

Climate Change Stakeholder Survey



Stakeholders and Activities in the Water and Neighbouring Sectors in Tanzania

Final Draft

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Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH - Support to the Tanzanian Water Sector

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Cover page photos

1. Tanzanian forces in a rescue boat, Source: President Kikwete's Twitter feed
2. Drying up water sources, Source: GIZ

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Abbreviations

| | | |
|-------------|---|--|
| ANGOZA | - | Association of Non Governmental Organisations in Zanzibar |
| ARU | - | Ardhi University Dar es Salaam |
| BTC | - | Belgian Technical Cooperation |
| CBO | - | Community Based Organisation |
| CC | - | Climate Change |
| CCAM | - | Climate Change Adaptation and Mitigation |
| CD | - | Capacity Development |
| CDM | - | Clean Development Mechanism |
| CIDA | - | Canadian International Development Agency |
| CLACC | - | Network on Capacity Strengthening of Least Developed Countries in Adaptation to Climate Change |
| CODECOZ | - | Jumuiya ya Maendeleo yq Jamii na Uhifadhi wa Mazingira Zanzibar |
| COP | - | Conference of the Parties |
| COSTECH | - | Tanzania Commission for Science and Technology |
| CRS | - | Catholic Relief Service |
| CSO | - | Civil Society Organization |
| DANIDA | - | Danish International Development Agency |
| DED | - | District Executive Director |
| DFID | - | Department for International Development (UK) |
| DoE | - | Department of Environment (at VPO) |
| DP | - | Development Partner |
| DPG | - | Development Partner Group |
| DPG-E | - | Development Partner Group Environment |
| EIA | - | Environment Impact Assessment Section at the VPO |
| EMA | - | Environmental Management Act |
| EPMS | - | Environmental Protection and Management Service |
| FAO | - | Food and Agriculture Organization |
| FIPs Africa | - | Farm Input Promotions Africa |
| GDP | - | Gross Domestic Product |

| | | |
|---------|---|---|
| GHG | - | Greenhouse Gas |
| GIZ | - | Deutsche Gesellschaft fuer Internationale Zusammenarbeit GmbH |
| GoT | - | Government of Tanzania |
| ICRAF | - | World Agroforestry Centre |
| IFAD | - | International Fund for Agricultural Development |
| IPCC | - | Intergovernmental Panel on Climate Change |
| IUCN | - | International Union for Conservation of Nature |
| JICA | - | Japan International Cooperation Agency |
| KOICA | - | Korea International Cooperation Agency |
| LGA | - | Local Government Authority |
| MDG | - | Millennium Development Goal |
| MJUMITA | - | Mtandao wa Jamii wa Usimamizi wa Misitua Tanzania / The Community Forest Conservation Network of Tanzania |
| MKUKUTA | - | Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania / The National Strategy for Growth and Reduction of Poverty |
| MoW | - | Ministry of Water |
| NAPA | - | National Adaptation Program of Action |
| NEAC | - | National Environmental Advisory Committee |
| NEMC | - | National Environment Management Council |
| NCCST | - | National Climate Change Steering Committee |
| NGO | - | Non Governmental Organization |
| NORAD | - | Norwegian Agency for Development Cooperation |
| RAS | - | Regional Administrative Secretariat |
| REA | - | Rural Energy Agency |
| REDD | - | Reducing Emissions from Deforestation and Degradation |
| SIDA | - | Swedish International Development Cooperation Agency |
| SUA | - | Sokoine University of Agriculture |
| TAFORI | - | Tanzania Forestry Research Group |
| TANAPA | - | Tanzanian National Parks |
| TaTEDO | - | Tanzania Traditional Energy Development and Environment |
| TAWIRI | - | Tanzania Wildlife Research Institute |
| TFCG | - | Tanzania Forest Conservation Group |

| | | |
|-------|---|---|
| TIRDO | - | Tanzania Industrial Research and Development Organization |
| TMA | - | Tanzanian Meteorological Agency |
| TNRF | - | Tanzania National Resource Forum |
| TOAM | - | Tanzania Organic Agriculture Movement |
| UDOM | - | University of Dodoma |
| UDSM | - | University of Dar Es Salaam |
| UNEP | - | United Nations Environment Programme |
| UNFCC | - | United Nations Framework Convention on Climate Change |
| UNDP | - | United National Development Programme |
| URT | - | United Republic of Tanzania |
| USAID | - | United States Agency for International Development |
| VPO | - | Vice President's Office |
| WWF | - | World Wide Fund for Nature |
| WCST | - | Wildlife Conservation Society of Tanzania |
| WDMI | - | Water Development and Management Institute |
| WUA | - | Water User Association |

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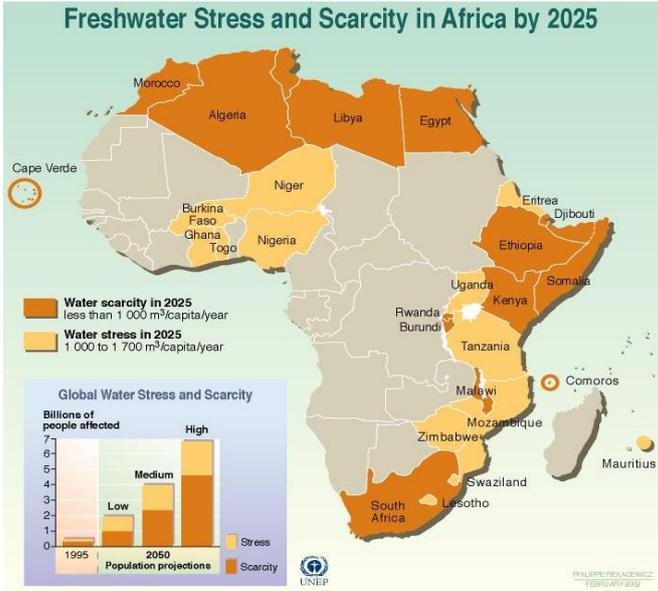
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CHAPTER ONE - INTRODUCTION

1.1 Background

Tanzania like any other country in Sub-Sahara Africa is suffering from a changing climate. The impacts of climate change have affected the whole spectrum of life such as the environment, human health, human settlements, wildlife migration, food security, physical infrastructure, economic activities and natural resources. Globally, many semi-arid and arid areas in southern Africa are particularly exposed to the impacts of climate change and are projected to suffer a decrease of water resources due to climate change (IPCC, 2008). As a huge number of the population is still dependent on traditional water sources (e.g. wells, ponds, rivers, rain harvesting) a decrease in rainfall, changes in river flow and groundwater levels as well as a general higher variability of the climate have direct effects on the water availability and quality (URT, 2007). Projected figures on minimum and maximum temperatures, evapo-transpiration (relative humidity) and rainfall patterns during the next half century based on global scenarios shows that, if not well planned, Tanzania risks declining water resources which threaten its productive potential, the fight against poverty and the improvement of socio-well being of its people (Tadross and Wolski, 2010). At present Tanzania as a whole has sufficient water resources. In 2007, Tanzania’s renewable water resources per capita were 2,291 m³, nevertheless, with a rapidly growing population, projections see water supply falling below 1,700 m³ per capita in 2015, when the population reaches 52 million, making Tanzania a water scarce country (Stacey, 2010). Even nowadays, some areas in Tanzania are already suffering from a lack of water, especially as rainfall varies across regions and temporally.

Figure 1: Water Availability Status/Projections in Africa¹



Source: United Nations Economic Commission for Africa (UNECA), Addis Ababa; Global Environment Outlook 2000 (GEO), UNEP, Earthscan, London, 1999; Population Action International.

¹ Graphic by Philippe Rekacewicz, UNEP/GRID-Arendal, http://maps.grida.no/go/graphic/freshwater_stress_and_scarcity_in_africa_by_2025 31/01/12

In contrast to developed countries Tanzania and other East African countries have a very low adaptive capacity to address the challenges of climate change (Nanduddu, 2011). There is a growing concern that the speed and intensity of climate change are outpacing the ability of especially the poor to cope with its effects. Droughts and floods have noticeably emerged as the two extreme climate change phenomena which are threatening to set back the development progress of the past decades, making it difficult to address present challenges and meeting the MDGs and MKUKUTA II² targets.

Table 1: MKUKUTA II – Targets

| Cluster | Broad Outcome |
|--|---|
| Cluster I | <ul style="list-style-type: none"> a) Inclusive and accelerated growth achieved and sustained b) Employment opportunities for all, including women and youth c) Good economic governance enhanced and ensured |
| Cluster II | <ul style="list-style-type: none"> a) Quality of life and social wellbeing for enhancing capabilities, with particular focus on the poorest, people with disabilities, and other vulnerable groups, improved; b) Inequities in accessing social and economic opportunities, along geographical areas, income, age and gender reduced. |
| Cluster III | <ul style="list-style-type: none"> a) Democracy, good governance, human rights and the rule of law deepened and ensured b) Peace, political stability, social cohesion and national unity consolidated and sustained c) Accountable, responsive, effective, and efficient leadership in public service ensured d) Equity in accessing public resources and services ensured |
| <p>Source: United Republic of Tanzania – Ministry of Finance and Economic Affairs (2010): National Strategy for Growth and Reduction of Poverty II – MKUKUTA II, July 2010</p> | |

Available information suggest that as from early 1980's through 2010's Tanzania has experienced frequent droughts and floods which have affected millions of people and their livelihoods across the country with considerable negative economic impact (Imhoff, 1998; SUA, 2007; Mary and Majule, 2009). It is expected that by the year 2030 the economic costs resulting from effects of climate change to the Tanzanian economy will range between 1-2% of the annual GDP (Watkiss et al, 2011).

² United Republic of Tanzania – Ministry of Finance and Economic Affairs (2010): National Strategy for Growth and Reduction of Poverty II – MKUKUTA II, July 2010. Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania (MKUKUTA) = Kiswahili for The National Strategy for Growth and Reduction of Poverty

Table 2: History of Drought and Flood Disasters in Tanzania

| No | Disaster type | Date | No Affected |
|----|-----------------|-------------|-------------|
| 1 | Flood | 2009/2010 | 50, 000 |
| 2 | Flood (Kilosa) | 2009 | NIP |
| 3 | Flood | 2008 | 7, 957 |
| 4 | Flood | 2006 | 19, 000 |
| 5 | Drought | 2006 | 3, 700, 000 |
| 6 | Drought | 2004 | 254, 000 |
| 7 | Drought | 2003/2004 | 1, 900, 000 |
| 8 | Flood (El-nino) | 1997/8 | NIP |
| 9 | Drought | 1996 - 2000 | 3,000,000 |
| 10 | Flood | 12-Feb-1993 | 201,543 |
| 11 | Drought | 1991 | 800,000 |
| 12 | Flood | 3-Apr-1990 | 162,000 |
| 13 | Flood | 7-Apr-1989 | 141,056 |
| 14 | Drought | 1988 | 110,000 |
| 15 | Drought | 1984 | 1,900,000 |
| 16 | Flood | Jun-1979 | 90,000 |
| 17 | Flood | May-1974 | 68,000 |

Source: EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net

According to the National Adaptation Program of Action (NAPA) for Tanzania and the climate change modelling report on the Pangani Basin, climate change estimates vary for the different regions of the country (URT, 2007; IUCN, 2010). For the North East, an increase of temperature between 1.8 °C to 3.6 °C and an increased evapo-transpiration and a decline of rainfall will lead to a decrease in annual river flow in the Pangani river basin. The river flow of the Rufiji River on the other hand is expected to increase due to increased rainfall. Floods are expected to worsen in those areas posing risk to hydropower generation, increasing prevalence of water-borne diseases and affecting human settlements along the river basins (URT, 2007; IUCN, 2010). Generally the projections concerning rainfall show some uncertainties but agree that precipitation will increase in the future especially during the late part of summer leading to stronger late season rains, while the earlier season rains will be weaker (Jack, 2010). While rainfall in some areas (North West, Lake Victoria basin and northern coastal region) will increase during the rainy season, other areas will experience decreased rainfalls (South Western, Western, Central and Eastern parts) (URT, 2007; IUCN, 2010).

The mean temperatures are expected to rise especially in the cooler months by 3.5 °C with annual temperature increasing between 2.1°C in the North Eastern parts and 4 °C in the Central and Western parts of the country (URT, 2007). The impact of those changes can already be seen in e.g. the change of malaria areas. Malaria, an epidemic disease in most of the sub-tropical areas, including Tanzania has recently spread to areas such as Lushoto, Kilimanjaro, Njombe etc., which have been traditionally malaria-free due to changed climatic conditions (Watkiss, 2011; Nanduddu, 2011; Valimba, 2011). According to Watkiss et al (2011) the cost for disease treatment under the different climate and development assumptions could increase by \$20 to 100 million per year in 2030. Already, the cost that is involved in the control and treatment of malaria was estimated at US\$ 240 in 2007 and is likely to have increased further in the last years (Breman *et al.*, 2007).

The highlighted rise in temperatures, increased unpredictable rainfalls and the corresponding decline in soil humidity are likely to cause shortages of water supply for household and productive uses hence aggravating existing water stress situations in large parts of the arid and semi-arid regions of this country (Paavola, 2003). Due to desiccated areas, families are forced to walk long distances of up to 10 km per day to fetch water thus hampering their productive activities. Increased water stress in the face of an increasing population growth on the one hand and low investment in the water sector on other hand has resulted in community unrest or full-blown conflicts which are characterized by loss of property and life.

