felt in the high-density areas of ward 1 to 6 where there is high population per capita.

1.2 Regional Location and Vulnerability

Chipinge town lies 445km South East of Harare, the national capital city and 234km direct distance from the Indian Ocean at the altitude of 1132m. Chipinge town's proximity to the Mozambican channel which is the epicentre of various natural disasters renders it highly prone to cyclones, earth tremors, hail stones and torrential rainfalls. Cyclone Idai in 2019, seasonal flash floods and earthquakes, two of which struck in the past 365 days; pose serious disaster risks for Chipinge town, exposing it to frequent climate induced vulnerabilities. The town is found in agro-ecological Region One (1) that receives rainfall above 1000mm/annum. Chipinge town is situated on an undulating terrain, with alluvial soils which expose it to devastating effects of flash floods and intense erosion. Due to the town being geographically located on the windward side, the high torrential rainfalls received and the loose soils which are in the town are eroded and deposited in the low-lying places causing siltation and often times clogging and pressure on infrastructure.

Figure 1: Location of Chipinge Town in Zimbabwe. Source: Google Maps 2020



In Chipinge town, cyclones have destroyed water and waste-water infrastructure. The recent Cyclone Idai left a trail of destruction ranging from washed away 300 mm diameter steel pipe at the sole water source, Bangazaan dam; breakage of some sections of the pumping main; destruction of the reticulation system and blockage of waste water infrastructure. With the proximity of the town to the epicenter in Mozambique and the terrain in the town, it is critical to start implementing resilience measures for the Chipinge town.

Figure 2: Damages caused by Cyclone Idai in 2019 in the Chipinge Town CBD



Figure 3: Location of Chipinge Town in Zimbabwe. Source: Google Maps 2020



Zimbabwe is one of the countries in Southern Africa, with a population of 13 million and an urbanisation rate of 36% and with continued growth estimated to reach 50% by 2050 (2012 Population Census). This rate of urbanisation aggravates urban constraints including those related to climate change. These challenges manifest themselves in the form of deteriorating infrastructure, inability to provide basic services (water, sanitation, health and education), intensifying urban poverty and severe shortage of decent housing. The urban population is characterised by high poverty levels due to limited access to loans as a result of lack of collateral, high unemployment

rate on the active population in the high density and also ageing population in the high-density area. 80% of the population are in the informal, micro-small and small enterprises. At present, Council does not have policies to regulate the informal, micro-small and small enterprises. There are also no standard amenities to house the informal sector. Council is facing challenges to collect revenue from these informal traders since they are not well regulated and designated places to operate from.

Zimbabwe is still a developing country, with competing priorities, and resource constraints often result in very few resources being committed to disaster preparedness. Yet natural and human induced disasters like cyclones, landslides, earth tremors, torrential rains, rapid urbanisation, aging infrastructure, undulating terrain and disease outbreaks are the shocks and stressors confronting Chipinge Town. Climate change is also increasing the frequency and intensity of these disasters thereby exerting pressure on the limited available resources. With limited central government support, the council has not been spared by these disasters which are also exacerbated by poor urban planning (operating without a master plan) and non-existing early warning systems and strategies.

Figure 4: Drainage system affected by excessive rainfall in Chipinge's Main Street



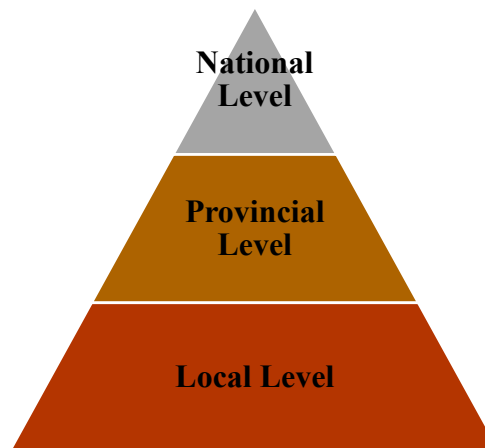
Informed by the Sendai Framework (2015-2030) Global Context for Disaster Risk Preparedness Articles of the Paris Agreement (2016) Chipinge town's resilience plans will merge this with the knowledge of local initiatives being implemented in Sub-Saharan African countries in mitigating the effects of climate change induced disasters.

1.3 The Framework for Disaster Management in Zimbabwe

Disaster risk reduction is an inevitable reality and the Government of Zimbabwe considers climate change resilience programs as urgent interventions to mitigate harm, restore livelihoods, standards of living and municipal development services that citizens rightly deserve. The nation is a signatory to global protocols on climate change such as the United Nations Framework Convention on Climate Change (UNFCCC, 1992), the Kyoto Protocol (2009), the Paris Agreement (2016) and the Sendai Framework (2015- 2030). These Conventions are intended at employing strategies to reduce the social, economic and environmental (ecological) effects of climate change, while implementing measures to improve the resilience of both rural and urban communities in light of natural or human induced disasters.

