DIMSUR

TECHNICAL CENTRE FOR DISASTER RISK MANAGEMENT, SUSTAINABILITY AND URBAN RESILIENCE IN SOUTHERN AFRICA

BASELINE STUDY

MARCH 2014

Working Document for Discussion

List of Figures, Tables and Boxes

Figure 1: Milestones of the DIMSUR establishment process **5**
Figure 2: Governance structure of the DIMSUR **7**
Figure 3: Baseline Study methodology **11**
Figure 4: Types of stakeholders involved in offer and demand of URRR services **12**
Figure 5: Percentage of urban population in DIMSUR countries, 1950-2050 **16**
Figure 6: Urban Growth Rate in DIMSUR countries, in percentage **16**
Figure 7: What were the main challenges your city/town faced to overcome the damage and return to the previous condition? **24**
Figure 8: Reasons why activities and projects your city/town is undertaking at the moment are insufficient to reduce risk 24
Figure 9: What kind of service/activity provided by a regional centre such as the DIMSUR would you be more ready to engage with? 25

Table 1: The DIMSUR at a glance **6**
Table 2: Stakeholders mapping **13**
Table 3: Summary of the Key Findings of the Baseline Study **15**
Table 4: Urban profile of selected countries 17
Table 5: DRR/M and CCA related training provided by Universities **29**
Table 6: Recommended areas of work for the DIMSUR according to findings **31**

Box 1: Feasibility Study **8**
Box 2: Baseline figures **12**
Box 3. Training preferences according to 18 consulted cities **27**

CONTENT

ACKNOWLEDGEMENTS ERROR! BOOKMARK NOT DEFINED.
LIST OF FIGURES, BOXES, TABLES AND GRAPHS 2
LIST OF ACRONYMS AND ABBREVIATIONS ERROR! BOOKMARK NOT DEFINED.
EXECUTIVE SUMMARY ERROR! BOOKMARK NOT DEFINED.

INTRODUCTION AND BACKGROUND 4

CONTEXT: THE DIMSUR PROCESS, SCOPE AND OBJECTIVE 5

CHAPTER 1: THE BASELINE STUDY 9

1.1. SCOPE AND OBJECTIVE 9
1.2. METHODOLOGY 10

CHAPTER 2: FINDINGS 15

2.1. THE URBAN DIMENSION OF DISASTERS 15
2.2 ASSESSING EXISTING CAPACITIES ON URBAN RISK REDUCTION AND RESILIENCE 20
2.3 GAPS TO BE ADDRESSED AND OPPORTUNITIES FOR THE DIMSUR 24

CHAPTER 3: RECOMMENDATIONS 31

BIBLIOGRAPHY 33

ANNEXES 33

Introduction and Background

This Baseline Study has for overall goal of identifying the current **offer and demand in terms of urban risk reduction and resilience services** by local and central governments, as well as NGOs and other relevant entities in southern Africa. This study is the first product that will orient the areas of intervention of the ***Sub-Regional Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience*** **(DIMSUR),** following its official establishment in June 2013. The launch of the DIMSUR is the result of a long process that started in 2008, led by the governments of Madagascar, Malawi, Mozambique and Union of Comoros. The process was facilitated by the United Nations Human Settlements Programme (UN-Habitat), in cooperation with the United Nations International Strategy for Disaster Reduction (UN-ISDR) and with the support of the European Commission Directorate-General Humanitarian Aid and Civil Protection (ECHO).

The DIMSUR, which will be headquartered in Mozambique with sub-units in the other 3 participating countries, was established after a long process of dialogue and consensus building. Aware of the significant disaster risk reduction activities and efforts in southern Africa, the stakeholders involved in this process have had as one of their primordial concerns the need for the Centre to bring clear added-value, i.e. to respond actual needs and avoid overlapping the existing efforts/activities. Thus, the four founding member states initially agreed that the DIMSUR will have as flagship theme **urban risk reduction and resilience (URRR)**. The joint decision for adopting this theme was based on the *overall perception* that urban areas are becoming increasingly vulnerable in southern Africa largely due to fast-paced urbanisation, which is compounded by a capacity gap and a low degree of awareness.

Therefore, there is a need for undertaking a comprehensive study that would provide **clear evidence** to the hypothesis of the URRR scope as a valid niche for the DIMSUR, through:

1. The identification of **existing demand for URRR services** from government (at different levels and institutions), NGOs, CBOs, IOs, universities and other relevant entities in southern Africa;
2. Mapping of the **existing offer of URRR services** by the government (at different levels and institutions), NGOs, CBOs, IOs, universities and other relevant entities in southern Africa;

The present baseline study fits within this context. To obtain a realistic picture of the present situation of URRR services in southern Africa, the study collected data in the 4 targeted countries, by contacting the relevant stakeholders directly. Therefore, this study has for specific objectives to **better position the DIMSUR within the existing services in the region** and to **guide its future activities**, through recommendations which will serve as basis for the elaboration of its 2-year Work Plan.

The present document is composed of four main parts. **Firstly**, we will briefly contextualise the baseline study within the DIMSUR and its 5-year conceptualisation and establishment process, with a particular accent on the findings and recommendations of the feasibility study carried out in 2011. **Secondly,** the baseline study's scope, objectives, key questions and methodology will be presented in detail. **Thirdly,** we will introduce the findings and conclusions obtained based on

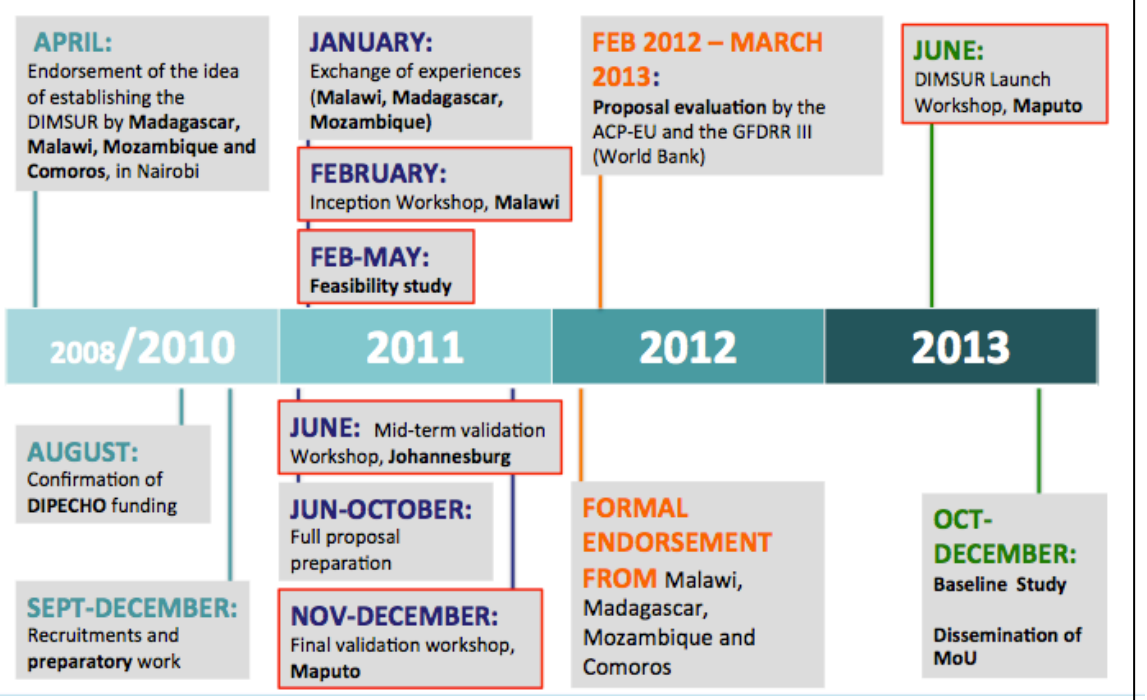
the data collected, presented by country with a thematic regional overview. **Finally,** recommendations for the 2-year Work Plan will be delineated.

Context: the DIMSUR Process, Scope and Objective

The governments of Madagascar, Malawi, Mozambique and the Union of Comoros have launched the establishment of the DIMSUR through a workshop held in Maputo, Mozambique, from 3 to 4 June 2013. The Centre, which will be headquartered in Maputo, is a joint effort of the four countries and is supported by the ACP-EU Natural Disaster Risk Reduction Programme, an initiative of the African, Caribbean and Pacific Group, funded by the European Union, and managed by the Global Facility for Disaster Reduction and Recovery (GFDRR) at the World Bank.

The idea of establishing the DIMSUR, however, dates back to 2008, when first informal exchanges occurred between UN-Habitat and the government authorities of Mozambique. In 2010, UN-Habitat received the green light from representatives from Madagascar, Malawi, Mozambique and Union of Comoros to conduct a feasibility study to confirm the need for such a Technical Centre in southern Africa. The study was funded by ECHO through its Disaster Preparedness Programme (DIPECHO) and was presented and validated through an inception, an intermediate and a validation workshop, organised in 2011. During the following months, UN-Habitat facilitated the preparation of a full proposal for the establishment and operationalisation of the DIMSUR based on the results of the validated study. The proposal was submitted -with a formal endorsement at the highest political level of the four countries- to the ACP-EU Natural Disaster Risk Reduction Programme. After a long appraisal and evaluation process, it was finally approved in March 2013. The main milestones of the process of establishment of the DIMSUR are summarised in ***Figure 1.***

Figure 2: Milestones of the DIMSUR establishment process



As of today, a **Memorandum of Understanding** and the **DIMSUR Charter**[1] define the DIMSUR as a non-profit, autonomous, regional organization, international in status and non-political in management, staffing and operations. The Centre has scientific, educational, technical, developmental and humanitarian purposes, and benefits from inter-governmental support.

The Centre shall provide disaster risk reduction (DRR), climate change adaptation (CCA) and urban resilience (UR) technical assistance and knowledge to address the needs of its Member States in alignment with the existing global Hyogo Framework for Action (HFA), the African Union (AU), the Southern African Development Community (SADC) and the Indian Ocean Commission (IOC), to reduce the vulnerability and build the resilience of communities to natural and other hazards. ***Table 1*** below summarises some of the key features of the DIMSUR according to the present version of the MoU and Charter.