While climate change impacts are often viewed as an exclusive problem of rural arid and semi-arid areas, studies have shown that urban areas especially those along the eastern coast along the Indian Ocean are equally vulnerable. Flooding, droughts and water scarcity, electric supply disruption and increased prevalence of water borne diseases as well as sea-level rise and coastal erosion are increasingly becoming big challenges in cities like Dar es Salaam, Tanga etc. (NIRAS, 2010; Dodman *et al.*, 2011). In particular, hydroelectric power, otherwise the mainstay of the Tanzanian energy generating sector, providing 55% of the nations power generation according to Stacey (2010), has in recent decades been drastically affected thus threatening industrial growth and production in the country and hence its economic growth (URT, 2007). Additionally, decreased water resources due to declining run-offs along the main water basins of Pangani, Ruvu, Wami and Kilombero rivers due to climate change impacts could potentially have a delirious socio-economic effect on the industrial towns of Dar es Salaam, Tanga, Moshi and Coast (OECD, 2003; Paavola, 2003). In 2010 during a prolonged dry spell with increased temperatures, the Mindu Dam, which is the main source of water for Morogoro municipality, suffered a significant decrease in water level leading to a massive growth of algae in the dam that threatened provision of water supply service and health of consumers. On the

east coast, available information suggest that Zanzibar will also be affected as more surface run-off caused by less frequent but more intense precipitation is likely to cause erosion and less recharge of ground water hence compounding the water scarcity problem for drinking and agricultural production (NIRAS, 2010). Further, people living in the Indian ocean archipelagos of Zanzibar, Pemba, Mafia, Kilwa and other small islands whose livelihoods depend heavily on the stability of the sea have significantly become more vulnerable to the impacts of climate change. Increased and unpredictable oceanic winds and strong currents have impeded on seaweed farming and fishing, caused beach erosion and salt water intrusion into the few fresh water sources. Accumulated all these impacts weigh heavily on the livelihood and economic potential, which derives to a large extent from tourism.

1.2 Tanzania in the International Climate Change Framework

Tanzania ratified the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol in 1996 and 2002 respectively, whose main objective is to reduce greenhouse gas emissions (EAC, 2011). As a signatory to the UNFCCC, Tanzania participates in the negotiating process that focuses on mitigation, adaptation, finance mechanisms as well as technology development and transfer (Nanduddu, 2011). An Initial National Communication (INC)³, as required by the UNFCCC from developing countries, was handed in by March 2003. It gives a comprehensive account of climate change and vulnerabilities in the country. The second National Communication was initiated in September 2006 and should have been finalized in July 2009, but so far has not been handed in (DANIDA/ EU/ NORAD, 2009). As a requirement of the UNFCCC, the National Adaptation Program of Action (NAPA) was prepared in 2007 to identify immediate short/term priorities that could be addressed by the UNFCCC-Least Developed Country Fund (DANIDA, EU, NORAD, 2009). The NAPA identified water and agriculture as priority areas (URT, 2007; EAC, 2011). Tanzania, like the rest of East Africa's countries is part of the network on Capacity Strengthening of Least Developed Countries in Adaptation to Climate Change (CLACC).

Several stakeholders have pointed out shortcomings of the NAPA in framing the national discussion on climate change. Main concerns are the limited information base on climate change, missing exchange of data and coordination of initiatives by government bodies. Although a climate monitoring network is in place by the Tanzanian Meteorological Agency (TMA), stations are operated jointly with other institutions hampering data exchange and analysis. Many stations have fallen into disuse in the last years, so that long-term projections are not possible in many cases (DANIDA, EU, NORAD, 2009; Valimba, 2011).

³ The whole document can be found under <http://unfccc.int/resource/docs/natc/tannc1.pdf> 07/02/12

Several Tanzanian research institutes are dealing with climate change issues and a number of studies have been published focusing on climate change impacts in the water sector. Nevertheless, there is no intensive information exchange or formalized coordination mechanism⁴ between the different research institutions, government institutions, development partners, NGOs and CSOs on climate change in the water sector. This leads to organizations planning interventions and measures, unaware of possible duplication or opportunities to pool resources (DANIDA, EU, NORAD, 2009).

Climate change has been anchored at the Department of Environment (DoE) within the Vice President's Office. The DoE's task is to oversee and coordinate climate change initiatives in the country. On the national level the actual experiences related to communication, harmonized planning on climate change interventions amongst different social and productive groups, as well as facilitation of adaptation activities, are very limited. A research by the Citizen Global partnership in Tanzania has shown that the National Climate Change Steering Committee (NCCST), once the highest advisory bodies on climate change entrusted with the role of influencing international actions and providing directions for national climate change initiatives, is no longer sufficiently operational.

Moreover, as Nick Hepworth (2010) concludes, despite best efforts to actively put climate change on the national agenda, the technical capacity and resources of the Tanzanian government bodies are tied up in trying to serve the international requirements. As a result this leaves less capacity and limited resources to planning and implementing necessary adaptation measures in the country and strengthen Tanzania's resilience (Hepworth, 2010; URT, 2007). A first step to improve the national framework and give direction to stakeholders has been taken by the VPO DoE in developing a national Climate Change Strategy. The Strategy was presented to selected stakeholders in January 2012. It includes concrete priorities and action plans, which will be important for the water sector after the strategy is implemented. Probably, the different sector ministries will then have the task to formulate sector specific strategies and action plans to implement climate change measures accordingly. Those developments should take a more participative and bottom-up approach compared to the process leading to the national climate change strategy.

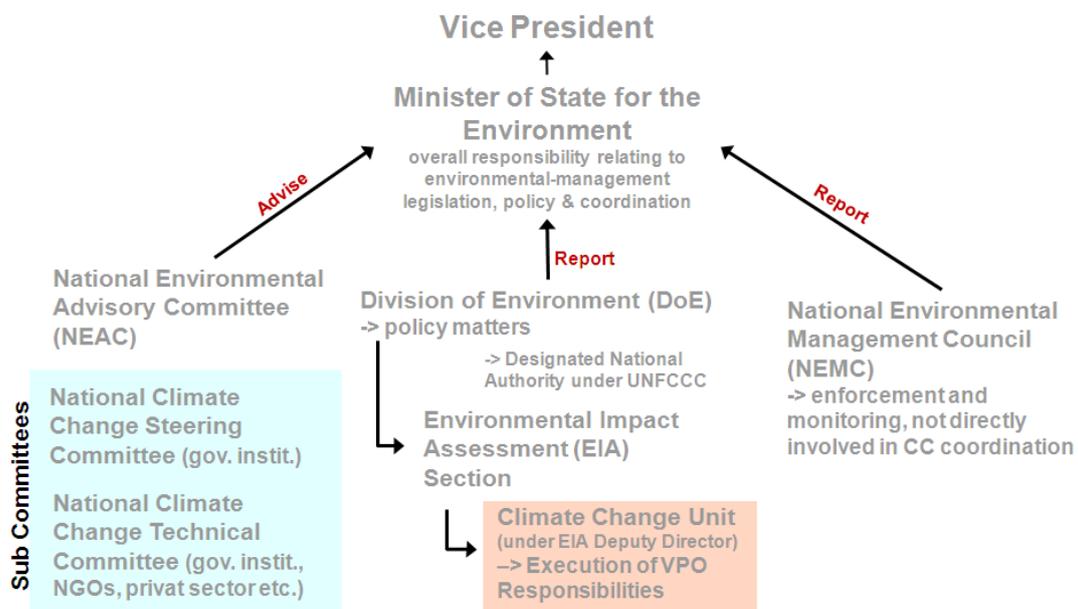
⁴ With the Development Partners Group Environment and its subgroup on climate change a first attempt has been made to develop a dialogue forum between different stakeholder primarily between DPs and government institutions. Nevertheless, the group is focused on the environment as a whole, giving only limited space to water issues. Moreover, only a limited number of stakeholders are members of the group while the main partner on government side is the Vice President's Office.

1.3 Tanzanian Institutional Setup concerning Climate Change Issues

The two governments of United Republic of Tanzania and the Revolutionary Government of Zanzibar have both set up units to coordinate climate change issues which are operating under the Vice President's Offices of the respective governments under the directorates of Environment. These two directorates are headed by directors of environment under whom focal persons have been appointed to deal with climate change issues.

The primary function of the CC focal persons is to provide technical expertise, ensure information exchange, facilitate building of the capacities of the stakeholders in this area and advising their respective government on climate change matters. The mainland VPO DoE has set up administrative and technical organs to support the functions of the departments on areas of climate change.

Figure 2: Institutional Set Up of Climate Change Coordination in Tanzania Mainland on National Level



On ministerial level, some ministries have appointed focal persons e.g. at the Ministry of Agriculture and Food Security, Ministry of Water, to coordinate CC issues. Nevertheless, several ministries have neither established the office nor appointed focal points even though all sector ministries are responsible for coordination of activities and strategy development in their respective sectors.

At the regional level, the Regional Administrative Secretariat (RAS) office has the responsibility of building capacity at and backstopping the LGAs in fulfilling their roles on climate change issues. At this tier, climate change falls under the environment

sector and is coordinated under the Economic Development Support Services cluster which together with the rest of clusters is manned by the RAS.⁵

At district council level, CC issues are coordinated by the Department of Lands, Natural Resources and Environment, whose head is reporting to the District Executive Director (DED). The influence and participation of the Department of Water at district councils is rudimentary or even missing altogether. At this level, it is appropriate to note that climate change is mainstreamed in sector interventions and activities implemented by other departments such as department of agriculture and livestock development and Works. Down the ladder, there exist environmental committees operating under the Village Governments or *Sheha* for the Mainland and Zanzibar respectively. Village governments are literally without any knowledge about climate change and capacity to address CC.

1.4. Rationale

Although climate change is inevitable, there is a possibility to significantly reduce the magnitude and severity of its impacts through formulation and implementation of appropriate adaptation and mitigation plans. With Tanzania already categorized as one of the countries to be most likely severely hit by climate change it is apparent that Tanzania moves quickly in order to adapt to the unavoidable reality of climate change. This is especially acute for sectors dealing with natural resources, e.g. water, land, agriculture, energy and forestry. Estimates show that these sectors will mainly be affected by a changing climate, without clear projections on the extent or impact available yet.

In Tanzania several multi-sectoral actors and institutions focus directly or indirectly on addressing climate change related problems. However the efforts of these various organizations and institutions is not well articulated, documented, shared and adopted for the purpose of developing a national adaptation policy, inform planning and implementation of Climate Change Adaptation and Mitigation (CCAM) activities. This has resulted in low level of awareness about climate change and its impact and limited capacity for adaptation. Therefore, it becomes apparent and necessary to establish and strengthen coordination at different levels to enable actors to report on the impacts of Climate Change on the lives and livelihood of the poor, the national economy, water, agriculture, environment, health and the energy sectors.

Accordingly, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in Tanzania has introduced a new component within its program “Support to the Water Sector” in Tanzania in 2010. The main aim of this component is to give support to the

⁵ Other clusters are the Management Support Services, Physical Planning and Engineering Support Services, Social Sector Support Services and Staff Support Services.

Government of Tanzania (GoT) and especially to the water sector institutions in order to enable them to implement the activities as described in the Tanzanian National Adaptation Plan for Action (NAPA). Essentially, these efforts aim at increasing knowledge and leadership of actors in the field of climate change in the Ministry of Water (MoW). GIZ plans to support the MoW in improving its overview on climate change stakeholders and activities in the water sector. Moreover, GIZ plans to support the MoW in the implementation of a mechanism to coordinate the multitude of mainly isolated activities on climate change in the sector.

The anticipated results of these efforts will be to establish an effective mechanism of sharing information among the CC actors, the promotion of structured and regular dialogues at all levels; to ensure the use of synergies and coordination of current and future actions in the CC field. Moreover, the outcomes of this study may provide the basis for future collaborative initiatives among development partners and government institutions.

The Ministry of Water (MoW) has taken a first step to get a better picture on the climate change impacts in the water sector by commissioning a study on climate variability and change in the water sector in Tanzania, funded by UNDP in 2010/11. This study identified limited sharing of information, study results and details on planned interventions by the different actors as shortfalls of the present setup. Though giving an overview on the climate data available and the existing vulnerabilities in terms of water resources, the report lacks recommendations for a strategic way forward (Valimba, 2011). Following a similar comprehensive study on climate change, the Revolutionary Government of Zanzibar has suggested, to improve coordination of climate change activities by creating a number of government coordination structures with well defined tasks to take up key coordination responsibilities⁶ (NIRAS 2010).

In discussions between the Ministry of Water and the GIZ, it became apparent that a clear direction and coordination for actors in the area of climate change in the water is urgently needed. To help decision-makers in identifying, formulating and implementing policies and strategies, increase expertise on climate change, improve steering capacity in the Ministry of Water (MoW), avoid duplication of studies and activities by different stakeholder and develop a joint approach on climate change adaptation in the water sector, a stronger leadership and better coordination is needed. Therefore, the Ministry of Water asked GIZ in accordance with the Development Partners Group to conduct this stakeholder analysis, in order to give an overview of actors and activities on climate change in the water and neighbouring

⁶ So far the coordination mechanism on Zanzibar has not been activated.

sectors in Tanzania. This study will help to design a coordination mechanism on climate change in the water sector headed by the Ministry of Water.

The envisioned new dialogue mechanism should be seen as complementing the already existing cooperation mechanisms (e.g. DPG-Environment and Forum CC). Both fora concentrate on climate change and its impact on the environment at large. The new mechanism will create the opportunity to discuss activities and plans on climate change in the water sector in more details and with a bigger number of experts and organizations than possible in the other networking groups.⁷ At the same time, any discussion will be fed into the other fora to improve information sharing. Taking the leadership position, the Ministry will be able to fulfil its role as specified in the Environmental Management Act (EMA), which requires ministries to put in place strategies and action plans to deal with climate change in their respective sectors.

By realizing the above facts this study aims at achieving the following objectives:

- To develop nation-wide overview of the institutional and private actors and the areas in which they operate
- Establish national database of CC actors which will be maintained and updated from time to time as needs arise.

Therefore this study will be the first step in:

- Improving cooperation and coordination of climate change activities in the water sector.
- Increase capacity and knowledge on climate change issues in the Ministry of Water and enable the MoW to fulfil its position of leading the climate change measures and discussion in the water sector.
- Jointly develop a way forward and develop a sector strategy on how to implement necessary adaptation measures in the water sector.
- Give input on water issues in the NAPA revision process as well as add to the formulation of the National Communications to UNFCCC at the Vice President's Office

⁷ The existing forums deal with water only to a limited extent and could not accommodate the different stakeholder dealing with CC in the water sector.