It is important to note that there are adequate policies and separate pieces of legislation that directly address disaster risk management issues in Zimbabwe. Climate change policies tend to be addressed through a diversity of sectoral and/or ministerial policies, including those related to agriculture and food security, water resource management, natural resource management and disaster risk management (Chagutah, 2010), which influences holistic implementation and coordination. The diagram below shows the hierarchy of the Civil Protection: -

Figure 5: Climate Change Governance Framework



Subsequent to its global commitment to deal with disasters; the Government of Zimbabwe initiated a Climate Change Policy in 1996 which was then fused into the Environmental Management Act, (Chapter 20:27) of 2002. In addition, the state has a National Climate Change Strategy along other policies such as the Child Friendly Climate Policy, the Climate Smart Agriculture Policy and the new National Climate Policy launched in the year 2018.

A dedicated office responsible for climate change was formed in the Ministry of Lands, Agriculture, Water, Climate and Rural Settlement. At the national level this office is tasked with formulating policies on climate change issues including procedures to reduce emission of Green House Gases (GHGs), the management of disasters, advocating for adaptation projects, sourcing funding and anchoring the oversight role over the key stakeholders. The Environmental Management Act, [Chapter 20:27] and the Civil Protection Act, [Chapter 10:06] are the legal instruments that are directed to deal with the management of natural hazards stemming from climate change in Zimbabwe. These legal instruments define the institutional frameworks that promote the reduction of disaster risks in addition to the implementation of adaptation and resilience projects in Zimbabwe. The hierarchy of the institutions to support disaster risk reduction from the national to subnational levels is well defined in the Civil Protection Act.

The local structure at the District level is chaired by the District Development Coordinator. Urban and Rural local authorities are members of the District Civil Protection Unit at the local level. However, the legal framework has no provision for structures that deal with disaster risk reduction at Council level, resulting in ad hoc unplanned, uncoordinated and unstructured local authority responses, many times duplicating or misaligning efforts with the central coordinating functions. This gap provoked the preparation of the RFA in order to put focused attention to resilience planning at Council level.

1.4 Urban Resilience

According to UN-Habitat (2018), urban resilience refers to the ability of any urban system with its inhabitants to maintain continuity through all shocks and stresses while positively adapting and transforming towards sustainability. Over the years, climate change has been a global threat to humanity and it culminates in the increase in natural hazards that include cyclones, flooding, landslides, severe droughts and climate related diseases such as malaria, cholera, typhoid and dysentery. Changes in rainfall patterns are common in the tropical and the sub-tropical regions, including Zimbabwe. The country is prone to increasing droughts, flash floods and short rainfall seasons. Chipinge Town has experienced disasters, whose effects have mostly affected the densely populated areas and the common ones being cyclones (Cyclone Idai), drought, hailstorms, earth tremors and flash-floods which have resulted in gulleys destruction of infrastructure and water borne diseases.

Figure 6: Water pipeline from Council's main source washed away after heavy rainfall



Council, through its collaboration with UN-Habitat, the Technical Centre for Disaster Risk Management Sustainability and Urban Resilience (DiMSUR), City of Mutare and Ministry of Local Government and Public Works, developed the Resilience Action Framework (RFA) to withstand natural and man-made hazards so as to strengthen its resilience.

CHAPTER 2

2.0 GAZA HIGH DENSITY'S RESILIENCE PROFILE





















Gaza is a high-density area in Chipinge Town, consisting of 6 wards and has 4,905 households according to the Council Database. It is located on the eastern side from the CBD about 1km off Nyaukari stream. It is bordered by Wattle plantation on the north-eastern side and urban farms to the eastern side. According to Council's archives, the settlement was established in 1946.

Gaza high density is predominantly a settlement area with some wetlands. The area is largely prone to disaster impacts due to its location, uneven terrain, high poverty levels, heavy rains and the soil types. Chipinge Town has been experiencing debilitating natural disasters in the past few years, the worst being the Cyclone Idai in 2019 induced floods where houses were destroyed, roads were badly damaged, water pipelines swept away and deep gorge-like gullies were formed in the various locations of the settlement. Gaza area was the most vulnerable community in the town because it is densely populated. In addition, there is dilapidated and aged sewer as well as water infrastructure in most of its wards. Solid waste collection in this area is also a great challenge due to the inaccessible roads. Below is a map showing the whole of Gaza area.

Figure 7: Gaza area map



The following problems came out during a community mapping exercise that was done in all the 6 high density wards:

-  Sewer blockages
-  Water pipe burst/leakages
-  Un-trafficable roads
-  Flash-floods in houses
-  Silt deposition threatening to cover houses
-  Erratic to no water supply in ward 1, 2, 3 & 4
-  Uncollected solid waste at temporary dumpsites and households
-  High unemployment rate leading to many illegal and informal, micro-small and small enterprises in the business sector
-  Discharge of untreated sewage into Nyaukari stream
-  Consumption of water from unprotected springs and wells
-  No market stalls which has led to uncontrolled mobile vending
-  Lack of awareness for disaster risk reduction coping strategies
-  Lack of disaster risk prediction systems which calls for early warning systems and strategies
-  Considerable aging population in ward 5 & 6
-  No street lighting (public safety amenities)
-  Aging trees disturbing power lines and expanding tree roots destroying water pipes
-  No ward-based clinics
-  Poor proximity and access to police stations in all wards.
-  Negative coping mechanisms
-  No alternative energy sources besides electricity


On the basis of the above needs analysis, Chipinge Town Council with its relevant stakeholders engaged to work with the communities in Gaza area to implement effective resilient interventions.

