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Understanding Climate Finance Readiness Needs in Zambia

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ODI

AFRICAN CLIMATE FINANCE HUB

Contents

Executive Summary

The importance of supporting processes that enhance the access, allocation and spending of climate finance in developing countries, is being increasingly appreciated by the international community. The Green Climate Fund's (GCF) Governing Instrument envisages support for such climate finance readiness activities, and a number of bilateral and multilateral initiatives are being developed to provide resources to this end. This study, which is part of a programme of work to explore climate finance readiness needs in Zambia, Namibia and Tanzania, is therefore timely. A collaborative and iterative approach was taken to first distil the core components of climate finance readiness, and second, to engage with key state and non-state actors in order to both identify and build consensus on the practical activities that could strengthen readiness to use climate finance effectively in each country. The climate finance readiness needs assessment is being undertaken by the Overseas Development Institute (ODI) and African Climate Finance Hub (ACFH), working in close collaboration with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), with the support of the German Federal Ministry for Economic Cooperation and Development (BMZ).

Overview of findings: Zambia

With large climate variability across the country, climate change impacts in Zambia are hard to predict. Land-based activities appear most vulnerable to a changing climate in Zambia, particularly rain-fed agriculture on which the majority of the population relies for their livelihoods. The increased frequency and severity of floods also threaten Zambia's existing and planned infrastructure. This includes the expansion of the energy generation infrastructure that could reduce biomass energy dependence in the country. At the same time, there are many opportunities to integrate more climate compatible approaches into conventional sectors that are key to the economy, such as mining, transport and energy. Zambia's climate finance readiness needs sit within this socioeconomic and political context.

While substantial progress is being made, stakeholder discussions identified a number of areas on which further effort might strengthen national climate finance readiness. Current contexts and needs are summarised in the table below. Not all identified activities are costly.Rather they will need to be well designed, targeted, and sustained in order to play a helpful role in strengthening the capacity of Zambian stakeholders to make effective use of climate finance. Their goal would be to support processes already underway, such as the National Climate Change Policy (NCCP) and the draft National Climate Change Response Strategy (NCCRS), the Interim Climate Change Secretariat and the ongoing efforts of the Pilot Programme on Climate Resilience (PPCR).

The table below summarizes the report's findings under each of the core components of the framework employed (see section 2), namely Planning, Aptitude and Access. The first column sets out key messages, and the second potential climate finance readiness activities.

Overview of findings

	KEY MESSAGES	POTENTIAL CLIMATE FINANCE READINESS ACTIVITIES
PLANNING: strategies and institutions to support a response to climate change	• The political will to engage on climate change issues in Zambia has increased, although it is recognised that further progress is needed. Climate change is increasingly viewed as a developmental rather than an environmental issue. • A number of country-specific climate-change relevant strategies and plans, have been developed. However, the National Climate Change Policy and National Climate Change Response Strategy are both yet to pass through cabinet. In parallel, a strategy to reduce emissions from deforestation and degradation is underway. • Ministerial reshuffles have impacted actors involved with climate finance in Zambia, but the engagement of the Ministry of Finance and Ministry of Lands, Natural Resources, and Environmental Protection remains strong • The proposed National Climate Change Development Council, which would be charged with coordinating climate change issues in Zambia, including climate finance, has broad and high-level support and an Interim Climate Change Secretariat has already been established to guide its evolution • Studies on the economy-wide impacts of climate change are largely donor supported. Government funded research has declined, including on climate change.	1. Enable effective engagement of Parliamentarians with legislation to operationalise Zambia's climate change response. This could be achieved by increasing their understanding of climate change vulnerability in Zambia, as well as adaptation and mitigation options. Parliament's Research Unit, NGOs, academia and other research bodies could provide technical support in convening discussions and workshops to this end. 2. Support the establishment of a national tracking system for climate finance to guide investment decisions and aid coordination of Zambia's climate change response. Such a system would also need to put in place mechanisms through which learning and evaluation of project activities could occur.

	CONTEXT	POTENTIAL CLIMATE FINANCE READINESS ACTIVITIES
APTITUDE: for spending and implementation	• Knowledge and understanding of climate change and climate finance issues in national government has been enhanced through Zambia's engagement with the Pilot Programme for Climate Resilience. Sub-national level progress has been slower and civil society remains a small, although vocal network. The current adequacy of private sector knowledge and engagement is uncertain. • Zambia's pipeline of climate change projects and programmes, to date, has been largely supported by international agencies and development partners and capacity needs exist to develop ideas into tangible projects. • Potential exists for partnerships that can maximise complementary capacities for climate finance programming, though this will require a change in process in Zambia.	3. Review the existing capacities in key line ministries that will need to address climate change in Zambia, and opportunities for partnering with other public, private and civil society actors. Such an exercise would build on other studies to map domestic competencies, identify the extent of public sector gaps as well as options to maximise complementarities, build on existing capacities, and establish new partnerships. 4. Provide additional technical assistance to support the ministry of finance in considering the linkages between mainstream expenditure and climate change. Complementing the efforts of the Pilot Programme for Climate Resilience in this regard, such assistance could advance nascent efforts to coordinate a climate change response across key government ministries. 5. Provide financial and technical support to establish sector-by-sector guidance, for the identification and development of climate change-related projects. Participatory approaches could identify local-level as well as national-level needs, fostering collaboration in project development. This could be pursued through an institutional lead or technical leads within ministries. 6. Invest in an incubation facility that supports climate change projects from inception to implementation. Providing finance at various stages of the project development cycle, an incubation facility could operate on the basis of demonstrated progress. Separate windows for large and small scale projects could be created, to ensure that a diversity of levels and scales of intervention are supported. The goal of such a mechanism would be to build capacity at the same time as supporting the emergence of a more viable set of projects that can attract finance from a greater diversity of sources.

	CONTEXT	POTENTIAL CLIMATE FINANCE READINESS ACTIVITIES
ACCESS: arrangements for sourcing and receiving finance	• US$ 25 million has been approved through multilateral public climate funds for Zambia, with much greater sums pledged, such as through the PPCR. Bilateral donor and international agency support is also strong; efforts to strengthen tracking of this finance at country level is underway. • Existing climate finance is adaptation focussed in Zambia. Mitigation finance, including from the Clean Development Mechanism, has been at a much smaller scale • Future options to source climate finance are being explored including the potential for a national climate fund. • Fiduciary standards can be strengthened to support direct access to climate finance, including from the Adaptation Fund. • Systematic assessment of the pros and cons of various approaches to accessing climate finance in Zambia may be helpful. • Monitoring and evaluation to date has been focused on meeting diverse and diffuse donor requirements rather than on supporting implementation of national strategies, although this may change through adoption of the National Climate Change Response Strategy.	7. Identify potential institutions that might manage future international climate finance for Zambia. There is a need to rigorously consider the pros and cons of various approaches to accessing finance, and make informed judgements about which approaches will best meet national needs. 8. Explore options for strengthening systems of monitoring and evaluation of climate change action (specifically the proposed strategy and policy). This could be initiated alongside a more in-depth review of donor monitoring and reporting requirements, as well as the existing and emerging systems for monitoring climate vulnerability and emissions in Zambia. The proposed efforts to strengthen GHG emission inventory capacity would be a key complement to such efforts.

1. Introduction

The need to support processes that can enhance the capacity of developing countries to access, allocate, and spend climate finance, as well as monitor and report on the impact of such action, has gained increasing currency in international efforts. The understanding of the diverse and context specific dimensions of such 'readiness' activities, however, is still evolving. There is growing interest in supporting countries to meet needs and build capacities that will allow them to make effective use of climate finance from various sources. The Green Climate Fund (GCF), for example, will make provisions to finance readiness activities. In parallel a number of bilateral and multilateral initiatives, to help countries invest in meeting readiness needs so that they can make more effective use of the diverse financial resources to address climate change considerations, are emerging. The Overseas Development Institute (ODI), the African Climate Finance Hub (ACFH) and Rural Net have worked with Zambian stakeholders to develop an early analysis of Zambia's needs in this context.

This initial study has been completed in collaboration with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and with the support of the German Federal Ministry for Economic Cooperation and Development (BMZ). Similar country studies have been carried out in Namibia and Tanzania. Our approach recognises that planning for climate change is no easy task, and programming and using climate finance in the most effective and efficient manner is a complex undertaking. We have taken a diagnostic approach to understand climate finance readiness needs considering the systems and processes in place to plan for climate change, aptitudes and capacities across key institutions, and provisions to access and spend climate finance. In this study, we have sought to understand the actions and supporting policies that would assist countries to adapt to and mitigate the negative impacts of climate change, and the role that finance can play in supporting such efforts.

This report first outlines the framework of the approach taken to understand climate finance readiness needs in Zambia. Section 3 then sets the context of climate change in Zambia, with a focus on the agricultural sector. Section 4 presents the key considerations for climate finance readiness in Zambia with respect to planning, aptitudes and access. It outlines both progress of the climate change response in Zambia as well as possible gaps. Section 5 outlines a number of readiness needs and recommended supporting activities.

2. A framework for climate finance readiness

This section outlines the framework approach applied for assessing the climate finance readiness needs of selected countries within the Southern African Development Community (SADC). The approach had three phases (Figure 1). The first phase consisted of a technical expert meeting that explored the dimensions of 'readiness needs' for climate finance and the opportunities and limits of readiness initiatives from a conceptual perspective. This meeting was held in Cape Town, on the margins of the second UNFCCC (United Nations Framework Convention on Climate Change) workshop on Long-term Finance. Building on existing thinking on climate finance readiness, the discussions focussed on readiness as an on-going process of identifying needs and developing effective strategies to meet those needs, rather than necessarily executing all of the activities that flow from that strategy.

The outcome of the meeting was a basic framework to understand readiness that is[1]:

- **Relative** – taking a country's socioeconomic and geopolitical characteristics into account;
- **Responsive** – to its particular needs, priorities, and challenges; and,
- **Reasonable** – in terms of having identified the key issues and challenges at hand, and proposing some practical steps that can be taken to address these considerations.

The core components of the climate finance readiness framework that were considered within the country case studies are represented in Figure 2, and were inclusive of:

i. **Planning**: strategic purpose, information and process (including to revise policies, regulations, and incentives that affect climate change relevant investment);
ii. **Aptitude**: the expertise available and the capabilities of institutions; and,
iii. **Access and spending**: sourcing, receiving, and spending funds wisely.

Planning for climate finance includes consideration of the strategic purpose of climate finance which reflects a critical need to align climate finance with national strategies and objectives. It also captures climate finance governance and