CHAPTER TWO - METHODOLOGY

2.1. Overview

This study is a combination of both desk study and analysis of field data collected in several focus areas. The deskwork included a literature review⁸ which was carried out in order to attain a general understanding of climate change and its impacts in the country and to get an idea of the adaptation and mitigation measures so far taken by the government and a range of stakeholders. The literature review further helped in identifying potential actors to be contacted during the study.

The consultant and GIZ Climate Change Team reviewed existing reports and literature and contacted key stakeholders to identify and agree on the primary stakeholders in the field of Climate Change Adaptation and Mitigation (CCAM). Initial discussions were held with stakeholders to lay down the groundwork for correspondences and collecting the required data on CC actors in the country. The main focus of the study lies on the water sector. Nevertheless, other sectors such as environment, agriculture, industry and trade, technology development and research have been illuminated as they are closely related to water issues.

The primary respondents included government ministries, divisions and agencies; Local government authorities; Development partners; Research and academic institutions; Non-governmental organizations (local and international); and civil society organizations. Where possible, contact persons were identified to facilitate the dissemination of questionnaires and data collection. Further, additional contacts were derived from these first interviews with primary stakeholders and followed up through a pyramid scheme. Where a face-to-face contact was not possible, stakeholders were contacted through email and telephone.

In order to gather information for the whole of Tanzania, the study team visited Dodoma, Coastal, Morogoro and Arusha regions. Other regions which were visited include Kilimanjaro, Tanga and Dar es Salaam plus Stone Town on Zanzibar. Data was also collected from other regions of Tanzania such as Mwanza, Rukwa, Iringa, Kagera, Singida, Kigoma, Manyara and Lindi.

2.2. Data Collection

Questionnaires were used as primary tools for data collection.⁹ The questionnaires were prepared and reviewed for completeness and adequacy for collection of the required data. Afterwards, they were field-tested to verify effectiveness before they were finalized by incorporating all appropriate changes obtained from the field test.

⁸ For a comprehensive overview that goes beyond the scope of this paper please see Stacey, 2010.

⁹ Please find the template of the questionnaires used in the Annex

As entry point the MoW introduced the GIZ consultant to relevant government institutions, DPs and non-governmental organizations through an official letter which described the nature of the study and expected results of the task.

For the dissemination, the questionnaires together with a copy of the approval letter from the Ministry of Water and the GIZ concept note were sent by e-mail to all primary respondents. In order to make sure that the questionnaires reached their destination, respondents were asked to confirm receipt and observe the deadline for submission for the filled in questionnaires. To ensure compliance, the consultant contacted the potential respondents regularly through email and telephone.

Additionally, the consultant visited key ministry departments, agencies and other key actors for face to face discussions prior to sending out the questionnaires. This provided space for further explanation of the purpose and importance of the mapping exercise by the consultant and often facilitated the completion of the questionnaire. At times questionnaires were administered through telephone conversations with respondents who could not be reached through e-mails or face-to-face interviews. After receiving the completed questionnaires the consultant, where necessary, cross-checked with respondents for accuracy and authenticity of the incoming data.

In general the questionnaire gathered information on the following areas:

1. Basic information of the organizations/institutions involved in the water and neighbouring sectors and climate change
2. Information about CC in the different sectors including past, current and planned interventions
3. Information on existing partnerships and coordination mechanisms and possibilities to improve them, as well as on climate change related conflicts between stakeholders, and
4. Information on available resources and skills among stakeholders addressing CC issues.

2.3. Data Analysis

Upon concluding the exercise of data collection, the data has been cleaned and validated followed by consolidation and cross tabulation. This survey was simple and covered only a small number of respondents, conclusions were drawn both directly from raw data and excel statistical analysis.

CHAPTER THREE - ACTORS LANDSCAPE ANALYSIS

3.1 Overview

The table below summarises the categories of participants based on the number of respondents to the questionnaire. Among the 138 respondents who were reached, 106 equivalent to 77% responded by submitting their responses to the consultants.

Table 3: Response Ratio

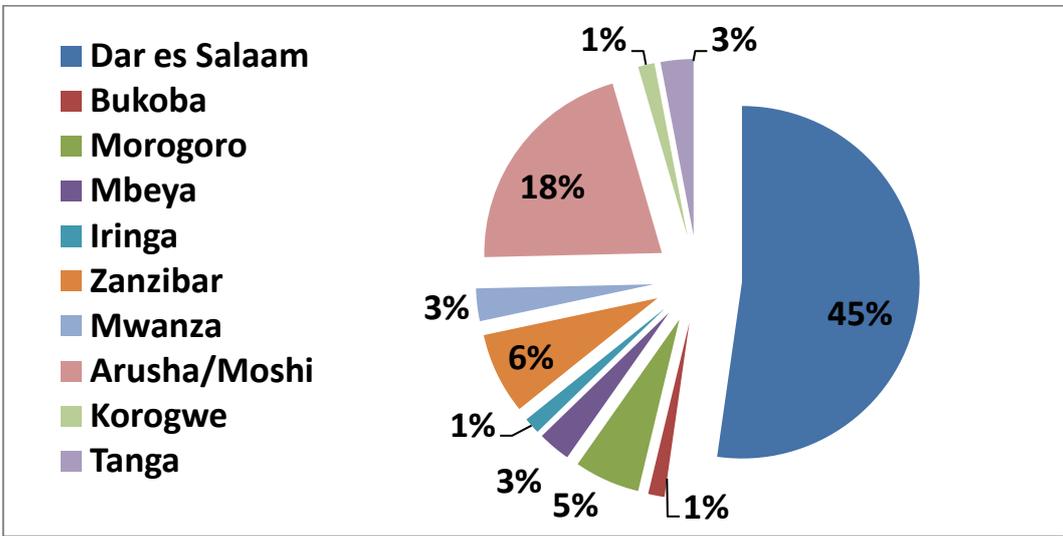
| Category | Government | DPs | NGO/CSOs | Private | Total |
|-----------------------|------------|-----------|-----------|-----------|------------|
| Reached | 66 | 19 | 37 | 16 | 138 |
| Responded | 52 | 17 | 30 | 7 | 106 |
| Response Ratio | 79 | 89 | 81 | 44 | 77% |

It was the intention of this study to collect as much data as possible from respondents from all over Tanzania. The response ratio of 77% is deemed adequate to provide a comprehensive picture on climate change actors in Tanzania.

Generally, the respondents were very cooperative, although some respondents were hesitant to meet with the consultant. Sometimes it needed lengthy processes to set appointments to meet government representatives.

The majority of the respondents had their base in bigger cities e.g. Dar es Salaam, Stone Town, and Arusha. Indeed most organizations are situated in Dar es Salaam as the economic, cultural and political centre. Only few had their base in townships/village. This may indicate a centre-periphery bias. The study tried to account for that by including as many regions as possible in the survey, paying particular attention to smaller NGOs and CBOs at local level.

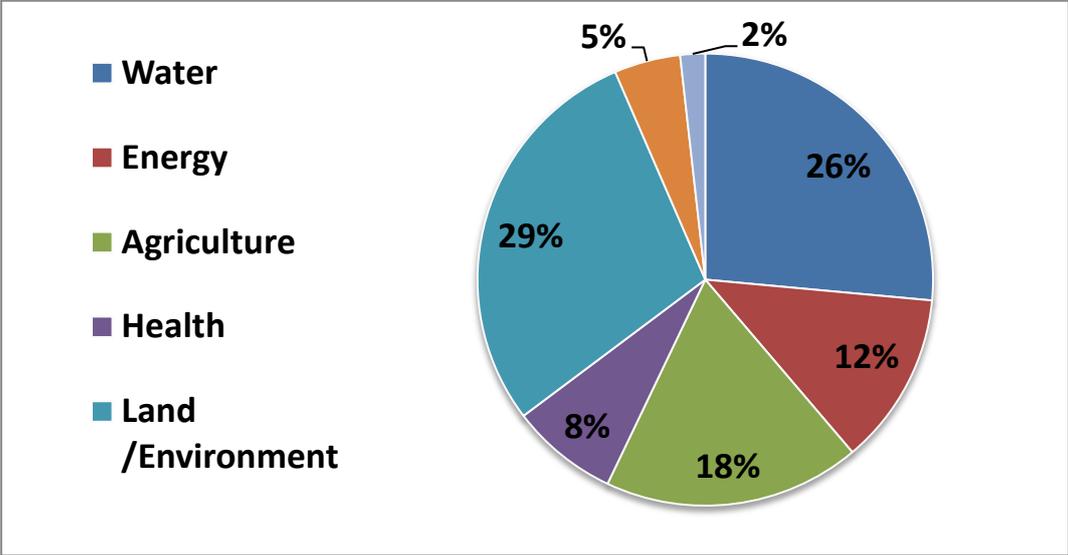
Figure 3: Regional Bases of Stakeholders



Although most actors have their base offices in bigger cities, it should be noted that especially the non-governmental organizations such as Care International, Concern Worldwide, MJUMITA, WWF, Vi Agroforestry etc. have offices in a number of districts and villages elsewhere in Tanzania.¹⁰

Most participants that have been interviewed are working on climate change issues in the environment sector, followed by the water and agriculture sectors. Some stakeholders are active in more than one sector while in most cases the activities of the research and academic institutions are cutting across all sectors.

Figure 4: Sectors of Stakeholder Activities



The study highlights that a small majority (64) of the actor organizations or institutions has specifically appointed climate change focus persons to handle CC matters. However, several of the stakeholder interviewed (42) had yet to identify focus persons among themselves to carter for climate change issues. The general understanding among the actors is that it is high time for institutions/organizations to appoint focal points for climate change within their ranks. Some institutions even though having no specific CC focal point operated in teams where every team member was entrusted with climate change issues.

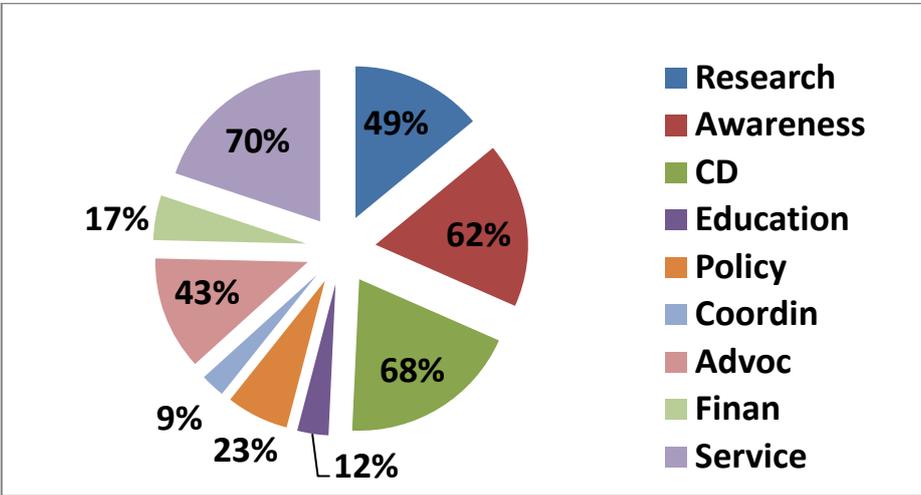
The assessment of stakeholders on the impact of their work is quite positive. Most of the participants (73) which is equivalent to 69% thought the outcomes of their efforts had fully benefitted the target groups and/or produced the intended outcomes. 25 (equivalent to 23%) of the respondents indicated that they had not fully met their intended targets while as little as 8 (8%) stated that they had not reached the envisaged impact. They cited inadequate collaboration and support from the national

¹⁰ In Figure 3 these smaller bases have been group with the regional cities to facilitate the display.

level, the low level of community awareness on CC issues, low capacities among actors and beneficiaries, low collaboration among actors and lack of a national CC strategy¹¹ as impediments.

Although the participants differed on the ground of activities they were implementing, the focus area of their activities can be assigned to the following categories: Financial support, lobbying and advocacy, coordination, strategy development, research and training, awareness raising, policy and legislation as well as service delivery/Implementation. Many participants are involved in more than one category of activities. The distribution of activities by category of the respondents is shown in Figure 5.

Figure 5: Stakeholder Activities by Type¹²



Most stakeholders are involved in the areas of services (70%) meaning project implementation and customer service e.g. tree planting, work of water basin offices etc. as well as Capacity Development (CD) (68%) and Awareness raising (62%). Other strong fields mentioned were Advocacy (43%) and research mentioned by 49% of the respondents,

Even if almost all actors focused on more than one category of activities most NGOs and CBOs are mainly involved in awareness raising, service delivery, advocacy, capacity building especially at community levels in the districts and village levels. Development partners provided financial support and dealt with policy and legislation including strategy development, capacity development and are involved in providing coordination support. The government institutions focused more on research and training, awareness raising, strategy development, coordination, financial support,

¹¹ A national Climate Change Strategy has been formulated by the VPO and presented to stakeholders in 01/2012. See chapter 1.3.