CHAPTER 3

3.0 CHIPINGE TOWN COUNCIL’S CITYRAP TOOL ROLL-OUT PROCESS

Chipinge Town’s CityRAP process was structured in four phases extending over a period of eleven months from December 2019 – October 2020. Forty-eight representative stakeholders were directly involved in this process which was inclusive. Participants were drawn from local government, public institutions, community representatives to the private sector and media. Representatives from UN-Habitat, the Ministry of Local Government and Public Works, sister Council (City of Mutare) facilitated and coordinated the CityRAP rollout process.

Table 1. CityRAP tool roll-out process

PHASE 1: CRASH COURSE	PHASE 2: DATA COLLECTION AND ORGANISATION	PHASE 3: DATA ANALYSIS ANDPRIORISATION WORKSHOP	PHASE 4: PREPARATION, REVIEW AND VALIDATION OF THE RFA
 4 days’ workshop for building appreciation of key concepts of risk and resilience as well as understanding the CityRAP tool methodology.	 Municipal Self-Assessment.  Participatory planning at neighborhood level.  Data compilation and organization.	 Focus group discussions and prioritization of issues needing specific attention to build resilience.	 Drafting and reviewing the Resilience Framework for Action (RFA) by the town council staff, stakeholders and community members.

3.1 Phase 1

Crash course (10th – 13th December 2019) intended at stimulating the understanding of the overall process and the key concepts of resilience and disaster risk management

Figure 8: Council stakeholders going through basic familiarization of the urban resilience concept in Chipinge Town



The crash course was facilitated by a team of experts from UN- Habitat targeting municipal and local stakeholders. The primary objective of the course was to reach a common basic understanding of urban risk and resilience concepts, focusing on demystifying their complexity (UN-Habitat

Report, 2018). The last day was dedicated for training of trainers (ToT) of the Council's focal persons to capacitate them to lead Phase two on data compilation and organization. The crash course enhanced the capacity of Chipinge Town Council's staff and its stakeholders to continue with the exercise in the future and to cascade the skills across other neighbourhoods. The training included strategic local leadership from the office of the Member of Parliament for Chipinge Central, the District Development Coordinator, eight urban ward Councillors, Government Head of Departments, Senior Council staff, representatives of the Council's Workers' Committee and key stakeholders. The course was organized with an array of interactive sessions which included games, group exercises, debates, plenary discussions, audio-visual materials, presentations and simulations. These activities ensured the effective comprehension of the City RAP process and its under-lying concepts. Accordingly, eight focal points from Chipinge Town Council (CTC) were identified and trained to lead the resilience planning process.

3.2 Phase 2

Data collection and organization (09th to 13th March 2020) involved the Chipinge Town Council's self-assessment and the community risk mapping.

The focal points completed Council self-assessment questionnaires which were distributed to all Chipinge Town Council's (CTC) four Departments and the responses were compiled on a response sheet. The questionnaires aimed to assess the state of resilience through the knowledge, opinions and perception of CTC Executive staff. The self-assessment questions covered five thematic pillars underlying the concept of resilience in the CityRAP tool, i.e., **urban governance, urban planning and environment, resilient infrastructure and basic services, urban economy and society, and urban disaster risk management**. The focal persons summarized the results into five matrices for analysis determination(s). The goal of analysing these matrices was to enhance the identification of issues that need most priority for building resilience.

Figure 9: The focal persons processing the self-assessment questionnaires



The focal persons went on to facilitate a participatory risk mapping with the Chipinge town community in all its 8 wards. The following hazards were identified using satellite images: cyclones,