Table 1: The DIMSUR at a glance	
Membership	4 Founding Member States (Madagascar, Malawi, Mozambique and Union of Comoros); membership is open for countries of the Southern African region willing to adhere to the Charter and sign the MoU
Overarching Goal	**To develop local, national and sub-regional capacities** for reducing vulnerability and building the resilience of communities to natural and other hazards in the Southern African Region through the provision of disaster risk reduction (DRR), climate change adaptation (CCA) and urban resilience technical assistance and knowledge
Main services	**1. Training** and capacity building activities 2. Provision of qualified **technical assistance** **3. Awareness** raising and advocacy **4. Compilation, preparation, sharing, dissemination** of tools, best practices, plans and strategies 5. Exchange **of experiences** and cross-fertilisation 6. Identification of adequate adaptation/mitigation **small-scale infrastructural models and solutions**
Headquarters	Maputo, Mozambique, within the premises of the National Meteorology Institute (INAM)
Official languages	English, French and Portuguese
Financial provisions	Funds, resources and assets will be acquired through donations, grants, income generated by DIMSUR activities and assets and any other lawful means consistent with the objective of the DIMSUR

The governance structure of the DIMSUR will be composed of **four organs:** the Conference of Ministers, the Executive Board, the Consultative Group and the Secretariat, which are detailed below (see also **Figure 2**):

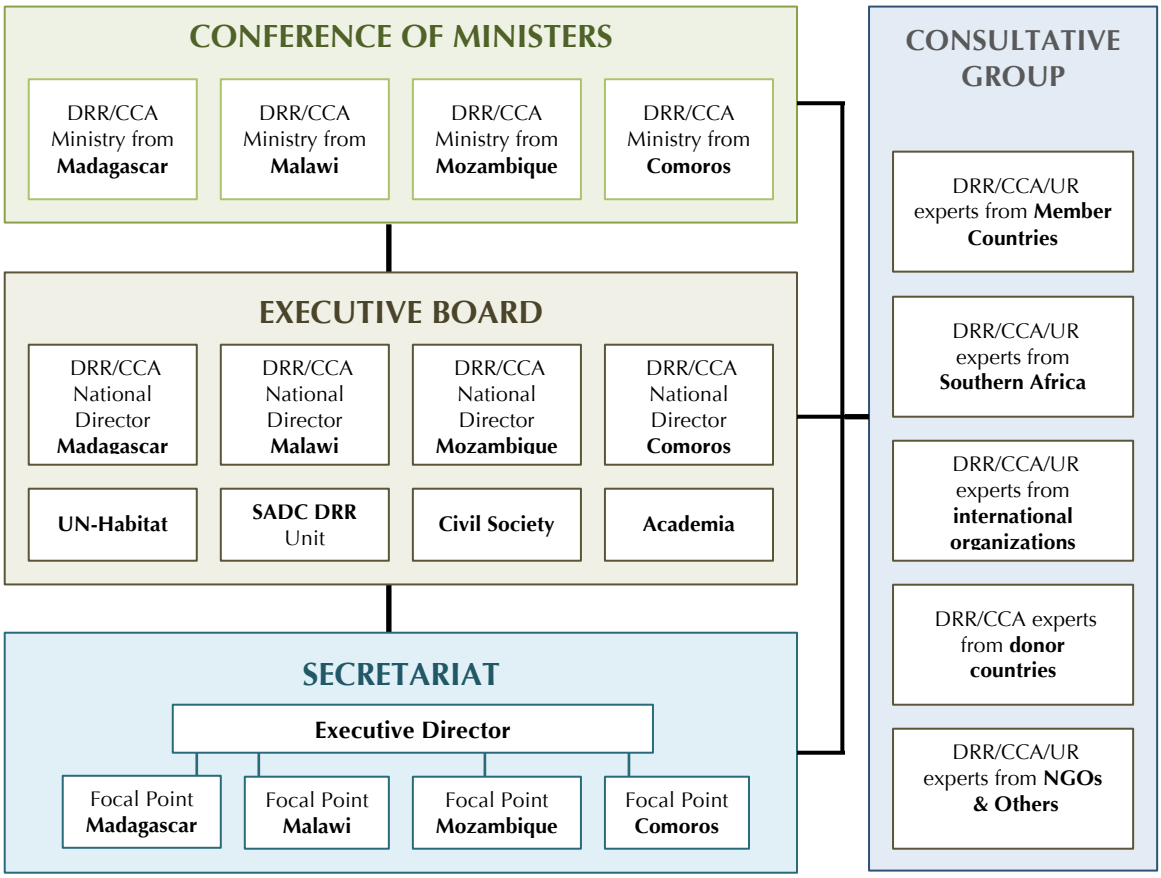
- The ***Conference of Ministers***, formed by Ministers of the Member States with national responsibility for DRR and CCA, is the organ with the duty of endorsing and validating the main strategic choices and goals of the DIMSUR, such as its overall mission, vision and

[1] The Memorandum of Understanding (MoU) was produced by the UN-Habitat as *ad interim* secretariat and is currently being reviewed by the four countries to be signed by them all by May 2014. The DIMSUR Charter is an annex of the MoU and needs to be approved before the signature of the Memorandum.

policies, and of approving some of the more important decisions, such as the composition of the Executive Board and the inclusion of new Member States.

- The ***Executive Board*** is composed by the National Directors responsible for DRR and CCA from each Member State a representative from SADC DRR Unit, a representative from UN-Habitat as main facilitator of the DIMSUR initiative, and representatives from civil society and academia. Its main role is to review and approve (or submit for the Conference of Ministers for approval) the proposals of the Secretariat for policies, strategies, work-plans, budgets, among others.
- The ***Consultative Group*** is a body consisting of representatives of relevant DRR, CCA and urban resilience stakeholders from Member States and the southern Africa region as well as internationally recognised DRR, CCA and urban resilience experts and representatives of international organizations, bi-lateral and multi-lateral donors, NGOs and others. It will be essentially a consultative body with the role of assisting and providing inputs for the implementation of the Centre activities and for guiding its strategic decisions.
- The ***Secretariat*** consists of the Executive Director of the DIMSUR together with the National Focal Points, one per Member State. Apart from providing the Secretary to the Executive Board, the Secretariat is the operational management of the Technical Centre.

Figure 2: Governance structure of the DIMSUR



Box 1: Feasibility Study

Carried out in the first semester of 2011 with DIPECHO funding, the Feasibility Study was a comprehensive exercise that aimed at assessing the feasibility, under present and foreseeable conditions, of establishing a DRR, CCA and Urban Resilience Technical Centre in Southern Africa by: (i) identifying the problems and needs to be addressed in terms of DRR institutional capacity, strategies, policies and implementation of activities, (ii) critically analysing the risks and opportunities regarding the possibility of establishing the centre and (iii) deriving recommendations for establishing such centre.

The results obtained by the feasibility study were presented and validated by the stakeholders through a regional workshop in Johannesburg in June 2011, during which feedback was received. Among the key findings of the study, a few are re-proposed below, considering that they are linked to the questions and conclusions of the present study:

1. **Increasing vulnerabilities:** Hazard profiles and vulnerabilities are already significant within member countries, i.e. Madagascar, Malawi, Mozambique and Union of Comoros; this is compounded by the effects of different phenomena – such as climate change, environmental degradation and ***urbanisation***. In fact, Africa is the fastest urbanising continent (due to rural-urban migration, access to job opportunities and livelihood, displacements caused by conflicts or natural disasters, etc.), which is leading to increasing numbers of people living in highly vulnerable locations.
2. **Lack of ability to cope with disasters and climate change:** consulted governments are concerned on their ability to cope with hazards and the effects of climate change. Main concerns include: (i) lack of capacity at different levels, (ii) lack of overall sensitization and DRR culture, (iii) limited information and technical understanding, (iv) lack of resources necessary to address related risks, (v) overlapping institutional mandates in DRR, weak inter-sectorial coordination and decentralisation of capacities;
3. **Growing network of actors:** currently there is a proliferation of organizations and institutions across southern Africa undertaking work that relates to climate change.
4. **Need to improve the integration of DRR initiatives with the existing academic efforts in the region:** The excellent existing academic initiatives - such as Peri Peri U and North-West University in South Africa - meant for DRR capacity development need to be more systematically linked to the achievement of national and regional DRR programme objectives, by strengthening directly the competent national/regional institutions.

Furthermore, a few **recommendations** from the feasibility study should be briefly recapitulated, as they may shed light to many of the baseline study's findings:

- Among **its main focus areas**, the DIMSUR should (i) propose innovative DRR programmes and activities and (ii) address the needs of vulnerable communities by providing technical support for awareness-raising and implementation of practical actions;
- A certain proportion of the centre's activities **should be virtual**;
- The DIMSUR, in order **to ensure its added-value**, should identify technical specialties that give it its individuality.

CHAPTER 1: The Baseline Study

1.1. Scope and Objective

Following the formal establishment of the DIMSUR as an independent regional organization concerned with DRR, CCA and urban resilience, the governments of the four founding Member States and UN-Habitat, acting as main facilitator, faced **two main questions** that needed to be urgently elucidated for the Centre to be operational:

- Given the need for the DISMUR to identify **a technical speciality/niche to ensure its added value** and considering that fast-paced urbanisation in one of the main dynamics aggravating vulnerabilities in Southern Africa, as per the feasibility study, should the **DIMSUR maintain an initial focus on urban risk reduction and resilience?**
- If an urban focus is to be adopted, how **can the DIMSUR be relevant and affirm its individuality within the existing DRR and CCA efforts in urban areas in southern Africa?**

These two questions emerged during the consensus-building process for establishing the Centre, and came up again at the DIMSUR launch workshop held in Maputo in June 2013. In this occasion, leaders from Madagascar, Malawi, Mozambique and the Union of Comoros confirmed their concern with the increasing vulnerability in urban areas in their respective countries. Their preoccupation is sustained by the numbers, which show that sub-Saharan Africa has had the highest urban growth rate in the world for the past four decades, averaging approximately 5% per year (Todaro, 2000). Today, the region has about 40% of its population living in cities, as opposed to 10 to 15% in the 1950s (Hove et al, 2013). Future prospects point to continuity: according to the United Nations Population Fund (UNFPA), the urban population in sub-Saharan Africa in 2030 will be twice as large as it was in 2000 (UNFPA, 2007).

Urbanisation increases and creates vulnerability to disaster in developing countries particularly because of its accelerated and unplanned character (IFRC, 2010; Sanderson 2000; World Bank 2011). Fast-paced urban growth is often uncontrolled in sub-Saharan Africa, since the waves of newcomers (mostly poor) face important challenges to access land in cities. Many need to resort on informal mechanisms to access land, settling in high-risk areas.

Therefore, urbanisation has progressively assumed a central role for understanding risk and its associated vulnerability. Yet, despite the fairly well developed network or actors, projects and activities related to disaster risk management in southern Africa, the perception of the DIMSUR Founding Members and UN-Habitat is that there is a noticeable lack of urban risk reduction and resilience initiatives in the region. It is from this rationale that emerges the two above-referred intertwined questions faced by the DIMSUR.

The present study aims at responding to these questions by assessing: (1) the **current need of services** by local and central governments as well as NGOs and other entities in terms of URRR in the southern Africa region, and of (2) the **current offer of services** to tackle this issue, in particular by the academic sector but also by international organizations, NGOs and others.