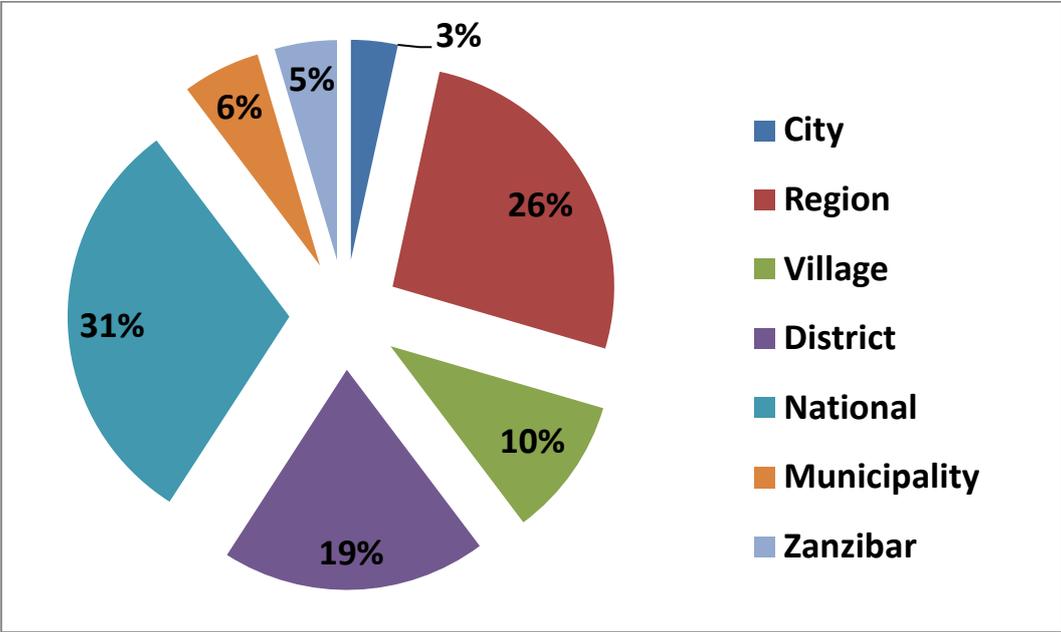
¹² Stakeholders were able to name more than one type of activity.

and service delivery. On the other hand, the private sector featured more on service delivery, financial support and lobbying.

3.2 Geographic Scope

Though situated in urban areas, the activities of the different stakeholders are mostly directed at regional and district areas as depicted in Figure 6. For example the Global Citizen Partnership, even though they do not have their physical presence in rural areas, target their activities primarily at those areas. Other actors have additional, smaller offices in their target regions.

Figure 6: Focus Level of Stakeholder Activities



The high number of stakeholders being active on national level, also explains the agglomeration of stakeholders in Dar es Salaam - the administrative, business and political centre of this country.

3.3 Stakeholder's Activities

The respondents in this study do address climate change focusing on the reduction of GHG concentration in the atmosphere (i.e. mitigation) and the adjustment in natural or human systems in response to actual or expected climatic stimuli and/or their effects, which moderates harm or exploits beneficial opportunities (i.e. adaptation). The study revealed that often actors were indistinct on whether they dealt with adaptation or mitigation and neither did they see that distinction important for their work; consequently they understood both fields to lead to the objective of combating the impacts of climate change. The majority of actors do not solely address climate change per se but rather mainstream CC in their routine activities.

This missing distinction may be the result of a conscious decision to combine the two approaches or it could be the result of a missing conceptual understanding of the two concepts, which would hint at a need for capacity development. In the worst case a meddling of the two concept could imply the random labelling of activities as climate change relevant (whether mitigation or adaptation) in order to access funds.

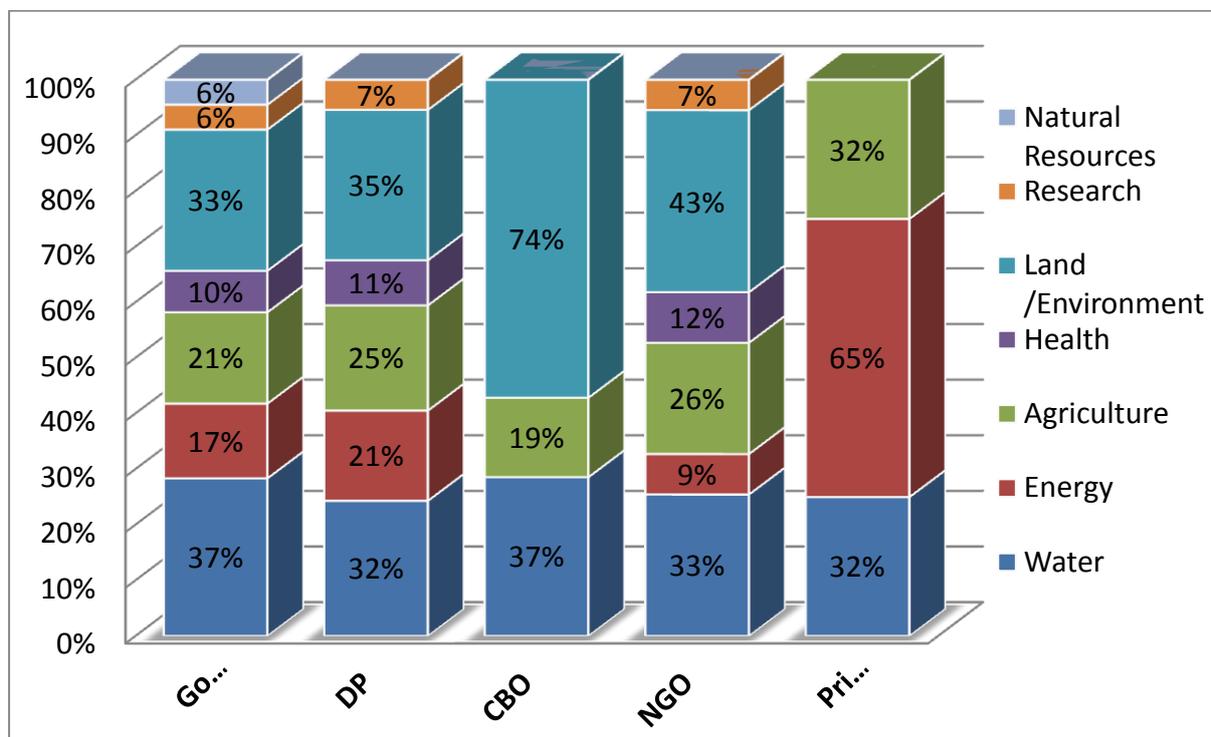
Some organizations, especially those working directly at the grass-root level conduct activities not labelled climate change, but which in the end are aimed exactly at reducing the impacts of climate change through adaptation and mitigation. However, other organizations such as EPMS and Forum CC directly labelled their activities as purely addressing climate change across all sectors.

An intriguing factor mentioned by the respondents is the feeling that donor funding and interests, and not necessarily host or recipient and community priorities dictate the focus area for climate change interventions of stakeholders. Most of the financiers have their funds tied to focus areas with which the recipients have to agree before they receive financial support. In Zanzibar for example, while challenges of drying-up water sources, salt intrusion and rising sea level plus the effects of encroaching sea line were the key issues mentioned, these areas have so far attracted less attention and financing. Instead, large scale irrigation schemes and land use planning projects have secured funding leaving the priority areas unattended. For Tanzania mainland, while the NAPA had identified water and energy as priority areas for financing under the UNFCCC initiative, a large chunk of financing has been made available to support the REDD pilot initiative, consequently leaving the implementation of the NAPA in tatters. This trend needs to be revised in order to make financing opportunities available and capture and address climate change issues on a demand driven basis.

Figure 7 gives an idea on the distribution of sector affiliation in the different stakeholder groups.¹³ The three groups of Government stakeholders, Development Partner and NGOs have a similar distribution of sector activities. Water is generally broadly presented through all stakeholder categories. In contrast to CBOs and private stakeholders all three also focus on research, while energy was especially prominent with private stakeholders. The responding CBOs focused particularly on agriculture, water and environment topics. A more in-depth overview of the activities conducted in the different sectors is given in the following chapters.

¹³ It has to be kept in mind that the number of respondents from the different stakeholder groups has been different as depicted in Table 3. The percentages therefore indicate how often each sector was mentioned within each stakeholder group, not for the whole sector.

Figure 7: Sector Affiliation based on Stakeholder Type



3.3.1 Water Sector

The main actors in the water sector based on the responses that were received include the Ministry of Water, Ministry of Agriculture and Natural Resources (Zanzibar), Kilosa District Council, TANESCO, World Vision, Water Aid, Care International, Irish Aid, CRS, SAUWASA, Gairo DUWSA, Kilosa DUWSA, ZAWA, ICRAF, Tanzania Red Cross, DFID, DANIDA, British High Commissioner and NORAD. Others are the World Bank, UNA, Moshi UWSSA, UNDP, WCST, IFAD, WWF, DOW Chemicals Ltd, WDMI, Zigi Mukulumuzi WUA, Karanga Kikafu WUA, MORUWASA, MOERK, Pangani River Mainstem WUA, TOAM, SOCODEA and CODECOZ. A host of district councils that include Same, Hai, Kilosa, Kisarawe, Morogoro, Gairo, Korogwe, Mwanga and Lushoto form a group of key stakeholders in this sector.

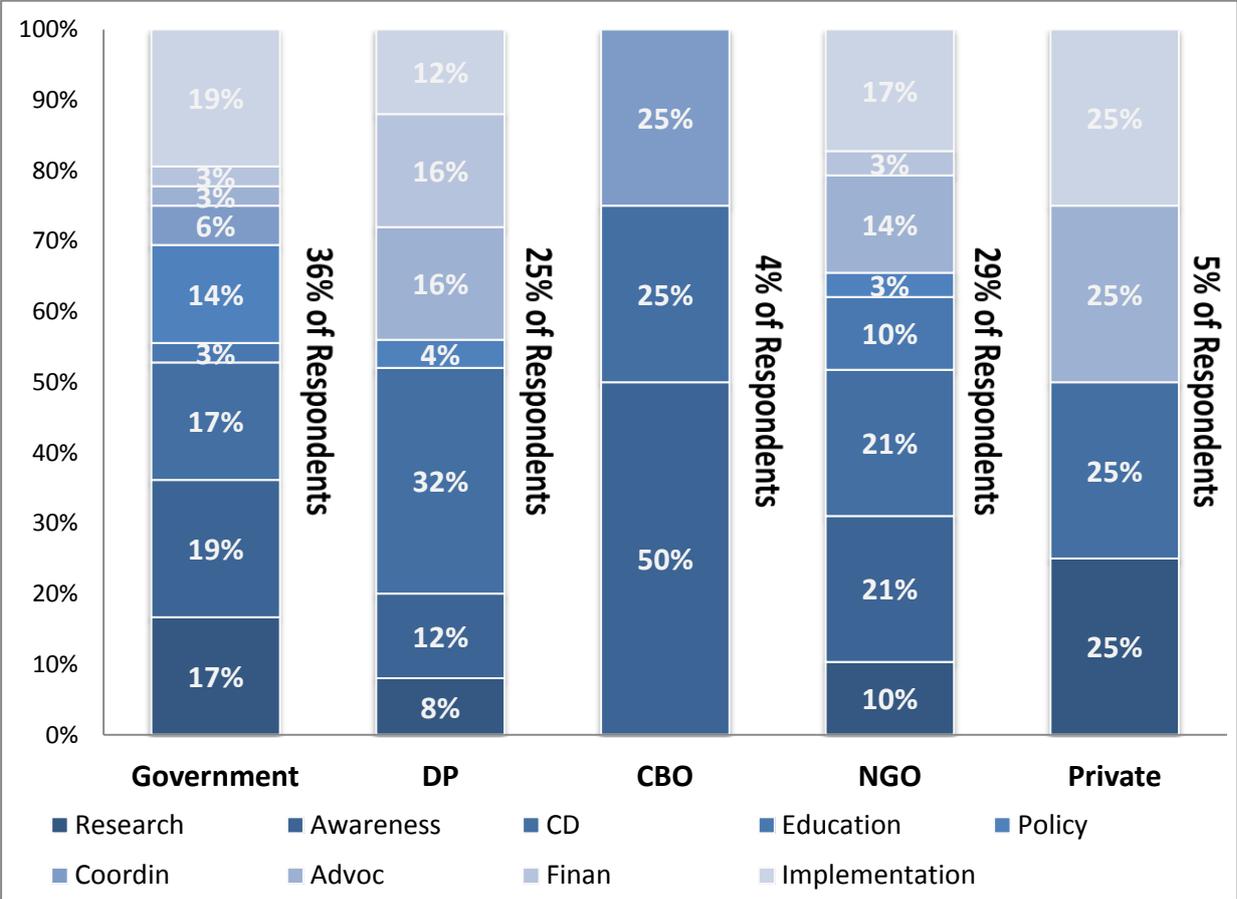
Six known adaptation strategies for the water sector are provided in the IPCC Summary for Policy Makers namely desalination; water re-use; the expanded rainwater harvesting; water storage and conservation techniques and efficiency in water-use and irrigation (IPCC 2012). The water sector stakeholders in Tanzania mainly focus on the last four strategies. In Zanzibar, where desalination has recently been brought to the attention of policy makers and technocrats alike, technical capacities and lack of resources have hampered any efforts by the authorities to have desalination interventions started. So far GIZ, MOERK and DOW have

launched community seawater desalination plant at Chwaka area in Zanzibar while the Karafuu Hotel owns a private and commercially operated desalination plant on the same island.

The following are the main intervention areas in the water sector:

- Integrated water resources management especially through water basin boards and local government authorities which ensures enhanced resources conservation and the protection of catchments.
- Institutional and capacity development inclusive of the Water Development and Management Institute and a number of community based water management bodies such as Water Users Association, catchment forums etc.
- Training and research in water and water resources with the view of developing skilled leaders in the water sectors.
- Financing of water related climate change activities especially those dealing with water capture, storage, and supply.
- Infrastructure development focusing on efficient use of water by minimizing losses, using water harvesting and efficient irrigation.