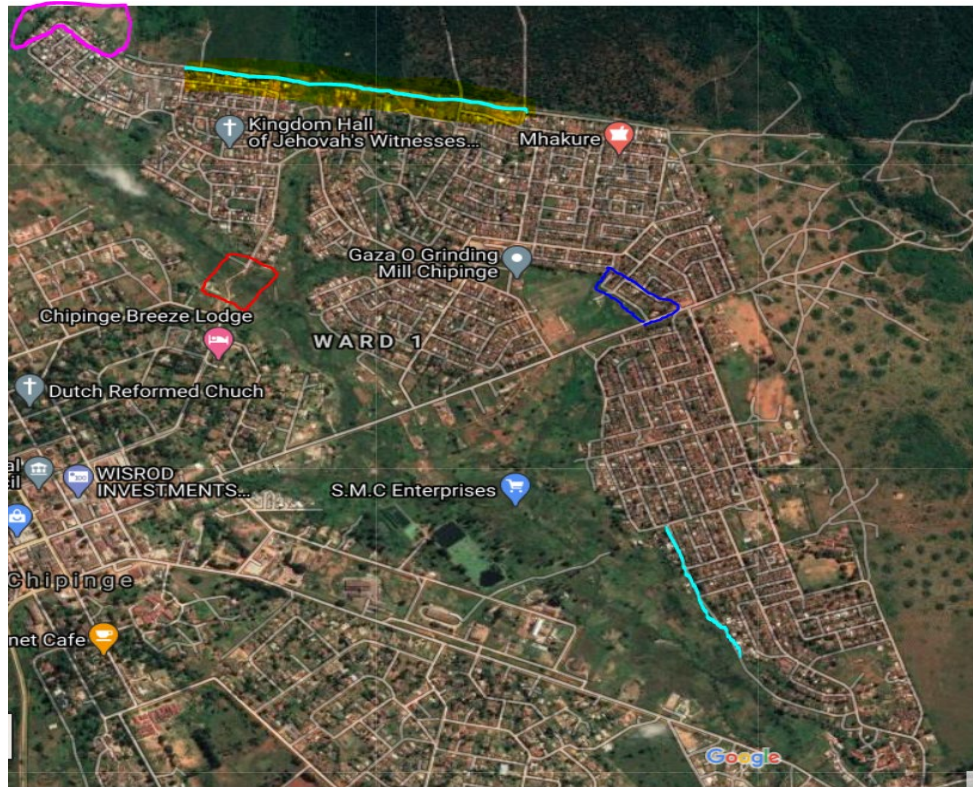
drought, compromised spatial planning void of critical urban plan strategic documents i.e. master plan, local development plan, absence of a Local Economic Development strategy, absence of disaster risk reduction strategy, lack of early warning systems and strategy, flash floods risks, insufficient street lighting (public safety), poor infrastructure (roads design, drainage system, water and sewer infrastructure, building codes) aging and wearing due to rapid population growth, erratic supply of potable water in high density wards (due to supply which does not meet demand and lack of storage tanks), few to no solid waste collection in high density wards and also lack of energy source back up to electricity.

In terms of vulnerabilities, the following were cited, uncollected solid waste, siltation of main source of water (Bangazaani Dam) due to illegal human settlements upstream who are indulging in deforestation, stream bank cultivation and brick moulding activities, mugging due to lack of public safety amenities, lack of disaster risk assessment awareness, water contamination due to untreated sewer discharge in Nyaukari stream (water borne diseases), loss of property due to cyclones and flash floods risk, disease outbreaks due to uncollected solid waste. Below is the satellite image of Chipinge Town showing the *risk areas* and the *risk map* of Chipinge which is being shown by the different colours:

Figure 10: Satellite image of Chipinge Town showing risk areas (Ward 1 to 6)



Figure 11: Risk map of Chipinge shown by the different colours



Key:

- Proposed Reservoir tank site
- Area that needs storm water drain construction
- Area that needs a link bridge (Gaza to CBD)
- Area prone to flooding (TM houses)

3.3 Phase 3

Data analysis and prioritization workshop (8th - 12th March 2020) comprised the analysis and discussion of results, which led to the identification of key priority issues.

Chipinge stakeholders organized five focus group discussions; one per thematic resilience pillar, involving twenty-three stakeholders (representatives from the Town Council, community, NGOs, Government Departments and relevant stakeholders). Outcomes from the self-assessment matrices were discussed and validated. This was followed by an in-depth discussion of results from the risk mapping with all stakeholders, and finally agreeing upon a list of key issues pertaining to the respective resilience pillars. Chipinge participants identified Wards 1-6 as critical priority areas for Town Council to improve on since they are densely populated, and dwellers are low income earners. Wider consultations with relevant and interested stakeholders unpacked the key priority issues and gaps.

A total of *twenty priority issues* were identified across the five resilience pillars for Chipinge as follows:

- a) Embracing sustainable roads design and drainage construction,
- b) Improve the potable water infrastructure and facilitating alternative water source to augment the sole Bangazaani Dam,
- c) Improving the distribution of educational facilities in high density wards,

- d) Establishing ward-based health facilities and drug provision,
- e) Gulley reclamation in areas that were affected by landslides/flash floods due to undulating terrain,
- f) Establishing link bridge from town to ward 1,
- g) Servicing storm water drains,
- h) Construction of standard market stalls with public toilets,
- i) Upholding the use of open spaces,
- j) Upgrading the sewer reticulation to address rampant sewer blockages,
- k) Enhancing community sanitation through timely collection of solid waste,
- l) Improving on public lighting amenities,
- m) Enhancing road signage,
- n) Allocating and maintaining appropriate open spaces for future planning and disaster assembly points,
- o) Establishing sustainable strategic urban planning documents i.e. Master plan, Local Development Plan, Disaster Risk Reduction Strategy etc.,
- p) Crafting bye-law(s) and enforcement of practices that prevent illegal activities i.e. stream bank cultivation, stone crushing, sand extraction, brick moulding, charcoal business, deforestation (firewood collection),
- q) Establishing Local Economic Development strategy to boost local GDP,
- r) Embracing alternative energy sources besides electricity,
- s) Regulating air and water pollution.