Figure 1. Readiness diagnostic approach

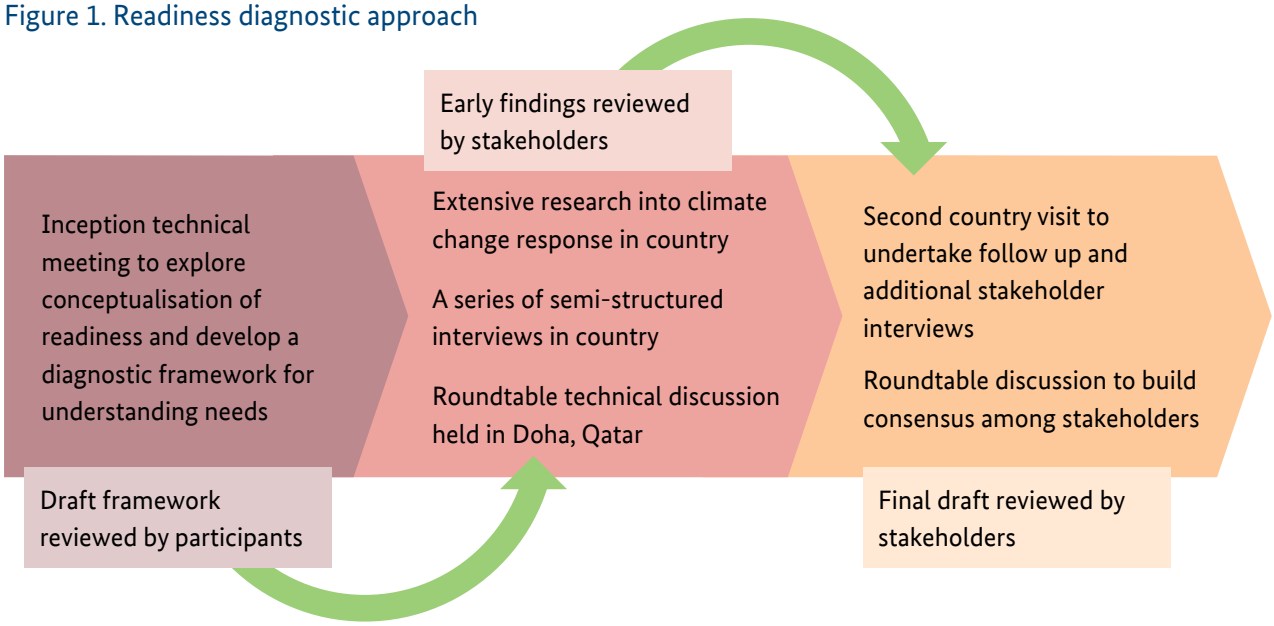
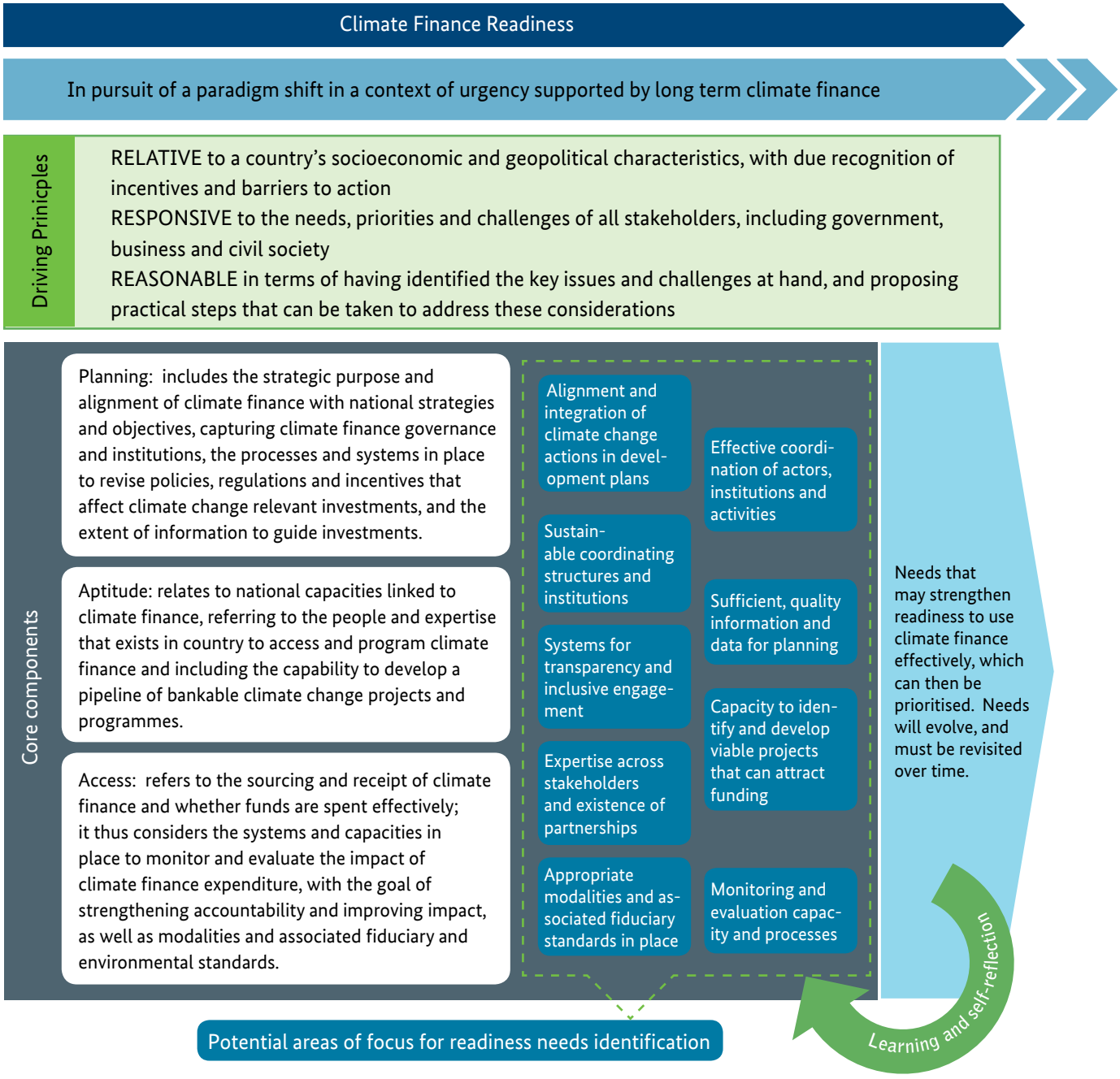


Figure 2. Overseas Development Institute – African Climate Finance Hub framework for diagnosing climate finance readiness needs



the appropriate institutions put in place within a country for a climate change response. In this context we consider the processes and systems in place to revise policies, regulations and incentives that affect climate change relevant investments. Finally, we consider the extent to which key stakeholders have access to the necessary information to guide investments in solutions to climate change, and integrate climate change into mainstream investment choice.

Aptitude relates to maximising existing national capacities related to climate finance, and seeking to improve the quality of this capacity. It refers to the people and expertise, or the 'know-how' that exists in country to access and program climate finance. It includes the capability to develop a pipeline of bankable climate change projects and programmes.

Access and spending, refers to the sourcing of climate finance as well as how a country receives climate finance

and whether funds are spent wisely. To this end, it captures the systems and capacities in place to monitor and evaluate the impact of climate finance expenditure, with the goal of strengthening accountability and improving impact. The concept of access also considers the appropriate modalities and associated fiduciary and environmental standards, in the context of countries seeking direct access modalities for climate finance.

As indicated in Figure 2, the climate finance readiness needs are likely to span across these stylised core components of readiness. Progress in one area will also likely contribute to another.

The climate finance readiness framework also acknowledges that any diagnostic must fully take into account political economy dimensions, must allow for learning and self-reflection, and must be inclusive of key stakeholders. Therefore, time was invested in including as wide a group of stakeholders as possible and in exploring the often complex political economy of the country in question.

The core work to understand Zambia's particular circumstances and needs was advanced in the phases two and three. In the second phase, extensive desk research into the climate change response measures and preparations for climate finance in Zambia were completed, and a series of intensive semi-structured interviews and discussions with key stakeholders in Zambia were conducted during November 2012 (see Appendix 2). This visit allowed the research team to map the broad range of institutions and initiatives involved in the delivery and use of climate finance, and analyse how Zambia's unique circumstances shaped its efforts to respond to climate change. Preliminary insights from the first visit were consolidated and shared with stakeholders to provide them with an opportunity to comment, correct or confirm these findings. An advance discussion draft synthesising the highlights from these early efforts was also produced and circulated with international stakeholders at the 18th session of the Conference of the Parties (COP) to the UNFCCC in Doha, Qatar during December 2012[2]. The preliminary findings were also the subject of a round table discussion with expert stakeholders, development partners, and representatives of developing country governments in Doha on 1st December 2012 (convened in partnership with the Climate and Development Knowledge Network (CDKN)).

In the third phase of work, we met again with key government, private sector, civil society and Non-Governmental Organisation (NGO) stakeholders in Zambia. This enabled the refinement of initial findings, and the identification of practical activities that could strengthen climate finance readiness. In doing so, the agricultural sector was selected for more detailed analysis. We also convened an informal round table discussion that created a forum for national stakeholders to deliberate over priority readiness needs (see Appendix 2).

This study synthesises the findings from the three phases of work completed to date. It was shared with national stakeholders for final feedback and comments, to ensure that it appropriately and adequately reflected national circumstances and priorities. Throughout the process, iterative engagement with key national stakeholders was sought. We have not, however, had the opportunity to engage the full suite of relevant stakeholders in Zambia in this process, and in particular there is a need to work with senior representatives of government to seek their inputs and guidance on how we might take some of the concepts presented in this study forward. Such engagement might be a priority for future work, if it were of interest to Zambian counterparts.

Zambian case study sector: agriculture

It has been beyond the scope of our readiness study to look in depth at climate finance readiness needs in all sectors that are likely to be affected by climate change, or where opportunities for low carbon development may present themselves. Each sector will have specific and particular investment needs. However, in order to ground our studies in a more detailed appreciation of practical climate finance readiness needs, we have considered the agriculture sector as an illustrative case study that complements our overarching analysis of climate finance readiness in Zambia. To this end, our team completed more in depth research to map the relevant institutions; policies, strategies and associated targets; existing and proposed projects; challenges and barriers to progress towards low-carbon and/or climate resilient development; and potential opportunities. It should be emphasised that agriculture is only one

of many highly climate relevant sectors in Zambia and its selection as a case study doesn't not indicate its priority over other sectors.

Agriculture is central to Zambia's efforts to respond to climate change. The agricultural sector is a core element of the Sixth National Development Plan (SNDP) covering the period 2011 to 2015, and the National Long Term Vision (NLTV) of Zambia that extends to 2030 which notes that the development of agriculture is the 'engine of income expansion in the economy' (GRZ, 2006; GRZ, 2010). The draft National Climate Change Response Strategy (NCCRS)[3] has also prioritised agriculture (GRZ, 2010a). Strengthening the resilience of rural communities to the impacts of climate change has been a significant focus of much of the climate finance that the country has accessed to date. This agriculture sector case study is, therefore, relevant as a large proportion of the population rely on agriculture for their livelihoods (GRZ, 2010b). The World Bank and African Development Bank (AfDB) supported Strategic Programme on Climate Resilience (SPCR) in Zambia (CIF, 2011) is providing significant resources to programs that seek to strengthen the resilience of rural communities in Zambian two river basins to the effects of climate change. It is therefore a useful case study, and this needs assessment has sought to consider how these existing initiatives are addressing readiness related needs, and identify potential complementary initiatives that might further strengthen the effectiveness of the resources that are being delivered for this purpose.

3. Climate change in the Zambian context

Over the last 10 years, the Republic of Zambia has become increasingly less reliant on Official Development Assistance (ODA) and in 2012 Zambia raised US$750 million in its oversubscribed, debut 10 year Eurobond placement (Reuters, 2012). Just one year previously, Zambia also became a Lower Middle Income country[4] as classified by the World Bank (World Development Indicators, 2013). Rapid growth in Zambia since early 2000 followed a period of low growth in the 1990s. Foreign direct investment (FDI) rose from approximately US$164.9 million in 2003 to US$1.73 billion in 2010 (World Bank, 2012). General government revenues increased from roughly US$1 billion in 2003 to US$4.2 billion in 2011 ; they are expected to reach over US$ 8 billion by 2016 (Quandl, 2012 based on IMF data). Mining has played a major role in Zambia's growth: revenue from mining rose 33% in 2012 relative to 2011 (Bloomberg, 2013). Mining remains a key sector for economic growth, supported by buoyant global copper prices (EIU, 2012). Agriculture generated 9% of the country's GDP in 2009 (FAO, 2013), however, and provides livelihoods for more than 80% of the population (GRZ, 2010b).

Despite a decade of growth, almost 60% of the 13 million people live in poverty (World Development Indicators, 2013). This raises questions about the impact of economic growth on poverty and living conditions for the majority of Zambians and particularly those in rural areas (GRZ, 2010b). Climate change threatens Zambia's future with extreme weather events predicted to increase in frequency. Floods, droughts and heavy rainfall are already increasing in intensity and frequency (Fumpa-Makano, 2011), although the last three years have seen bumper crops due to good rains. Despite this, over the last three decades Zambia has lost an estimated US$13.8 billion in GDP due to floods and droughts. Gross Domestic Product (GDP) loss due to climate change is estimated by the Ministry of Lands, Natural Resources and Environmental Protection (MLNREP) – formerly, the Ministry of Tourism, Environment and Natural Resources, at US$4.3-US$5.4 billion in the next decade, equivalent to a loss of 0.9% to 1.5% in GDP growth (MTENR, 2011).

Land-based activities are the most vulnerable sectors to climate change. Agriculture is particularly vulnerable, with the potential to lose US$2.2 billion to US$3.1 billion of GDP due to climate variability according to different scenarios over the next decade (MTENR 2011). With much of Zambia's population being rural and reliant on rain-fed agriculture for their livelihoods, rainfall variability represents a significant challenge for food security and planning. This is particularly true given current low investment levels and low productivity in the sector. Local impacts are hard to gauge, however: while a 1°C temperature rise during the key growth stage of maize (January – February) could increase net revenue by US$ 316 per hectare, a 1°C temperature increase during November to December could reduce net revenue by US$323 per hectare (CEEPA, 2006). Agro-ecological region 1[5], in southern parts of the Southern and Western Provinces is drier and more prone to climate variability; thus the impacts of climate change on Zambia's agriculture will not be evenly distributed, socially or geographically. Socio-demographic and political constraints, however, hinder climate compatible development in the agricultural sector (see Boxes 1 and 2 below).