In short, this baseline study has for **specific objective** to identify and understand the offer and demand of URRR services in southern Africa, with the **broader goal** of answering if the urban focus is a valid one for the centre, and under which conditions (i.e. how can it add value within the URRR field, instead of duplicate efforts).

1.2. Methodology

There are three main related subjects to be analysed in detail: **1)** the perceived issues concerning disaster in urban areas in southern Africa; **2)** the existing capacities and structures in this field; and **3)** the priority needs for piloting and capacity building. Each of these thematic areas contributes to a better understanding of the offer and demand of URRR services in southern Africa, as further explained in Chapter 3. To collect data from primary sources, a two-fold methodology was adopted:

1. A **detailed questionnaire was elaborated with multiple-choice type of questions**[2]. The questions are designed to understand from stakeholders their participation in demanding or supplying URRR services within their country. In total, 5 different questionnaires were produced in the 3 working languages (i.e. English, Portuguese and French) to fit each type of stakeholders identified: (1) local governments, (2) national institutions, (3) the national disaster management institute, (4) NGOs, and (5) international organizations and universities. The number of questions ranged from 9 to 16, depending on the approached institution, which were divided into the three above-mentioned subjects: perceived issues in urban areas, existing capacities and structures, and priority needs.

2. **Focus groups** were organised with different types of stakeholders (i.e. national institutions, universities, NGOs and local governments) for a **collective consultation and discussion** on these three main areas. The discussions were guided by a semi-structured questionnaire elaborated for such a purpose[3].

Despite the study was conducted only in the four DIMSUR founding Member States, i.e. Madagascar, Malawi, Mozambique and the Union of Comoros, these countries provide a relatively convincing picture of the situation in southern Africa, for the following reasons:

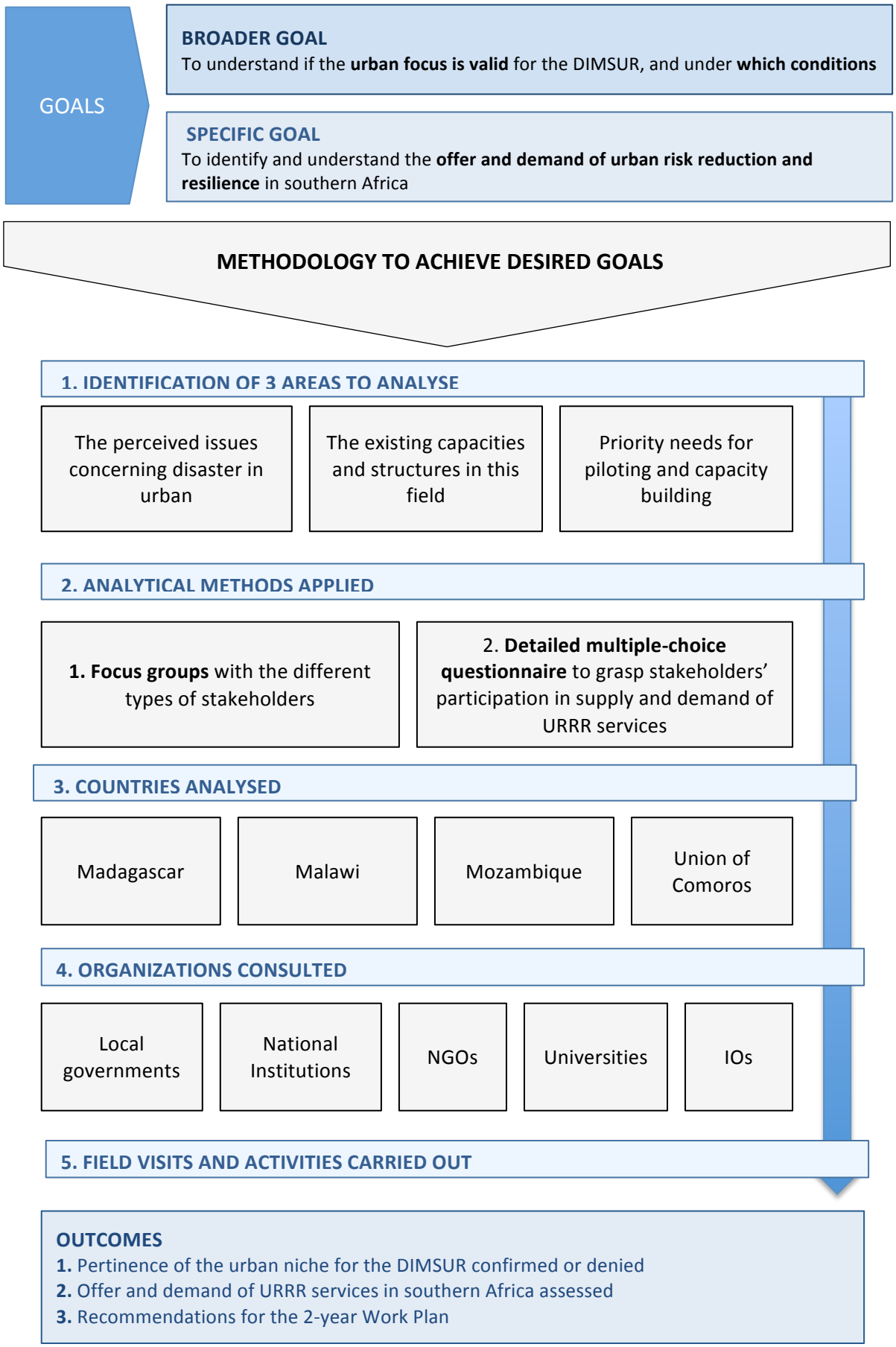
1. They are exposed to a varied and representative range of hazards, including floods, droughts, earthquakes, cyclones, strong winds, landslides, among others;
2. They show different degrees of urbanisation and decentralisation;
3. They are representative of three colonial/cultural/linguistic backgrounds of the southern Africa region, i.e. French, Portuguese and English.

The methodology was also designed to formulate **recommendations** for the 2-year Work Plan of the DIMSUR, to be elaborated based on the findings of the study.

[2] The different questionnaires are included as Annexes.

[3] Semi-structured guidelines and focus group notes are included as Annexes.

Figure 3: Baseline Study methodology



The UN-Habitat technical team organised field visits for Malawi (from 13 to 18 October 2013), Madagascar (from 27 to 30 November 2013) and Comoros (1 to 7 December 2013), while in Mozambique activities have been conducted throughout the months of the study, since the team is based in Maputo. In each of the chosen countries, a varied range of stakeholders was consulted; detailed numbers are displayed below.

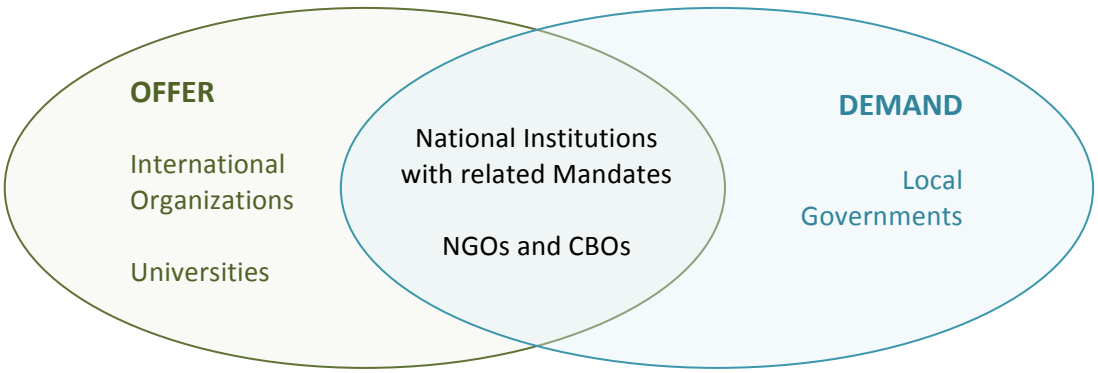
Box 2: Baseline figures

78 people met in the four countries from **46 organizations:**
9 Local governments, **11** national institutions, **9** universities, **9** NGOs,
8 international organizations

31 completed questionnaires:
18 local governments, **5** NGOs, **4** universities, **4** national institutions

The organizations that participated in the interviews and focus groups conducted in each country were selected through a mapping exercise to identify the main actors involved with disaster risk reduction and resilience (URRR) in urban areas. The study focused on **five types** of stakeholders involved with the supply and demand of URRR services in southern Africa, as depicted in **Figure 4** below.

Figure 4: Types of stakeholders involved in offer and demand of URRR services



The next step was to pinpoint which specific organizations would be consulted in the 4 countries. Their identification was guided by the experience and expertise of the UN-Habitat/focal points since the inception of the DIMSUR initiative in each country[4] (see **Table 2**).

[4] The UN-Habitat/Focal Points of the DIMSUR are: (1) Madagascar: Monique Rakotoarison, Habitat Programme Manager in Madagascar; (2) Malawi: John Chome, Habitat Programme Manager in Malawi; (3) Mozambique: staff of the UN-Habitat Country Programme; (4) Union of Comoros: Ahmed Ouledi, Université des Comores, and Col. Ismael Daho Mogne, COSEP.

Table 2: Stakeholders mapping					
	Local Governments	**National Institutions**	**NGOs**	**Universities**	**IOs**
Madagascar	• Antananarivo • Antsirabé • Antsiranana • Farafangana • Fiananrantso • Toamasina • Toliara	• BNGRC/CNGRC/ CPGU/Ministère de l'Intérieur • Ministère de la Décentralisation • Vice-Primature en charge du Développement et de l'Aménagement du Territoire • Ministère de l'Environnement et des Forêts • Ministère des Travaux Publics et de la Météorologie	• Red Cross • Oxfam • COOP • Medair • Action Aid • Save the Children • World Vision	• Antananarivo University • Antsiranana University • Fianarantsoa University • Mahajanga University • Toamasina University	• World Bank • UNDP • UNISDR
Malawi	• Balaka • Blantyre • Chikwawa • Karonga • Kasungu • Lilongwe • Machinga • Mangochi • Mzuzu • Nsanje • Salima • Zomba	• DoDMA • Department of Environmental Affairs • Ministry of Local Government • Department of Housing	• Habitat for Humanity • CCODE • CADECOM • Red Cross	• LUANAR • Polytechnic • Mzuzu University • Chancellor College	• UNDP • World Bank
Mozambique	• Beira • Chokwé • Maputo • Marromeu • Matola • Maxixe • Mocuba • Nacala • Nampula • Quelimane • Tete • Vilankulos • Xai-Xai	• INGC • MOPH-DNHU • MICOA-DINAPOT	• Habitat-africa • AECID • Red Cross • Samaritans Purse • OXFAM	• UEM-FAPF • UEM-Física • UDM • ISCTEM	• UNDP • UNICEF • WFP
Union of Comoros	• Moroni • Mutsamudu • Domoni • Fomboni • Tsémbéhou	• Department of Civil Protection • Ministry of Interior • Department for Land Use and Planning, Habitat and Urbanism	• Red Cross	• University of Moroni/ Comoros	• UNDP • UNISDR • UNICEF

Limitations

A full-fledged and exhaustive mapping of the existing efforts in southern Africa for risk reduction and resilience building could not be achieved due to time, financial and human resources constraints. It was not possible to include all countries of the region and to consult all the targeted stakeholders in the participating countries. In addition, during the period of the country visits (end of 2013), Mozambique and Madagascar hold respectively municipal and legislative elections and the countries' governments were preparing for the rainy season. These aspects somehow prevented accessing some key actors in the region and limited a more extensive response to the questionnaire which was circulated in occasion of this study.