Figure 12: Plenary discussions on the resilience pillars



Thereafter, a full day prioritization workshop comprising about forty key local stakeholders was convened. Outcomes from the focus group discussions (the nineteen priority issues) were deliberated and narrowed down by identifying common issues, and then the key stakeholders prioritised the most adequate issues to build urban resilience.

Six priority issues for Chipinge that emerged from the discussions are as follows: -

1. Quality of Infrastructure,
2. Early Warning Systems and Strategies,
3. Local Economic Development,

4. Solid Waste Management,
5. Corporate Governance,
6. Citizen Engagement.

3.4 Phase 4

Preparation, review and validation of the Resilience Framework for Action (RFA) (26th to 30th October 2020) concluded the City RAP process.

The RFA outlined priority actions that would be the pathway to enriched urban resilience and proposed tangible activities and projects in the short, medium and long term. The RFA comprised a list of objectives, actions, activities, a timeline, and an action Gantt chart.

In pursuit of this, the focal persons first conducted a detailed baseline analysis for each priority issue which included probing the status of each priority issue against the RFA components of policies and legislation, urban plans, institutional set up, finance and existing interventions, to assess the Town Council's capacity in undertaking the identified priority issues.

The result from the baseline survey informed the formulation of the RFA objectives and scores. The results from the baseline assessment are presented in Figure 13, where areas characterized by lower scores are highlighted (e.g. circles in the Figure 13). Drawing from the identified area(s), specific goals (priority action areas) were identified to explicitly tackle the "weaknesses" raised by the baseline assessment matrix. Accordingly, for each goal a specific action, divided into tangible activities, was then designed.

The objective of the workshop was to review the draft RFA as well as to validate the priority issues identified during the workshop with Council's stakeholders. The priority actions were broken down into priority issue, priority actions and timeframes. Based on the risk map (Fig. 2), an action map was designed to show those areas which can be spatially defined. The earlier six priority actions were remodelled and narrowed to five, urban plans were validated as cross-cutting across. The remaining five priority areas are as follows: -

1. Infrastructure development
2. Solid waste management
3. Financial management
4. Local Economic Development
5. Early Warning Systems and Strategies

The management of disasters in Chipinge is a municipal development issue that Chipinge Town Council cannot ignore, hence it has prioritized some initiatives to enhance its capacity to proactively respond. It is the responsibility of the policy makers to ensure the reduction of impacts of climate change disasters that result in loss of life, destruction of economic assets and the environment so as to attain sustainable development in the town. The RFA matrix below provides guidance on building resilience for Chipinge Town Council. The table below shows the results of the baseline assessment conducted in phase 4. These were validated by Chipinge Town Council, the community and stakeholders.

Table 2: Results of the baseline assessment conducted in Phase 4

RFA Components	Policies & Legislation	Urban Plans	Institutional Set-up	Finance	Interventions
Priority Issues					
Corporate Governance & Citizen Engagement	2	2	2	1	2
Early Warning System	1	1	1	1	2
Local Economic Development	1	1	1	1	1
Solid Waste Management	1	1	2	1	2
Infrastructure Development	2	1	2	1	1









3.5 PRIORITY ACTIONS MATRIX FOR CHIPINGE TOWN COUNCIL BASED ON THE BASELINE ASSESSMENT

Table 3: Priority Actions Matrix

	Policies and Legislation	Urban Plans	Institutional Set-Up	Finance	Interventions
Infrastructure Development	2	1	2	1	2
Solid Waste Management	2	1	2	1	2
Local Economic Development	1	1	1	1	1
Early Warning Signs and Systems	1	1	1	1	2
Citizen Engagement and Participation	2	2	2	1	2

The priority scheduling table shows the objectives of priority actions identified from the baseline assessment. Times frames are given to guide the implementation of RFA.