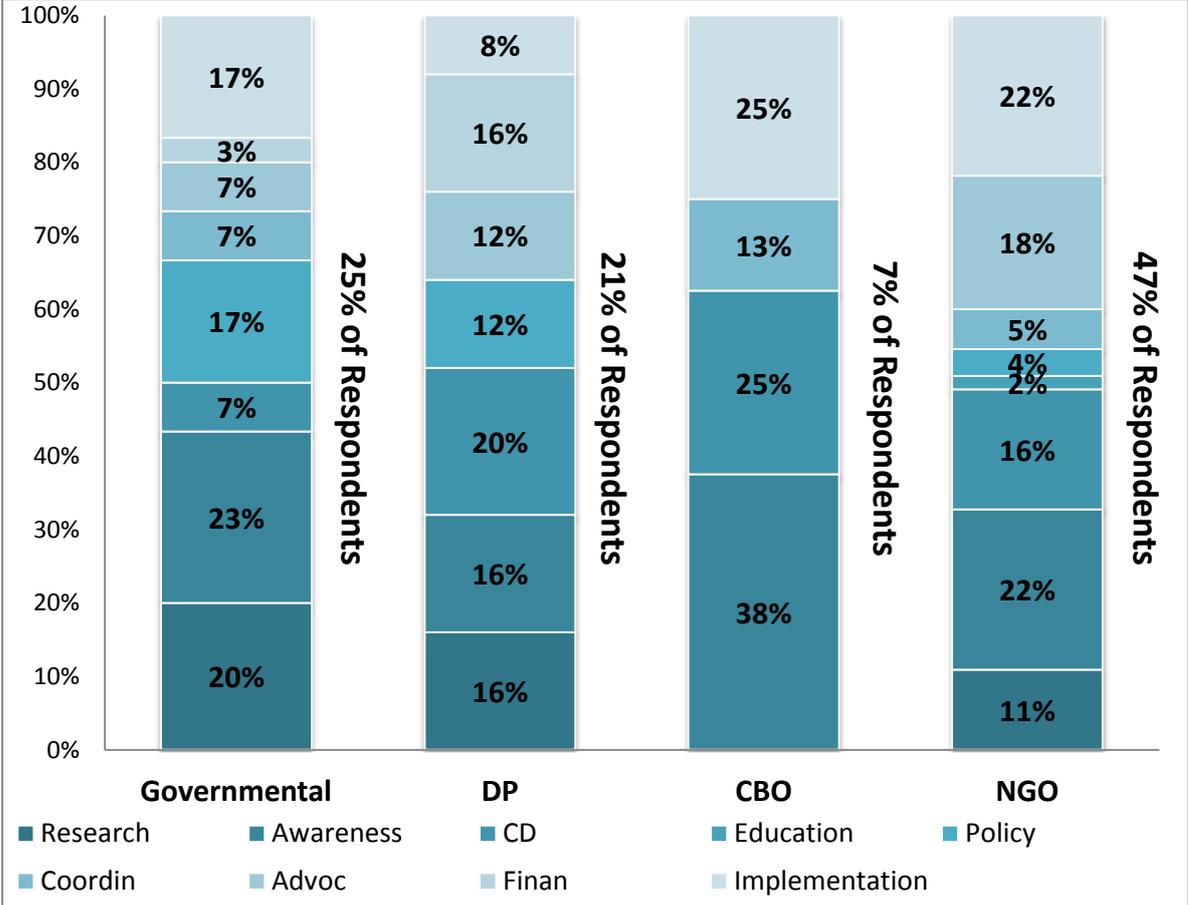
Figure 8: Stakeholders Activities in the Water Sector



3.3.2 Environment Sector

The environment sector which is seen as a custodian of climate change matters in the country is the sector mainly involved in carrying out a number of climate change interventions. The division of Forestry and Beekeeping in the Ministry of Natural Resources and Tourism is specifically responsible for the implementation, supervision and operationalization of the REDD initiative. Other activities are implemented all over the country by different stakeholders, namely: Citizen Global Partnership, EPMS, CODECOZ, SOCODEA, Karanga Kikafy WUA, Zigi Mukulumuzi WUA, Pangani River Basin Board, Wami/Ruvu River Basin Board, Envirocare, WWF and IFAD. Other key stakeholders include WCST, UNA, UNDP, Care International, UNEP, World Bank, NORAD, Finland, British High Commissioner, DANIDA, Mwanga District Council, CIDA, BTC, ICRAF, Jane Goodall Institute, USAID and TANAPA. The list also includes a host of district councils of Kilosa, Monduli, Mvomero, Same, Korogwe, Lushoto, Meru, Hai, Kisarawe, Karagwe and Bukoba. Academic institutions namely SUA, ARU, MS-TCDC, UDSM, TAFORI, UDOM, WDMI, TAWIRI and COSTECH are equally involved in the environmental sector by conducting a number of researches, training and consultancies.

Figure 8: Stakeholders Activities in the Environment Sector



Activities that are implemented under the environment sector are:

- Environmental conservation including sustainable use and management of natural resources and biodiversity
- Controlling and reducing the emission of GHGs in the atmosphere
- Policy and legislation
- Regulation and monitoring
- Addressing issues related to environmental waste inclusive of e-waste
- Research and meteorology data collection
- Financing
- Reforestations and afforestation including piloting REDD initiatives
- Carbon marketing schemes
- Control of wild fires

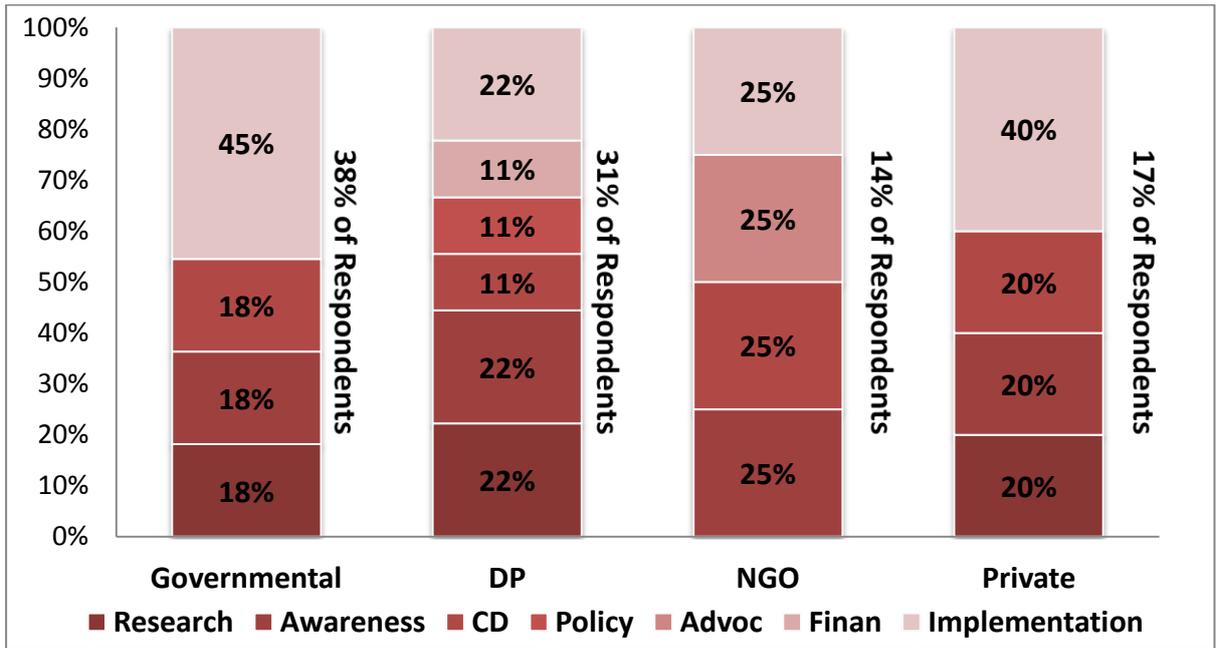
3.3.3 Energy Sector

The prominent actors in the energy sector include TANESCO, Ministry of Industries and Trade, TIRDO, USAID, TaTEDO, ICRAF, DFID, REA, SIDA, British high Commissioner, NORAD, World Bank, Envirocare, COSTECH and TAFORI.

They implement their activities in areas of:

- Development and research of energy efficient technologies such as energy efficient stoves
- New and renewable energy development such as windmills, hydroelectric power etc.

Figure 9: Stakeholders Activities in the Energy Sector

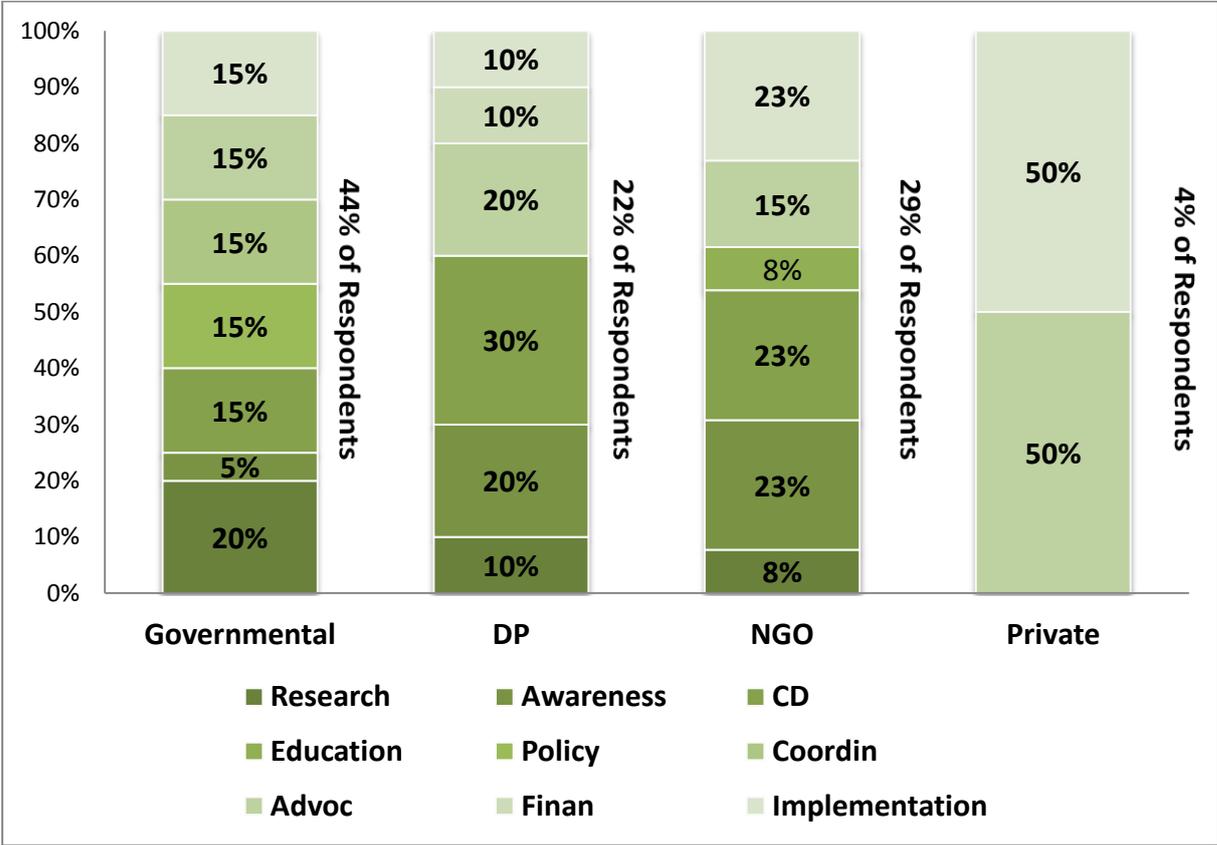


3.3.4 Agriculture Sector

The Ministry of Agriculture and Food Security is one of the pioneers on climate change. So far they have implemented the directive from the VPO-E for establishing a desk within the ministry, setting and identifying a focal point in-charge of climate change matters.

The main actors in this sector are MVIWATA, SOCODEA, TOAM, TAFORI, Envirocare, WWF, IFAD, ECST, NORAD, British High Commissioner, Irish Aid, DFID, ICRAF and Ministry of Agriculture and Natural Resources (Zanzibar). The local government authorities of Monduli, Kilosa, Kisarawe, Morogoro, Same, Korogwe, Mwanga, Mvomero, Lushoto, Hai district councils are major players in this sectors.

Figure 10: Stakeholders Activities in the Agriculture Sector



The agriculture sector is involved in the following interventions:

- In cooperation with science and technology, develop alternative fuels with focus on promoting the cultivation of bio-fuel plants
- Advocacy and law enforcement on protection of water and forestry resources especially the wetland by restricting encroachment of those resources by agricultural based initiatives

- Promoting of conservation agriculture which among other things advocate for tree planting, avoiding littering of farm lands with industrial waste with potential of increasing GHGs into the atmosphere.
- Training of farmers to adapt to better water uses especially through efficient large scale irrigation systems such as drip irrigation and traditional irrigation.
- Promotion of the use of organic farming.

3.3.5 Livestock Sector

Traditional livestock keeping which mostly takes place in the arid and semi-arid areas of Tanzania is one of the livelihoods that has been seriously affected by droughts as the result of the changing climate. As such the livestock sector attracts CC actors who include Ministry of Livestock Development and Fisheries, district council authorities, MVIWATA, Irish Aid, Care International, Concern Worldwide, IFAD, FAO, African Development Bank, World Bank, KOICA, Technoserve, WFP, USAID, Farm Africa and FIPs Africa.

The main areas of activity are:

- Promote adaptation methods especially with pastoral communities aimed at efficient availability and use of water.
- In cooperation with the Ministry of Science and Technology, develop alternative fuels with focus on promoting the bio-gas development.
- Promote land planning initiatives through allocation of grazing areas and avoid overstocking

3.3.6 Science and Technology Sector

Among the key actors in this area are the Ministry of Science and Technology, research and technology development institutions such as Sokoine University of Agriculture, University of Dar es Salaam and Ardhi University. Others are COSTECH, TaTEDO, TIRDO, Tanzania Meteorology Agency and a host of agricultural and forestry development/research institutes such as ICRAF, TAFORI etc.

- In cooperation with the Energy Sector, conduct research on and development of technologies alternative to those contributing to increased GHGs
- Conducting a wide range of research on soils, underground water, air etc

Local technology development is taking place in areas related to the development of windmills and hand-pumps which can prove useful as adaptation measures.

3.3.7 Financial Sector

The financial sector has few actors and is mainly composed of the host governments (Union and Zanzibar governments) and some bilateral and multilateral institutions. Other stakeholders are international funding agencies and to some extent the private sector players.