CHAPTER 2: Findings

The present study has analysed **three target areas** with primary source data obtained through a series of interviews and consultations with target stakeholder from the four DIMSUR founding member stated, i.e. Madagascar, Malawi, Mozambique and the Union of Comoros. As described above, the target areas analysed - 1) The Urban Dimension of Disasters: the perceived issues concerning disaster in urban areas in southern Africa; 2) Assessing Capacities on Urban Risk Reduction and Resilience: the existing capacities and structures in this field; and 3) Gaps and Opportunities for the DIMSUR: the priority needs for piloting and capacity building – were defined so to allow this study to shed light into the state offer and demand of URRR services in southern Africa and to lay foundations on how the DIMSUR can be as relevant as possible in the current panorama. The present Chapter will introduce the key findings (as summarized in Table 3 below) of each of the analysed areas in a detailed manner.

Table 3: Summary of the Key Findings of the Baseline Study
I. The Urban Dimension of Disasters: the perceived issues concerning disaster in urban areas in southern Africa
1. Fast-paced urbanization is a pressing reality in Southern Africa **2.** Increasing urban vulnerability coincides with the increasing disaster impact in urban areas **3.** There is a growing awareness of the immense risks related to the urban dimension of disasters **4.** There is still a continued demand of risk reduction services in peri-urban and rural areas.
II. Assessing Capacities on Urban Risk Reduction and Resilience: the existing capacities and structures in this field
5. The limited understanding of urban management hampers the reach and impact of DRR/CCA actions in urban areas. **6.** There are not yet appropriate institutional settings at the municipal level for URRR. **7.** There is need to improve national-local response to urban disaster as well as their cooperation into actual DRR/M practices. **8.** There is a gap between increased awareness on urban risk at the municipal level and the capacity to undertake concrete actions to reduce it and build resilience in key municipal sectors. **9.** The main challenges for efficiently incorporating DRR/M into urban management are the lack of knowledge/capacity at the municipal level, the limited financial resources and the weak public engagement.
III. **Gaps and Opportunities for the DIMSUR:** the priority needs for piloting and capacity building
10. There is a need to focus on improving technical capacities, especially at the municipal level. **11**. Lack of diffused awareness of the importance of the urban dimension of disasters. **12**. There is a need to establish a platform where urban DRR/CCA experiences, best practices and other related information is managed, channelled and disseminated. **13.** Universities should be used as vehicle and main ally to deliver courses, training and capacity-building regarding URRR. **14.** The DIMSUR needs to remain opened to provide support in other DRR/CCA needs identified by the countries' governments, such as in peri-urban and rural areas.

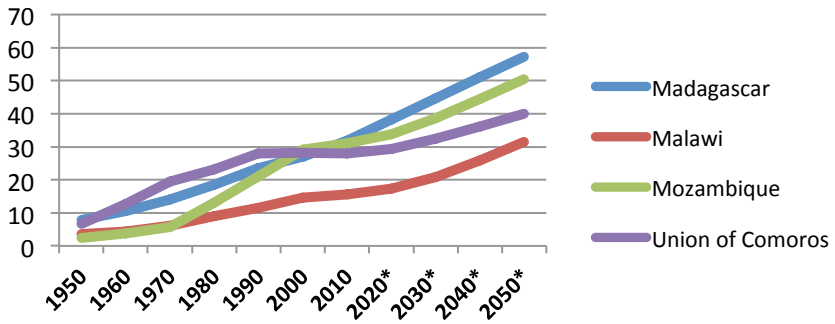
2.1. The Urban Dimension of Disasters: *the perceived issues concerning disaster in urban areas in southern Africa*

Justification
Understanding the current state and trends of urbanization and its consequences to disaster's impacts in Southern Africa is the first step to verify if the current demand for urban risk reduction and resilience services is being met by the present offer and, ultimately, to define if the urban niche is a relevant one for the DIMSUR to focus its activities.

The world's urban population has **grown quickly** during the past decades, surpassing recently the rural population (see **Graph 1**). Southern Africa is now one of the fastest urbanising regions in the world. In 2011, its urban population represented 38.2% and current predictions show that, by 2050, approximately 56.7% of its population will be living in cities. Considering the current rapid population growth in the continent, the current urbanization pace means that almost **350 million will be living** in cities in the SADC region 2050, compared to 107 million at present – the equivalent of a **224%** increase in the urban population[5].

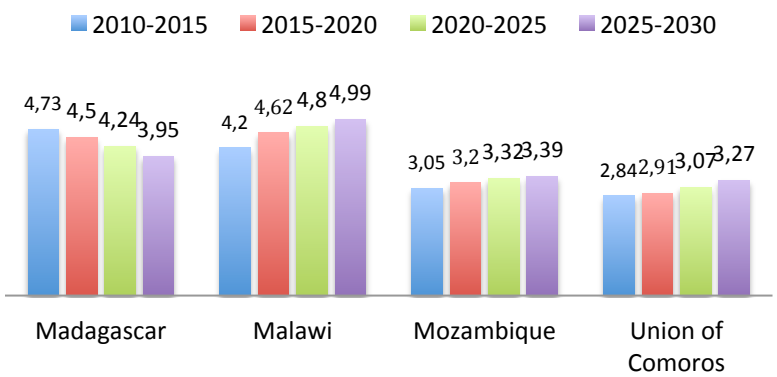
Madagascar, Malawi, Mozambique and the Union of Comoros have also shown a clear urban growth for the past decades (see **Figure 5**), with approximately a third of their population living in urban areas at present, except for Malawi (around 15.7% in 2011). Annual **urban growth rates are currently very high in the four countries** – around 3% in Mozambique and Comoros, higher than 4% in Malawi and near 5% in Madagascar - and predictions show that **they will continue to steadily increase** except for Madagascar (see **Figure 6**).

Figure 5: Percentage of urban population in DIMSUR countries, 1950-2050



Source: WUP, 2011

Figure 6: Urban Growth Rate in DIMSUR countries, in percentage



Source: WUP, 2011

[5] All figures were calculated using the numbers of the World Urbanisation Prospect (WUP) 2011.

Table 4: Urban profile of selected countries

	Total Population	Urban Population	Percentage Urban	Urban Pop. Annual Growth Rate (2010-2015)	Total Pop. Annual Growth Rate (2010-2015)	Capital City and Population
Madagascar	21,315,000	6,941,000	32.6%	4.73%	2.82%	Antananarivo: 1,987,000
Malawi	15,318,000	2,410,000	15.7%	4.2%	3.24%	Lilongwe: 772,000
Mozambique	23,930,000	7,463,000	31.2%	3.05%	2.24%	Maputo: 1,150,000
Union of Comoros	754,000	211,000	28%	2.84%	2.50%	Moroni: 54,000

Source: WUP, 2011

FIRST FINDING: Fast-paced urbanisation is a pressing reality in sub-Saharan and southern Africa, including in the four countries analysed. Madagascar, Malawi, Mozambique and the Union of Comoros all have **significantly high urban annual growth rates that surpass their overall population growth**, indicating the increasing importance of the urban dimension in these countries.

The urban growth experienced by the four countries in the past decades has had important impacts on the spatial organisation of cities, on the lives of the urban dwellers and on their **vulnerability to disasters.** In developing countries, urbanisation is considered more likely to increase and create vulnerability to disaster due to its often accelerated and unplanned character (IFRC, 2010; Sanderson, 2000). It is largely acknowledged that the increasing exposure to shocks in cities is not only a result of natural and geographic conditions, but very often linked to lack of income and assets: the prohibitive prices of well situated land with secured tenure and access to services **forces the newly arrived urban dweller poor to settle in high risk areas**, i.e. the "worst quality land on the edges of ravines, on flood-prone embankments, on slopes liable to mudslide or collapse, in densely packed areas where fires easily start, on roundabouts at busy intersections" (Sanderson, 2000, p. 93-94).

In fact, as observed through the data examined and the consultations, focus groups and interviews conducted for the present study, urbanised settlements in Madagascar, Malawi, Mozambique and the Union of Comoros seem to follow this pattern, being increasingly characterised by overcrowded neighbourhoods and poorly constructed housing. Stakeholders consulted in all countries concurred that the **number of disaster occurring in urban areas and their impacts have increased** not only because there are more cities and larger cities, resulting in higher geographical exposure, but also because the difficulties of land access engender housing conditions marked by vulnerability and tenure insecurity.

In **Mozambique,** all organized focus groups concurred that **disaster are increasingly occurring in urban settings** and that **urbanisation has been one of the main factors increasing vulnerability to disasters** in the country. One of the key messages of the discussion among the representatives from the four *Universities*[6] consulted, for instance, was that Mozambican municipalities are located in vulnerable geographic and geologic areas and that new towns have

[6] For more detailed information on the focus groups discussions and participants, please refer to the Annexes.

been constantly emerging, going from small settlements to urban centres through a fast urbanisation process mostly unplanned and uncontrolled. Similarly, the *NGO*s that participated in the study pointed to how disasters are no longer an issue considered mostly rural in Mozambique, also highlighting fast and unplanned urbanisation as an important element that aggravates disaster's impacts. The representative of the Samaritan's Purse mentioned their experience during the response of the 2013 Floods in Chókwè City as a concrete example of how devastating urban disasters can be in the region. Finally, national government institutions also argued along the same lines: the National Directorate of Housing and Urbanism, at the Ministry of Public Works and Housing, for instance, emphasised how recent disaster impacts have been more devastating in urban areas, where services, people and economic activities are concentrated, and where disorganised occupation has increased vulnerability.