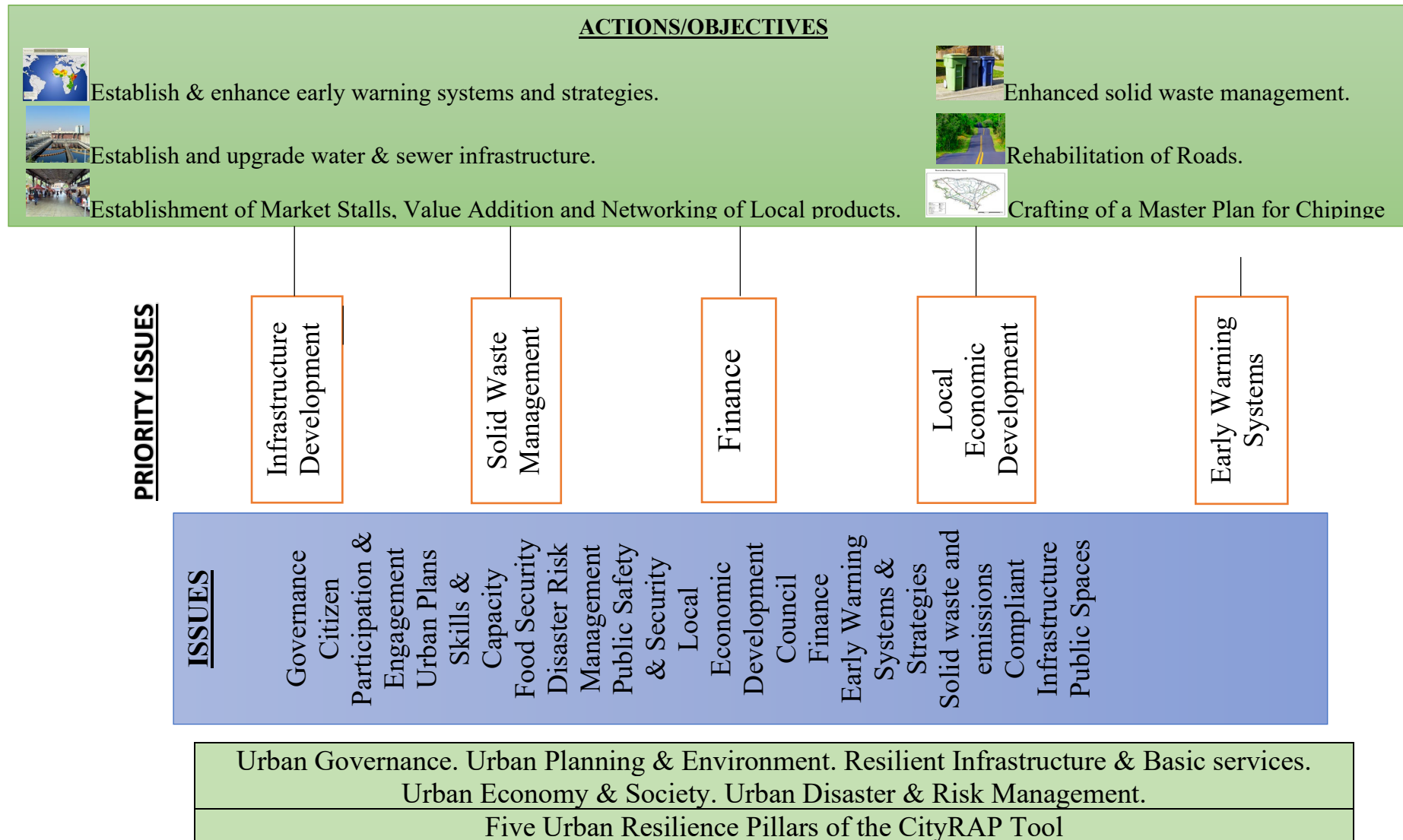
Table 4: Priority Scheduling

PRIORITY ISSUE	PRIORITY ACTIONS	TIMEFRAME (YEARS)		
		0-2	2-5	5-10
Infrastructure Development	 Establishing and upgrading water and sewer infrastructure in Gaza (Ward 1-6).  Rehabilitation of road infrastructure			
Solid Waste Management	 Rehabilitation of roads in Gaza (Ward 1-6).  Comprehensive management system of solid waste in Gaza (Ward 1-6)			
Finance	 Digitization of Council Revenue Collection Systems.  Engaging rate payers for buy-in			
Local Economic Development	 Establishment of Markets, Value Addition & Networking of local Products			
Early Warning Systems	 Establishment of Early Warning System Utilities, Facilities & Capacitation of Town Council Staff, Relevant Government Departments, Stakeholders & Residents.			

CHAPTER 4

4.0 INTRODUCTION

This Chapter provides a detailed presentation of the problem tree, issues, targets and indicators. That is where the priority issues are broken down into activities, indicators and targets.