- Soliciting and raising financial resources necessary for planning and implementation of climate change initiatives in the country

3.4 Categories of Intervention

The above sectoral climate change activities in Tanzania can be differentiated into several categories e.g. Research/ studies, Awareness Raising, Capacity Development, Education, Strategy Development, Policy and Legislations, Coordination, Advocacy/ Lobbying, Financial Cooperation. At grass-root level, most activities involve tree planting, water resources management/conservation, destocking programs, capture and storage of water, efficient water supply and conflict resolutions.

Some specific activities falling under the category of coordination and strategy development include engagement in dialogues, consultations and negotiations at national, regional and international forums. The government, DPs especially through the DPG-E¹⁴ and EWG and forums such as Forum CC and EPMS were identified as the main CC actors participating in these categories. It was argued that capacity building of actors participating in strategy development should be given more emphasis in order to assist them to build their capacities in strategizing and make use of emerging opportunities in terms of planning, financing and technology development and transfer.

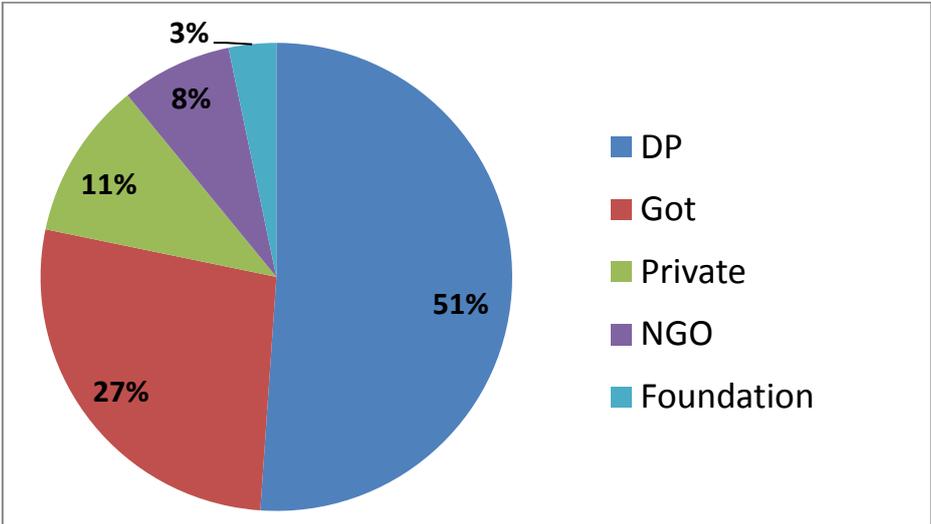
Stakeholders active in Capacity Building are engaged in supporting governance structures/institutions and systems; strengthening the capacities of these institutions or organizations as well as provision of work equipment and infrastructure in order to increase their efficiency in service delivery. The targets for capacity development are government ministries, government agencies such as water basin boards, TMA, district councils, the private sectors, water supply and sanitation utilities, training and research institutions, CSOs and community based organs such as WUAs and environmental committees.

¹⁴ For more information on the CC activities of the DPG-E: Mode, Matteo (2010): DPG-E Climate Change Support in Tanzania. Mapping of current and future climate change interventions of the Development Partner Group on Environment available on www.tzdp.org.tz

3.5 Sources of Funding for CCAM Activities

Resources mobilization and acquisition is key to building the capacities of actors in planning for interventions and implementing activities. Throughout the study, it became clear that the main climate change funding sources are the multilaterals (World Bank, UN) and bilateral development partners, Government of Tanzania, Revolutionary Government of Zanzibar and international foundations. Based on the number of recipients, the bilateral development partner group is leading in financing CCAM activities in Tanzania followed by the multilateral partners. However, this study could not establish the funding levels of each of the above categories of the CC actors. Limitations caused by lack of time and restricted financial policies of individual institutions prohibited a deeper analysis.

Figure 11: Financing of Stakeholder Activities



Respondents on ministerial level indicated delayed disbursements from the parent government as a major hiccup to planning, implementing and monitoring CCAM activities. In most cases the ministries on mainland Tanzania as well as in Zanzibar received less or did not receive any financing at all thus leading to a complete standstill in addressing CC issues. Experience with some offices including sector ministries shows that governments do not provide due attention to CC and, therefore, hardly allocate any resources during the fiscal budget planning process. Therefore, climate change initiatives are mostly financed through support from development partners (multilateral, bilateral and special Funds) and international NGOs.

DPs indicated that the sources of funding were their respective parent governments. Some NGOs have equally benefited from DP funding while for some of them their main funders are international foundations complemented by their own sources/donations.

According to many actors, required financial support is intended to cover cost for staff and community training, organizing events and production of advocacy materials, putting up new and/or renovation of infrastructure especially offices, purchase and installation of working equipment, communication and travel cost. Additionally, financial resources were also required to cater for planning events, formulating or reviewing strategies, laws, regulations and guidelines in order to capture emerging climate change issues and for the establishment of tree planting projects.

3.6 Stakeholder’s Capacities and Skills

Several challenges were identified by the stakeholders that impacted negatively on their engagement in CCAM activities. Chief of those named are lack of adequate and skilled personnel, inadequate institutional capacity, insufficient and often missing data and information, political interference/influence and lack of leadership. Many of the actors acknowledged the fact that climate change was a new thing to them and capacity on climate change is still lacking. The areas that are viewed as gaps that need to be filled are as shown in the Table

Table 4: Identified Capacity Constraints

| Capacity Constrain | Mainly mentioned by |
|---|--|
| <ul style="list-style-type: none"> ▪ Missing staff capacity | <ul style="list-style-type: none"> ▪ Governmental, NGOs, CBOs |
| <ul style="list-style-type: none"> ▪ Need for more research on CC | <ul style="list-style-type: none"> ▪ Governmental |
| <ul style="list-style-type: none"> ▪ Lack of support framework, strategy, policy to guide activities | <ul style="list-style-type: none"> ▪ NGOs, DPs |
| <ul style="list-style-type: none"> ▪ Need for better coordination | <ul style="list-style-type: none"> ▪ From all stakeholder types |
| <ul style="list-style-type: none"> ▪ Better financial resources and equipment needed | <ul style="list-style-type: none"> ▪ Governmental, NGO |

These shortcomings were cited as the major problems, especially by government institutions, the NGOs and the private sectors for impeding the implementation of CCAM activities. Lack of finances has been mentioned as the main cause for the missing implementation of the NAPA. Several actors except for DPs cited lack of financial resources and work equipment as potential hindrances to planning and implementing climate change interventions and reaching more people on the ground. Especially governmental bodies seem to suffer from insufficient funds, while non-governmental organizations are able to turn to alternative financial sources. So far, the main support for government agencies/institutions are the governments of URT, GoZ and the donor community. While DPs have been a major force, financing large climate change initiatives, funding from the Tanzanian government on climate change, when available, has been smaller. Especially the sometimes very erratic

government disbursements have frustrated and eroded the confidence of actors in planning and implementing activities.

Most of the respondents have expressed that a lack of skilled human capacity in formulating climate change policies, strategies, regulations and laws as well as in developing work plans is an impediment that needs to be addressed. Presently, legal instruments and tools such as climate change strategies are missing. Also the challenge of climate change in the water sector is not yet taken up in the curricula of educational institutions e.g. WDMI, universities.

In order to address the challenges caused by insufficient and unskilled human capital, some actors have resorted to outsourcing activities to consultancy services or partners. Outsourcing is neither a sustainable approach nor is it feasible for financial restricted stakeholders to contract consultants. Such an approach misses the chance to develop capacity on CC issues within the organization and the country at large. Requests for the development of human capital goes as far as demanding instilling skills on issues related to carbon trading, as voiced by several stakeholders during the survey to access carbon financing. It is through addressing these issues that existing coordination agencies and law enforcers could effectively deliver according to their mandates.

3.7 Private Sector and Climate Change

Globally, the support and participation of the private sector in CC initiatives is increasingly becoming pronounced. However, the participation and influence of the private sector actors on CC issues in Tanzania has so far been minimal.

Notable is the fact that corporate social responsibility from the private sector is still insignificant in supporting climate change initiatives in Tanzania including the water sector. The contribution from big construction, communication, gas/petroleum, transport, energy, beverage and beer, water and mining industries is not only lacking but company owners do not feel obliged to conduct and finance climate change initiatives. Of all the private companies which were reached only 10% seemed conversant with their role and obligation as contributors to climate change initiatives. An even a smaller proportion (5 %) of the private companies' perceive that they are obliged to participate in providing compensation through addressing climate change impacts, which their own operations might contribute to. The attitude was reflected in the correspondence with the companies and an unwillingness to share information.

Positively though, after discussions with some companies, it became evident that most of them already had departments dealing with environmental issues. While some of them had started considering addressing climate change issues, most of their work was until now restricted to carrying out environmental impact assessment

while a few have embarked on compensation schemes focusing on protection of biodiversity and water sources. It was observed that environment departments were not established to address the company-borne priorities and interest on climate change but rather to meet regulatory requirements from the NEMC.

Equally important is the fact that little has so far been done by the government to create incentives to maximize the participation and contributions of the private sectors in addressing effects of climate change. A few development partners, especially DFID have leveraged financial support towards strengthening the private sector, even though this is not directly linked with private sector's increased roles in climate change.

While the private sector actors might have resources to support climate change initiatives as part of their corporate social responsibility or investment, they might lack the knowledge or/and willingness to do so. Strengthening the private sector especially by the government and development partners becomes crucial in this regard. The contribution of the private sector can equally make an impact if they could find right and credible partners with whom the safety of the resources they use/provide to implementing actors can be guaranteed. In order to address this actors have the responsibility to show high degree of accountability and commitment. A good coordination mechanism therefore has the important role of identifying and regulating the work and actions of many actors which can ultimately instil the spirit of commitment, effectiveness, accountability, acceptability and responsiveness of the CC actors in the country.

Table 5: Private sector participation in CC activities

| Company | Partner | Activities |
|----------------------|---|--|
| DAWASCO | Care International | Promote adaptation initiatives - borehole drilling, community owned water supply schemes |
| Coca Cola | Care International | Conservation agriculture; water sources protection |
| Bonite Bottlers | District Councils in Kilimanjaro region | Tree planting and conservation of water sources |
| Tanzania Breweries | Care International | |
| Terra Global Capital | Care International | Carbon trade Efficient energy cooking stoves |
| Uganda Carbon Bureau | Care international | Carbon trade |
| TBL & Coca Cola | WWF, GIZ | Water Future Partnership on water resources |

CHAPTER FOUR - COORDINATION

4.1 Existing Coordination Mechanisms

Coordination means the collaboration of different stakeholders in a participative manner within or without a guiding body/mechanism, achieved through common interests, common vision or a legal framework. Coordination ensures provision of information, facilitates linkages within and outside the actors' domain, advocacy, creation of awareness as well as development of vision, standards and technical backstopping. Available sources such as the EAC CC master plan and REDD reports suggest that Tanzania, as one of the countries complying with UNFCCC and piloting REDD program, has done a commendable job in mainstreaming CC and putting in place structures to coordinate climate change issues.

Nevertheless, throughout this study and the interviews which were conducted with the multitude of CC sector stakeholders, coordination emerged as the crucial area for improvement to enhance climate change interventions in this country. Time and again, actors (80%) expressed that the present coordination is not only inadequate to address the needs of a wide spectrum of actors but also seems to be very disjointed and sometimes absent altogether. Some of the respondents at district councils and civil society organizations did not even know that a government organ responsible for coordinating climate change issues exists. Respondents have cited low staffing level at the VPO DoE, lack of technical capacities of the staff in their own and external organisations, an inadequate leadership and missing communication and information sharing as causes for poor coordination. Those aware of the existence of national coordination mechanism on climate change in form of the VPO DoE were mainly government officials, development partners and Dar es Salaam-based NGOs and CSO's.

The high level of dissatisfaction on CC coordination among stakeholders explains the high number of the respondents voicing the need for restructuring the environment department and/or even establishing a more diverse and semi-autonomous organ in order to increase the efficiency in capturing and coordinating CC issues. There were gross concerns that if the situation remains unaddressed, Tanzania might lose out in attracting CC financing due to a decreased credibility. Such a possibility is already reflected on the fact that so far only one CDM project called 'A landfill gas recovery and electricity generation at Mtoni dumpsite' in Dar es Salaam has been registered while 8 others are still in the pipeline (EAC, 2011).¹⁵ In contrast, Rwanda has 2 registered UN-GEF and CDM projects with 6 in pipeline; Kenya has 3 registered projects under CDM with 18 in the pipeline while Uganda has registered 3 CDM

¹⁵ The complete project description can be found under <http://cdm.unfccc.int/Projects/DB/DNV-CUK1169853184.14/view> 02/02/12

projects with 15 projects in the pipeline. Interviewed actors maintain that a lack of national climate change strategy, proper work plans and the outdated NAPA, which among others excludes Zanzibar, are major indicatives of coordination and capacity weaknesses at the national level which should be addressed immediately.

In Zanzibar it emerged that even when authorities were aware and even keen to strengthen coordination, activities are still not adequate as of present. As on the Tanzanian mainland, CC issues on Zanzibar are coordinated through existing governance structures which are too weak in terms of resources and capacity to put a meaningful coordination mechanism in place. In fact, the national CC steering committee and national CC technical committee have been recently established by the government and at the time of this study, the national CC steering committee had just convened their first ever meeting. Lack of resources from national through to *sheha* level, inadequate facilities and skills of government staff have been cited as main reasons for ineffective coordination of CC in the Isles.

“In the regions and district the coordination is not real seen; CC issues are marginalized. It needs to have a champion interest group to lead the process. Or within the region/district departments someone has to be capacitated to lead the process (e.g. water basin boards)” (NGO Respondent)

The interviewed stakeholders, while responding to the question on whether the current coordination mechanism is adequate have indicated clearly that there is an inadequate cross-sectoral coordination mechanism across the country. Coordination of climate change is only concentrated at the vice president’s office while it does not seem to be descending to other levels of government. Despite some ministries such as the Ministry of Agriculture and Food Security which have established climate change desks, the operationalization of such desks remains unobserved. Those desks have largely remained symbolic rather than having any serious functions to coordinate climate changes or develop sector CC strategies. No annual financial resources are allocated in their respective recurrent budgets to enable the desks to work.