The increased frequency and severity of floods also threaten Zambia's infrastructure. Although relatively underdeveloped, the acceleration of infrastructure development is included as one of the three core objectives of Zambia's SNDP (GRZ, 2010b)[6]. Both existing and planned infrastructure is at risk from climate change. Past floods have destroyed roads and bridges, and existing infrastructure plans may no longer meet the expected extreme climate conditions in Zambia. Energy generation through hydroelectric power also suffers in times of drought and could lead to a decline in industrial production. Hydropower provides almost all of Zambia's on-grid electricity, although only 22% of the population have access to electricity and the remainder of the population depends on firewood and charcoal for domestic energy. The SNDP does, however, propose energy sector reforms to raise tariffs so they better reflect costs, but also to increase access (GRZ, 2010b). Such biomass energy dependence leads to increasing deforesta-

Box 1. Barriers to climate compatible development in the agricultural sector

Agriculture currently contributes about 9% (FAO, 2013) to Zambia's GDP, and agricultural productivity remains low - about one third of global yield (IAPRI, 2012). Climate change is likely to reduce crop yield in semiarid or tropical agro-ecological systems, which may force large areas of marginal agriculture out of production. This threatens the livelihoods of the largely rural population in Zambia.

Key Ministries responsible for formulating relevant agricultural policies in Zambia include; MLNREP (formerly MTENR), Ministry of Finance (MoF, previously Ministry of Finance and National Planning MoFNP), and the Ministry of Agriculture and Livestock. International organisations also support climate compatible development in Zambia's agricultural sector. The Swedish International Development Cooperation Agency (SIDA), the World Bank, the Embassy of Finland, and the Danish International Development Agency (DANIDA), for example, directly fund projects in the country, support local NGOs and are stakeholders in the policy-making process.

There are a number of socio-demographic constraints to climate compatible development in the agriculture sector (DIE, 2011). The low population density in Zambia, for example, means that the agricultural work force is small in relation to the country's endowments of land and water resources. Rural agricultural markets are therefore underdeveloped and there is limited access to markets owing to a lack of infrastructure; both storage and transport facilities, in remote areas. Low mechanisation levels coupled with inefficient land management methods that lead to declining soil fertility, have also resulted in households needing to cultivate increasing areas of land to achieve food security.

Policy constraints have also hampered climate compatible development in the agricultural sector. While budget allocations to agriculture have grown over the last few years, much of this was absorbed by two subsidy programmes; the Fertilizer Input Support Programme (FISP) and Food Reserve Agency (FRA) (see Box 4). This led to under-funding of improved extension services, infrastructure investment (in irrigation, storage and transport facilities), smallholder access to mechanisation, livestock development and research and development. Low yields and frequent crop failure (e.g. in the North-Western and Southern Provinces) are also exacerbated by the fact that agricultural subsidy programmes focus on maize production alone, thus encouraging farmers to grow the crop in soils and under climatic conditions that are not suitable for it. However, the FRA and FISP are currently being reformed to address some of the above issues.

There is increasing pressure to incorporate climate change concerns into Zambia's agricultural sector. As well as the sector being a core element of the SNDP, NLTV and draft NCCRS, Zambia is signatory to the Comprehensive African Agriculture Development Programme (CAADP), a regional programme that aims to put agriculture at the forefront of economic development. Under the CAADP, each country needs to prepare a National Agriculture Investment Plan (NAIP). Zambia has drafted a NAIP extending from 2013 to 2017 which recognises the importance of environment and climate change; dedicating a chapter on the subject. It identified fifteen strategies ranging from the promotion of Conservation Agriculture (CA) and Climate Smart Agriculture (CSA), to crop diversification, improvements of disaster risk management and capacity building. The National Agriculture Policy is also being drafted to align its policies with the objectives of the SNDP and the CAADP. The process, which began in July 2012 and brought together the public and private sector, civil society and development partners, is expected to finish in 2013. Crop and livestock diversification, climate-smart agriculture, conservation agriculture, development of drought and heat resistant seed varieties, afforestation and the mainstreaming of climate change adaptation and mitigation measures in agricultural policies and programmes are expected to be core recommendations of the National Agricultural Policy revision.

tion, land degradation and desertification also exacerbates Zambia's expected environmental degradation due to climate change. Additional costs of climate variability could include reduction in fish stocks where rainfall fluctuation changes nutrient levels in waterways; poor water quality and increase in climate-sensitive diseases such as malaria, cholera and dysentery; soil erosion and decrease in soil fertility (GRZ, 2012).

Box 2. The ENRMMP and Interim Environment Fund of Zambia

The Environmental and Natural Resources Management, and Mainstreaming Programme (ENRMMP), initiated in 2008, seeks to improve coordination and implementation capacity in environment and natural resource sector in Zambia, inclusive of climate change. It included policy review and the ambition to coordinate actions between ministries as well as down to local levels.

Funded by Finland and Denmark with US$43 million (and supported by Norway and UNDP), the ENRMMP was positioned in Zambia's Environmental Management Agency (ZEMA)14 an autonomous body created through the Environmental Management Act (EMA) of Parliament. The EMA also contains the remit for an Environmental Fund within ZEMA to support implementation of practical initiatives. The ENRMMP, therefore, has supported the establishment of the Interim Environment Fund (IEF).

To date only state and government have been eligible for the IEF. This includes councils, districts and universities funded by the state, although they can partner with private sector, NGOs or civil society. Although ENRMMP was established in 2009, the first round of funding for the Interim Environment Fund is yet to be released.

Proposals received for funding are focussed on waste management, rural electrification (solar) and non-timber forest product domestication; ranging from US$500,000 to US$2 million. Of more than 150 proposals received, around 15% were deemed technically viable and less adhered to fiduciary standards necessary. This reflects the need for support for project pipeline development in Zambia (see Section 4.2).

This is deemed to be a trial funding system to be replaced by the Environment Fund which was intended to be established by the end of 2013. While ZEMA was considered as a possible institution to host the NCCDC in NCCRS discussions, ZEMA falls under the MLRNEP and it was deemed that the climate change may be considered more of an environmental issue as opposed to a development issue if it was to be housed here. Lessons from the ENRMMP process and the creation of the IEF, however, should be sought in the development of future climate funds and funding mechanisms in Zambia.

4. Key considerations for climate finance readiness in Zambia

This section outlines the core components of the climate finance readiness framework presented in Section 2, as they related to the context of climate change in Zambia, outlined in Section 3. It reflects on current initiatives, and highlights potential limitations with regards to planning, aptitude, and access.

4.1. Planning

Planning for climate finance includes consideration of strategic purpose, governance and institutions, inclusive of the procedural issues to revise policies, regulations and incentives that affect climate change relevant investment, and acquisition of sufficient and relevant information. The core component of planning in the climate finance readiness framework reflects a critical need to align climate finance with national strategies and objectives. In itself, this requires coordination and inclusiveness across a wide range of actors and institutions.

4.1.1. Strategic purpose

Zambia's international commitments and actions

In all sectors, policies are guided both domestically and by Zambia's obligations to international and regional agreements. Zambia ratified the UNFCCC in 1993 and under this convention Zambia is obliged to provide national communications. The first such national communication to the UNFCCC was produced in 2004 and the second is not yet in the public domain, although it has been underway since 2008. The second national communication is being supported through a United Nations Development Programme (UNDP)/ Global Environment Facility (GEF) funded project. As a Least Developed Country[7] (LDC), Zambia also submitted a National Adaptation Plan of Action (NAPA) to the UNFCCC in 2007. The NAPA prioritised 10 adaptation projects, of which one is being funded and implemented (see Section 4.3; GRZ, 2007). Zambia has also ratified the Convention on Biodiversity, the Convention to Combat Desertification and the Non-Legally Binding Instrument on all types of forest, conventions that have synergies with efforts to address climate change. It is also part of the Common Market for Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC), and participation in these regional institutions includes commitments to sustainable utilisation of natural resources and protection of the environment, including with reference to climate change[8].

National development strategies and climate change considerations

Domestically, climate change is increasingly seen as a development issue across government ministries. Zambia has developed a National Long Term Vision (NLTV) whose aim to make Zambia a 'prosperous middle income country by 2030' (GRZ, 2006). This is to be achieved through a series of National Development Plans, with the current one being the Sixth National Development Plan (SNDP) that runs from 2011 to 2015 (GRZ, 2010b). The overarching ambition of the SNDP is sustained economic growth and poverty reduction. The environment, including climate change adaptation and mitigation, is treated as a cross-cutting issue in the SNDP and relevant measures or policies have been announced for priority growth sectors[9], with some sectors (e.g. energy and infrastructure) dedicated specific programmes, while others are tasked with integrating climate change into their policy objectives and focusing on awareness creation and sustainable practices as a first step.

The Disaster Management Act of 2010 also has a key link with Zambia's climate change response (GRZ, 2010c). The Act creates the Disaster Management and Mitigation Unit (DMMU) within the Office of the Vice President. It seeks to address all disasters, including both human induced and natural hazards, and is therefore not specific to climate change induce disasters. The Act also lays out Disaster Management Plans. Zambia's medium term goal is to mainstream climate change in most vulnerable sectors of the economy by 2015 and all by 2030.

Climate change policies and strategies

In 2010, Zambia also drafted a National Climate Change Response Strategy (NCCRS), the vision of which is 'a prosperous climate change resilient economy' (GRZ, 2010a). The

draft NCCRS aims to ensure sectors of the economy that are most vulnerable are "climate proofed" and follow a low carbon development pathway. These sectors broadly align with those in the Sixth National Development Plan (SNDP) and NLTV. The NCCRS's medium term goal is to ensure climate change is mainstreamed in these sectors by 2015 and that the objectives related to nine priority sectoral adaptation and mitigation actions (in land use, water, health and social infrastructure, physical infrastructure, transport, energy, mining, governance and mainstreaming) are met. The draft NCCRS outlines a number of possible projects and programmes for different sectors, also identifying relevant organisations, cost estimates and output timelines (GRZ, 2010a). These activities, however, need to be elaborated before they can be implemented.

The drafted NCCRS has also not yet been submitted to Cabinet for approval because the Policy Advisory Committee pointed out that proper procedure required that a National Climate Change Policy be adopted first. Both the strategy and the policy are therefore to be approved concurrently. A zero draft of the National Climate Change Policy (NCCP) was circulated to a number of stakeholders for comment in 2012. Stakeholders are hopeful this will pass cabinet in 2013, although the exact timing for this is unclear. Timely progress is needed, as the NCCRS draft is already three years old. Revisions may be required to ensure it remains current and reflects present circumstances and needs.[10]

The draft NCCRS has five core pillars[11], one of which is finance and investment framework that deals with the identification of sources and mobilisation of financial resources. Under this pillar the national budget, international climate funds, private sector and Foreign Direct Investment (FDI), and carbon markets, are seen as sources of fund for climate change activities. There is a need for a clear strategy to guide Zambia's climate change response, and inform how finance should be spent going forward. Institutionalisation of the drafted NCCRS should create the space and guidance on how available resources for investment in climate change related programs are spent.

Additional plans and strategies to respond to the challenge of climate change in Zambia include the Strategic Programme for Climate Resilience (SPCR), prepared with support from the AfDB and the World Bank in order to access finance from the Pilot Program for Climate Resilience (PPCR) (Box 2).

Zambia is also working with the United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) to develop a national program to reduce greenhouse gas (GHG) emissions through forest activities. A national plan for REDD+ in Zambia has been under development since 2010 and is expected to be publically released later in 2013. REDD+ refers to reduced emissions from deforestation, forest degradation, forest conservation, sustainable management of forests and the enhancement of forest carbon stocks. In parallel to REDD+ strategy development, progress has been made on technical issues such as monitoring, reporting and verification of emission reductions within the Department of Forestry. REDD+ activities build on and support the Zambian National Forest Monitoring System which aims to be a decentralised system with ten provincial forest monitoring laboratories with appropriate technology and technical expertise. Training efforts engaged Brazil's National Institute for Space Research (INPE) to facilitate the development of a land cover classification system that learns from that of the Terra Amazon Platform. A country-wide Integrated Land Use Assessment is in its second phase with more than 4000 sampling sites and the UN-REDD activities operate in close collaboration with this FAO and Finland supported initiative (UN-REDD, 2012).

