United Nations Development Programme
Country:Zambia

PROJECT DOCUMENT

Project Title: Low Emission Capacity Building (LECB) project

UNDAF Outcome(s): UNDAF outcome #4 - People's vulnerability reduced from the risk of climate change, natural and man-made disasters and environmental degradation by 2015

UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: Catalyzing access to environmental financing

UNDP Strategic Plan Secondary Outcome: Mainstreaming environment and energy

Expected CP Outcome(s): **Outcome 4.2:** Government promotes adaptation and provides mitigation measures to protect livelihoods from climate change

Expected CPAP Output (s*):*Output 4.2.3: Improved mobilization and management of non-ODA funds from carbon financing and pro-poor ecosystem service markets
Output 4.2.4 Skills to promote energy saving, and renewable energy, developed in Government, and national institutions

Executing Entity: UNDP Zambia

Implementing Partner: Ministry of Lands, Natural Resources and Environmental Protection

Brief Description

The objective of the Low Emission Capacity Building (LECB) Project in Zambia is to develop the capacities (institutional, financial, human, research) required for articulation of a low carbon, climate resilient development pathway. The specific focus of the project is to create a more sustainable greenhouse gas inventory system; to develop up to four Nationally Appropriate Mitigation Actions (NAMAs); and to design the associated monitoring, reporting and verification system for the NAMAs.

The project is aligned to Zambia's 2011-15 United Nations Development Assistance Framework (UNDAF), Country Programme Document (CPD), and Country Programme Action Plan (CPAP). The project seeks to support the Government of the Republic of Zambia to attain its main development goals and the key challenges that the Sixth National Development Plan (2011-2015) aims to address. Further, the project will contribute towards Zambia's goals of reducing poverty, eradicating hunger, becoming a middle-income country by 2030, and achieving the Millennium Development Goals (MDGs) by 2015. It will also act as a tool to support transformation towards a prosperous nation, contributing to the government's focus on four core development areas namely; agriculture, education and skills development, health services, and local government and housing.

Programme Period:	2012-14
Atlas Award ID:	00061806
Project ID:	00078575
PIMS #	4793
Start date:	Mar 2012
End Date	Jun 2014
Management Arrangements	NIM
PAC Meeting Date	

Total resources required 642, 000
Total allocated resources (incl GMS): 642, 000

- Regular _____
- Other:
  - Government _____
  - In-kind _____
  - Other _____

REPUBLIC OF ZAMBIA
MINISTRY OF LANDS, NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
20 JUL 2012
PERMANENT SECRETARY
P.O. BOX 50394
LUSAKA

Agreed by (Government): DAISY NAMBI _____
Date/Month/Year

Agreed by (UNDP): V.D.Mumba 20/7/2012
Date/Month/Year

UNITED NATIONS DEVELOPMENT PROGRAMME

2

Contents

ACRONYMS

CRLED	Climate Resilient Low Emission Development
CEEEZ	Centre for Energy, Environment and Engineering Zambia
CDM	Clean Development Mechanism
CPD	Country Programme Document
CPAP	Country Programme Action Plan
CCIDU	Climate Change Information and Data Unit
COMESA	Common Market for Eastern and Southern Africa
CBNRM	Community Based Natural Resources Management
DMMU	Disaster Management and Mitigation Unit
ENRMMP	Environment and Natural Resources Management and Mainstreaming Programme
FAO	Food and Agriculture Organization
GHG	Green House Gas
GRZ	Government Republic of Zambia
ILUA	Integrated Land Use Assessment
MRV	Monitoring, Reporting and Verification
MMNR	Ministry of Mines and Natural Resources
MDGs	Millennium Development Goals
NCCRS	National Climate Change Response Strategy
NAMAs	Nationally Appropriate Mitigation Actions
NWASCO	National Water and Sanitation Council
NCCRS	National Climate Change Response Strategy
NAPA	National Adaptation Programme of Action
NCSA	National Capacity Self-Assessment
PDD	Project Design Document
PIN	Project Idea Note
PPCR	Pilot Programme on Climate Resilience
REDD	ReducingEmissions from Deforestation and ForestDegradation in developing countries
SNDP	Sixth National Development Plan
SNC	Second National Communication
SASSCAL	Southern African Science Service Centre for Climate Change and Adaptive Land Use
TNA	Technology Needs Assessment
UNZA	University of Zambia
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
WFP	World Food Programme
ZAM	Zambia Association of Manufacturers
ZACCI	Zambia Chamber of Commerce and Industry
ZARI	Zambia Agriculture Research Institute
ZCCN	Zambia Climate Change Network
ALU	Afforestation and Land Use Change

1.0 SITUATION ANALYSIS

1.1 Context and Significance: Environmental, Political, and Institutional

The objective of this Low Emission Capacity Building (LECB) Project in Zambia is to develop the capacities (i.e. institutional, financial, human and research) required for articulation of a low carbon, climate resilient development pathway. This project will support the government to attain the main development goals contained in Zambia'sSixth National Development Plan (SDNP), Vision 2030, Millennium Development Goals (MDGs) and the National Climate Change Response Strategy. The specific focus of the project is to create a more sustainable greenhouse gas inventory system; to develop up to four Nationally Appropriate Mitigation Actions (NAMAs); and to design the associated monitoring, reporting and verification system for the NAMAs

Zambia with an estimated population of 13 million people is geographically location between Latitude 8° and 18° South, and Longitude 22° and 34° East, within Southern Africa. Its location and topography gives the country a sub-tropical climate with three distinct seasons.Zambia is highly vulnerable to climate change, as its economic and social systems (wealth and health) are based on its considerable natural resources. The country's key industries in terms of contribution to GDP (agriculture, forestry, tourism and mining) all rely on natural resources. Adequate management and use of natural resources, which form 27% of national wealth in comparison to 2% in OECD countries, can therefore accelerate economic growth, poverty reduction and encourage sustainable development. Currently, however, these natural resources are threatened by climate change hazards ranging from increased rainfall variability, high temperatures, frequent alternating flooding and drought events, particularly in Agro-ecological Regions I and II of the country.

The country's economy has over the last decade remained stable with GDP growth increasing from 4.9% in 2001 to 7.6% in 2010 and per-capita income also increasing from US$340 in 2001 to US$1253 in 2010. However, this only translated into a modest Improvement in human development: Poverty has declined from 68.1% in 1996 to 60.5% in 2010 and it is higher in rural areas (77.9%) than in urban areas (27.5%). Similarly, extreme poverty has fallen from 44.5% in 1996 to 42.3% in 2010. Unfortunately, while poverty rates have decreased, inequality has increased, with the Gini coefficient increasing from 0.47 in 1996 to 0.56 in 2006. On the Human Development Index (HDI), Zambia was ranked 164th out of 187 countries in 2011, based on an HDI value of 0.430, which puts the country below the average of 0.456 for countries in the low human development group and below the average of 0.463 in sub-Saharan Africa.