4.1 INFRASTRUCTURE DEVELOPMENT

ACTION 1: Establishing and upgrading water and sewer infrastructure to enable 24-hour water supply and sewer services in Gaza (Ward 1-6).							
ACTIVITY	INDICATORS	TARGETS	PRIORITY Short term (0-2 years)	PRIORITY Medium term (2-5) years	PRIORITY Long-term (5-10) years	LINKED TO PRIORITY ACTION	LEAD DEPARTMENT(S)
<i>Activity 1.1</i> Crafting of Chipinge Master Plan	Improvements in urban planning	1 Master Plan crafted				01	Engineering and Technical Services, Housing & Community Services and Administration
<i>Activity 1.2</i> Conducting consultative meetings with affected communities for their buy-in & support	Number of complaints captured in the complaints database from the communities affected	6 consultative meetings with the affected communities held/conducted				01	Administration and Technical Services in collaboration with Finance Department
<i>Activity 1.3</i> Establishing a dedicated power-line at Bangazaani Pump house	Changes in power-cuts & disruption of continuous water supply	Continuous water supply(24 hours supply)				01	Engineering and Technical Services in collaboration with Finance department & ZESA.
<i>Activity 1.4</i> Upgrading of filtration capacity at Bangazaani	% increase in volume and quality of water	Volume of water produced increased from 5.5ML to 7.5ML				01	Engineering and Technical Services in collaboration with Finance department
<i>Activity 1.5</i> Procuring additional equipment for Bangazaani Laboratory (water quality testing)	Level of improvement in quality of water	1 bacteriological testing kit procured				01	Engineering and Technical Services in collaboration with Finance department

Activity 1.6 Upgrading Bangazaani - Kabanga conveyance pipeline from 300mm to 450mm diameter	% improvement in water production	2.2 km upgraded				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.7 Procuring and installing GIS system	Level of improvement in Council operating system	GIS system installed up-to 80%				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.8 Constructing 5 mega-litre reservoir tank in Gaza	% improvement in water storage capacity	1 Reservoir tank constructed				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.9 Upgrading of water reticulation from ward 1 to ward 6 by replacing obsolete pipes	Level of reduction in water bursts and non-revenue water losses	10 km water reticulation pipes upgraded				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.10 Establishing water reticulation system in Ward 2 extension & Gaza A (Ward 6)	Increase in access to potable water	7.6 km water reticulation system established				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.11 Establishing 300mm diameter conveyance line from Tarato to Gaza	Per capita supply of water	2.5 km (300mm) conveyance line established				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.12 Procuring solar equipment at two booster pumps as back up support to electricity	% increase in continuous supply of water	2 booster pumps procured				01	Engineering and Technical Services in collaboration with Finance department

Activity 1.13 Drilling and equipping 6 high yield boreholes	Level of improvement in water supply	6 high yield boreholes drilled and equipped to cater for the 2ML shortfall from Bangazaani dam				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.15 Upgrading of sewer reticulation system and designs in ward 1 to 6	Level of reduction in sewer burst and water borne diseases	6km sewer line upgraded				01	Engineering and Technical Services in collaboration with Finance department
Activity 1.16 Lining of pond A & construction of baffles	Change in sewage treatment	1 sewer pond lined and the pond baffles constructed				01	Engineering and Technical Services in collaboration with Finance department
ACTION 2: Rehabilitation of road infrastructure in Gaza (Ward 1-6)							
Activity 2.1 Constructing storm water drains	Reduction in impact of flash floods in settled areas of wards 1, 2, 3 & 4	12 km storm water drains constructed				01	Engineering and Technical Services in collaboration with Finance department

4.2 SOLID WASTE MANAGEMENT

ACTION 1: Rehabilitating of roads to enable daily collection of refuse in Gaza (Ward 1-6).							
ACTIVITY	INDICATORS	TARGETS	PRIORITY Short term (0-2 years)	PRIORITY Medium term (2-5) years	PRIORITY Long-term (5-10) years	LINKED TO PRIORITY ACTION	LEAD DEPARTMENT
Activity 2.2 Rehabilitating roads in wards 1,2,3	Level of improvement in road accessibility and trafficability	41.2km rehabilitated				02	Engineering and Technical Services in collaboration with Finance department
Activity 2.3 Constructing of Town Gaza E link bridge	Level of improvement in road accessibility and trafficability	1 link bridge constructed				02	Engineering and Technical Services in collaboration with Finance department

<i>ACTION 2: Management of Solid waste in Gaza (Ward 1-6)</i>							
<i>Activity 2.4</i> Constructing an appropriate landfill	% improvement in management of solid waste	1 landfill constructed				02	Engineering and Technical Services in collaboration with Finance department
<i>Activity 2.5</i> Procuring of Skip-bins in ward 1 to 6	Reduction in illegal dumping of solid waste and outbreak of diseases	16 skip-bins procured				02	Engineering and Technical Services in collaboration with Finance department
<i>Activity 2.6</i> Establishing of infrastructure for recycling of solid waste.	Change in alternative sources of income from solid waste.	One solid waste recycling infrastructure constructed				02	Engineering and Technical Services in collaboration with Finance department

4.3 FINANCE

ACTION 1: Digitization of Council Revenue Collection Systems							
ACTIVITY	INDICATORS	TARGETS	PRIORITY Short term (0-2 years)	PRIORITY Medium term (2-5) years	PRIORITY Long-term (5-10) years	LINKED TO PRIORITY ACTION	LEAD DEPARTMENT
<i>Activity 3.1</i> Establishing a comprehensive council debtors' database	Updated database	One integrated database with all modules (ERP)				03	Finance Department.
<i>Activity 3.2</i> Upgrading of Server to cater for system upgrade	Improvement in integration with other new developing systems and departments	Windows 2019 server procured				03	Finance Department