4.1.2. Governance and institutions

Key Institutions

In September 2011, Zambia's administration changed when Mr. Michael Chilufya Sata of the Patriotic Front won power from the Movement for Multiparty Democracy. This has led to a number of changes in ministerial portfolios and has had implications for a number of ministries engaged in Zambia's climate change response. The Ministry of Tourism, Environment and Natural Resources (MTENR), that led the preparation of the NCCRS in 2010, has now become the Ministry of Lands, Natural Resources and Environmental Protection (MLNREP). The reshuffle has led to a period of uncertainty and complications where annual departmental and line budgets were housed in different ministries. The

Box 3. Zambia's Strategic Programme on Climate Resilience (SPCR)

The Pilot Programme for Climate Resilience (PPCR) supports a National Programme in Zambia through the Climate Investment Funds of the World Bank. Zambia's PPCR goal is to 'mainstream climate change into the most economically and vulnerable sectors of the economy'; aligning with national plans and intentionally integrated with national processes and planning for Zambia's climate change response.

The support is in two phases. In the first phase Zambia developed a Strategic Programme for Climate Resilience (SPCR) supported by donor as well as domestic finance (CIF, 2011). The SPCR documents the impacts of climate change in Zambia in detail. It also provides an outline of the institutional structures and relevant policies, strategies and activities in place to deal with a changing climate in Zambia. It identifies climate change and disaster risk management as key themes, with participatory adaptation, climate-resilient infrastructure, and strategic programme support its core strategic components. Overall, the SPCR engages a number of sectors, including; agriculture, water, livestock, fisheries and natural resources, health, infrastructure; and communications.

Zambia is now in the second phase of the PPCR project; to implement the SPCR. Phase 2 is not expected to end until 2020 and three projects are under development. While two projects focus on building resilience in land-based livelihoods and infrastructure in two river sub-basins, the third focusses on private sector support for climate resilience, in both sub-basins:

Project 1: Strengthening Climate Resilience in Zambia and in the Barotse Sub-Basin with the IBRD. This project will provide strategic support to the Zambia's climate change response, while also building the adaptive capacity and livelihoods of vulnerable farmers and rural communities to climate change in priority districts of the Barotse sub-basin in addition to increasing the resilience of the major infrastructure and strengthening climate information and early warning systems (US$36 million, of which US$31 million is grant finance and US$13 million of which will go towards supporting Zambia's climate change programme).

Project 2: Strengthening Climate Resilience in the Kafue River Basin with the AfDB. This project aims to build the adaptive capacity and livelihoods of vulnerable farmers and rural communities to climate change in priority districts of the Kafue sub-basin in addition to increasing the resilience of the major infrastructure (US$39 million, of which close to US$20 million will be in grant form).

Project 3: Private Sector Support to Climate Resilience with the International Finance Corporation (IFC). This project aims to increase private sector investment in agriculture, energy and water in the two sub-basins in projects 1 and 2. It will pilot SMS-based climate and agricultural information, weather index-based insurance products, and micro-finance instruments (US$ 15 million, of which US$1.5 million will be in grant form).

The SPCR totalled a request of US$110 million of approved finance for the three projects, of which US$50 million was in grant form and the remainder loan finance (SPCR, 2011). In November of 2011, due to limitations on donor pledges, the PPCR Sub-Committee approved a maximum total grant amount of US$40-50 million and concessionary credit amount of US$36 million; US$24 million less than requested. Of the total, the CIFs report only grant financing has been formally approved to the amount of US$3.9 million as of March 2013 (CFU, 2013).

ministerial reshuffle also slowed the progress of the draft NCCRS, which is now further delayed pending approval of a NCCP.

MLNREP remains the official focal point for climate change, particularly the Department of Environment and Natural Resources. The MLNREP also provides a secretariat for the Designated National Authority for the Clean Development Mechanism (CDM)[12] and is responsible for Zambia's National Communications to the UNFCCC, although the Zambian Environmental Management Agency (ZEMA) is conducting the analysis. In addition to the MLNREP, the Ministry of Finance (MoF)(previously Ministry of Finance and National Planning), and the Disaster Management Mitigation Unit (DMMU) in the Office of the Vice President, have assumed central roles in Zambia's climate change response. Notably, the Pilot Programme for Climate Resilience (PPCR) is managed within the MoF and not in the MTENR.

The DMMU reports to a committee of permanent secretaries and passes on recommendations to cabinet for approval. It also has structures at provincial level, but at district level works through existing district councils. There is clear recognition of the link between Disaster Risk Reduction (DRR) and adaptation.

Implementing the NCCRS through a National Climate Change and Development Council

The NCCRS draft prepared by the MTENR proposes a new institutional structure for climate change coordination in addition to its list of priority interventions. The proposed National Climate Change and Development Council (NCCDC) is widely accepted among stakeholders. The NCCDC may have a board of directors, or a Steering Commitee, depending on whether the NCCDC is established as a separate statutory body, or set up within an existing government structure or Ministry. It is envisaged that both would comprise of key public and private sector entities, inclusive of NGOs and civil society, which will be answerable to a committee of ministers. Both would also be harmonised with other existing climate change related committees in Zambia (e.g. for UN-REDD, PPCR), and working groups to establish the technical objectives of the NCCDC would be established in: adaptation and disaster risk reduction; mitigation and low carbon development; cross cutting issues; governance of climate change; and finance and investment frameworks. The NCCDC plans to draw in the key ministries of: environment; finance; infrastructure/public works; mines, energy and water; the Office of the Vice President with its disaster management unit; and, most likely, the Zambian Meteorological department. While it is not yet settled to whom the Council will report – the Cabinet Secretary or the Secretary to the Treasury – it is intended to sit with a powerful government institution.

Interim arrangements: the Interim Climate Change Secretariat and Technical Committee

As the NCCRS has yet to be endorsed by Cabinet, an Interim Climate Change Secretariat and a Technical Committee have been established. The Technical Committee is tasked with, among other things, developing the terms of reference for the Interim Climate Change Secretariat that is envisaged to become the Secretariat of the NCCDC. The Technical Committee has so far concluded that the Secretariat should act as a "clearing house" for projects and finance, and that line ministries should continue to be responsible for project development and implementation. It is not clear to what extent this will mean that the scope of activities originally envisaged by the NCCRS for the Secretariat have been scaled down, and hence the degree to which its resourcing needs would be reduced (see Section 4.3 for more on funding the NCCDC).

The Interim Climate Change Secretariat replaces the Climate Change Facilitation Unit (CCFU), established by the MTENR with UNDP and Norwegian funding support amounting to US$2.5 million from 2009 to 2012 (with residual budget still being spent in 2013). The CCFU was established to undertake studies on climate change issues to ensure informed policy decisions were made. Many studies were produced, including; Zambia's NAPA (2007), the draft of the NCCRS (2010), Information Needs Assessment and Identification of Gaps in Climate Change (MTENR, 2010), and the Economics of Climate Change in Zambia (MTENR, 2011). Some stakeholders noted that the coordination of climate change activities and finance in Zambia had lapsed as a result of the end of the Climate Change Facilitation Unit in 2011 and prior to the full creation of the Interim Committee. Others note that programmes are all managed

individually and in clusters, even within ministries. Among donors, coordination of climate change activities is supposed to occur through regular meetings of the development partners. Donors, such as Finland and Denmark have also supported mainstreaming climate change activities (see Section 4.3).

Zambia's planning processes report substantial consultation procedures and inclusive stakeholder engagement, which can also contribute to coordination of activities. Views on the adequacy of consultation in climate change planning in Zambia, however, are mixed. Broad participation of stakeholders in the development of the drafted NCCRS is unclear. Some respondents indicate that they were not part of the process. Thus far, there is little clarity on the strategic purpose and sequencing of stakeholder engagement. In particular, several stakeholders saw the case for more strategic engagement of private sector actors to identify options for their participation in the execution and implementation of strategies. There are plans, however, for the establishment of a desk at the Secretariat for private sector and civil society actors to ensure they are an integral part of national activities.

Should the NCCP and NCCRS be approved – planned for mid-2013 – it would be necessary to enact a law defining the statutory nature and powers of the proposed NCCDC. Such a law or act would need to clearly specify the composition of the NCCDC board, and the procedures for the appointment of members. In Zambia appointments to the boards of statutory bodies/entities are the purview of the minister under whose sector they fall. A number of individuals have already been identified to be attached to the Interim Climate Change Secretariat. Although the draft of the NCCRS noted that all staff would be seconded, there have now been discussions around attachment of some staff – with only three or four permanent positions, two of which have been provisionally filled. This may raise some questions about how new and existing responsibilities can be managed at the same time. It may also be useful to consider performance incentive systems for the staff of the secretariat to ensure that these responsibilities are prioritised.

4.1.3. Sufficient and relevant information

Improving the information and evidence base for decision-making

Information underpins planning through the provision of data on how climate change may affect Zambia, but also research into the potential economy-wide impacts that can direct decision-making. There are structures in place for the monitoring of climate information in Zambia, although the data is variable in quality. The Zambia Meteorological Department (ZMD) coordinates climate change data, while the DMMU has an information management platform (Zambia Emergency Preparedness and Response Information System (ZEPRIS)) that houses information across a number of sectors relevant to climate change. Historical rainfall records, however, have yet to be transferred to digital format, and anomalies exist in this data. No systematic hazard mapping has yet been completed for Zambia.

Zambia's plans pertaining to climate change are underpinned by a number of studies. These include those produced or commissioned by the CCFU in the MTENR, such as the study on the 'Information needs assessment and identification of information gaps on climate change in Zambia' (MTENR, 2010), and on the 'Economics of Climate Change' (MTNER, 2011). The DMMU produces an annual Vulnerability and Needs Assessment Report (ZVAC, 2008; 2009; 2010). Other studies have focussed on the economic impacts of climate change for agriculture (Jain, 2007); economic growth and poverty (Thurlow et al., 2009); and, climate impact (McSweeny et al., 2008). CCFU research has been supported by many international development partners including the World Bank, International Food and Policy Research Institute, the government of Norway, and UNDP. Local research institutions also exist. The work of the Zambia Agricultural Research Institute (ZARI), a governmental agency, has been largely supplanted by the Golden Valley Agricultural Research Trust (GART), a public-private partnership between the Government of Zambia and the Zambia National Farmers Union. Other independent institutions, such as the Indaba Agricultural Policy Research Institute (IAPRI) also produce research on agricultural policy.

Planning: Key messages

- The political will to engage on climate change issues in Zambia is strengthening and it is increasingly viewing as a developmental rather than an environmental issue;
- A number of country-specific climate-change relevant strategies and plans, have been developed, however, the NCCP and NCCRS are both yet to pass through cabinet;
- Ministerial reshuffles have impacted actors involved with climate finance in Zambia, but MoF and MLNREP engagement remains strong;
- The proposed NCCDC, responsible for coordinating climate change issues in Zambia, including climate finance, has broad and high-level support and an Interim Climate Change Secretariat has already been established to guide the NCCDC evolution;
- Studies on the economy-wide impacts of climate change are largely donor supported. As government funded research has declined, the support for climate change research appears limited.

Knowledge management and sharing systems are developing. But many stakeholders expressed a need for more research to be undertaken in Zambia and in a more coherent manner to ensure research is up to date, comprehensive across and within sectors and sufficient for use in policy-making. The NCCRS as it stands, highlights research and development needs in Zambia, particularly for agriculture, both crop and livestock husbandry (GRZ, 2010a). The SNDP (GRZ, 2010b) and a recent FAO paper on intergrading climate change issues into national forest programmes and policy frameworks (Fumpa-Makano, 2011), also note this need. Many stakeholders noted that government funding for research has reduced and the capacity of research institutions has deteriorated with it. Forestry suffers the same, although the efforts of UN-REDD and the recent move of the Centre for International Forestry Research (CIFOR) offices from Harare to Zambia has reinvigorated forest related research.

Research agendas are rarely set by the government, so it is harder to ensure they are policy relevant or that uptake will occur. Research needs to be funded, however; and it is also important that research is utilised in planning and policy decisions, and there are sufficient motivations for generating research. Integrated and on-going modelling of the economics of climate change and the impacts on Zambia's development, such as from changing production patterns and accounting for impacts and the depreciation of forest resources for example, should be integrated into planning and budgeting processes.