Zambia has had some success in incorporating climate change into the Sixth National Development Plan (SNDP) and developing the National Adaptation Programme of Action (NAPA). Since the adoption of the NAPA in 2007, initial steps have been taken to implement certain aspects of the NAPA, including a Least Developed Countries Fund (LDCF)-funded adaptation project in the agricultural sector, and the development of a National Climate Change Response Strategy (NCCRS) which focuses on capacity development for mainstreaming climate change into policies and programmes. The country has also formulated a Comprehensive Communication and Advocacy Strategy on climate change. Currently, Zambia is in the process of developing a Climate Resilient Low Emission Development (CRLED) programme as well as a policy, legal and regulatory framework for climate change (National Policy on Climate Change and related Act).

Other relevant policies include the National Disaster Management Policy and Act of 2010, the National Policy on Environment and the Environmental Management Act of 2011, as well as the National Water Resources Management Act of 2011; all of which address elements addressing climate change.

The LECB project is aligned to the United Nations Development Assistance Framework (UNDAF), Country Programme Document (CPD), and Country Programme Action Plan(CPAP) for Zambia 2011-2015.

The UNDAFaims to support the national response to key development challenges, as expressed in the SNDP, whose objectives are to accelerate infrastructure development; economic growth and diversification, promote rural investment and accelerate poverty reduction and enhance human development. While recognizing the importance of balanced growth in all sectors of the economy, the SNDP priority growth sectors are *Agriculture, Livestock and Fisheries, Mining, Tourism, Manufacturing and Commerce and Trade*. One cross cutting issue of the SNDP is mainstreaming climate change into economic growth sectors.

The CPD seeks to support the Government to attain its main development goals and the key challenges that the Sixth National Development Plan (2011-2015) aims to address, including non-inclusive GDP growth, stifled employment growth, widening income disparities, gender inequalities, and weakened safety nets/traditional coping mechanisms. Of relevance to this project is the objective on increased national capacities at the central and local levels for natural resources management, response to climate change, environment protection and disaster risk reduction.

The CPAP for 2011-2015, which was prepared in line with the UNDAF for 2011-2015, contributes towards Zambia's goals of reducing poverty, eradicating hunger, becoming a middle-income country by 2030, and achieving the MDGs by 2015. It has a provision for additional investment for supporting selected climate change related issues to include the following: (i) research and in-depth analytical work to clearly identify vulnerabilities and the most effective adaptive responses, (ii) more in-depth analytical work on long-term climate change-related issues not touched in the NAPA, (iii) Early Warning Services and Disaster Management assuming an adequate role in climate change risk management, (iv) addressing inconsistencies between sector policies and legal frameworks to effectively address climate change issues, (v) establishment of a mechanism for the coordination and management of environment and climate change programmes, (vi) and strengthening institutional capacity for mobilization and management of climate change funds for mitigation and adaptation.

Figure 1 explains how Zambia is looking holistically at adaptation and mitigation and how the LECB project fits into the broader climate change response framework.

The new government elected on 20th September 2011 is focusing on four core development areas: agriculture, *education and skills development, health services, and local government and housing*. Within this context, key emphasis is being placed on the need to generate jobs, alleviate rural poverty and align policies which will contribute to improved incomes of the people of Zambia. The political intention is to reduce dependence on donor aid through increased domestic economic base. This LECB project will act as a tool to contribute to transformation towards a prosperous nation.

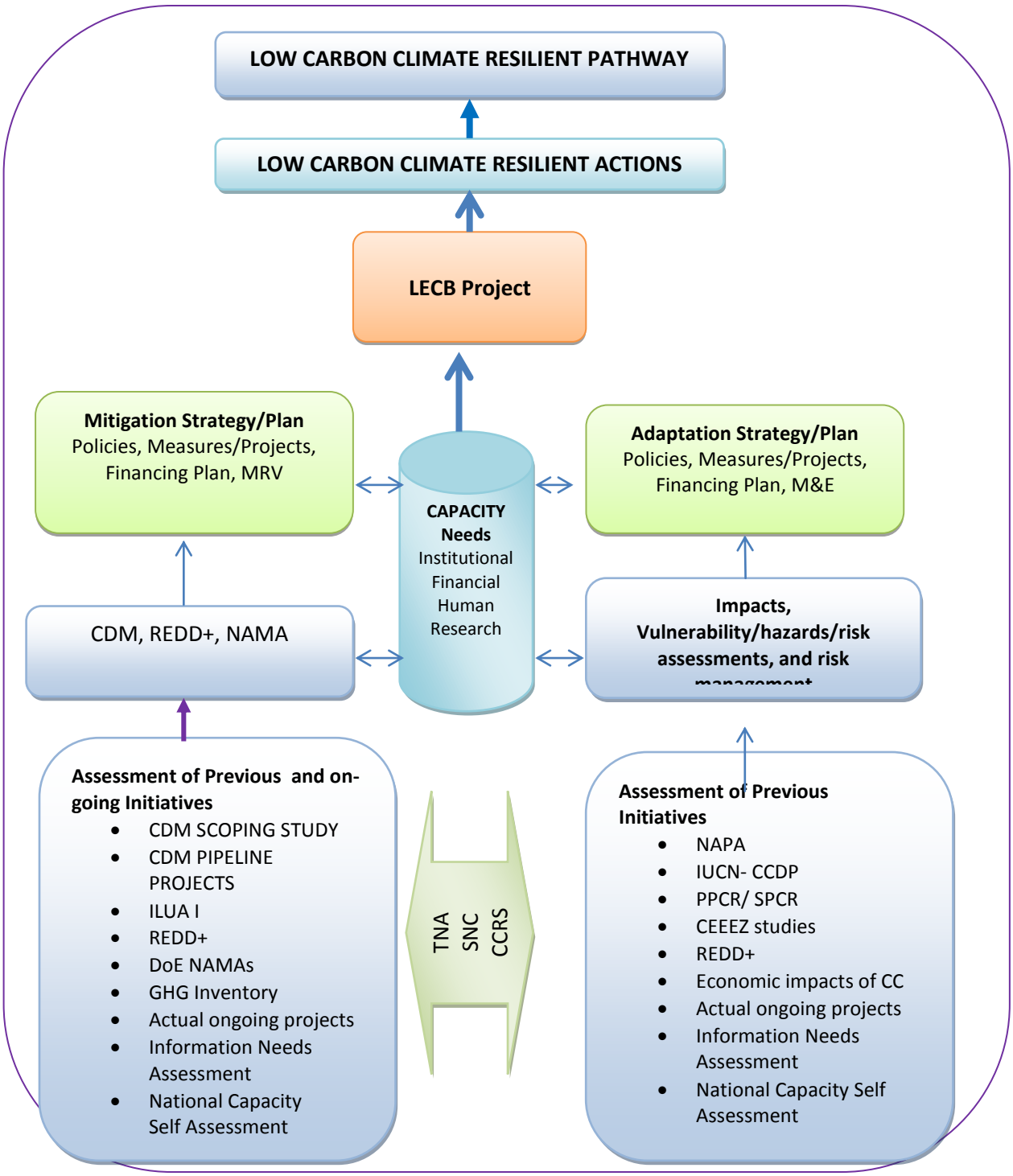


Figure 1: Framework for development of capacity needs required for formulation of LECB Proposal for articulation of low carbon climate resilient pathway

1.2 Linkages to other programmes

Zambia has a range of experiences in mitigation, through past and ongoing projects, that can contribute valuable inputs to some of the deliverables under the LECB project. These are elaborated in Table 1.