Pooling of CC coordination responsibilities at the VPO-DoE without notable extension of structures to lower levels of government has alienated stakeholders and starves them from resources which are necessary for the implementation of CCAM measures at all levels. Existence of CC coordination structures penetrating regional, district, division, ward or village level is a prerequisite for ensuring that the interests of as many stakeholders as possible is taken into account. Coordination must ensure that the poor and marginalized are equipped with necessary information and skills in order for them to be able to cope effectively with the challenges of the changing climate. At the same time the national policy formulation can learn from indigenous knowledge concerning adaptation measures. Without lower tiers of CC coordination

the efforts of the national coordination at the VPO shall not easily translate into practical climate change adaptation/mitigation measures at the grassroots where the outcomes of such efforts need to be demonstrated. It is understandable that some actors, including government officials, have lamented climate change ownership becoming a preserve of the VPO-DoE and Ministry of Natural Resources and Tourism (through REDD pilot projects).

From the stakeholders' points of view there exist some form of information lapse between the VPO-DoE technocrats and the higher hierarchy of decision makers in the same office which renders the top officials not well informed about what is actually taking place concerning climate change. Some actors have hinted that in order for their messages to reach top officials they have to bypass a chain of technocrats at the VPO-DoE and engage directly with top officials and when necessary speak with members of parliament.

This underlines the fact, that climate change actors seem to operate largely on their own, resulting in overlapping interventions and missed opportunities for pooling resources. Authorities need to take this issue seriously by emphasizing sectoral landscaping of CC actors whose share of work should contribute to the national coordination mechanism.

Another area that can improve coordination among actors is improved sharing of information at all levels. Apart from a few actors such as UDSM, SUA, MJUMITA, TFCG and TNRF (probably with some few others) where mini-libraries have been established, such information centres are hardly seen with other stakeholders. It is suggested that national coordination authorities and individual institutions need to consider such information sharing as an integral part of their work and hence establish information centres.

A few of the actors such as UNA, DFID, British Council and the government seem to encompass the use of media in their work as an easier and effective way of reaching large audiences. At this juncture it is advised that more actors should seek more effective ways to fully utilize the media in order to improve awareness across the country.

The establishment of an all inclusive umbrella national coordination organ and supportive lower structures at the different governance levels where a wide spectrum of actors across the country would report to as gesture of accountability and compliance plus an increased and transparent resource allocation process and use could do a great service to the strengthening of coordination of CC. The new national Climate Change strategy is a first step into that direction.

4.2 Partnerships in Climate Change

The study has revealed that some partnerships and collaborations exist, both formal and informal, among climate change actors in Tanzania. The key ones were the National Climate Change Task Forces, Forum CC, DPG-Water and the DPG – Environment where among other topics climate change issues are discussed. The Forum CC which is a voluntary partnership and has so far attracted membership from over 65 NGOs is a platform for organizations to share information, discuss issues of mutual interest on climate change as well as organize events such as the CC Caravan, country participation in the COPs¹⁶ as well as using it as a platform for critical analysis of CC issues and as a venue for identifying issues and advise the government (Forum Climate Change, 2009). However, this forum is not registered yet and is unfortunately not obliged to report to any authority as part of accountability process apart from the financing agencies. Another initiative is the Water Futures Partnership, a consortium of at least three partners namely WWF, GIZ and SAB Miller, which has worked together to address watershed management issues in the Wami/Ruvu basin. Recently, this partnership has grown, having attracted the participation of Wami/Ruvu Water Basin Board, JICA, DAWASCO as well as Coca Cola Company.

Government based forums e.g. National Climate Change Technical Committee, whose members are mainly composed of high level ministerial representatives and to a lesser extent DP officials, are in the opinion of most stakeholder neither fully representative of the climate change actors group existing in the country nor suited to address all, especially the operational CC issues. Stakeholders stated that such partnerships/venues should be more open to actors besides government officials to maximize participation and information exchange. Moreover, many of the actors expressed their concerns that even when these platforms existed, their effectiveness in terms of information sharing remained doubtful as meeting outcomes are not communicated beyond government offices or the DP community.

The DPG-E has received commendations for fulfilling its objectives, followed by other forums such as the Forum CC. Additionally, Care International in Tanzania seems to have significantly mastered the art of working in partnerships both in the country and beyond. Care International has established partnerships with central and local governments at the mainland and Zanzibar, local and international development organizations, national networks and coalitions even with bases outside the country. Even though it goes beyond this study to analyze the advantages these partnerships bring to its members it is believed that in general forums and partnerships are effective platforms for information sharing, identifying resources and funding

¹⁶ Conference of the Parties, the governing body of the [United Nations Framework Convention on Climate Change](#)

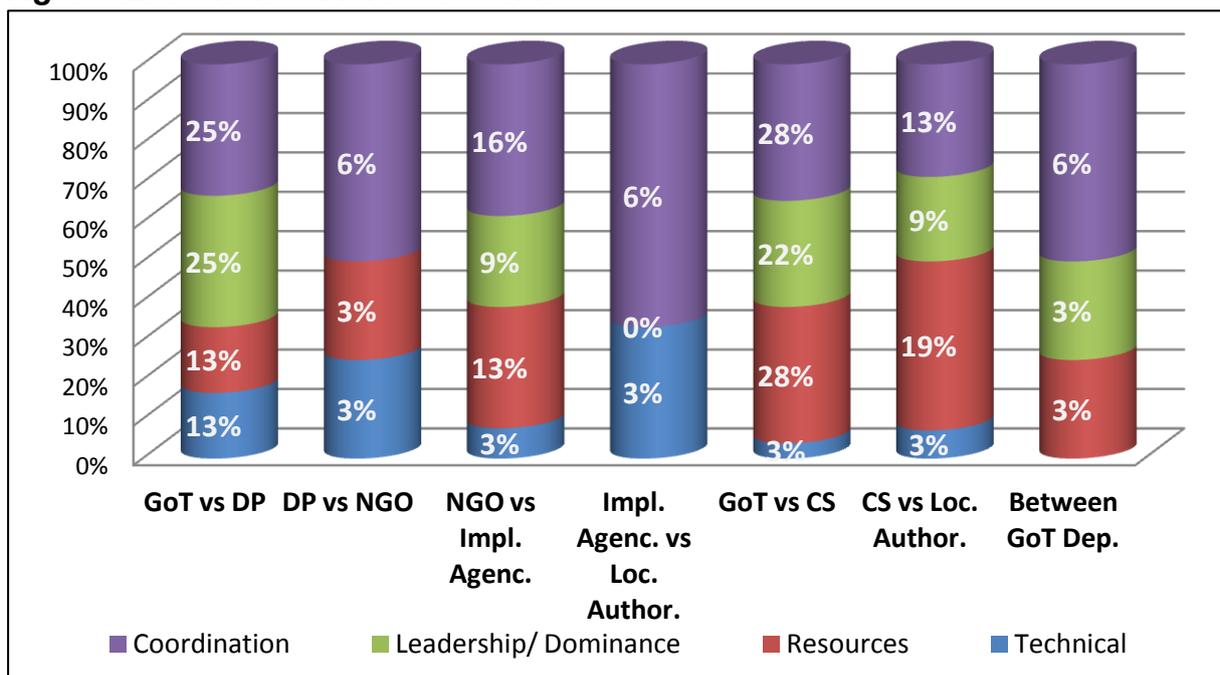
opportunities, sharing of experiences and benefiting from cross-learning; attaining large geographical coverage as well as bigger achievements by investing little per capita resources.

4.3 Actors Conflicts in Climate Change

Among the respondents reached during this study, it emerged that most actors had mixed reactions as to whether conflicts among them really existed or not. While 57% of the respondents acknowledged some conflicts between groups of actors, or described conflicting ideas, 43% did not feel any conflicts exist. 40% of the total respondents did not respond to this question at all. Actors pointed out that inadequate leadership or dominance (27%), differences in technical approaches (17%), financial resources (31%) and poor coordination (25%) were the main reasons behind most of these conflicts as shown in the figure below.

According to most actors, conflicts are varying, occurring between different groups of actors who range from central government, local government authorities, development partners, non-governmental organizations, civil society organizations to communities. For example in Zanzibar, conflicts between authorities and communities were acknowledged as potential risks to the enhancing climate change initiatives. Low level of knowledge on CC coincides with tenure and inadequate legislative framework posing a great cause of conflicts among actors especially at lower levels. Stakeholders pointed out that such conflicts were originating on equitable use of resources especially water, by trying to protect water sources which are under the ownership of the local communities.

Figure 12: Identified Fields of Conflicts



Building on the previous discussions in the chapter on coordination, the lack of coordination at many levels of governance and inadequate strategic, policy and legal guidance on climate change matters have left many actors and their interests exposed and their areas of operation overlapping. Equally important has been the different approaches actors have used to bolster climate change issues in the country. Some actors have tried to use climate change as a catch word to obtain resources, raising expectations among beneficiaries which could not be fulfilled or confused the beneficiaries. This sort of approach casts climate change as an alien phenomenon, a brainchild of developed countries, which can be exploited to receive funds from DPs. The idea that climate change is about the realities of the changing climate and the negative effects it brings to people in their daily lives has not yet taken root. Regardless, many communities have already developed sound adaptation strategies even though they are not labelled climate change measures. They were developed based on the necessity to adapt to lesser rainfall, higher temperatures etc. in order to guarantee resources for farming, livestock etc. Stakeholders, especially in the water sector, have the duty of raising the awareness among the community to explain why CC should be of high priority. Practical methods such as field demonstrations of climate change impacts versus in-door workshops and trainings should be used to make CC well understood especially in rural areas.

Inadequate, inequitable and opaque ways of allocating climate change funding is another grey area and a potential source of conflict among the actors. This concern came out strongly with grass-root operators at the level of civil society organizations, water user associations, district councils and local NGOs. There was a great discontent with the way resources are shared among key actors with a strong feeling that the VPO-DoE and Ministry of Natural Resources and Tourism and the University of Dar es Salaam through the IRA were unjustifiably advantaged in accessing climate change resources compared to other stakeholders. To some actors whose interventions are carried out outside Dar es Salaam it even looked as if climate change funding was a '*Dar es Salaam thing*'.

The above big receivers of CC financing are focused more on mitigation measures which contradict with the reality of the current global approach that identifies adaptation as the main focus area especially in the developing world. According to Pielke *et al* (2007) this earlier approach which recognized mitigation ahead of adaptation measures as a response to climate change was a result of early global climate change negotiations, which do not have the same relevance today. Deliberations from the COPs 7 and 8 and the Delhi Declaration made it clear that in dealing with climate change impacts in developing countries, urgent attention, action and funding should be directed to adaptation (UNFCCC 2002b).

From a leadership and dominance perspective, leadership in CC coordination is mostly influenced by the institutional financial muscle the actor has. With exception of the development partners through the DPG – Environment where leadership has been equitably distributed among the group, the general trend in government institutions is that those with more resources were automatically leaders and dominated the decision making processes in contrast to the ‘recipients’ of adaptation measures. Institutions endowed with REDD funds had greater influence over other actors. Likewise, the perception of many non-state actors testified that the veto nature of some government institutions in areas of disagreement was also a source of conflict among stakeholders. Leadership-based conflicts were also a result of the fluid nature or lack of jurisdiction delineation among key players thus leading to overlaps. This is most evident with government institutions.

Stakeholders have cited inadequate or untimely information sharing as another cause of conflicts among actors. They cited the ongoing development of the national climate change strategy and the NAPA as examples where many stakeholders especially those outside government circles and Zanzibar respectively were totally ignored in the loop of communication. Despite consultations the process was seen as a top-down approach, not reflecting the experiences and expertise from the different stakeholders.¹⁷ During the further process of formulating sector strategies, the approach should be more bottom-up focusing on the participation of as many stakeholders as possible, to create ownership and information sharing.

¹⁷ As stated above, the final draft of the National Climate Change Strategy was shared with selected stakeholders in January 2012. The VPO-DoE stated that they will consult a wider group of stakeholders through publishing the strategy on their website and inviting comments.

CHAPTER FIVE - CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study has revealed that there are many CC actors existing across Tanzania cutting across different sectors. The actors, however divergent in their interest, location and influence, are distributed at all tiers of government structures as from national, regional, district and village administrative areas. Development partners' and local authorities' support to CCAM is evident based on their commitment to addressing impacts caused by climate change. All actors have acknowledged that given the newness of the topic CC at country and global level, there is still much to do and working together can benefit all actors in many ways.

Coordination which at present looks rather disjointed and top down in nature, if well implemented, has the potential to strengthen CCAM activities in the country. Government authorities are encouraged to take a lead in the CC coordination process even though full participation of all actors is a prerequisite for a smooth coordination among actors in the country. In short everyone has a significant role to play in order to make CC coordination a success. Sectoral coordination should be emphasized as it is through combining the strong effort from sector coordination that the national coordination body can effectively deliver to expectations.

Financing of CCAM activities is still a major challenge for many stakeholders, with the lower levels receiving the least resources. Additionally, limited and inequitable financial is causing conflicts among the actors. As such stakeholders through an effective national coordination mechanism should develop ways which ensure resources are equitably distributed among the different stakeholders based on the competitive advantages and the roles each group takes within a certain area.

Apart from the direct financing from the two governments, multilaterals and bilateral development partners, who are arguably the main sources of funding agents for CCAM, carbon trading is seen as another window for funding. Throughout this study stakeholders showed low understanding about the processes involved towards securing funds through carbon marketing and this area is still sidelined in the country.

Many actors acknowledge that even though climate change is everyone's responsibility, they still think that there exists a very big room for the government to do more than what it has managed to achieve so far. Areas such as the strategy development, awareness raising, capacity development, planning, coordination and financing of climate change initiatives which remain in the domain of the government needs more commitment.