4.2. Aptitude

Aptitude relates to maximising existing national capacities to understand the implications of climate change investment choices and the suite of capacities to deal with climate finance. It, therefore, encompasses the capability to develop a pipeline of bankable climate change projects and programmes. It relates to the people, systems, expertise and know-how that exists in country to access and program climate finance. There needs to be sufficient capacity to consider Zambia's options for raising the climate finance necessary for realising proposed actions to respond to climate change and to turn ideas into actions on the ground. This relates to the public sector as well as the private sector, as a key actor as well as a source of finance, in addition to civil society and NGOs, as key implementers as well as watchdogs of accountability.

4.2.1. Growing knowledge and national capacity

National government

The capacity of government institutions to engage on climate change issues has been enhanced over the last few years, in part as a result of Zambia's participation in the Pilot Programme on Climate Resilience (PPCR) and to deliver on its associated goals and targets during its first phase. The Ministry of Finance leads engagement with the PPCR, and through this process has increased its understanding of the international climate finance architecture, and begun to support efforts to strengthen cross-ministerial responses to climate change as a development issue. More of course can be achieved. The need for capacity building is noted in the NCCRS, with components such as: information gathering and dissemination; creation of focal points in government; capacity to implement effective policies and programmes; and the application of appropriate tools and technologies. There may be value in drawing in the experiences and capacities of a wider cross section of ministries.

The proposal to establish climate change focal points can usefully be informed by recent efforts to mainstream DRR into government. DRR focal points now exist in most ministries, as part of efforts to mainstream DRR into government operations. There may be potential to widen the remit of DRR focal points to consider climate change more generally, although this would require supporting them to acquire new expertise and capacities. If a different approach is taken, then it would make sense to reflect on the strengths and limitations of the DRR focal point model in order to identify better options for mainstreaming climate change.

Sub-national government

Many stakeholders stressed the need to build capacity to respond to climate change and manage associated investment and finance at local government level, particularly in Provinces and Districts. A growing number of internationally supported programs are engaging at sub-national level. A detailed analysis of sub-national level capacity needs was beyond the scope of this study. We recognise that this is a substantial focus of the PPCR program in Zambia, and further exploration of impacts and needs in this context might be an appropriate priority for future work.

Civil society

The capacity of Zambian civil society to engage on climate change and climate finance is also growing although the number of organisations remains fairly small. The Zambia Climate Change Network (ZCCN)[13] is one of the most active and currently is represented on the Technical Committee of the Interim Climate Change Secretariat. The current government is reportedly very open to civil society engagement, and development partners have supported civil society activities. Finland and Denmark, for example, support Zambia's Civil Society Environment Fund, with fund management contracted to PMTC Ltd (see Section 4.3). The Civil Society Environment Fund is open to not-for-profit, civil society organisations and provides organisational support, project grants, capacity building grants, and research and dissemination grants[14].

The private sector

There are mixed views, however, on private sector capacity, motivation, and engagement in efforts to respond to climate change. In Zambia's growing economy, capacity to take actions to mitigate and adapt to climate change does exist in the private sector. The PPCR semi-annual operation report notes that "there have been significant challenges in Zambia in identifying investment opportunities for adaptation projects in the private sector. IFC is working with the Government and other local partners to assess and address some of the market barriers that have led to delays" (CIF, 2012). CDM mitigation opportunities have been identified in clean and renewable energy, manufacturing, mining, agriculture, waste management and transport in Zambia although few projects have been developed[15] (see also Section 4.3). Raising awareness and engagement and thus, incentivising the private sector to invest in low-carbon and climate resilient projects, can catalyse greater engagement.

Some stakeholders also observed that legislation which had been enacted to facilitate Public Private Partnerships (PPP) had focussed on attracting FDI for larger projects. They noted a need for support for smaller "pro-poor" PPPs which might be established between sub-national government structures and NGOs or domestic private sector companies. Mining companies in Zambia have, however, expressed recent interest to engage in climate change issues. Their corporate social responsibility activities and spending might also be harnessed to support more climate compatible development in Zambian communities. The Konkola Copper Mine (KCM) and Maamba Collieries Limited, a largely Singaporean owned coal mining company, for example, have installed technology to capture greenhouse gas emissions. In November 2012, KCM submitted a project design document to the Clean Development Mechanism.

Partnerships and collaborations to harness capacities

There is room to consider new partnerships between government, civil society and private sector actors in Zambia in order to increase implementation capacity with reference to climate finance. Investing in such partnerships with the goal of practical collaborative implementation might help build more lasting institutional capacity both within and outside of government on climate change.

There are examples of such models: the development of Zambia's second national communication to the UNFCCC

is led by the Department of Environment and Natural Resources. Working with ZEMA[17], Zambia must establish GHG emissions from land-use as part of the national communications. The Centre for Energy, Environment and Engineering in Zambia (CEEEZ), a Zambian NGO, have been contracted to establish the baseline for this assessment. In many cases, international organisations have supported such collaborative programs by providing an oversight and management role.

Overall, there was a broad recognition that there are skills shortfalls to deal with a changing climate in Zambia. It is worth noting, however, that some stakeholders also expressed a frustration with 'capacity building workshops' for climate change and climate finance. They stressed the limits of such workshops in terms of building practical implementation capacity, and the need for more sustained engagement in order to put concepts into practice.

4.2.2. Project pipeline development

The Zambian NCCRS draft outlines a number of activities by sector, with estimated costs and outputs. The estimated cost reaches US$ 6.6 billion. The Working Group proposed to deal with Finance and Investment under the proposed Climate Change and Development Council has a single action on 'Bankable actions/projects development for specific funding opportunities'. The output of this action, as stated in the NCCRS, is at least three funding proposals development for a request of a minimum of US$200 million by 2012 (noting the NCCRS was first drafted in 2010) (GRZ, 2010a). This responsibility falls under MTENR, Line Ministries, MoF, the Private Sector and Civil Society[18]. As the NCCRS has yet to be ratified, this objective has yet to be realised. This challenge also reflected in the development of National Adaptation Programs of Action: of the ten NAPAs developed by Zambia and submitted to the UNFCCC in 2007, only one has been fully funded by the Least Developed Countries Fund (LDCF). Work is underway to develop a second NAPA on forest regeneration, the use of cook stoves and alternative energy sources, but turning this into a bankable project has become a lengthy process. There is a clear need for improved capacity and processes to translate the key areas where the NCCRS identifies a need for progress with actionable programs. We therefore see this as a need that relates to strengthening aptitudes that will reinforce efforts to deepen planning.

Aptitude: Key messages

- Knowledge and understanding of climate change and climate finance issues in national government has been enhanced through Zambia's PPCR engagement. Sub-national level progress has been slower and civil society remains a small, although vocal network. The current adequacy of private sector knowledge and engagement is uncertain;
- Potential exists for partnerships that can maximise complementary capacities for climate finance programming, though this will require a change in process in Zambia;
- Zambia's pipeline of climate change projects and programmes, to date, has been largely supported by international agencies and development partners and capacity needs exist to develop ideas into tangible projects.

Support from international agencies and development partners has been instrumental in developing climate change related programs in Zambia to date. Many of these projects have contained components of readiness within the broader framework of access to funds, or within individual projects themselves; the PPCR for example has two phases of implementation (see Box 2).

Some stakeholders have suggested that the lack of a project pipeline has led to donor competition; where agencies have funding available to support climate change actions, but struggle to find viable investments. Donors have also recently begun to provide finance directly to subnational actors. Furthermore, the resources and momentum created by donor projects are reported to be hard to maintain due to lack of domestic resourcing to sustain or scale-up projects.

4.3. Access

Within the climate finance readiness framework, access refers to sourcing, receiving and spending funds widely. This considers the monitoring and evaluation of climate finance expenditure in countries to gather best practice, but also for ensuring accountability for using scarce public resources. It also considers the appropriate modalities and associated fiduciary and environmental standards, given the pursuit of direct access modalities.

4.3.1. Climate finance flows

Current access to international climate finance

Zambia has been successful in accessing many of the dedicated international climate funds that exist today. This includes the Pilot Programme on Climate Resilience (PPCR), the Global Environment Facility's Fourth replenishment, the Least Developed Countries Fund, and Germany's International Climate Initiative. In March 2013, funding approved for activities in Zambia amounted to US$ 25 million (Table 1). This finance amounts to an estimated US$140 million in 2013 for climate change adaptation activities in Zambia. In addition many multilateral and bilateral development partners have climate programmes underway, particularly in climate change adaptation, which may not be included in this snapshot.

The Least Developed Countries Fund has provided US$3.5 million for one of Zambia's NAPAs to aid adaptation to the adverse effects of climate change in agro-ecological zones 1 and 2 of Zambia. Initiated in 2010 the project is under implementation at eight pilot sites. The pilots test water harvesting and irrigation systems and crop diversification against financial sustainability in addition to their ability to reduce climate change vulnerability. Overall, the project seeks to also improve capacity to supply and use climate risk information. It is implemented by the Ministry of Agriculture and supported by UNDP, although the MLNREP remains the focal point for GEF / LDCF finance.

The PPCR is the largest program of climate finance that Zambia has accessed to date (Box 2). Implementation units

Table 1: Multilateral climate finance for Zambia

Project	Funder	Approved Year	Approved (US$ millions)
Adaptation to the effects of drought and climate change in Agro-ecological Zone 1 and 2 in Zambia	LDCF	2009	3.5
Preparation of the National Adaptation Programme of Action (NAPA)	LDCF	2004	0.2
Strengthening Climate Information and Early Warning Systems in Eastern and Southern Africa for Climate Resilient Development and Adaptation to Climate Change - Zambia	LDCF	2012	4
Private Sector Support to Climate Resilience in Zambia (project preparation grant)	PPCR	2012	0.4
Strengthening Climate Resilience in Kafue River Basin (AfDB) (project preparation grant)	PPCR	2011	1.4
Strengthening Climate Resilience in Zambia/Barotse (IBRD) (project preparation grant)	PPCR	2011	1.5
Design of national Strategic Programs for Climate Resilience (SPCR) (phase 1 funding)	PPCR	2010	1.5
Increased Access to Electricity Services	GEF	2010	4.5
Sustainability of the Miombo Ecoregion through the Enlargement and Improved Management of Protected Areas	Germany's ICI	2008	3.1
UN-REDD national programme - Zambia	UN-REDD	2010	4.5
Note that this table does not capture contributions outside of dedicated climate funds and initiatives. (Source: www.climatefundsupdate.org, June 2013).			24.6

have been established for projects in three river basins supported by the World Bank, International Finance Cooperation and African Development Bank. Although the amounts in Table 1 are a lot smaller, the PPCR Sub-Committee has actually endorsed up to US$40-50 million in grants and US$36 million in concessionary loans. Implementation strategies are still, however, under development and full amounts will be finalised once investment projects are fully prepared. There are plans for the Nordic Development Fund to provide a further Euro 4 million towards the development of standards and codes for infrastructure development in Barotse and Kafue Sub-Basins.

The majority of finance through these multilateral funds has been for climate change adaptation. Climate finance for mitigation is less developed. The largest source of anthropogenic GHG emissions in Zambia is the land-use sector; accounting for over 90% (GRZ, 2010a). Despite the almost total reliance on hydropower for Zambia's grid-power, a large percentage of the population relies on biomass, particularly in the form of charcoal. Timber production, unsustainable agriculture and shifting cultivation – the 'chitemene' system – threaten Zambia's forest cover. REDD+ activities also present an opportunity for climate finance in Zambia. REDD+ in Zambia, however, has made mixed progress. The US$4.5 million finance from UN-REDD has so far flowed to national level processes and delays in producing a national strategy have been experienced. Other donors – such as the United States Agency for International Development (USAID) – support district and community level forest programmes that conserve and protect forest cover, but these are not integrated into the national REDD+ process.

Outside of dedicated climate change funds, UNDP is also heavily involved in climate finance, largely as an implementing agency. UNDP are currently developing four Nationally Appropriate Mitigation Actions[19] (NAMAs) in agriculture, energy, waste management and industry under the Low Emission Capacity Building Programme financed by the European Union, Germany and Australian Agency for International Development (AusAID). This four year programme could bring 13 million Euro to Zambia. At the project document stage there is additional remit to develop a sustainable national greenhouse gas inventory system.

Substantial finance is also provided bilaterally although a full compilation of initiatives is lacking. Indicative research indicates that since 2010, Norway has supported a number of projects totalling more than US$30 million, largely in climate smart agriculture and conservation agriculture. Germany has supported nearly US$2 million in projects largely focussed on water and sanitation, and is also supporting hydromet projects. The US provides nearly US$16 million to address food security issues predominantly. The Environmental and Natural Resources Management, and Mainstreaming Programme (ENRMMP) is also highly relevant in this regard (Box 3). There are other bilateral sources of finance, both existing and under negotiation and this is by no means an exhaustive list.