Despite its lower level of urbanisation, **Malawi** seems to be facing a fairly similar situation. Disasters have long been considered a rural matter in Malawi, but this is clearly no longer the case. Out of the 10 cities and towns that answered the multiple-choice questionnaires, all of them have reported the occurrence of at least two types of disasters in the past 20 years. Floods, for instance, have hit 9 out of the 10 cities; in 5 of them, floods are a very recurrent event: they have been experience more than 10 times in the past 2 decades. Disaster's impacts are also significant and varied in Malawi: all cities have already suffered with the destruction of housing, while 80% of them had losses related to the interruption of economic activities and food insecurity. Similarly, all the 8 local government's representatives who participated in the focal group organised by UN-Habitat in Lilongwe attested that their urban centres had been hit by a range of different hazards, and that impacts were largely linked to issued caused by fast-paced urbanisation – most noticeably the settlements in informal areas, lack of compliance to building regulations and absence of basic services.

The **Union of Comoros** is characterised by a quite particular urban profile, with coastal settlements composed by agglomerations of villages, the largest having around 50,000 to 70,000 inhabitants. Nevertheless, the islands are highly exposed to flash floods, volcanic eruptions, tsunami and cyclones. The consulted stakeholders confirmed that urbanisation has increased vulnerability in the larger settlements. The Director of Security in Moroni, for instance, affirmed that unplanned growth in the capital's new and old parts of the city has created serious obstacles for access and egress, preventing fire fighters of providing assistance and evacuation when needed.

Finally, **Madagascar** has similarly experienced fast – and largely unplanned – urbanisation, which has aggravated the impacts of disasters in urban settlements in the island. According to the Antananarivo's Urban Sector Profile (UN-Habitat, 2012), the city has been increasingly affected by fires, due to the concentration of wooden constructions, and floods, due to the inadequate drainage systems of newer settlements.

SECOND FINDING: The urbanisation process, because of its pace and limited capacities to meet the increasing demand for services, is often unplanned and sub-standard. This can result in overcrowding, non-respect of building regulations in disaster-prone urban areas, and lack of access to basic services and infrastructure in urban settlements. As a consequence, **increasing urban vulnerability coincides with the increasing disaster impact in urban areas**. The exact terms of the relation, however, remains to be fully understood by the disaster risk management community on the one hand, and by the urban development and slum upgrading actors on the other.

The increasing trend of urban disasters in Madagascar, Malawi, Mozambique and Union of Comoros, albeit clearly noticeable through recent occurrence, has yet to be satisfactorily acknowledged by both the authorities and the local populations. Stakeholders in both **Malawi and Mozambique** have pointed to the fact that disasters are still treated as a primarily rural issue. A gap of awareness is still verified in relation to urban vulnerability, which is reflected in inadequate institutional arrangements and fund allocation to address it. During the focal group discussion with Central Government authorities from Malawi, for instance, representatives from the Ministry of Land and Housing argued that authorities have failed to emphasise the importance of urban disasters in the country. The Department of Disaster Management Affairs (DoDMA) agreed that mostly rural areas are prioritised and that urban disasters are still not part of the core of the political agenda.

Nevertheless, stakeholders' consultations have also revealed that awareness of the urban dimension of disasters, although still to be developed, seems to be rapidly emerging in the four countries largely due to recent disasters impacting on major cities and towns. In the **Union of Comoros**, authorities – including the country's Vice-President - have recognised urban and land use planning as one of the priorities to improve resilience in the islands. In **Madagascar**, representatives from Disaster Management institutions and the University of Antananarivo also confirmed that the recent occurrence of fires, floods and other frequent small-scale disasters in the capital city and other major urban centres contributed for increasing awareness. During the focal group discussions, the **Mozambican** government representatives agreed that recent events – most noticeably the 2013 floods affecting Chókwè town, in the lower Limpopo River – have put the impacts of hazards in urban areas in the spotlight.

THIRD FINDING: Although disaster management mechanisms in place are mostly meant to deal with rural areas or in general at the national level, **there is a growing awareness of the immense risks related to the urban dimension of disasters**, and therefore the need to prepare better and prevent disaster risk effectively in cities and towns.

Despite the surge of awareness of the growing importance of the urban dimension of disaster, and of the consequent need to support efforts in this field, the present study has also identified that many peri-urban and rural areas in the studied countries continue to concentrate a large part of the vulnerable population. In fact, as the numbers in Table 3 show, Madagascar, Malawi, Mozambique and the Union of Comoros remain predominantly rural countries, with different urban to rural percentages and different urbanisation patterns. Therefore, human settlements that are not necessarily urbanised also demand risk reduction and resilience service in a scale that cannot be fully met by the existing offer.

FOURTH FINDING: Recognising the consensus on that the urban dimension of disasters in southern Africa is increasingly drawing the attention of policy-makers and practitioners, **there is still a continued demand of risk reduction services in peri-urban and rural areas, especially those which are isolated**.

2.2 Assessing Capacities on Urban Risk Reduction and Resilience: *the existing capacities and structures in this field*

Justification

The efficient reduction of risks in urban areas and promotion of urban resilience depend on the establishment of synergies of a range of different elements, such as political will, adequate governance structures, technical capacity with emphasis on improved urban planning, a certain degree of decentralization and sufficient financial resources, among others. The present study consulted many of the stakeholders involved in DRR/M and urban governance in the four targeted countries to understand the current trends and efforts that directly and/or indirectly affects these elements, contributing to the identification of the demand and supply of urban risk reduction and resilience services.

Largely due to southern Africa's highly exposed and vulnerable disaster risk profile, a large number of stakeholders are involved in disaster risk reduction and management activities in this region. Governments not only established national disaster management departments but also mainstreamed DRR/M in a number of other sectors. International organizations, donor and NGOs have increased efforts to establish a continuum between the disaster agenda, risk reduction and development, going beyond emergency response and relief. In addition, the academia and research institutions have also emphasised the DRR/M agenda into their curricula, by introducing specific modules or courses (see Table 2 for more details).

Albeit the majority of DRR/M work in southern Africa has taken place in rural and peri-urban areas, activities in urban areas are increasing**. In Malawi**, for instance, all 10 consulted local government authorities reported partnerships with at least one type of stakeholder. The most frequent partners are national governments, NGOs and international organizations. Most municipalities reported awareness-raising, trainings, DRR/CCA planning, infrastructure reinforcement and early warning as main activities undertaken. In **Mozambique** and **Madagascar,** UN-Habitat has partnered with municipalities in urban and peri-urban areas to promote awareness through trainings and demonstrative interventions through adaptive architecture.

Nevertheless, during focal group discussions, stakeholders manifested the concern that very often urban DRR **activities are limited in frequency and scale, fragmented, excessively sectorial and almost exclusively short-term**. In **Mozambique**, for example, most UN agencies and NGOs with DRR/M mandate maintain a prominent rural bias, with occasional isolated urban interventions. More importantly, it was observed that the impact of urban risk reduction and resilience activities in the four countries is often limited by the lack of proper understanding of urban-related issues. In **Malawi,** for instance, practitioners expressed concern that DRR/M specialists at central level are not fully aware how the different sectors in city administration operate, such as basic service delivery and infrastructure, urban planning and slum upgrading, finance and administration, economic activities and social affairs, among others. Local governments mentioned that DRR/M concerns were often included in sectorial plans, but in ineffective and unrealistic ways. In Karonga town, for example, DRR is mainstreamed into urban planning, but the lack of practical experience, funds and capacity makes enforcement and implementation a great challenge. Focal group discussions conducted with UN representatives in **Mozambique** showed that DRR/M activities in urban areas are hampered by their sectorial character, lacking of an integrated approach to urban management and thus limiting the possibilities of reducing urban risks and building resilience.

FIFTH FINDING: National governments, NGOs, international organizations, donors and universities carry out a range of DRR/CCA-related activities in urban areas in southern Africa. Nonetheless, **the limited understanding of urban management**, which characterises national or rural-based DRR/M practitioners, **somehow hampers the reach and impact of these actions**.

Local governments are the key actors whose activities, capacities and policies related to both DRR/M and urban management define how resilient a city or town may be. As argued above, efficient URRR practices depend on the accurate comprehension of the way a city functions and on how they are integrated with everyday urban management practices. Therefore, there is a considerable degree of consensus among practitioners, international organizations and the academia that risk reduction need to be implemented locally and with local actors (IFRC, 2010; Hardoy et. al, 2011; UNISDR, 2012; World Bank, 2012).

Efficient risk reduction and resilience practices in urban areas are intimately linked with the governance structure. Within the four studied countries, only few cities/towns have established a DRR Unit, for instance. In **Madagascar**, the consulted city governments mentioned that disaster management taskforces were active only in emergency periods. In **Malawi**, the absence of a local governance structure that adequately integrates DRR/M into urban management was a recurrent topic during the focal group discussions. Government officials argued that city and town councils operate are not designed to manage vulnerabilities, while district governments are better prepared to do so. Among the 10 consulted cities, 5 claimed to have a functioning DRR Unit. Nevertheless, it was observed that these Units are often stakeholders meetings or task forces, focused on preparedness and response. They are headed by professionals that are rarely DRR specialists and that are not sufficiently connected to the rest of the city's governance structure.

Recently, national disaster management departments in **Malawi** and **Mozambique** have successfully decentralised DRR/M governance responsibilities at local level. However, the new mechanisms put in place focused particularly on rural/district authorities than urban areas. The latter, managed through municipal authorities, are not yet part of the national DRR/M institutional framework. Efforts are being made to tackle this situation.

SIXTH FINDING: The majority of **municipal governments do not have yet appropriate institutional settings to efficiently reduce risks, build resilience and manage disasters.** In few cases, normally in larger cities, there is an autonomous capacity to mainstream risk reduction into urban management. Moreover, cooperation between municipalities and national DRR/M departments is established only in case of disaster, and little DRR inter-sectorial practices are applied.

Cooperation between national DRR/M institutions and municipal governments is effective only during emergency periods, for preparedness and response purposes. Overall, national DRR/M departments remain the main stakeholders for disaster response in urban areas. There is consensus that such cooperation needs to be improved to reach the whole DRR spectrum of activities throughout the year, facilitating their effective integration into urban planning and management practices.

SEVENTH FINDING: Recognising urban risk, informants agreed on the **need to improve national-local response to urban disasters** as a priority, and **to extend the national-local**

cooperation into actual DRR/M practices.

Urban risk reduction and resilience depends on disaster-sensitive municipal management in the areas of governance, finance, planning, infrastructure and basic services. It was observed that the level of awareness is increasing in the consulted municipalities of the southern African region. Moroni, the capital of the **Union of Comoros**, is participating to the UNISDR campaign: *Making Cities Resilient: 'My City is Getting Ready!'* The campaign addresses issues of local governance and urban risks through a commitment to know more, invest wiser, build safer, benchmark, report and establish partnerships. Additionally, government representatives indicated that municipalities need to assume a more proactive role related to DRR, including in relation to construction codes and licenses. In **Mozambique**, Maputo is also committed to the *Making Cities Resilient* campaign, while a few municipalities across the country have started incorporating disaster risk reduction and climate change adaptation components in their master plans. During the focal group discussions with local governments in **Malawi,** many authorities expressed their intention to establish well-equipped DRR Units within their city councils.