Table 1: Linkages to other mitigation programmes

	Project	Brief Description	Area of Focus	Status	Supporting Institution	Synergy with LECB project
1	UNDP CDM scoping study	Assessment of CDM potential	Energy, Agriculture, LUCF and waste	Completed	UNDP-Lusaka	Contribution to mitigation project development
2	Integrated Land Use Assessment (ILUA I)	Forestry inventory	Status of forestry	Completed	FAO, and Government of Finland, GRZ	Generation of activity data to feed in to REDD+ projects
3	Second National Communication (SNC)	Preparation of national communication to UNFCCC	Mitigation analysis	Completed	GEF-UNDP	Contribution to mitigation project development
4	Information Needs assessments	Identification of climate change gaps	GHG inventory, mitigation, adaptation analysis and other UNFCCC relevant issues	Completed	UNDP-Climate Change Facilitation Unit	Contribution to capacity needs assessment
5	Climate Change Response Strategy	Support and facilitate coordinated response to climate change issues	Mitigation and low emission development related actions	Completed	UNDP-Climate Change Facilitation Unit-Norway	Contribution to mitigation project development
6	Integrated Land Use Assessment (ILUA II),	Enhancement of sustainable forest management	Generate better information on deforestation rate, carbon soils, and land classification types, social economic indicators	Ongoing	FAO, and Government of Finland, GRZ	Generation of activity data to feed in to REDD+ projects
7	UNREDD+ readiness	REDD preparedness and strategy	Drivers of deforestation and land degradation, best practices forest management and legal aspects of REDD	Ongoing	UNEP, FAO, and UNDP	Generation of input data for REDD+ project s development
7	Technology Needs Assessments (TNA).	Identification of mitigation technologies	Energy, Agriculture, LUCF and waste	Ongoing	UNEP Risoe	Contribution to mitigation project identification
8	National GHG Inventory Management System in Eastern and Southern Africa (ESA GHG) Project	Contribution to formation of GHG management system	Capacity development in the ALU software	Ongoing	UNFCCC	Can serve as a central pillar for formalisation of GHG management system
9	Capacity building project for MRV of GHG emissions reduction in Africa	Promoting market mechanism for GHG reductions through MRV capacity building	NAMA development in the energy sector	Ongoing	Japanese Ministry of Environment	Contribution to mitigation through development of one NAMA on improved cooking stoves in the energy sector

Various programmes on **CDM** have been implemented in Zambia since 2000 through CDM capacity building programmes. These include: Start-Up CDM in ACP countries (CDM SUSSAC), Capacity Building to Develop an Enabling Environment for Industrial CDM Projects in Africa, CDM Capacity Building among the Private Sectors in Southern Africa (CDM-CAPSSA), CDM for Sustainable African-Capacity Building for Clean Development Mechanism in Southern Africa, Using Carbon Finance to Promote Sustainable Energy Services in Africa Project (CF-SEA)-Zambia, and Green Facility. These programmes have resulted in a number of CDM Project Idea Notes (PINs) and Project Design Documents (PDDs) been developed and even evaluated by the Country's Designated National Authority (DNA).

Despite its enormous potential and early start in CDM capacity building programmes, Zambia has only been able to have one project validated and registered by the UNFCCC Secretariat. Barriers inhibiting CDM in Zambia have been identified as widespreadCDM expertise required to develop PIN and PDDs, institutional/policy arrangements, awareness and information, and financing. The outcome of the EU capacity building programme has, however, been able to develop capacity in CDM development and implementation to include baseline development and, mitigation potential assessments and, cost benefit analysis of mitigation projects albeit in one institution so far.

The **Technology Needs Assessments** (TNA) project, which aims at prioritizing technologies using multi criteria analysis,can serve as input into project development under the LECB project. The LECB Project will further develop project concept notes under priority sectors including energy, industrial processes, agriculture, and waste through stakeholder involvement.

The Japanese supported project for MRV of GHG emissions reduction in Africa is aimed at promoting market mechanisms for GHG reductions through MRV capacity building. It will contribute to mitigation through development of one **NAMA** on improved cooking stoves in the energy sector.

Currently, Zambia is participating in Regional Capacity – Building for Sustainable **National Greenhouse Gas Inventory Management System** in Eastern and Southern Africa (ESA GHG) Project, which is focusing on establishment of a sustainable inventory management system, aimed at developing technical capacity for improving methodological choices in the selection of the appropriate methods, activity data and emission factors leading to development of improved GHG inventories. This work will be closely synergized with the LECB project through provision of information to move the process forward. The ESA GHG project will also provide training on the use of software based on IPCC Guidelines for determining GHG emissions from agriculture, forestry and land use (AFOLU). However, use of this software requires improved national activity data and country emission factors, which need to be generated. This project once successfully executed will result in a higher quality GHG inventory, which will serve as an input in the development of the national GHG baseline and to future National Communications.

The **Integrated Land Use Assessment** (ILUA II) will generate information on deforestation rates, carbon soils and land classification types which will serve as an input in the UNREDD+ readiness and also development of the national GHG baseline for Zambia.

Finally, the information needs assessment study identified mitigation and adaptation **capacity needs and gaps**. This has contributed to the preparation of the LECB project document. Additionally, the Environment and Natural Resources Management and Mainstreaming Programme focuses on capacity development to build the internal capacity within the Ministry of Lands, Natural Resources and Environmental Protection,leading to policy development in the environment, natural resources sector and support mainstreaming of environment and natural resource issues in other government institutions. In addition, the

programme has an Environment Fund that finances key investments and initiatives in the environment and natural resource sector. The fund focuses on the following areas: climate change adaptation and/or mitigation, community based natural resource management and sustainable natural resource- based enterprises, emerging issues accepted by the ENRMMP joint Steering Committee as relevant to the fund, industrial waste/pollution management, management of critical ecosystems and biodiversity hotspots and urban environmental management. The project can augment the LECBProject by providing funding to identified NAMAs that can contribute to the reduction of the country's GHG emissions.