There has been limited access to carbon finance through the CDM in Zambia despite a number of CDM trainings carried out in Lusaka. Four CDM projects from Zambia are listed in the UNEP-Risoe CDM pipeline, only one of which is registered (UNEP-RISOE, 2013). The registered project is a sustainable energy project in Lusaka, while those at the validation stage include one hydro project, and two energy efficiency projects. While there has been interest in CDM, lengthy and complex procedures have discouraged potential project developers. New projects have recently been proposed, however, and the Africa Carbon Credit Exchange (ACCE) has also been pushing for greater engagement in carbon markets. ACCE is currently part of Zambia's Financial Sector Development Programme and it is intended to make ACCE an international institution that deals specifically with Africa's climate change mitigation potential.

Future modalities for sourcing and spending climate finance

Looking forward, it is not clear how activities of the NCCRS will be financed. The Finance and Investment framework of the draft NCCRS considers the National Budget, International Climate Funds, private sector investment and FDI, and the carbon markets as potential funding sources. A range of instruments, including loans, are being used to support investments that will help address climate change.

Within the NCCRS there is provision for the establishment of a National Climate Fund in Zambia. Stakeholders have been considering the experiences of countries that have established their own multi-donor national funds such

as in Bangladesh and Brazil. The precise design of such a national fund and the capacity implications thereof for the NCCDC or other entity remain to be worked out. To be effective, a national climate fund would need to have a clear strategic purpose and function, and governance that allows it to make credible decisions that align with national needs and priorities. A fund without strategic documentation and technical guidance would be unlikely to be capitalised.

There are a number of funds in Zambia whose experience might usefully inform the design of a national climate fund. The Civil Society Environment Fund for example is managed by PMTC Ltd, a Zambian private company. It distributes small amounts of funding – between US$50,000 and US$150,000 – through several funding windows on environment and natural resources, including capacity building and research and development. If applications are deemed inadequate there is also a system whereby they are supported to build proposals. The Interim Environment Fund, as detailed in Box 3, is another from which lessons could be learnt.

The priority for Zambia will be finding sustainable funding for the NCCDC. It is noted in the NCCRS that the NCCDC should not rely entirely on donor finance and it should be a nationally owned institution. The body and Interim Secretariat do not yet have a budget, as they have not yet been approved. The PPCR will provide some support, however. A total of US$ 25 million has been proposed to support the measures to prepare for the establishment of the proposed NCCDC (US$ 5 million), strengthened climate information, and private sector participation (US$ 15 million)[20] from the PPCR.

Box 4. The ENRMMP and Interim Environment Fund of Zambia

The Environmental and Natural Resources Management, and Mainstreaming Programme (ENRMMP), initiated in 2008, seeks to improve coordination and implementation capacity in environment and natural resource sector in Zambia, inclusive of climate change. It included policy review and the ambition to coordinate actions between ministries as well as down to local levels.

Funded by Finland and Denmark with US$43 million (and supported by Norway and UNDP), the ENRMMP was positioned in Zambia's Environmental Management Agency (ZEMA)14 an autonomous body created through the Environmental Management Act (EMA) of Parliament. The EMA also contains the remit for an Environmental Fund within ZEMA to support implementation of practical initiatives. The ENRMMP, therefore, has supported the establishment of the Interim Environment Fund (IEF).

To date only state and government have been eligible for the IEF. This includes councils, districts and universities funded by the state, although they can partner with private sector, NGOs or civil society. Although ENRMMP was established in 2009, the first round of funding for the Interim Environment Fund is yet to be released.

Proposals received for funding are focussed on waste management, rural electrification (solar) and non-timber forest product domestication; ranging from US$500,000 to US$2 million. Of more than 150 proposals received, around 15% were deemed technically viable and less adhered to fiduciary standards necessary. This reflects the need for support for project pipeline development in Zambia (see Section 4.2).

This is deemed to be a trial funding system to be replaced by the Environment Fund which was intended to be established by the end of 2013. While ZEMA was considered as a possible institution to host the NCCDC in NCCRS discussions, ZEMA falls under the MLRNEP and it was deemed that the climate change may be considered more of an environmental issue as opposed to a development issue if it was to be housed here. Lessons from the ENRMMP process and the creation of the IEF, however, should be sought in the development of future climate funds and funding mechanisms in Zambia.

Fiduciary standards and direct access

Climate finance in Zambia has tended to flow through bilateral and multilateral financial institutions. If climate finance transfers are to be made to domestic entities, they will need to be able to ensure good fiduciary standards. This will include the need for effective procurement procedures in addition to good financial management responsibility. Zambia has expressed interest in such direct access to climate finance. The Ministry of Finance has sought accreditation as a national implementing entity to the Adaptation Fund, for example, that requires fiduciary standards to be met for: accurate and regular recording of transaction and balances; efficient management and disbursement of funds according to safeguards and in a timely manner; forward-looking plans and budgets; and, legal status to contract with the Adaptation Fund and third parties[21]. The application process for accreditation to the Adaptation Fund is on-going and Zambia hopes to achieve accreditation in 2013. Many stakeholders, however, emphasised the need to strengthen fiduciary management capacity for climate finance more broadly and at sub-national level.

The strengthening of fiduciary standards has links with on-going efforts to strengthen public financial management (PFM) systems. The Ministry of Finance, for example, has been cooperating with development partners to implement the Public Expenditure Management and Financial Accountability (PEMFA) Reform Programme, to improve government capacity to effectively and efficiently mobilise and use public resources. This process has found that there is a need for improved financial management which is particularly critical at sub-national level. The UK government recently embarked on a project to Strengthen Public Financial Management in Zambia, with a total budget of GBP£1.8 million between 2011 and 2014. At national level, improvements in PFM can help in meeting national policies related to climate change. This is relevant given early indications that Zambia's domestic budget allocation to climate change is increasing (Mulenga, 2013).

Support to strengthen fiduciary management capacity is also necessary to pursue at sub-national level, however. In preparing the SPCR, Institutional Financial Management Assessments were undertaken in pilot Districts to establish whether climate finance could be disbursed at the local level. The intention of the Assessment was to identify viable and sustainable fiduciary capacity including; budgeting, accounting, internal controls, fund flow, financial reporting and external audits. High variation was found between districts and capacity building needs were identified for accounting software training and in the monitoring and reporting of expenditures as priorities (CIF, 2011). Further efforts to systematically analyse the fiduciary standards of relevant climate finance institutions in Zambia could aid the identification of lead institutions with the existing fiduciary capacities to access climate finance, but could also identify where gaps exist and capacities can be built.

4.3.2. Monitoring and reporting

Within the Ministry of Finance, ODA and other public inflows of finance that pass through government are recorded. The Zambia Development and Assistance Database (ZDAD) was established in 2004 to support aid transparency with the aid of UNDP. However, there is currently no distinction between ODA and climate finance flows in Zambia. Private climate finance should, in theory, be recorded by the Zambia Development Authority under the Ministry of Commerce; charged with capturing FDI. However, there are large inconsistencies in the gathering and reporting of this data and multiple entry points for FDI in Zambia which means that not all of it is captured (Mulenga, 2013).

Monitoring of the impact and outcomes of climate change mitigation and adaptation measures put in place, however, are less developed. Each line ministry does have a mandate to undertake Monitoring and Evaluation (M&E) and has a Department of Policy and Planning that tracks the success and failures of relevant policies. The Central Statistics Office also gathers data systematically, although not directly related to climate change. The Central Statistics Office may, therefore, play a role as a source of information – contributing to socio-economic analysis of climate change impacts in Zambia – or as a potential central repository of climate finance information in Zambia. Each year annual progress reviews for each sector are produced, but these are largely focussed on value for money, rather than outcomes and impacts. There are also concerns over the coordination of M&E within government: for example, the nine departments within the Ministry of Agriculture are reportedly undertaking separate monitoring protocols.

Information on Zambia's budget expenditure is relatively good, and made available in the Yellow Book. Civil society initiatives are making efforts to track climate change expenditure in the national budget; provisional figures indicate that government allocation to climate change activities in the national budget was on average of 7% of total resources over the last five years (Mulenga, 2013). The tracking of climate finance appears not to be institutionalised and monitored through national processes at present. There are also no central systems that indicate where and to what climate finance is going which hinders coordination and strategic spend in country. Efforts are underway to progress such institutionalisation of climate finance tracking with the Interim Secretariat.

Monitoring and reporting of climate finance in Zambia has often been driven by donor requirements tied to funding of projects and programs. These often have substantial differences. Some require separate M&E contracts and no retirement of receipts, but others require internal M&E and proof of how finance is used. This creates burdens and transaction costs, particularly at local level, where a multitude of reporting systems must be adhered to. A number of private institutions have been contracted to undertake M&E of individual projects and programs in Zambia but there is a need to strengthen government participation. Several stakeholders observed that over the years M&E capacity within government has in fact contracted, in part as a result of changes in staffing and other developments. The need to strengthen M&E was echoed by many government and non-governmental stakeholders. The SNDP itself, notes that: "To achieve the goals and objectives of the SNDP, there is need to strengthen oversight for monitoring and evaluation of government programmes" (GRZ, 2010b).The SNDP also proposes to introduce such measures, and that harmonising M&E processes in country for all sectors will be key to reducing transaction costs and creating a lasting mechanism. Existing sector specific pilots may present some useful models and examples to build on. It is promising that the staff of the Interim Secretariat will be trained by an M&E consultant in addition to the recruitment of a dedicated M&E specialist in order to build M&E capacity in Zambia.

The NCCRS framework includes a monitoring plan focussed on collecting information so as to facilitate timely decision making and generate evidence and arguments. The responsibility to do so lies with the MLNREP and the MoF. The plan requires reports to be submitted once every six months for each of the key sectors of the NCCDC and an M&E log framework is elaborated in the Annex for each sector (Appendix 3). The framework includes periodic reviews and surveys as methods of data collection, both semi-annually and annually. Indicators and variables to be assessed, however, could be further developed and there is scope to strengthen provisions for monitoring and evaluation that, in turn, could lead to stronger lesson learning.

Access: Key messages

- US$ 25 million has been approved through multilateral public climate funds for Zambia, with much greater sums pledged, such as through the PPCR. Bilateral donor and international agency support is also strong; efforts to strengthen tracking of this finance at country level is underway;
- Existing climate finance is adaptation focussed in Zambia with mitigation finance, including CDM, of a much smaller scale;
- Future options to source climate finance are being explored including the potential for a national climate fund where existing funds could inform design;
- Fiduciary standards can be strengthened to support direct access to climate finance, including from the Adaptation Fund
- Systematic assessment of the pros and cons of various approaches to accessing climate finance in Zambia may be helpful;
- M&E to date has been focused on meeting diverse and diffuse donor requirements rather than on supporting implementation of national strategies, although this may change through adoption of the NCCRS.

5. Readiness needs and recommended supporting activities

While substantial progress towards various components of climate finance readiness is evident in Zambia, there are areas in which improvements are sought by country stakeholders. In-depth stakeholder interviews and an informal roundtable discussion between these stakeholders identified a number of needs that might strengthen national stakeholders' ability to use climate finance effectively. These needs are elaborated and explored further in this section.

It is recognised, however, that the shift to low-carbon, climate compatible development will require complex and politically sensitive issues to be grappled with in all countries (developed and developing alike). Efforts to address underlying pricing, incentive and subsidy regimes that impede or dis-incentivise investment in climate compatible development, for example, may therefore have a central role in readiness efforts. Progress on this count appears to be being made, notably with respect to the recent removal of subsidies on petroleum products and the reforms to the FRA and FISP (see Box 4).

The potential climate finance activities identified here are intended to inform on-going deliberations in Zambia on how to respond to climate change, and support the processes already underway to this end. Such processes include the formalisation of the NCCP and NCCRS, the establishment of the NCCDC and the implementation and scale up of the ground work for the PPCR. Zambia's climate finance readiness needs have emerged from discussions around the core components of the climate finance readiness needs framework outlined in Section 2. It is noted that there are not an equal balance of needs between the core components which reflects the different progress achieved in different areas. The activities proposed will not necessarily be costly: rather they will need to be well designed, targeted, and sustained in order to play a helpful role in strengthening the capacity of Zambian stakeholders to make effective use of climate finance.