Yet, **there is a clear gap between the increasing awareness and the lack of concrete DRR actions at the local level**. Consulted municipalities argued that, despite having the political will, they do not have access to appropriate tools to understand, plan, act and manage with aim to achieve urban risk reduction and resilience. Focal group discussions with national authorities, NGOs and universities in **Mozambique** confirmed the lack of instruments to implement urban plans including DRR aspects. In **Malawi**, local governments insisted on the urgent need for concrete and contextualised tools that can support the mainstreaming of DRR/M into the different municipal sectors. This could be facilitated through the establishment of a DRR Municipal Unit, the mainstreaming of risk reduction and resilience into urban planning, the adoption of adaptive construction techniques and infrastructure, the appropriate design of enforceable building codes, by planning for the continuity of basic services (such as water, sanitation and solid waste management) even in conditions of emergency, among other options.

EIGHTH FINDING: The consulted local authorities agreed on reducing urban risk and building resilience through disaster-sensitive municipal management in the areas of governance, finance, planning, infrastructure and basic services. Nonetheless, there is a gap between an increased awareness on urban risk at the municipal level and the capacity to undertake concrete actions to reduce it and build resilience in key municipal sectors. In general, it was observed **a lack of practical instruments for improved urban management that allow sensitised city managers to incorporate DRR/M in their practices.**

The data collected for the present study demonstrated that the lack of disaster risk management/reduction actions at the urban level is not only a result of the limited access to practical tools and instruments. As a matter of fact, the local governments that responded to the multiple-choice questionnaires in Madagascar, Malawi and Mozambique pointed to the following reasons as the main challenges preventing the efficient integration of DRR/M measures into urban management:

- **Lack of financial resources:** it is widely acknowledge that many local governments in Southern Africa – and Sub-Saharan Africa, at a larger scale – have limited financial autonomy and often lack the capacity to raise funds to finance even their very basic activities. Along these lines, all 18 local governments that responded the multiple-choice questionnaire in Malawi, Mozambique and Madagascar pointed that the lack financial resources was a key limitation for reducing risks. In Mozambique, when asked to provide a value from 0 to 5 for a series of possible reasons why cities are not able to efficiently reduce risks presently (0 being the lowest and 5 the highest value), the ***lack of financial resources*** was the option that received the highest average value **(3.9/5).** In Madagascar, all interviewees gave the maximum value for **lack of financial resources**, which averaged **5/5**. Finally, the average value in Malawi was also the highest among the available options **(4.62/5).** More detailed results can be verified in **Figures 7** and **8** in the following page.

- **Lack of technical knowledge and capacity:** Throughout the focal group discussions in the four countries, the lack of knowledge and capacity at the local level – and at the central level to some extent – was repeatedly pointed as one of the key challenges for efficient urban risk reduction and resilience. The multiple-choice questionnaires also reflected a similar finding. In Madagascar, all cities indicated that there are no DRR specialists working as part of the local government staff. In Mozambique, only the municipality of Xai-Xai - among the ones that answered the survey - indicated that they had environment and agricultural-trained professionals, but no actual DRR expert among their staff. City staff hardly ever participated in DRR-related training in the studied countries. Finally, perception among the interviewed stakeholders confirms that limited technical capacity is considered a key challenge preventing risk reduction to be implemented effectively in cities: according to the 18 cities consulted, 14 pointed to ***lack of technical capacity*** as an obstacle to return to normality after disasters, while the same option was one of the top valued explanations in the 0-5 scale for the current incapacity to reduce risks in urban areas (**4.5/5** in Madagascar, **4.12/5** in Malawi and **3.09/5** in Mozambique) among the 31 stakeholders that answered the questionnaire.

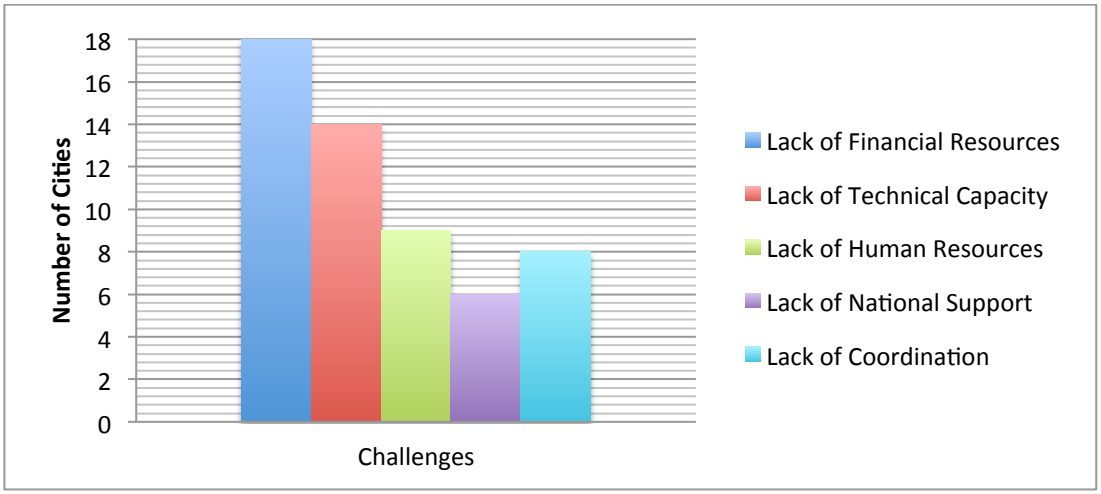
- **Weak public engagement:** among the other limitations highlighted by the consulted stakeholders, the weak engagement of the public in DRR activities also ranks among the top reasons accounting for the lack of integration between DRR/M practices and urban management. In Malawi, for instance, respondents attributed an average 3.5 in the 0-5 scale proposed to explain why efforts to reduce risks in urban areas are currently not effective; in Madagascar, the average value was higher (3.75) and in Mozambique it reached 2.54.

- **Low enforcement capacity:** despite the eventual existence of codes, regulations, plans and strategies that include DRM/R sensitive measures, these are hardly ever implemented at the local level. As pointed out in many focal group discussions in Mozambique, for instance, many *"Plano de Estruturas"* (master plans) have been elaborated for municipalities integrating environment concerns, but there is no enforcement capacity at the Municipal Council level to assure that the plan's

dispositions are respected. This has also been indicated in the multiple-choice questionnaires, where stakeholders have pointed to ***inadequate legal environment*** and ***lack of political support*** as some of the reasons why DRR is not efficiently implemented at the local level.

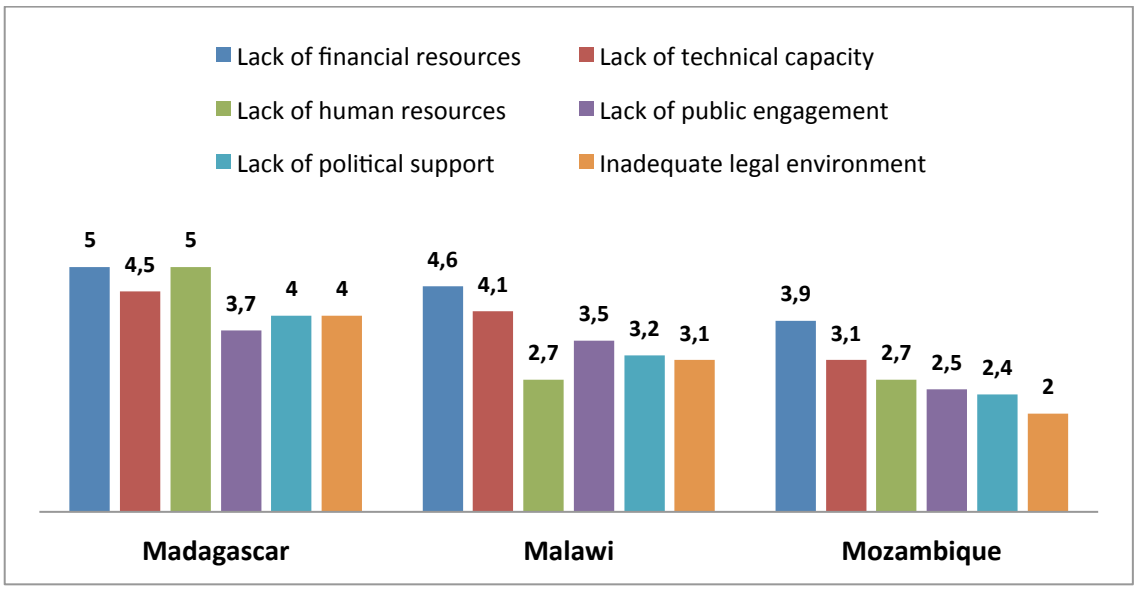
NINTH FINDING: Most of the informants agreed that the main challenges for efficiently incorporating DRR/M into urban management are: (i) the **lack of technical knowledge or capacity at the municipal level**, i.e. the scarce availability of trained professionals on urban DRR/DRM; (ii) the **limited financial resources**; (iii) the **weak public engagement**; and (iv) the still **inadequate enforcement capacities.**

Figure 7: **What were the main challenges your city/town faced to overcome the damages and return to the previous condition?**



Source 1 18 cities that answered the multiple-choice questionnaire (see Annexes)

Figure 8: **Reasons why activities and projects your city/town is undertaking at the moment are insufficient to reduce risk** *Relevance of each reason is rated on a scale of 0 to 5, 0 being the minimum relevance and 5 being the maximum relevance. Average rate based on 31 respondents depicted below.*



Source 2. 31 stakeholders that answered the multiple-choice questionnaire (see Annexes)

2.3 Gaps to be Addressed and Opportunities for the DIMSUR: *the priority needs for piloting and capacity building*

Justification

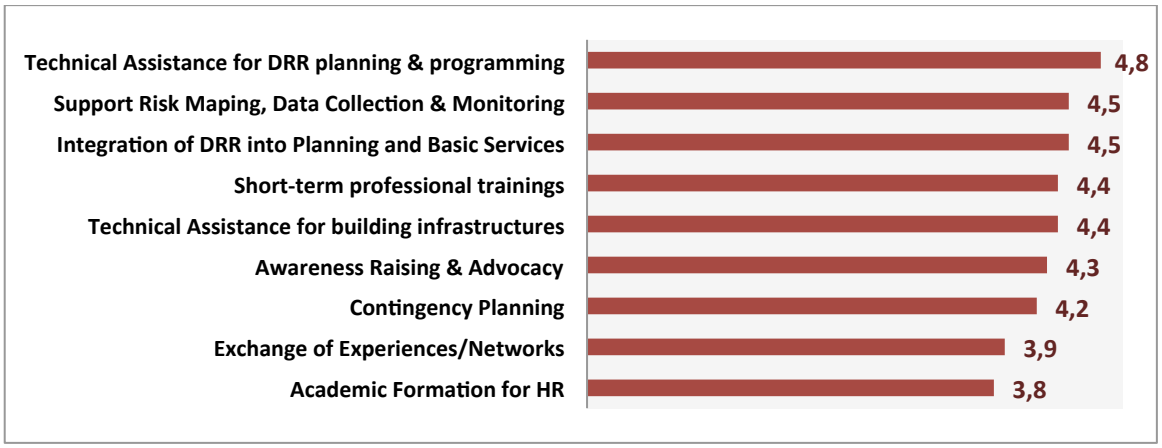
The gaps and opportunities hereby presented were identified by assessing the supply and demand of urban risk reduction and resilience services in southern Africa, which permeated the previous chapters. The analysis of the urban dimension of disaster and the assessment of the existing capacities in the field serve as basis for proposing the main areas in which the DIMSUR should be involved, and consequently for elaborating a first draft of the DIMSUR 2-year action plan.