5.2 Recommendations

Responding to the objectives of this study, the water sector has a significant role to play in identifying adaptation measures and plans in order to sustain water supply at the face of emanating challenges caused by CC impacts. While other adaptation interventions can in whole or in part be addressed by different stakeholder groups, the following are water sector specific recommendations for adaptation measures that are critical to building resilience against water resources shortages and scarcity.

Collaboration and Linkages: As part of coordination and partnership initiatives, individual actors have to ensure strong linkages and collaborations among CC actors across the country. According to UNFCCC, climate change adaptation requires joint efforts from all actors with common objective. Therefore, an effective response to climate change, and progress towards sustainable development, requires that areas of possible conflict or overlap be properly jointly managed, and that opportunities for synergies be exploited (UNFCCC 2002a).

The recently developed forums are still nascent and partly lack capacity. Both technical and leadership backstopping and financial support are required in order to strengthen them and improve their capacity to deliver. So far there seems to be a need for establishing new structures or strengthening the existing ones to ultimately have the capacity to penetrate lower levels of government structures. The government, as CC veto player, is responsible for that and should create a good environment for other stakeholders to collaborate.

Already the existing collaborations, however nascent they are, have done a commendable job on advocacy and lobbying for policy development. However, room is still there for actors to advice and lobby to mainstream climate change into all policies, development programs and strategies. The forums should thereby act as platforms for information/technology transfer; networking with climate change institutions nationally and internationally; organizing conferences, workshops, seminars and campaigns; planning joint efforts for publications (periodicals, posters, fliers, etc); comprehensive awareness creation through mass media and other means and participation in international conferences as well as laying down strategies for resources mobilization and use.

This study should be used as a basis for further facilitation and support to climate change action, mapping of climate change actors and activities in other sector ministries, to identify gaps and avoid duplication of efforts. It has shown that there are many CC actors all over the country, ranging from governmental, development partners, NGOs, CBOs and the private sector. Each of these actors has made some initiative to address the impacts of climate change and these sort of efforts need to be recognized. In order for the government to be able to coordinate CCAM activities,

databases of these actors should be established and maintained with relevant government institutions. To start with, the VPO-DoE and all ministries should have a shared national database including all sectors and keep updating them from time to time as more actors join or leave the group.

From the perspective of the water sector, it will also become important to identify an adequate way of representing the water sector in the overall institutional landscape of CC adaptation. For instance, it should be ensured that water sector representatives have access to national coordination meetings, actively participate in the formulation of strategies and policies and are able to advocate for financing of adaptation measures in the water sector.

Resources Mobilization for CCAM works: Throughout this study, actors (with exception of DPs) have identified lack of resources as main challenge for sustaining forums and implementing CCAM activities in the country. Actors especially through an effective coordination mechanism have the duty to identify and access actual and potential resources locally and globally (adaptation fund, carbon trading, the private sector, etc.) and design resource mobilization strategies to sustain the requirement for individual actors and forums. In order to achieve this, leadership is required among the actors which ensures coming up with proposals and forward them to potential funders.

Information Sharing: Despite some efforts which have been undertaken, information sharing among CC actors in Tanzania is still limited. In order to improve coordination, communication, documentation and information sharing should as well be improved. Establishment of CC resource centres and stocking those centres with enough information materials is paramount to building effective institutional memory. Such resource centres should also allow for the study and documentation of indigenous adaptation techniques/mechanisms of communities.

Protection of Water Resources: Surface waters such as rivers, springs and lakes have been the main source of water supply in the country; however, to ensure long-term water supply under the impact of climate change, steps need to be taken to protect both quantity and quality of these water resources. In particular, the provision and regulation of ecosystem services in watersheds need to be sustained to keep functions of the hydrological cycle intact. For instance, land use should be planned by taking into consideration the role of vegetation and soils for the recharge of water resources. Furthermore, environmental policies need to ensure that available water resources are protected from pollution. Using water in an economical way is another strong adaptation approach. By introducing suitable incentive structures, the amount of non-revenue water (lost through technical or managerial inefficiencies) should be reduced, thus using the available water resources more productively. Here

coordination between the MoW, WUAs, the water basin boards and the regional councils is paramount.

Water Supply Diversification: In addition to protecting the currently available water resources, the impact of climate change also requires the exploration of alternative water resources to make water supply less dependent on individual resources. Diversification should be sought by investigating the following options.

- Infrastructure Development: Water utilities must consider large scale surface water capture projects such as dams to meet and sustain the necessary water supply in the future. Particular emphasis should be put on the construction of multi-purpose infrastructure such as reservoirs that can store water for times of scarcity (e.g. for irrigation purposes) but also retain water during floods. If possible, such infrastructure should also be integrated into existing schemes of hydropower production. While the benefits of new infrastructure are manifold, a pre-assessment of such projects should ensure that secondary effects on ecosystems or vulnerable societal groups do not jeopardize the positive effects.
- Groundwater Resources: Much as groundwater extraction is becoming a common practice in the country, there is the need to support intensive research on groundwater to determine its future potential and any impacts abstraction may cause. In Zanzibar, where salt water intrusion is threatening the availability of water supply for domestic and industrial use, more research should be conducted, the outcomes of which will help the government in present and future planning for the use of groundwater resources.

Preparation for Extreme Weather Conditions: The water sector should focus more on reducing the vulnerability to extreme events resulting from dry and wet conditions. Boreholes have been used by many water supply utilities and private sector in many places like Zanzibar, Dar es Salaam, Same etc. as drought intervention for both domestic and productive uses. Protected wells have to be improved in order to increase resilience to flooding. In places like Singida where IFAD is supporting the communities to build their resilience against drought, sand dams have been successfully tried. Besides technical approaches to reduce the vulnerability to extreme events, the water sector also needs to adapt its institutional setup to a situation of more frequent and intense droughts and floods. Emergency response units with clear roles and responsibilities should be developed or strengthened so that disaster management policies can be formulated and emergency plans implemented in case of droughts and floods.

Resilience of Vulnerable Groups: The impacts of climate change will affect all societal groups, but will be most threatening for already vulnerable groups such as the poor or otherwise disadvantaged as well as those living in Low-income Areas¹⁸. To prevent a further increase of social disparities, the magnitude, spatial and temporal distribution of impacts of climate change on sustained socio-economic growth and development of poor and marginalized communities and their environment should be assessed. With water being a basic need and human right for all, strategies to adapt to climate change in the water sector should put a special emphasis on ensuring the water supply of vulnerable groups. Therefore, participation of those groups through CBOs and NGOs in the national and sector policy making and strategy formulation is paramount.

Capacity Building: Climate change is a relatively new subject; hence awareness raising and building the capacity of stakeholders, both public and private, is of utmost importance. It is based on this context that the UNFCCC as part of the Marrakesh Accord (UNFCCC, 2002a) has categorically identified capacity building as priority area and first response to climate change process; however such initiatives should be country driven. The stakeholder report has highlighted the missing capacity on climate change issues in the water sector as one of the main impediments for the stakeholders. There is the need to build the capacity of policy-makers, the staff of water management institutions as well as of water users and local innovators. Especially the universities, education institutions and donor community should concentrate on this field with support from the government authorities. Education, training and public awareness are all critical to harnessing public support for measures to combat climate change. At the same time certain policies, laws, regulations and strategies are not yet addressing climate change or are quite outdated; as such they need to be reviewed in order to capture the current realities.

5.3 Way Forward

As far as the objectives of this study are concerned, the following way forward is suggested:

- GIZ and MoW should work together to support the development of a ministerial database based on this stakeholder report at the MoW. This database will facilitate information and communication and networking and along with similar ministerial databases from sister ministries will feed into the national coordination mechanism.

¹⁸ Low-income areas are characterized by an often hazardous layout, missing drainage, blocked sewerage and river beds, rough roads or only narrow food paths and temporary building materials.

- The MoW, GIZ and other actors need to work together to strengthen coordination among CC actors in the water sector in Tanzania. Experiences gathered during this study should act as foundation for developing an effective coordination mechanism in the water sector.
- GIZ and other actors should work together to support the government to review strategies, policies and laws in order to capture developing scenarios in climate change
- Within a new multi-stakeholder coordination forum, the discussion on a CC strategy for the water sector should take place.

ANNEX

Annex I : Climate Change Actors Landscaping Questionnaire

Climate Change Actors Landscaping Questionnaire

About the Questionnaires

Introduction

This questionnaire is for collection of information on the existing climate change actors across the country. It focuses in particular on getting information on different categories from the actors; mapping out their roles, their place of work, focus areas of their activities and accessing their capacities in terms of skills and resources endowment. It will further capture information on existing relationships or partnerships in sharing of information and experiences reflected in the level of coordination of climate change adaptation and mitigation interventions at national, regional, district and village levels.

Objective

The objective of this questionnaire is:

- (i) To provide institutional, organizational and/or company address, roles, existing partnerships and coordination mechanisms as well as funding opportunities and potential conflicts.

How to fill in the questionnaire

The questionnaire will be administered by target contacts identified from actor organizations by filling in both closed and open ended questions it is contained. There will be guiding descriptions under each group of questions which have to be followed as correctly as possible throughout the time of filling in the tools. The type of answers to these questions will either be nominal, scores or narrations (descriptive).

Section1: Organization Information

1. *Name:*
2. *Contact address:* P. O. Box Town/city.....Telephone: E-mail:..... Website:
3. *Base of operations:* City - Municipal - Town - Township - Village -
4. *Type:* Governmental - Development partner - CBO - NGO - Private sector - Individuals -
others:(specify)

Section 2: Range of interventions/activities

1. *Which main sector(s) of intervention are you involved in?*
Water - Energy- Agriculture – Health -
Land/Environment –
others:

2. Which is the main geographical area of influence/focus of your activities?
 National – Zonal – Regional – District – Village –
 others:.....
3. What types of climate change activities are you implementing?
 Adaptation – Mitigation - Both -
4. When did the organization/institution started interventions in addressing CC issues?
 (in years)
 Less than 5 – 5 – 10 - 10-15 - over 15 -
5. Does your organization/institution have specific focal person to handle CC issues?
 Yes – No -

6. Name of the focal person, telephone and e-mail

| Name | Telephone | e-mail |
|------|-----------|--------|
| | | |

7. Under each of the intervention sector(s) you have chosen above, name and give brief descriptions of the main activities, time frame, financial resources allocated for the activities and human resources available what specific set of activities are you implementing under each of sector.

| Sector | Category of activity* | Activity Description | Time frame (yrs) | Financial resources |
|--------|-----------------------|----------------------|------------------|---------------------|
| | | | | |
| | | | | |

*Advocacy, studies/research, capacity building, project implementation, policy/legislation, coordination, financial funding

8. Does the institution/organization have adequate and sustainable financial resources to facilitate its CC operations? Yes – No -

If Yes,

9. Name of the financing agent(s) and amount of offer (optional).

| Name of agent | Type of agent* | Amount secured | Amount in pipeline |
|---------------|----------------|----------------|--------------------|
| | | | |
| | | | |

*government, DPs, NGOs, CBOs, Private sector or individuals

10. Does your institution/organization have adequate necessary skills and technical expertise for smooth implementation of CC issues? Yes –
 No - .

If No,

11. Which area(s) of technical capacity is/are required?

12. Does the organization/institution feel that efforts and outcomes of her works reach the intended audiences/users? Yes – No –

13. If No Why?

14. If Yes, are there any other more effective ways through which communication with stakeholders or intended audiences can be improved (and what are they)?

15. Do you have partners you collaborate with during your implementation of your programs?
 Yes – No –

If Yes,

16. Give the name and type of organization(s)

| Name of organization | Type* |
|----------------------|-------|
| | |
| | |

*government, DPs, NGOs, CBOs, Private sector or individuals

17. In which CC focus sector(s) do they (partners) work?
 Water - Energy- Agriculture – Health -
 Land/Environment – Academics/research -
others:

18. Are there any CC fora for you to meet with partners and other actors to share experiences, challenges and report progress of your work? Yes –
 No –

If Yes,

19. *Mention the names, frequency of partners/actors meetings in a year and level of participation of each partner/actor (in terms of number and positions)*

| Name | Meeting frequency | Number of participant | Type of organizations |
|------|-------------------|-----------------------|-----------------------|
| | | | |
| | | | |
| | | | |

20. *How do you rate the productivity of the forum you are participating in?*

| Very poor | Poor | Satisfactory | Good | Very good |
|-----------|------|--------------|------|-----------|
| | | | | |

21. *Which among the above partners/actors (group) should have its roles emphasized/given more weight?*

Public institutions – DPs – NGOs – Civil societies – Private sector – Academic/Research institutions – Conservation/environmental funds –

Others:

.....

22. *Do there exist any conflicts/competition/problems among the CC actors in areas you work?*

Yes – No –

If Yes,

23. *Between which actors do conflicts/competitions occur?*

Central government/agencies vs development partners – Development partners vs NGOs –

NGOs vs implementing agencies - Implementing agencies vs Local authorities -

Government vs Civil Societies – Civil Societies vs Local authorities -

Others.....

.....

.....

24. *What is the source(s) of the conflict/competition/problems?*

Technical – Resources availability –

Leadership/dominance - Coordination -

others:

.....

25. *Is there any CC coordinating organ(s) at level of your influence/activities were you are held accountable? Yes – , No - .*

If Yes,

26. Do you think that the existing coordination mechanism is adequate to meet the needs of the climate change actors? Yes – No -

If Yes,

27. Which is/are the indications/criteria for measuring of/deciding on the sufficiency of the existing mechanism of coordination?

.....
.....

If No,

28. What do you think must be done to improve coordination and enhance cooperation among climate change actors in the country?

.....
.....

29. Would you be willing and able to actively participate in a Climate Round Table that meets regularly every 2-3 months in Dar es Salaam to share information on CC and plan further activities under the leadership of the Ministry of Water?

Yes -

No -

If No?

.....
.....

(eg. no interest, not enough financial/human resources, conflicts, too far, no enough time, already in another coordination mechanism etc)

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