5.1. Planning: Supporting a coordinated, well-informed, and strategic climate change response

The NCCDC, or equivalent body, will have a central role to play in climate change planning in Zambia when it is established with legal personality, particularly in its emerging focus for coordination of climate change activities in Zambia. The extensive responsibility and expectations of the NCCDC mean that the small number of seconded and attached members will need to be resourced and capacitated to deliver on their mandate in a sustainable manner. Similarly, there is a need to support the Interim Climate Change Secretariat pending the endorsement and establishment of the NCCDC. This Secretariat could prove a point of contact for coordinated international support in addressing Zambia's climate finance readiness, their remit is evolving and touching on multiple relevant work areas. As noted, the PPCR will support this process with US$5 million over the next year. Finding the financial resources to sustain the NCCDC will be a significant challenge.

Concurrently with the development and evolution of the NCCDC, there are clear needs for cross-sectoral planning and coordination to be strengthened recognising that competition for limited resources may discourage coordination. It may be possible to deploy climate finance in ways that support the establishment of formal structures for information sharing and coordination. Readiness support might build on existing mainstreaming efforts, and associated objectives under the NCCRS and SNDP. It may be helpful to invest in processes to strengthen engagement and outreach to local level institutions alongside national level organisations in this context.

On-going policy and implementation decisions on climate change in Zambia need to be underpinned by quality information. While studies on various aspects of climate change have been carried out over the last few years, the consensus is that research capacity has lapsed in Zambia, and

much more could be done to improve data availability and analysis on climate change related opportunities (and risks) to support adaptive decision-making. Such a need requires not only more funding to support research institutions, but also greater consideration of how to motivate such climate relevant research. So far, however, there have been few applications for finance where such funds exist. While research must maintain some independence from the political agenda, greater government involvement in setting the research agenda and ensuring that research findings inform decision-making processes and reach extension agents is important. Furthermore, research capacities within line ministries can also be supported. The Ministry of Finance, for example, has noted the need for better tools to model the economic impacts of climate change in Zambia, and incorporate such information into on-going planning processes in Zambia. Any support for research must, of course, build upon and complement existing efforts.

Possible climate finance readiness activities to support coordinated, well-informed and strategic climate change response include:

1) Convening discussions and workshops with Parliamentarians to help them better appreciate the need to make rapid progress in implementing a climate change policy. Parliamentarians hold powers to pass policy and implement laws and sensitising them to urgent climate change needs can provide high level support for the processes already underway in Zambia, such as for the NCCP and NCCRS. It may also be helpful to support institutions such as Parliaments' Research Unit, NGOs or other bodies that can provide parliamentarians with needed technical support to allow their effective engagement in debates over the legislation that will allow the NCCP, NCCRS and NCCDC to be made operational, as well as other climate change initiatives which may follow Cabinet approval.

2) Support a national institution to monitor the receipt and delivery of climate finance in Zambia. The NCCDC might be entrusted with such responsibilities, with appropriate mechanisms to coordinate and collaborate with key institutions particularly the Ministry of Finance, which has taken on the role of National Climate Finance Coordinating institution through its role in implementing the Pilot Program on Climate Resilience. Civil society initiatives to monitor the delivery of climate finance down to local level are getting underway in Zambia in parallel, but our engagement suggests an important need for strengthened tracking and coordination capacity within government as well. A national level tracking system for climate finance may help guide investment decisions and thus coordination. Any system would need to put in place mechanisms through which learning and evaluation of project activities can occur. It would be usefully informed by a deeper study of the M&E systems used by donors, government and civil society in country to inform convergence around key indicators and needs, and identify good practices that can guide Zambian efforts in this context.

5.2. Aptitude: Maximising on existing national capacities

Climate finance has tended to flow through and focus on the public sector in Zambia. There may be a case to invest in partner projects with capable private sector actors that help demonstrate the benefits of – and the business case for – climate change action. Such demonstration efforts may be particularly relevant in the mining and agricultural sectors that can be both energy and water intensive and highly vulnerable to climate change, and therefore present opportunities for investment in both adaptation and mitigation.

While the ACCE has represented private sector interests in climate change processes, there has been limited engagement with the diversity of private sector actors in Zambia. While the private sector component of the PPCR Zambia programme supports this objective, implementation of this PPCR component is at its early stage.

Possible climate finance readiness activities to maximise on existing national capacities include:

3) Review available the capacity of key line ministries that will need to integrate climate change considerations into their sector plans to understand and address climate change. Such a review might consider opportunities for partnering with other Zambian public, private and civil society actors that have more in depth understanding of climate change related issues. This review could be undertaken in the context of the climate

change / sector spending activities anticipated below. It would necessarily build on other studies carried out that seek to map domestic competencies and capacities for climate finance, and likely need to be revisited on an on-going basis. The goal of such a review would be to identify options to maximise complementarities, build on existing capacities, and establish new partnerships. While this initial study has sought to indicate the range of capacities and potential collaborations that may be possible, it has been beyond the scope of the exercise to complete a thorough mapping to this extent. We recognise that the long term development of requisite capacities is closely linked to the quality of underlying education programs at bachelors and masters level. Dealing with this issue, however, this is likely beyond the scope of climate finance focused interventions.

4) Support additional technical assistance to support the ministry of finance to consider the linkages between mainstream expenditure and climate change, including both vulnerabilities to climate change, options for better targeting and rationalising expenditures that may exacerbate climate change or reduce resilience such as subsidies, and options for advancing green growth, particularly through low carbon investments. Such assistance might be advanced in the context of supporting nascent new efforts at coordination across key government ministries. Additional efforts to this end would need to be tailored to complement rather than duplicate PPCR supported efforts in this regard.

5.3. Aptitude: Generate sustainable capacity to develop a pipeline of bankable climate change projects and programmes

Zambia has a number of identified climate change activities and needs as articulated in the NAPAs of 2007, the NCCRS of 2010 and various other assessments. While a 'pipeline' of ideas is emerging, there is a need to fully elaborate these through further planning, analysis of costs, and analysis of options for raising the necessary finance. There is a sense that past efforts at training and capacity building have been too ad hoc, and have not provided the space to apply lessons learned. New approaches that provide longer term support to build domestic technical skills and innovative approaches for both project development and implementation at national level should be explored.

Stakeholders emphasised the need to address barriers to the development of smaller – or "pro-poor" – public private partnerships (PPPs). Much of the legislation promulgated to facilitate PPPs to date has been designed with bigger projects in mind, and the specific objective of attracting FDI and international companies. A deeper analysis of the access modalities of IEF, which was designed to provide funding for PPP projects involving government structures at different levels and non-state actors, might shed light on what other measures could be put in place to support such PPPs.

The development of a more effective system to monitor climate relevant programs that are currently underway would be a useful precursor to any effort to invest in developing new concepts for funding, to ensure that activities do not overlap (as suggested previously)

Possible climate finance readiness activities to generate sustainable capacity to develop a pipeline of bankable climate change projects include:

5) Financial and technical support to establish guidance by sector (and where necessary by sub-sector) and associated criteria to support the identification and development of climate change related projects. An institutional lead and mode of generating and disseminating such guidance would need to be explored. While the Ministry of Finance has been coordinating many climate related programs, the need to further expand and deepen its technical knowledge on climate change is acknowledged. Options could be to designate a technical lead that works across sectors and that engages the multitude of institutions relevant for a sector, or to designate multiple leads within line ministries that work together to provide sector guidance. Criteria and guidance could be informed by a more detailed review of the experiences of the SNDP and Energy Policy, and also draw on international experience. Participatory approaches could be used to identify local-level needs, and foster participation in project development. Guidance to this end might have useful application for all civil servants, and options for incorporating it into basic training and learning programs might be explored.

6) Invest in an institution or system that supports the incubation of projects and programs that will support national responses to climate change, potentially in key priority sectors where private sector participation is most likely to be possible on the basis of some initial market research.
   Zambia might explore the development of a results-based program incubation facility. It could provide finance at various stages of the project development cycle from inception to implementation, operating on the basis of demonstrated progress in achieving intended objectives. In this way, it could support a greater diversity of private and public sector engagement in the implementation of climate related programs. Support might be made available on an increasingly competitive basis in order to incentivise more creative and high quality concept development.
   Separate windows for large and small scale projects could be created, to ensure that a diversity of levels and scales of intervention are supported. The goal of such a mechanism would be to build capacity at the same time as supporting the emergence of a more viable set of programs that can attract finance from a greater diversity of sources. Efforts to this end could be informed by the experiences of the Civil Society Environment Fund and other related financing mechanisms in Zambia which have sought to make finance available on a competitive basis for various purposes.

5.4 Access: Reviewing potential access modalities, and support improvements in monitoring and evaluation of climate finance for strategic expenditure

Stakeholders noted the need to consider the range of institutions that might be entrusted with managing climate finance in Zambia, and assessing the relative strengths and weaknesses of different access modalities.

Possible activities to understand the appropriateness of various national institutions as modalities for access to the GCF include:

7) Identify potential institutions that might manage future international climate finance for Zambia. A systematic review of possible institutions in Zambia that might be able to meet the likely standards of accreditation of the GCF could be completed. This exercise could take stock of the experience of the Ministry of Finance in seeking direct access to the Adaptation Fund, and the various areas where it has had strengths and weaknesses. It might use the fiduciary standards required to seek accreditation for access to the Adaptation Fund as a starting point for analysing the minimum requirements for the GCF.
   An analysis of minimum environmental and social safeguard practices could build on the policies that the Global Environmental Facility has adopted, which propose a minimum set of areas where environmental and social impacts will need to be managed. The review could be designed both to help Zambian stakeholders make informed decisions about which existing institutions within the country are most likely to be able to meet these minimum standards, and identify key activities that could address any potential / outstanding shortfalls.

All stakeholders consulted identified the need to work to strengthen the transparency, accountability and impact of climate finance. It needs to be recognised that such transparency is needed for both domestic and international climate related finance. While some M&E structures exist in various forms in Zambia – both within government and through donor support systems – there is a need to ensure a functional system from local to national level to ensure that climate finance is being spent as effectively as possible. This requires systems to track finance, monitor spending and associated activities, the evaluation of the impact and outputs of climate related spending. M&E should support learning so that good practices can be disseminated, and help avoid the replication of mistakes. Donors can also do more to try and better align their M&E approaches with (evolving) national systems.

M&E functions will require a repository of information with good analytical capacity, be it outsourced or internal. This therefore links back to possible readiness needs supporting a coordinated, well-informed and strategic climate change response in Zambia.

Possible climate finance readiness activities to support improvements in M&E of climate finance for strategic expenditure include:

8) Initiate a process to explore options for strengthening the systems for monitoring and evaluation (M&E) of climate change action (specifically the proposed strategy and policy). This could be initiated alongside a more in-depth review of donor monitoring and reporting requirements, as well as the existing and proposed systems for monitoring climate vulnerability and emissions in Zambia. The proposed efforts to strengthen GHG emission inventory capacity would be a key complement to such efforts.

   On the basis of this review, a partner for strengthening M&E could be identified, such as a key national institution, or local expert institutional that could operate with international support. Improved options for strengthening monitoring and evaluation of climate policies could also emerge and be initiated as a result of such a process. Such measures would be designed to build on and complement any expected efforts to strengthen M&E capacity in the context of implementation of the PPCR, recognising that the scope of those efforts may not fully correspond to the suite of needs and emerging resources for M&E in Zambia. Options that go beyond trainings, and seek to find joint implementation or sustained support / technical partnership programs in this context would need to be explored.

On this basis, guidance on M&E for internationally supported programs, including frequency of reporting and the terms on which corrective action might take place (including sanctions for unacceptable performance, and incentives for robust reporting) might be introduced, with the leadership of the Ministry of Finance and the NCCDC Secretariat (or a technical sub-committee of the same).

6. Conclusion

Zambia has successfully accessed resources from a number of climate change funds and initiatives such as the Pilot Programme for Climate Resilience (PPCR) and the UN-REDD Programme. The country has also developed a climate change response strategy, and a national climate change policy draft, although these are yet to be approved by cabinet or set in legal force. These efforts have raised the profile of climate change in Zambia, across policy makers, civil society, and the private sector. The country is increasingly directing domestic finance towards its climate change response. The climate finance readiness needs and recommended supporting activities in this report reflect the desires of Zambian stakeholders. They present opportunities for international climate finance to play an important role in leveraging Zambia's existing efforts and can help to address potential barriers that exist in the planning, aptitude, and access requirements for climate finance.