Activity 3.3 Procuring of Revenue collection gadgets to collect from vendors and parking fees updating into the system	% change in revenue collection	Revenue collection increased from 50% to 80%				03	Finance Department
Activity 3.4 Building staff and front-line capacity on customer care	Reduction in complaints and queries	Complains and queries reduced from 70% to 30%				03	Finance Department
Activity 3.5 Conducting regular engagement with rate payers for buy-in	Reduced complaints from rate payers Increase in payments of bills	Quarterly engagements held				03	Finance Department
Activity 3.6 Establishing one stop shop to handle clients	Clients served within stipulated time frames	As per service level of benchmarking standards				03	Finance Department









4.4 LOCAL ECONOMIC DEVELOPMENT

ACTION: Establishing of Markets, Value Addition & Networking of local Products							
ACTIVITY	INDICATORS	TARGETS	PRIORITY Short term (0-2 years)	PRIORITY Medium term (2-5) years	PRIORITY Long-term (5-10) years	LINKED TO PRIORITY ACTION	LEAD DEPARTMENT
Activity 4.1 Carrying Market Research of locally produced products	Change in knowledge levels of products availability and market opportunities to exploit	Investment Portfolio document produced				04	Finance department & Admin department
Activity 4.2 Establishing a Market Centre in Chipinge	Level of improvement in market networks	1 market centre established				04	Finance department & Admin department

Activity 4.3 Twinning with other Councils locally and abroad. Creating of linkages between CTC and CRDC in business	Level of improvement in business relationships and networking	1 local authority in Zimbabwe and 1 local authority abroad twinned				04	Finance department & Admin department
Activity 4.4 Establishing of an idea and innovation hub	Change in business interactions between the Council and its stakeholders	1 innovation hub established				04	Finance department & Admin department

4.5 EARLY WARNING SYSTEMS

ACTION: Establishing of Early Warning System Utilities, Facilities & Capacitation of Town Council Staff, Relevant Government Departments, Stakeholders & Residents to enable 24/7 safe and secure town.							
ACTIVITY	INDICATORS	TARGETS	PRIORITY Short term (0-2 years)	PRIORITY Medium term (2-5) years	PRIORITY Long-term (5-10) years	LINKED TO PRIORITY ACTION	LEAD DEPARTMENT
Activity 5.1 Compiling of disaster risk assessment report	Change in level of awareness on disasters	1 comprehensive report produced				05	Engineering department, Admin & Finance department

<p>Activity 5.2 Procuring and installing of early warning system utilities. (weather stations, assembly points, road signs, billboards, ambulance, emergency sirens)</p>	<p>Level of change in coping mechanisms to disasters</p>	<ul style="list-style-type: none">  1 weather station established  80 Road signs installed  1 Fire station established and capacitated  Toll free hotline centre established,  8 disaster assembly points established  2 ambulances procured  12 billboards installed  8 emergency sirens procured and installed 				<p>05</p>	<p>Engineering department, Admin & Finance department.</p>
<p>Activity 5.3 Conducting technical skills capacitation on disaster risk reduction for staff and residents</p>	<p>Competency and efficiency in identifying and responding to disasters</p>	<p>10 technical skills capacitation trainings conducted</p>				<p>05</p>	<p>Engineering and Technical Services, Administration & Finance department.</p>
<p>Activity 5.4 Formulating Disaster risk reduction policies, i.e., road traffic procedures manual, climate change adaptive by-law, fire by-law, local environment adaptation plan</p>	<p>Improvement in operating efficiency and responsiveness to disasters</p>	<p>5 policies to be formulated</p>				<p>05</p>	<p>Engineering and Technical Services, Administration & Finance department.</p>

4.6 CONCLUSION AND WAYFORWARD

Chipinge Town Council is grateful for the RFA document produced with support from UNDP, UN-Habitat, the Ministry of Local Government and Public Works and the City of Mutare. The tool has allowed Council to mainstream resilience into its existing and future plans, policies, budgets, institutional set-ups and actions. Council is hopeful that the tool will enable mainstreaming of knowledge and awareness about the resilience concept among the community and all its stakeholders. The tool has also put Chipinge Town Council and its urban stakeholders in the driver's seat of urban resilience planning starting from the grassroots level. The RFA tool has provided an opportunity for justification of disaster issues and further development of concept notes for priority issues for the funding of future municipal development programs.

REFERENCES

Constitution of Zimbabwe Amendment Number 20 of 2013.

Council's Archives.

<https://earthquaketrack.com/zw-01-chipinge/recent> (Accessed 24 November 2020)

Population Survey (2012), ZimStat Census, Harare, Zimbabwe.

Presidential Proclamation number 18 of 2002 (Chipinge Town status).

Service Level Benchmarking reports for Chipinge (2019).

Strategic Plan 2019-2020, Chipinge Town Council.

UN-Habitat (2018), CityRAP Tool, City Resilience Action Planning Tool.