Urban resilience results from the positive synergies, which can be established by combining different elements, among others: political will, adequate governance structures, technical capacities, decentralisation, and financial resources.

Through this study, gaps and needs were identified in different areas through stakeholders' consultations, at various degrees and for different reasons. As pointed in the ninth finding and depicted in Figures **7 and 8** above, limited financial and human resources, lack technical capacity, of public engagement and of political support and inadequate legal environment were considered by stakeholders as some of the main reasons preventing an efficient urban resilience agenda to be implemented.

Considering the complexity of the topic under study and the variety of the gaps, there was a general agreement on the **need to identify concrete entry points to jumpstart the process of reducing urban risks and building resilience**. The **improvement of technical capacities, especially at the local level**, was pointed throughout many of the discussions held as the key activity to ground further developments towards urban resilience. Similarly, the results obtained through the multiple-choice questionnaire also pointed to the need for an improvement of the technical capacity at the city level. Many stakeholders in Malawi, Mozambique and Madagascar, when asked to indicate which activities they would be more ready to engage if provided by the DIMSUR, pointed to the training of technicians and academic formation of their human resources as some of the key measures to be taken. More information on the results obtained through the multiple-choice survey can be seen in **Figure 9** below.

***Figure 9: W*hat kind of service/activity provided by a regional centre such as the DIMSUR would you be more ready to engage with?** *Interest for each reason is rated on a scale of 0 to 5, 0 being the minimum interest and 5 being the maximum relevance. Average rate based on 31 respondents depicted below.*



Source: Multiple-choice questionnaire answered by 31 stakeholders (see Annexes)

As argued by stakeholders consulted, the remaining DRM/R services that rank among the better valued – namely *Technical assistance for DRR planning & programming, Support for Risk Mapping, Data collection & Monitoring, Integration of DRR into Planning and Basic Services and Technical Assistance for Building Infrastructures* - are rather more punctual measures highly related to the current lack of technical capacity at the local level and would direct benefit from trainings of technicians. Along these lines, urban risk reduction related capacity building can be grasped as the cornerstone for improving resilience at the local level. Through **training and capacity development**, the aim is to establish a body of skilled human resources able to cross-fertilise cities to cities within each country, and later even between different countries, through on-the-job training, exchange of experiences and capacity building.

Aware of the need for training and increasing capacity of technicians, all consulted cities **confirmed their interest in participating in urban risk reduction and resilience trainings** and indicated their preferences to support the DIMSUR in the elaboration of the most appropriate training module for the targeted countries. Overall, cities suggested that they would be interested in training between 3 to 10 staff through 1-week trainings, targeted specially at technicians (but also directors and mayors). They also indicated that they would be willing to participate in international and long-term trainings. More than 60% of the consulted cities also affirmed that they would be willing to contribute financially for the training. Information on the cities' inputs on training and formation can be found in **Box 3**, in the following page.

TENTH FINDING: Recognising the complexity of urban issues, and urban resilience in particular, there was consensus among the informants to **focus on improving technical capacities, especially at the municipal level,** to enable city-to-city cross-fertilisation within each country and then between different countries. All underlined that trainings should be organised as workshops meant to **produce useful outputs for the concerned cities and for the different municipal staff** (municipal technicians, leaders and/or departments' managers).

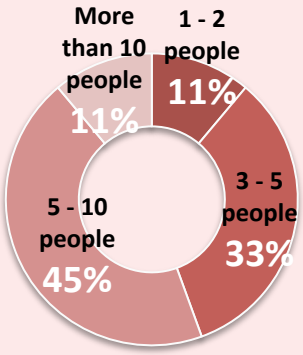
As previously stated in this study, although the awareness of urban disaster in the sub-region has increased, it is not yet satisfactory. Local population and both local and national authorities often ignore the impact of hazards in urban areas, as they consider disaster a primarily rural issue. There is still limited knowledge on the fact that urbanisation is a key process engendering and increasing vulnerability, as result of poor people settling in hazard-prone areas, for example, of the concentration of population and of economic activities, the lack of urban DRR/M knowledge and practices, among others.

The collected data show that awareness raising is very much seen as a potential service for the DIMSUR. Different types of public need to be approached in tailored ways so to sustain the process of resilience building through comprehensive support.

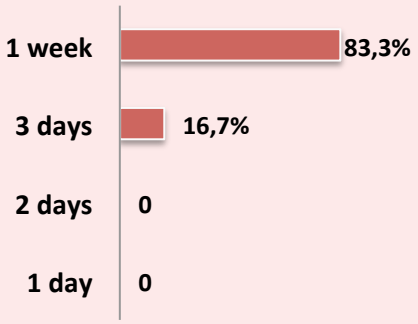
ELEVENTH FINDING: Another important gap identified by the present study is still **the lack of diffused awareness of the importance of the urban dimension of disasters.** Awareness must be improved at both the local and national levels by highlighting, among other aspects: (i) the important role of urban managers and leaders for risk reduction; (ii) the need to improve local-national cooperation; (ii) the need to focus on vulnerable slum dwellers; etc. The message should be tailored to reach the targeted groups adequately, and carry viable, actionable proposals to transform awareness into DRR/M city-options.

Box 3. ***Training preferences according to 18 consulted cities***

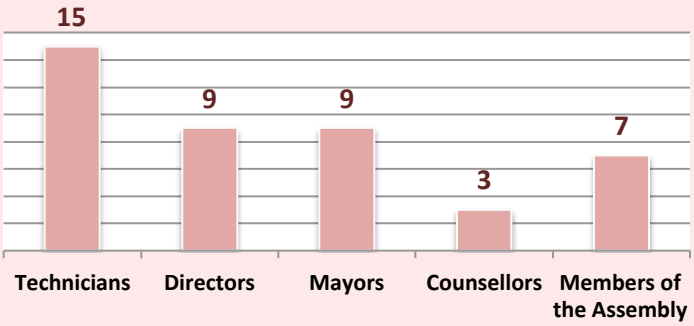
1. How many of your staff would you want to participate in this activity?



2. What do you think should be the duration of the training?



3. What kind of staff do you believe the training should target?



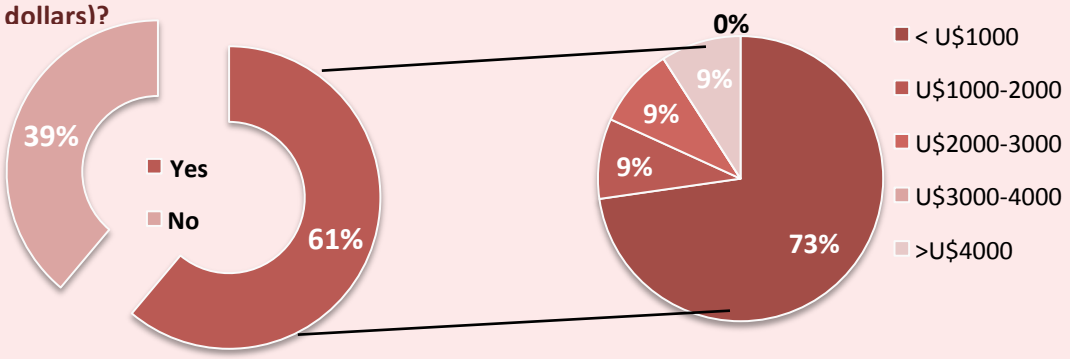
4. Would your staff be available to attend long-term trainings (e.g. 6 month courses)?

17 out of 18 cities (94,4%) are willing to **participate in long-term training and formation** (6 months or more)

5. Would your staff be able to travel (nationally and internationally) for the training?

17 out of 18 cities (94,4%) are willing to participate in trainings that **require their staff to travel** (nationally or internationally)

6. Would you be willing to contribute financially for the organization of the training? If your answer is positive, approximately how much would you be willing to contribute (in US dollars)?



Consulted stakeholders also attested for the need of better information management in what concerns urban risk reduction and resilience in southern Africa, as a way to support awareness raising and capacity building. Overall, focus groups conducted in Malawi and Mozambique affirmed that a lot has been done and even documented in the region by different institutional, international and non-governmental organizations, but it is of difficult access.

In particular, the consulted academic institutions in Mozambique insisted for the centre to gather relevant information regarding DRR/M, CCA and urban resilience. The establishment, through the DIMSUR, of a platform for exchanging experience was also highlighted as an important element by both Malawi and Mozambique.

TWELFTH FINDING: There is also a gap in what concerns information management and exchange among cities, countries and stakeholders dealing with DRR, CCA and urban resilience in southern Africa. The establishment of **a platform where urban DRR/CCA experiences, best practices and other related information is managed, channelled and disseminated** would be very useful for risk reduction and resilience building in the region.

Presently, as it was verified by this study, there is a limited array of DRR-focused programs in Southern Africa and most are located in South Africa (c.f **Table 5** in the following page). Additionally, existing academic courses in general lack some of the dimensions of URRR. In particular, a gap was identified in terms of DRR in the curricula of Planning, Engineering, Architecture and Social Sciences Faculties in the consulted countries, along with medium level technical institutes. Nevertheless, consulted universities - such as Chancellor College in Malawi, ISCTEM and UEM in Mozambique, among others - demonstrated high awareness of the need and added value of implementing, developing and integrating disaster risk reduction, climate change adaptation and urban resilience modules to their programmes as well as of creating new programmes targeting the area. There also is a clear interest in collaborating with DIMSUR and facilitate the Centre's activities.

Capacity building and formation should be developed in partnership with key universities in each of the four countries. According to data obtained from the consultations held with universities and the questionnaires answered, cooperation with the DIMSUR could be established especially for:

- Training of trainers on urban resilience to support the delivery of short professional trainings.
- Semi-sponsored university courses to capacitate city managers, municipal technicians and departments' managers.