UNDP's added value

The outcomes of the UNFCCC Conference of the Parties (COP), held in Cancun in December 2010, brought up important opportunities and challenges UNDP faces if it is to strengthen its support to countries in the area of climate change. From a development policy perspective, the Cancun package affirmed "that addressing climate change requires a paradigm shift towards building a low-carbon society that offers substantial opportunities and ensures continued high growth and sustainable development." Indeed, the entire agreement is infused with statements that stress the importance of sustainable development and poverty eradication. This is a welcome development for UNDP and a platform for further growth.

The United Nations, the EU, and UNDP are not new to providing technical and financial support to developing countries for the building of technical and institutional capacities in various areas having to do with climate change. This Programme will build on several existing initiatives, including the National Communications Support Programme (NCSP), UNDP's Territorial Approach to Climate Change (TACC) programme, capacity development conducted for the Clean Development Mechanism (CDM) and Designated National Authorities (DNAs), and the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD). It will also draw on lessons learned from the UNDP's Africa Adaptation Programme.

1.3 Capacity Needs and Gaps

As part of this assignment, capacity needs and gaps were identified required for articulation of low carbon, climate resilient actions. Under mitigation, the key needs identified for planning and designing CDM, REDD+ projects and NAMAs were: establishing a national GHG baseline, determining GHG emissions projections and mitigation potential of various measures, and the corresponding MRV requirements. It was also noted that robust GHG emission baseline and scenario development requires a quality GHG inventory.

To achieve the above capacity attributes requires: (i) strengthened institutional arrangements, which incorporates a central coordinating institution with all elements necessary to estimate GHG emissions and sinks with less uncertainties and include key category analysis, QA/QC procedures and uncertainty assessment, and archiving system, (ii) development of activity data and emission factor required for baseline development, in particular for land use change and forestry, (iii) development of baseline, scenarios, emissions/reductions projections, cost benefit analysis and MRV systems.

Results of consultations with stakeholders revealed that there is yet no formalized institutional arrangement for a GHG inventory management system. Additionally, the consultations revealed that there was lack of (i) quality data and associated poor data management during preparation of GHG inventory as part of preparation of the SNC, (ii) reliable data for land use change and forestry sector and application of default emission factors, (iii) expertise and capabilities to undertake inventory work.In this context, Zambia will benefit from the work being undertaken through the ESA GHG Project, which is focusing on establishment of

sustainable management system, and training on the use of software based on IPCC Guidelines for determining GHG emissions from agriculture, forestry and land use (AFOLU). However, additional actions (particularly for the sectors of energy, waste, and industrial processes) are anticipated under the LECB Project.

Further, capacity required for mitigation analysis for development of baseline scenarios, emissions/reductions projections, cost benefit analysis and MRV systems is limited in Zambia.Currently, only one institution, the Centre for Energy, Environment and Engineering Zambia (CEEEZ), has been able to develop this capacity.

Results of the findings of capacity needs and capacity needs and gaps arising from stakeholder consultations are elaborated in Appendix B.

2.0 STRATEGY

2.1 Project Rationale

The Zambian Government has expressed strong desire to develop capacity required for articulation of low carbon, climate resilient actions, which will contribute to attainment of sustainable development goals contained in Zambia's Sixth National Development Plan, Vision 2030 and Millennium Development Goals. The LECB project will contribute to this overarching objective by building capacity to articulate mitigation actions.

Despite Zambia having completed an analysis of historical climate change trends, gaps remain in future climate change scenarios for the country. The early warning system remained the major weakness and sectoral impact analyses based on modeling were not comprehensive enough, and the cause-effect with climate change has not always been clear and further economic analysis is needed.

As noted above, a robust and high quality GHG inventory system in Zambia could not be attained due to a number of issues which included; (i) under energy-lack of harmonization between Zambia's energy balance reporting classifications and that of the UNFCCC, unreliable activity data[1] and use of default emission factors (considered inappropriate for national circumstances), and non-consideration of uncertainties and QA/QC, (ii) under agriculture land use change and forestry, lack of assessment of uncertainties and QA/QC, use of default emission factors and unreliable activity data. An activity has been identified and included in the low emission capacity building project to address gaps identified in this section.

In addition, the SNC identified lack of formalized institutional arrangements for coordinating preparation of NC covering all sectors namely vulnerability and adaptation, GHG inventory and mitigation, and cross cutting issues related to transfer of technology, research and systematic observation.

Further, it was observed that there was inadequate technical capacity in government and private sector to develop NAMA, REDD+ and CDM bankable proposals.

[1] Data can be collected from DOE energy balance and municipalities, but will require time to collect.

2.2 Project Scope

Based on issues raised during stakeholder consultations to formulate this Project Document, the LECB project will focus on capacity building for articulation of low carbon actions. In particular, the LECB project will create a more sustainable greenhouse gas inventory system; to develop up to four Nationally Appropriate Mitigation Actions (NAMAs); and to design the associated monitoring, reporting and verification (MRV) system for the identified NAMAs.

As part of theDraft Second National Communication (SNC), Zambia compiled its GHG inventory for the year 2000, which was estimated at 51.52 million tonnes $CO_{2\ equiv}$. The largest contribution to GHG emissions came from the land use change and forestry sector (73.7%), followed by agriculture (18.9%). Energy registered a low 4.8%, followed by industrial processes and waste at 1.8% and 0.8%, respectively. By gas, the largest contribution came from CO_2 (65.5%), followed by CH_4 and N_2O at 23.1% and 9.9%, respectively. HCFs and SF_6registered 1.5% and 0.01%, respectively.

Improvements to inventory data systems and mitigation actions for the LUCF sector are already being addressed under the UN-REDD programme and the ESA GHG project. Therefore, stakeholders recommended focusing on agriculture, energy, industrial processes and waste under the LECB project.

2.3 Project Objectives, Outcomes and Outputs

2.3.1 Objectives

The overall goalis to develop and implementa low-emission, climate resilient programme and to strengthen the country's capacity to address the challenge of climate change.

The specific project objective is to develop national capacity (i.e. institutional, financial, human and research) required to design and implement harmonized action plans in mitigation with related cross cutting issues (technology transfer, technology needs assessments, national communications) leading to attainment of a low carbon pathway whilecontributing to sustainable development goals of the country .

Project Components and outputs

The project consists of three outcomesthat are aligned with the global Low Emission Capacity Building (LECB) Programme of UNDP and Zambia's national development, poverty reduction and climate change mitigation priorities and needs.