Endnotes

1 A technical meeting summary emerging from the expert meeting in Cape Town on 4th October 2012 can be found here: http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/events-documents/4947.pdf

2 The advance discussion draft prepared for COP 18 in Doha, December 2012, can be found here: http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/events-documents/4957.pdf

3 It is noted that the NCCRS referred to throughout this report is a draft strategy and therefore may be subject to change before it is approved.

4 A lower middle income country is classified by Gross National Income per capita with range between US$1,026 and US$4,035. See: http://data.worldbank.org/about/country-classifications

5 Zambia is divided into three agro-ecological zones defined by latitude, climate (temperature and precipitation) and topography.

6 Objectives of Zambia's SNDP are: 1) accelerate infrastructure development, economic growth and diversification; 2) promote rural investment and 3) accelerate poverty reduction and enhance human development

7 A Least Developed Country is defined by the United Nations as a country with poverty measured by Gross National Income per capita of less than US$750, a weakness of human resources based on nutrition, health, education and literacy indicators, and, economic vulnerability based on agricultural production, export stability, manufacturing and modern services, merchandise exports and natural disasters. See: http://www.un.org/special-rep/ohrlls/ldc/ldc%20criteria.htm

8 The SADC Treaty includes sustainable utilisation of natural resources and protection of the environment, for example and the COMESA Comprehensive Africa Agriculture Development Programme (CAADP) includes consideration of climate change.

9 Priority growth sectors of the SNDP are identified as agriculture, livestock and fisheries, mining, tourism, manufacturing, and commerce and trade (GRZ, 2010b).

10 Stakeholders noted, however, that revisions may be made as a result of the National Climate Change Policy consultations, which contains sufficiently similar content that a revised NCCRS would not require another round of stakeholder consultation.

11 The five core pillars of the draft version of the NCCRS are: Adaptation and disaster risk reduction; Mitigation and low carbon development; Cross cutting issues; Governance of climate change; and Finance and investment framework.

12 Although the DNA itself is an inter-ministerial model with government ministries integrated as permanent members.

13 The ZCCN, established in 2009, is a platform for civil society participation, advocacy and engagement in climate change and environment policy. It comprises of over 50 organisations and individuals, although this study did not assess the procedures or representation within ZCCN. See more at http://www.zccn.org.zm/

14 See more at http://www.csefzambia.org/about-the-csef

15 See UNDP overview on Zambia's CDM Opportunities and Challenges at: http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/strategic_themes/climate_change/carbon_finance/CDM/zambia_opportunities/

16 See the PDD at: https://cdm.unfccc.int/filestorage/f/s/CZ4P3JVDTLYXFKA9I0H618RG2B7MEQ.pdf/PDD%20version%201.pdf?t=SnJ8bW52Y2E3fDA1dcX9YhqY6hv1T7mKuP_4

17 Zambia's Environmental Management Act renamed the Environmental Council of Zambia (ECA) to ZEMA. The Act provides for integrated environmental management and establishes the Environmental Fund that provides for environmental impact assessments on policies, plans and programmes, as well as audits, monitoring and the facilitation and implementation of international agreements and conventions that Zambia is party too (Fumpa-Makano, 2011).

18 At the time the NCCRS was written, MLNREP was MTNER and MoF was MoFNP.

19 Nationally Appropriate Mitigation Actions (NAMAs) can be broadly defined as country-driven, sustainable development compatible actions aimed at reducing emissions. They vary, however, from targets to detailed actions.

20 See more at: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/Zambia%20Final%20Aide%20Memoire%20SPCR.pdf

21 See more at: https://www.adaptation-fund.org/page/accreditation-process

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Appendix 2: Interviewees

Name	Organisation	Title
Alex Hanyuma	CEEEZ	Investment Advisor
Anna Toness	USAID	Team Leader Economic Growth
Auckland Kuteya	Indaba Agricultural Policy Research Institute	Research Associate
Biston Mwebe	MoA	Project Officer CCAP
Brian Mulenga	Indaba Agricultural Policy Research Institute	Research Associate
Catherine Lwando-Tembo	USAID	Forestry and Climate Change Specialist
Charles Masiye Phiri	RuralNet	Associate
Charles Mulenga	Zambia Institute of Environmental Management	Environmental Resource Mobilisation Specialist
Clare Nketo Simmonds	Pricewaterhouse Coopers	
Dave Putin	British High Comission	Economist, Inclusive Green Growth Team
David Kaluba	PPCR	Principle Economist, PPCR Coordinator
Dennis Chiwele, Dr	RuralNet	Associate
Deuteronomy Kasaro	Forestry Department	Forest extension officer and coordinator of UN-REDD Project
Doris Musonda	RuralNet	Associate
Eberhard Goll	GIZ	Programme Manager
Elsie Attafuah	UN-REDD Programme	UN-REDD Zambia International Technical Advisor
Eric Chipeta	FAO	Programme Officer
Excellent Hachileka	UNDP	Climate Change Policy Specialist
Farayi Zimudzi	FAO	Country Representative
Francis Mwila	CEEEZ	Natural Resources Officer
Francis Yamba, Prof	CEEEZ	Director
Gabriel Chingwe	Luangwa Solar Power Corporation	Director
Godwin Fishani Gondwe	MLNREP, Department of Environment and Natural Resources	Director of the Department of Environment and Natural Resources
Jan-Erik Studsrød	Royal Norwegian Embassy	Counsellor (Regional Advisor NRM)

Name	Organisation	Title
Lenganji Sikaona	DMMU	Senior Research and Planning Officer
Litumelo Mate	DANIDA	Programme Officer
Lloyd Chingambo, Prof	Lloyds Financials / ACCE	
Luke Sweeny	Zambia Institute of Environmental Management	Environmental Economist
Marja Ojanen	Embassy of Finland	Councellor
Martin N. Sishekanu	MoF	Particpatory Adaptation Advisor, PPCR
Martin Phillips	GIZ / MoF	Budget Advisor
Masiye Nawiko	Agricultural Consultative Forum	Programme Officer
Mellon Chinjila	ZESCO	Chief Environmental Officer
Miljan Sladoje	ODI / Zambia Revenue Authority	ODI Fellow
Misael Kokwe	FAO	Climate Smart Agriculture Technical Coordinator
Mlotha Damaseke	USAID	Agriculture and NR and Mission Environment Officer
Monica Chudama	ZCCN	
Morgan Katati	Zambia Institute of Environmental Management	Chief Executive Officer
Noah Zimba	Zambia Climate Change Network	Chairperson
Peter Aagaard	Conservation Farming Unit	Head of Organisation
Rasford Kalamatila	MoA	Project Coordinator CCAP
Sabera Khan	ACCE	Acting Chief Executive Officer
Sajeev Nair	Agro-Fuel Investments	Business Development Manager
Shula Reynolds	MoA	Focal point for climate change
Teddy Kabunda	Oxfam	Humanitarian Project Coordinator
Vasiliki Mavroeidi	RuralNet	Associate
Ville Luukkanen	Embassy of Finland	Counsellor (Economic Growth, Private Sector Development)
Wisford Mudenda	Zambia Red Cross Society	Disaster Management Coordinator

Appendix 3: Monitoring and Evaluation logical framework of the National Climate Change Response Strategy

Objectives	Indicator	Variables
1.0 Program Goal		
1.1 To have Climate Change mainstreamed in the most important and vulnerable economic sectors	No and type of sectoral programmes climate change proofed	Levels of investment in key climate change programmes Levels of involvement by key players in the target sectors of the NCCRS
Result/Outputs		
2.1 Land Use Agriculture and Forestry - To develop sustainable land use systems soas toenhance agricultural production	No and type of sector programmes climate proofed	Allocation of resources to programmes aimed at mitigating climate change in the sector
2.2 Water - To ensure sustainable management and resiliency of water resources under climate change	% Allocation to key sector programs identified under the NCCRS	Levels of programme implementation in key institutions under the sector
2.3 Health and Social Infrastructure - To protect people and health from climate change and climate variability	No and type of programmes climate change proofed under the sector	Diseases directly linked to effects of climate change
2.4 Physical Infrastructure - To climate proof infrastructure	No and type of infrastructure climate proofed	Level of climate proofing in all infrastructure designs
2.5 Transport - To develop a less carbon intensive and climate change resilient transport system	No and type of transport systems climate proofed	Minimum levels of carbon emissions allowable for transport systems
2.6 Energy - To develop a less carbon intensive and climate change resilient energy industry	No and type of energy systems climate proofed	Minimum levels of carbon emissions allowable from energy systems

Source of Information	Methods of Data Collection	Frequency of Data Collection	Frequency of Reporting	Responsibility
Target sectors under the NCCRS	Periodic reviews and survey	Semi-Annually	Annually	Climate Change Focal Persons (CCCU/MTENR)
Programme beneficiaries (farmers, agro-input suppliers, researchers etc)	Periodic reviews and surveys	Semi-Annually	Annually	Climate Change Focal Persons (ZNFU, MACO, UNZA)
Target sector institutions	Periodic reviews and surveys	Semi-Annually	Annually	Climate Change Focal Persons in all key sector institutions (NWASCO, CUs, Zambezi River Authority, MEWD)
Target sector institutions (public and private health institutions, the general public)	Demographic surveys and sector reviews	Semi-Annually	Annually	Climate Change Focal Persons (M&E) MoE, MoH, MCDSS, MoLSS
Target sector institutions (RDA, NCC, MLGH etc)	Periodic reviews and surveys	Semi-Annually	Annually	Climate Change Focal Persons(M&E) RDA, NCC, MLGH, MWS
Target sector institutions (ECZ, ZABS, RDA, MTC)	Periodic reviews and surveys	Semi-Annually	Annually	Climate Change Focal Persons (M&E)ECZ, RATSA, ZABS, RDA
Target sector institutions (ECZ, MEWD, ZESCO, CEC)	Periodic reviews and surveys	Semi-Annually	Annually	Climate Change Focal Persons ECZ, ZESCO, REA, CEC, MEWD

Acronyms

ACCE	Africa Carbon Credit Exchange
ACFH	African Climate Finance Hub
AfDB	African Development Bank
AusAID	Australian Agency for International Development
BMZ	German Federal Ministry for Economic Cooperation and Development
CA	Conservation Agriculture
CAADP	Comprehensive African Agriculture Development Programme
CCFU	Climate Change Facilitation Unit
CDKN	Climate and Development Knowledge Network
CDM	Clean Development Mechanism
CEEEZ	Centre for Energy, Environment and Engineering in Zambia
CIF	Climate Investment Funds
CIFOR	Centre for International Forestry Research
COP	Conference of the Parties
COMESA	Common Market for Eastern and Southern Africa
CSA	Climate Smart Agriculture
DANIDA	Danish International Development Agency
DMMU	Disaster Mitigation and Management Unit
DRR	Disaster Risk Reduction
EMA	Environmental Management Act
ENRMMP	Environmental and Natural Resources Management, and Mainstreaming Programme
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
FISP	Farmer Input Support Programme
FRA	Food Reserve Agency
GART	Golden Valley Agricultural Research Trust
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GRZ	Government of the Republic of Zambia
IAPRI	Indaba Agricultural Policy Research Institute
ICI	International Climate Initiative (Germany)
IEF	Interim Environment Fund
IFC	International Finance Corporation
INPE	Brazil's National Institute for Space Research
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
MLNREP	Ministry of Lands, Natural Resources and Environmental Protection
MoF	Ministry of Finance
MTENR	Ministry of Tourism, Environment and Natural Resources
M&E	Monitoring and Evaluation
NAMA	Nationally Appropriate Mitigation Action
NAIP	National Agriculture Investment Plan
NAPA	National Adaptation Plan of Action
NCCDC	National Climate Change Development Council
NCCP	National Climate Change Policy
NCCRS	National Climate Change Response Strategy
NGO	Non-Governmental Organization
NLTV	National Long Term Vision
ODA	Official Development Assistance
ODI	Overseas Development Institute
PEMFA	Public Expenditure Management and Financial Accountability
PFM	Public Financial Management
PPP	Public Private Partnership
PPCR	Pilot Program for Climate Resilience
REDD+	Reducing Emissions from Deforestation, forest Degradation, sustainable forest management, forest conservation and enhancement of forest carbon stocks
SADC	Southern African Development Community
SIDA	Swedish International Development Cooperation Agency
SNDP	Sixth National Development Plan
SPCR	Strategic Programme for Climate Resilience
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
ZARI	Zambia Agricultural Research Institute
ZCCN	Zambia Climate Change Network
ZEMA	Zambian Environmental Management Agency
ZEPRIS	Zambia Emergency Preparedness and Response Information System
ZMD	Zambian Meteorological Department

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