In particular, universities should be preferential partners for longer-term trainings on URRR providing academic credits. One highly promising way to promote this kind of trainings is through the inclusion of modules/disciplines in existing courses (mainstream DRR into urban-relevant curricula, or urban disasters into disaster/environmental management courses, etc.)

THIRTEENTH FINDING: **Universities should be used as vehicle and main ally to deliver courses, training and capacity-building regarding URRR.** The DIMSUR could, at the level of the sub-region, partner with the academic and research sector to mainstream DRR into urban-relevant curricula on the one hand and, on the other, to capacitate a number of city leaders, municipal technicians and managers through semi-sponsored courses.

Table 5: DRR/M and CCA related training provided by Universities

Academic programmes with DRM, DRR and CCA as main focus			
Location	**University**	**Programme**	**Duration**
Madagascar (Antananarivo)	University of Antananarivo	MSc in Disaster Risk Management	2 years
Malawi (Lilongwe)	Lilongwe University of Agriculture and Natural Resources	MSc in Environment and Climate Change Sciences	2 years
Mozambique (Maputo)	Universidade Técnica	Masters in Technical Education, Risk Reduction & Development	2 years
Mozambique (Maputo)	Universidade Técnica	BSc in Engineering & Disaster Risk Reduction	4 years (TBC)
Mozambique (Maputo)	Eduardo Mondlane University	Master in Disaster Risk Management and Climate Change Adaptation (under development)	2 years
South Africa (Potchefstroom)	North-West University	Masters degree in Sustainable Development with an emphasis on Disaster Studies	2 years
South Africa (Potchefstroom)	North-West University	PhD programme Development and Management with emphasis on Disaster Studies	Varies
South Africa (Potchefstroom)	North-West University	Postgraduate Diploma in Disaster Risk Studies	1 or 2 years
South Africa (Stellenbosch)	Stellenbosch University	MPhil in Disaster Risk Studies (under development)	2 years
South Africa (Port Alfred)	Stender University	Bachelor of business administration in disaster management	3 years
South Africa (Bloemfontein)	University of Free State	Masters in Disaster Management	2 years
Tanzania (Dar Es Salaam)	Ardhi University	MSc in Disaster Risk Management	2 years
Other short-term DRR and CCA-related training/formation provided by Universities			
Location	**University**	**Programme**	**Duration**
Madagascar (Antananarivo)	University of Antananarivo	Economic Valuation Methods and Disaster Risk Reduction	7 days
Malawi (Lilongwe)	Lilongwe University of Agriculture and Natural Resources	Climate Change and Development	10-14 days
Mozambique (Maputo)	Universidade Técnica	Disaster Risk Management for Secondary School Teachers and NGO Staff	8 days
Mozambique (Maputo)	Eduardo Mondlane University	DRR and CCA Training (Department of Physics)	5-10 days
South Africa (Potchefstroom)	North-West University	Basic DRR	3 days
South Africa (Potchefstroom)	North-West University	Advanced DRR	3 days
South Africa (Potchefstroom)	North-West University	DRR Planning	3 days

South Africa (Potchefstroom)	North-West University	Disaster Management Act Implementation	3 days
South Africa (Stellenbosch)	Stellenbosch University	Disasters and Development: Reducing risk – protecting livelihoods	5 days
South Africa (Stellenbosch)	Stellenbosch University	Community Based Risk Assessment	8 days
South Africa (Ruimsig)	Monash University	Advanced certificate in disaster risk management	3 months
Tanzania (Dar Es Salaam)	Ardhi University	Introduction to Disaster Risk Management	5 days
Tanzania (Dar Es Salaam)	Ardhi University	Emergency planning and Management	5 days

Despite the numerous findings confirming the pertinence of the urban resilience niche for the DIMSUR, the demand for risk reduction services remains pressing in peri-urban and rural areas in the four studied countries. Therefore, the DIMSUR should remain opened to provide support in these areas, and be flexible to address other needs regarding DRR/M and CCA in the Member States.

FOURTEENTH FINDING: **The DIMSUR needs to remain opened to provide support in other DRR/CCA needs identified by the countries' governments, such as in peri-urban and rural areas.**

CHAPTER 3: Recommendations

The key 14 findings detailed in the previous Chapter were identified with the specific goal of assessing the state offer and demand of URRR services in southern Africa. More broadly, the present study has the goal of laying the foundations on how the DIMSUR can be as relevant as possible in the current panorama in Southern Africa. Therefore, the key findings hereby introduced will feed the elaboration of the 2-year Action Plan of the DIMSUR. In order to facilitate the production of such Action Plan and operationalize the findings listed, key recommended areas of work were identified for each of the three main areas analysed, i.e. 1) The Urban Dimension of Disasters: the perceived issues concerning disaster in urban areas in southern Africa; 2) Assessing Capacities on Urban Risk Reduction and Resilience: the existing capacities and structures in this field; and 3) Gaps and Opportunities for the DIMSUR: the priority needs for piloting and capacity building. The recommended areas of work are described in the **Table 6** below.

Table 6: Recommended areas of work for the DIMSUR according to findings

FINDINGS	RECOMMENDED AREAS OF WORK
The urban dimension of disasters	
1. Fast-paced urbanization is a pressing reality in southern Africa.	➢ Conduct in-depth research for better understanding the urban dimension of disasters, by targeting at least 20 cities/towns in the 4 countries to establish clear relationships between national hazard/risk profiles and on-going urbanisation. ➢ Map where there is knowledge and there are practices connecting urban planning/management and DRR/M in the southern Africa region. ➢ Identify a series of practical measures which can help reducing risk and building resilience in urban areas. ➢ Perform cost-benefit analysis of undertaking DRR/M actions and establishing the required institutional/managerial mechanisms.
2. Increasing urban vulnerability coincides with the increasing disaster impact in urban areas.	
3. There is a growing awareness of the immense risks related to the urban dimension of disasters.	
4. There is still a continued demand of risk reduction services in peri-urban and rural areas.	
Assessing existing capacities for URRR	
5. The limited understanding of urban management hampers the reach and impact of DRR/CCA actions in urban areas.	➢ Design practical tools, trainings and curricula that are tailored to different target groups acting at the local level in the field of urban risk reduction and resilience. ➢ Design and apply governance review tools in municipalities and national institutions to facilitate the integration of DRR/M into urban management practices, plans and strategies.
6. There are not yet appropriate institutional settings at the municipal level for URRR.	

7. There is need to improve national-local response to urban disaster as well as their cooperation into actual DRR/M practices.	➢ Establish a network of cities/towns, centres, institutions and/or organisations within and across countries (e.g. local authorities, municipal associations, governmental and academic institutions, architecture and engineering professional groups, technical centres and think tanks, local/national/regional/international organisations, etc.) to promote city-to-city and national-to-local activities, such as: (i) awareness-raising and improvement of URRR understanding; (ii) sharing of DRR/resilience experiences, lessons learned, knowledge; (iii) supporting policy/strategy formulation; (iv) organising peer trainings/courses/ workshops. ➢ Adopt a progressive approach to mainstream DRR/M into urban management: • *In the short term:* training of practitioners and on-the-job training; • *In the medium term:* (i) integration of DRR/M into urban projects and activities; (ii) inclusion of URRR in relevant academic curricula; • *In the long term:* establishment of permanent DRR/M Units within urban governance structures.
8. There is a gap between increased awareness on urban risk at the municipal level and the capacity to undertake concrete actions to reduce it and build resilience in key municipal sectors.	
9. The main challenges for efficiently incorporating DRR/M into urban management are the lack of knowledge/capacity at the municipal level, the limited financial resources and the weak public engagement.	
Gaps to be addressed and opportunities for the DIMSUR	
10. Need to focus on improving technical capacities, especially at the municipal level.	➢ Based on the demand assessed and offer identified, prioritise short-term, professional, thematic, tool-oriented trainings targeting municipal technicians, managers and leaders and focusing on integrating DRR/M into urban management; ➢ Provide specialised technical assistance on URRR to governments and municipalities; ➢ Provide capacity building and training through long-term, credited academic courses, considering the high interest of universities to cooperate; ➢ Raise awareness at the community level through: (i) design of ad-hoc campaigns; (ii) development of didactic and informative materials; (iii) demonstrative interventions; ➢ Develop and manage a network of URRR stakeholders in southern Africa to compile and disseminate experiences, information, awareness materials, hence promoting exchanges and mutual cooperation.
11. Lack of diffused awareness of the importance of the urban dimension of disasters.	
12. There is a need to establish a platform where urban DRR/CCA experiences, best practices and other related information is managed, channelled and disseminated.	
13. Universities should be used as vehicle and main ally to deliver courses, training and capacity-building regarding URRR.	
14. The DIMSUR needs to remain opened to provide support in other DRR/CCA needs identified by the countries' governments, such as in peri-urban and rural areas.	

Bibliography

IFRC - International Federation of Red Cross and Red Crescent Societies (2010). "World Disasters Reports: Focus on Urban Risk".

Hardoy, J., Pandiella, G., Barrero, L. S. V. (2011). "Local disaster risk reduction in Latin American urban areas". *Environment and Urbanization*, 23: 401.

Hove, M., Ngwerume, E.T., Muchemwa, C. (2013). "The Urban Crisis in Sub-Saharan Africa: A Threat to Human Security and Sustainable Development". *Stability*, 2(1): 7, pp. 1-14.

Sanderson, D. (2000). "Cities, disasters and livelihoods". *Environment and Urbanization*. 12/2: 93-102.

Todaro, M. (2000). "Economic Development". Essex: Pearson Education Limited.

UNISDR - United Nations Inter-Agency Secretariat for Disaster Reduction (2012). "Making Cities Resilient Report 2012 - My city is getting ready! A global snapshot of how local governments reduce disaster risk". Second Edition.

UNFPA - United Nations Population Fund (2007). "State of World Population 2007: Unleashing the Potential of Urban Growth", accessed online at www.unfpa.org, on 3 January, 2013.

UNDESA - United Nations Department of Economic and Social Affairs (2011). "World Urbanization Prospect (WUP): The 2011 Revision".

World Bank (2012). "A Workbook on Planning for Urban Resilience in the Face of Disasters – Adapting Experiences from Vietnam's Cities to Other Cities"

List of Annexes

1. Multiple Choice Questionnaire for Local Governments – Base Template
2. Multiple Choice Questionnaire for National Institutions
3. Multiple Choice Questionnaire for Other Institutions
4. List of Questionnaires answered
5. Compilation Matrix with answers from Multiple Choice questionnaires
6. Guidelines for Focal Group discussions
7. List of focal groups discussions conducted
8. Complete list of consulted stakeholders