2.3.2 Outcomes and Outputs

Outcome 1: Sustainable National GHG Inventory Management system designed

The purpose of this outcome is to support the development of a sustainable National GHG Inventory Management system that can improvemanagement of GHG emission inventories, which are a cornerstone of National Communications. Outputs under this component include:

Output 1: Institutional arrangements and process for a national inventory system described
Output 2: Key category analysisimproved (e.g. trend analysis, Tier 2 level)
Output 3: QC/QA plan prepared

Output 4: NIS documented and archived
Output 5: Inventory improvement strategy prepared

Outcome 2: Up to four (4)NAMAs developed in the energy,agriculture industrial processes, and waste management sectors

The purpose of this outcome is to prepare up to four (4) NAMAs within the national development context. Training and capacity building will be provided to key stakeholders, including government officials, research institutions, academia, private sector, consulting entities, NGOs,farmers/cooperatives, and rural communities through a learning by doing approach. Selection of optionsfor NAMA analysis will be enhanced by the preliminary portfolio of projects identified under Zambia'stechnology needs assessment (TNA) project, which will be completed in December 2012. The TNA will develop preliminary project concepts inthe energy, agriculture, industrial processes and waste management sectors. Some of these project concepts maybe elaborated into NAMAs under this outcome. Outputs under this component include:

Output 1: NAMA readiness activities undertaken
Output 2: Identification and scoring of NAMAs
Output 3: Prioritization and selection of NAMAs
Output 4: NAMA concept notes prepared
Output 5: Endorsement by government and potential sources of support
Output 6: Detailed NAMA proposals prepared
Output 7: Support to identificationof financing

Outcome 3: MRV systems designed to support implementation and evaluation of NAMAs

Under this outcome, the project will strive to build the technical and institutional capacity required for implementing MRV systems for NAMAs. The focus will be on establishing scope, indicators, reporting and verification mechanisms, and timeframes. The following outputs are expected under this outcome:

Output 1: Awareness raised and capacities built on MRV in general
Output 2: MRV systemsdesigned to support implementation and evaluation ofselected NAMAs, with linkages to the GHG inventory system

2.4 Country Ownership

The LECB Project complements a number of past and ongoing climate change activities in Zambia and will be institutionally anchored in the proposed National Climate Change Secretariat, which will help ensure national ownership and systematic coordination to avoid duplication with other ongoing activities, including the UNDP CDM scoping study, Integrated Land Use Assessment (ILUA I), Second National Communication, Information Needs Assessments, National Capacity Self-Assessment, Climate Change Response Strategy, and CDM capacity building programmes.

Ongoing projects of direct relevance to the LECB project are ILUA II, UNREDD+ readiness, MRV capacity building programme in GHG reduction focusing on NAMAs in Zambia, conservation farming, agro-forestry and Technology Needs Assessment (TNA). These will provide synergies with the project through provision of data for baseline development, and inputs into project development under mitigation for CDM, NAMAs, and REDD+.

2.5 Sustainability and Reliability

Support provided under this project will lead to the strengthening of the proposed institutional arrangement involving creation of a Secretariat and Council, which will be responsible for coordination and management of climate issues in Zambia. With a centralized coordination facility, all related climate change projects in Zambia will well-coordinated, evaluated and monitored on a regular basis, thereby contributing to sustainability of not only this project but also other related climate change projects. Besides, human and institutional capacity on mitigation and adaptation will be developed and widened among many institutions, thereby creating a base for continuity. Such capacity will enhance reliability of such efforts in future climate change projects.

3.0 PROJECT RESULTS FRAMEWORK

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: Government promotes adaptation and provides mitigation measures to protect livelihoods from climate change				
Country Programme Outcome Indicators:				
Primary applicable Key Environment and Sustainable Development Key Result Area: Catalyzing environmental finance				
	Baseline	**Indicator**	**Means of verification**	**Responsible**
Outcome 1: Sustainable National GHG Inventory Management system designed				
Output 1: Institutional arrangements for GHG inventory management described	No comprehensive institutional agreements among source and inventory leads	Institutional arrangements fully documented and operational	Agreements, report, data transfers	Project/proposed CC Secretariat
Output 2: Key category analysis improved	Basic KSA prepared forSNC, insufficient capacity within government institutions to prepare, interpret and improve results	Improvements to data proposed based on key category analysis	reports	Lead mitigation institution
Output 3: QC/QA plan prepared	No QC/QA plan exists	QC/QA plan prepared	QA/QC plan	Lead mitigation institution
Output 4: NIS documented and archived	Data, assumptions, and methods not properly documented and archived	Archiving system in place	Data in the archiving system can be found	Lead mitigation institution
Output 5: Inventory improvement strategy prepared	No improvement strategy	Strategy prepared based on inputs from first 4 outputs	Inventory improvement strategy	Lead mitigation institution
Outcome 2: Up to four (4) NAMAs developed in the energy, industrial processes, agriculture and waste management sectors				
Output 1: NAMA readiness activities undertaken	Limited awareness and capacity on NAMAs	Number of persons trained and institutions participated	Reports	Project/proposed CC Secretariat
Output 2: Identification and scoring of possible NAMAs	SNC and TNA identify mitigation options and develop project ideas	Criteria for selection is available and used	Reports	Project/proposed CC Secretariat, lead mitigation institution and stakeholders
Output 3: Prioritization and selection of NAMAs	No NAMAs selected yet	NAMAs selected by government	Reports	Project/proposed CC Secretariat, lead mitigation institution and stakeholders
Output 4: NAMA concept notes developed	Mitigation scenarios analysis, cost-benefit and multi-criteria analysis conducted under SNC and TNA	Mitigation potential, marginal costing, IRR/NPV, social and environmental indicators of NAMAs identified	Reports, workshops, studies, NAMA concept notes	Lead mitigation institution
Output 5: Endorsement by governmentand potential sources of support	No government endorsement of NAMAs to date	Government endorsement	Report / government approval instrument	Project/proposed CC Secretariat and stakeholders
Output 6: Development of detailed NAMA proposal	No detailed NAMA proposals to date	Detailed proposals prepared	NAMA proposals	Project/proposed CC Secretariat and financing institutions

Output 7: Support to identification of financing	No financing plans developed to date for NAMAs	No of financing plans developed	NAMA financing plans	Project/proposed CC Secretariat and financing institutions
Outcome 3: MRV systems designed to support implementation and evaluation of NAMAs				
Output 1: Awareness raising on MRV	Limited knowledge and understanding of MRV	Number of people trained, institutions participating	Reports, workshops	Lead institution
Output 2: MRV system designed, with linkages to the GHG inventory system	No MRV system in place to date	MRV metrics developed	MRV system described	Lead mitigation institution

4.0 TOTAL BUDGET AND WORKPLAN

Award ID:	00061806	Project ID(s):	00078575
Award Title:	Low Emission Capacity Building Project for Zambia		
Business Unit:	ZMB10		
Project Title:	Low Emission Capacity Building Project for Zambia		
PIMS no.4793			
Implementing Partner (Executing Agency)	Ministry of Lands, Natural Resources and Environmental Protection (MLNREP)		

Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
Outcome 1: Sustainable National GHG Inventory Management system designed	MLNREP	30079	EU and German Govt.	71200	International Consultants	$10,000	$15,000	$15,000	$40,000
				71300	Local Consultants	$20,000	$25,000	$25,000	$70,000
				72100	Contractual services - Companies	$0	$8,000	$8,000	$16,000
				71600	Travel	$5,000	$8,000	$8,000	$21,000
				75700	Workshops	$10,000	$7,000	$7,000	$24,000
				72200	Etc. Equipment (Computers)	$5,000	$0	$0	$5,000
				75100	Facility and Admin	$3,500	$4,410	$4410	$12,320
					Total Outcome 1	$53,500	$67,410	$67,410	**$188,320**
Outcome 2: Up to four (4) NAMAs developed in the energy, industrial processes, agriculture and waste management sectors	MLNREP	30079	EU and German Govt.	71200	International Consultants	$20,000	$20,000	$20,000	$60,000
				71300	Local Consultants	$20,000	$20,000	$20,000	$60,000
				72100	Contractual services - Companies	$0	$10,000	$10,000	$20,000
				71600	Travel	$5,000	$8,000	$8,000	$21,000
				75700	Workshops	$10,000	$5,000	$3,000	$18,000
				72200	Etc. Equipment (Computers)	$5,000	$0	$0	$5,000
				75100	Facility and Admin	$4,200	$4,410	$4,270	$12,880
					Total Outcome 2	$64,200	$67,410	$65,270	**$196,880**
Outcome 3: MRV systems designed to support implementation and evaluation of	MLNREP	30079	EU and German Govt.	71200	International Consultants	$10,000	$20,000	$10,000	$40,000
				71300	Local Consultants	$17,000	$11,000	$10,000	$38,000
				72100	Contractual services - Companies	$10,000	$0	$0	$10,000

Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
NAMAs				71600	Travel	$2,000	$2,000	$2,000	$6,000
				75700	Workshops	$0	$5,000	$3,000	$8,000
				72200	Etc. Equipment (Computers)	$10,000	$0	$0	$10,000
				75100	Facility and Admin	$3,430	$2,660	$1,750	$7,840
					Total Outcome 3	$52,430	$40,660	$26,750	**$119,840**
Project capital assets, Management, Monitoring and evaluation	MLNREP	30079	EU and German Govt.	71405	Contractual Services - Individual	$32,000	$32,,000	$32,000	$96,000
				72200	Equipment and furniture	$7,000	$0	$0	$7,000
				72505	Offices Supplies	$5,000	$5,000	$5,000	$15,000
				72100	Contractual Services - Companies	$0	$0	$0	$0
				72205	Information Technology Equipment	$7,000	$0	$0	$7,000
				74500	Miscellaneous Expenses	$1,000	$1,000	$1,000	$3,000
				75100	Facility and Admin	$3,640	$2,660	$2,660	$8,960
					Total Management	$55,640	$40,660	$40,660	**$136,960**
					PROJECT TOTAL	**$225,770**	**$216,140**	**$200,090**	**$642,000**
					GRAND TOTAL				**642,000**

(i) Travel is planned for international consultants to come to Zambia three times in the duration of the project. Also provided is DSA
(ii) Budget is provided to undertake two training workshops in mitigation analysis, followed by two workshops in year 1, and 2 workshops each in years 2 and 3
(iii) Budget is also provided for purchase of high speed computers for climate change downscaling, and ordinary computers for mitigation and office at the secretariat

Table 2: WORK PLAN

	Year 1				Year 2				Year 3			
Outcomes/Activities	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**
Implementation arrangements and project inception:												
1.Establish management arrangements (lead ministry, project team)												
2.Stakeholder consultations and meetings												
3. Approval of project approach and project document												
Outcome 1: ***Sustainable GHG national inventory management system designed***												
1.1. Institutional arrangements for NIS described												
1.1.1. Establish thematic working group (WG) on GHG Inventories												
1.1.2. Identify lead agencies												
1.1.3. Assign source leads and establish cooperation agreements												
1.1.4. Sensitize members of WG and assess specific capacity building needs of specific institutions and persons												
1.1.5. Prepare/refine workplans, procedures and instructions												
1.1.6. Establish IT based platform												
1.2. Key source analysis improved												
1.2.1. Training on key category software and its significance												
1.2.2. Improvekey source analysis (to Tier 2)												
1.2.3. Prepare trend analysis												
1.2.4. Propose data improvements												
1.3. QC/QA plan prepared												
1.3.1. Identify QC personnel and draft TOR												
1.3.2. Prepare QC/QA plan												
1.3.3. Establish peer review group for QC/QA plan and draft TOR												
1.3.4. Identify QA expertise and constitute QA group												
1.3.5. Define procedures and checklists												
1.3.6. Undertake review of future NCs and fill in check list												
1.3.7. Compare estimates to previous estimates												
1.3.8. Prepare Tier 2 source specific QC procedures if relevant												
1.3.9. Propose improvements to QC/QA plan												
1.4. National Inventory System documented and archived												
1.4.1. Define procedures for archiving												
1.4.2. Archive data, assumptions, and methods												
1.4.3. Document procedures and arrangements												
1.4.4. Organize workshop to recap results obtained from the GHG inventory												

	Year 1				Year 2				Year 3			
Outcomes/Activities	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**
management process												
1.4.5. Prepare and formally adopt the national manual of procedures or inventory report												
1.5. Inventory improvement strategy prepared												
1.5.1. Identify areas for improvement												
1.5.2. Prepare improvement strategy												
Outcome 2: *NAMAs formulated within the national development context*												
2.1 NAMA readiness activities undertaken												
2.1.1 Establish/reinforce institutions that will lead NAMA development												
2.1.2 Involve stakeholders from outside government in awareness raising												
2.1.3 Capacity development about NAMAs in general												
2.2 Identify and score possible NAMAs (Result: NAMA Fact sheets)												
2.2.1 Agree NAMA scoring criteria and weights, endorse NAMA factsheet template												
2.2.2 Prepare NAMA fact sheets												
2.3 Prioritize and select NAMAs to be developed (Result: priority NAMAs selected)												
2.3.1. Present and discuss NAMA fact sheets												
2.3.2. Prioritize and select NAMAs for further development												
2.4. NAMA concept notes prepared for selected NAMAs (Result: NAMA concept notes												
2.4.1. Develop baseline and low emission scenarios												
2.4.2. Identify required policy instruments												
2.4.3. Identify costs and financing options												
2.4.4. Draft NAMA concept notes												
2.5. Endorsement by government and potential sources of support (result: government and donor endorsement)												
2.5.1. Present NAMA concepts												
2.5.2. Government to endorse selected NAMAs and their design												
2.6. Development of detailed NAMA proposals (result: Detailed NAMA proposal)												
2.6.1. Prepare detailed NAMA proposals												
2.6.2. Submit to UNFCCC registry (if available)												
2.6.3. Submit for funding (if supported)												
2.7. Support to identificationof financing (result: financing matrix prepared for NAMA implementation)												

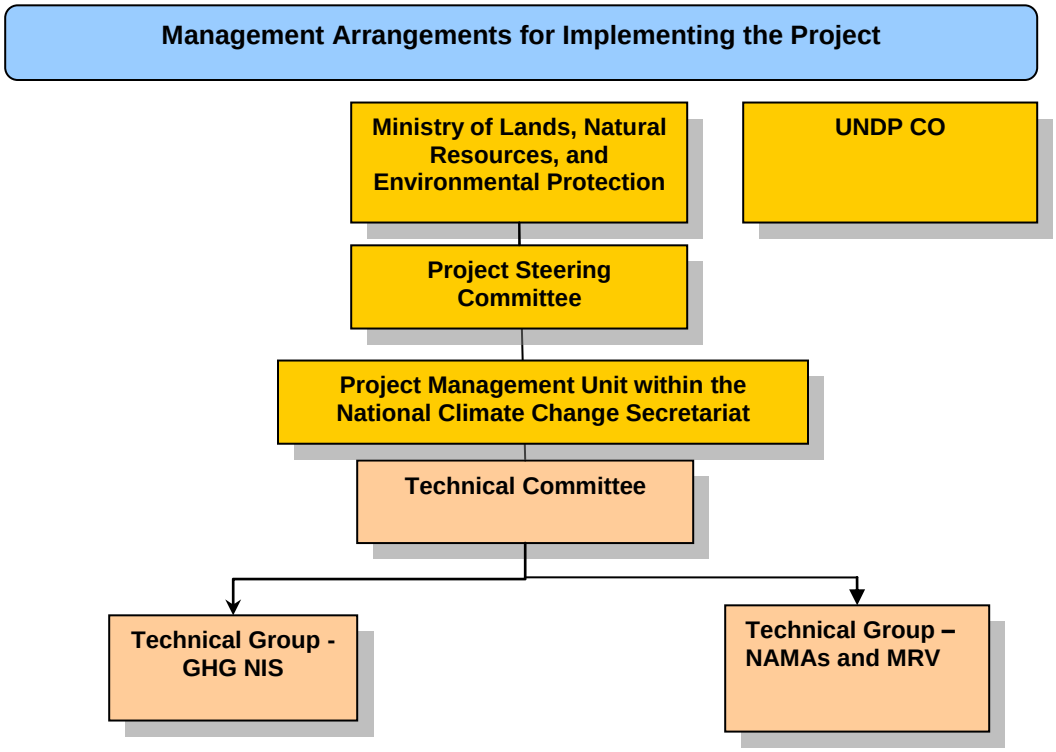
	Year 1				Year 2				Year 3			
Outcomes/Activities	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**
2.7.1. Financing matrix prepared according to sector, activity, technology, type of funding sought, donor interest etc. *Links to other activities:2.4.3*												
Outcome 3: MRV systems designedto support implementation and evaluation of NAMAs												
3.1 Awareness raised and capacities built on MRV in general												
3.1.1 Information sessions with stakeholders and WGsinvolved in the GHG inventory system and the NAMA development (no independent activity – to be included in Output 1 and 2 activities as relevant)												
3.2 Design MRV system to support implementation of selected NAMAs												
3.1.2 Select methodologies and monitoring protocols												
3.1.3 Training on the use of protocols and tools												
3.1.4 Establish and organization of reporting process												
3.1.5 Select verification bodies												
Project Management, including M&E												
1.Inception workshop												
2.Bimonthly reports on output and implementation												
3. Quarterly reports (Atlas and EBRM)												
4. Progress reports (every six months)												
5. Project terminal report												
6. Audit												

.

6.0 MANAGEMENT ARRANGEMENTS

The project will be led by the Ministry of Lands, Natural Resources, and Environmental Protection and activities will be implemented by appropriate line ministries (Energy, Agriculture, Local Government and Housing and Trade Commerce and Industry).

Figure 6.1: Management Arrangements for Implementing the Project



The **Project Steering Committee** will be responsible for guidance and monitoring of the overall progress being made. The Committee will be composed of Senior Technical Officials from the Department of Energy, Department of Agricultural, Ministry of Commerce, Trade and Industry, Ministry of Local Government and Housing, Ministry of Lands, Natural Resources and Environmental Protection, Ministry of Finance and National Planning, the Zambia Chamber of Commerce and Industry and the Zambia Environmental Management Agency. The Project Steering Committee will meet semi-annually and will be chaired by the Permanent Secretary from the Ministry of Lands, Natural Resources and Environmental Protection.

A **Project Management Unit (PMU)** will be established within the Interim National Climate Change Secretariat and will be responsible for the day-to-day implementation of all project activities, including direct supervision of those activities contracted to responsible parties and consultants. The Project Officer will be responsible for the day to day delivery of project activities to achieve the specified results including use of inputs to produce outputs as set forth in the Annual Work Plans (AWP) to the required standard of quality and within the specified constraints of time and resources. The Administrative Assistant will be responsible for making sure that the PMU maintains records and controls to ensure the accuracy and reliability of the annual work plan's financial information.

.

Two T**echnical Groups** will be in charge of delivering the relevant outputs based upon the outcomes and activities described. That is, a National GHG Inventory System for computing future inventories under group one, and the NAMAs and related MRV systems under group two. The technical teams will also be for ensuring coordination with relevant ministries and institutions, as required. The two teams will meet on a regular basis to share results and lessons learned, particularly with respect to needed data for NAMA analysis, and how the MRV systems can build on the GHG national inventory system.The **technical committee** will be responsible for checking progress related to technical issues based on the outcomes prescribed. It will be made up of experts on GHG inventories, NAMAs and MRVs in the energy, agriculture, industry and waste management sectors. The technical committee will be chaired by the National Coordinator of the Climate Change Secretariat and will meet quarterly to review implementation progress.

Table 3: List of organizations, roles and contribution

Organization	**Role/Responsibility**	**Contribution to draft report**
Forestry Department	Policy and mitigation	Information provision
Department of Energy	Policy, mitigation and adaptation	Information provision
Zambia Meteorological Department	Weather and climate data/information	Information provision
Lloyds Financials/ACCE	ACCE has three platforms: carbon trading platform, financing mechanism, and green knowledge institute. Mitigation	Information provision
UNZA-Mathematics Department(Energy Environment Research Group)	Climate modeling	Information provision
UNZA-School of Agriculture	Mitigation and Vulnerability	Information provision
Zambia Environmental Management Agency	Policy and institutional	Information provision
Zambia Climate Change Network	Advocacy in climate change and represents a network of CSOs	Information provision
National Remote Sensing Centre	To spearhead use of satellite technology for environment and natural resources management	Information provision
Southern African Science Service Centre for Climate Change and Adaptive Land Use	Research, mitigation and adaptation	Information provision
World Bank	Participating as one of the Multi-lateral Development Banks supporting climate change initiatives	Information provision
Danish Embassy	Cooperating partners	Information provision
Finnish Embassy	Cooperating partners	Information provision
Ministry of Finance	Institutional arrangements, financing, adaptation and mitigation	Information provision
Ministry of Agriculture, Livestock and Fisheries	Policy, mitigation and adaptation	Information provision
Zambezi River Authority	Jointly owned by government of Republic of Zambia and Zimbabwe. Operates, maintain and monitor the Kariba complex.	Information provision

.

Organization	Role/Responsibility	Contribution to draft report
	Adaptation to climate change/variability in water sector	
Zambia Wildlife Authority	Policy, mitigation and adaptation	Information provision
Department of Fisheries	Policy, mitigation and adaptation	Information provision
Zambia Agricultural and Research Institute	Research, mitigation and adaptation	Information provision
National Water and Sanitation Council	Water and sanitation regulator, mitigation and adaptation	Information provision
Norwegian Embassy	Cooperating Partners	Information provision
World Food Programme	Cooperating Partners	Information provision
Ministry of Local government and Housing	Mitigation related to waste management	Information provision and participation in NAMA production

7.0 MONITORING AND EVALUATION FRAMEWORK

The project will be monitored through the following monitoring & evaluation (M&E) activities.

Project inception:
A National Stakeholder Workshop to consult stakeholders on the formulation of the project was held on 17th December 2011 and workshop report has been prepared and attached as a separate document.

A Project Inception Workshop will be held within the first 2 months of signing of the Project Document with those with assigned roles in the project organization structure, the UNDP CO and, where appropriate/feasible, regional technical policy and programme advisors, as well as other stakeholders. The Inception Workshop is crucial for building ownership regarding the project results and to prepare the Year 1 annual work plan.

The Inception Workshop will address a number of key issues including:

a) Inform stakeholders of the process and receive additional comments from them that would enrich the Project.
b) Assist all partners to fully understand and take ownership of the project.
c) Plan and schedule Project Steering Committee meetings. Roles and responsibilities of all project organizational structures should be clarified and meetings planned. The first Project Steering Committee meeting should be held within the first 12 months following the Inception Workshop.

The inception workshop will also will provides an excellent opportunity to introduce and discuss key cross-cutting issues that will considered within the LECB programme. In order to help introduce these topics we strongly encourage inviting important actors from cross-practice groups including gender, governance and poverty. Specifically because gender should be considered a key consideration under any UNDP project, we suggest identifying country-level women's networks that can help better incorporate gender concerns into climate change strategies and decision-making and further identifying opportunities to incorporate into project designs local knowledge that strengthens the roles of women.

.

An **Inception Workshop Report** is a key reference document and will be prepared and shared with participants to formalize various agreements and plans decided during the meeting. It will be considered a key deliverable of the Project.

Bi-monthly reviews:
Progress will be monitored using the prescribed reporting template provided by UNDP.

Quarterly:
Progress shall be monitored in the UNDP Enhanced Results Based Management Platform. Based on the information recorded in Atlas, a Project Progress Report (PPR) will be generated in the Executive Snapshot. Other ATLAS logs will be used to monitor issues, lessons learned, etc.

Periodic Monitoring:
A detailed schedule of project review meetings will be developed by the project management team, in consultation with project implementation partners and stakeholder representatives and incorporated in the Inception Workshop Report. Such a schedule will include: (i) tentative time frames for Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project-related M&E activities.

Day to day monitoring of implementation progress will be the responsibility of the Project Coordinator, based on the project's Annual Workplan and its indicators. The Project Coordinator will inform the UNDP CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

Periodic monitoring of implementation progress will be undertaken by the UNDP CO through quarterly meetings with the project proponents, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

End of Project:
During the last three months, the project team will prepare a brief terminal report. The terminal report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Learning and knowledge sharing:

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums at the sub-national (District and Provincial Development Coordinating Committees), national (Parliamentary Committees and Civil Society Network for Climate Change, relevant Sector Advisory Groups) regional (COMESA, SADC and AU), and global levels. The national management unit will work closely with the Programme's Global Support Component in this context.

The project team will also identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned.

The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. There will be a two-way flow of information between this project and other projects of a similar focus, supported by the Programme's Global Support Unit.

.

Specific agreed activities for ensuring visibility of the project, and uptake of lessons learned and best practices are detailed in Appendix C.

Table 4: M& E Workplan

Type of M&E activity	Responsible Parties	Time frame
Inception Workshop and Report	▪ Project Coordinator ▪ UNDP CO, UNDP EEG	Within first two months of project start up
Bimonthly report on *output and implementation*	▪ Oversight by Project Coordinator ▪ Project team	Every two months
Quarterly report (Atlas and ERBM)	▪ UNDP CO	Quarterly
Periodic status/ progress reports	▪ Project coordinator and team	Every six months
Project Terminal Report	▪ Project coordinator and team ▪ UNDP CO	At least three months before the end of the project
Audit	▪ UNDP CO ▪ Project coordinator and team	End of project

8.0 LEGAL CONTEXT

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA [or other appropriate governing agreement] and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

a) Put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
b) Assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the "Project Document" instrument referred to in: (i) the respective signed SBAAs for the specific countries; or (ii) in the Supplemental

.

Provisionsattached to the Project Document in cases where the recipient country has not signed an SBAA with UNDP, attached hereto and forming an integral part hereof.

This project will be implemented by the agency (name of agency) ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

The responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. The Implementing Partner shall: (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; (b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

APPENDICES

Appendix A: Technical components of the project proposal

Description of project outcomes and key activities

Outcome 1: Sustainable National GHG Inventory Management system designed

1.1 Scope of work

The purpose of this outcome is tosupport the development of a sustainable National GHG Inventory Management system that can improvemanagement of GHG emission inventories, which are a cornerstone of National Communications.

From all aspects, robust GHG baseline development requires a quality GHG inventory. A quality GHG inventory benefits froma national management system which incorporates a central coordinating institution andall the elements necessary to estimate GHG emissions and sinks with fewer uncertainties, such as key category analysis, QA/QC procedures, uncertainty assessments, and a documentation and archiving system. The system also identifies the highest priorities in terms of country emission factors and activity data improvements. In this connection, this outcome requires strengthening Zambia's institutional arrangements, functions and ability to manage its GHG inventory.

The gases to be addressed are: Carbon dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_20), and Nitrogen Oxides (NOX). The sectors to be addressed are agriculture, energy, industry and waste management.

1.2 Methodology

The methodological approach will be based on national circumstances and the Revised *1996 IPCC Guidelines for Greenhouse Gas Inventories* as well as the *UNDP Handbook Managing the National Greenhouse Gas Inventory Process*. Five outputs are expected, the first one covering institutional aspects, the second key category analysis, the third QC/QA plan, the fourth archiving and documenting, and the fifth inventory improvement. The development of a GHG National Inventory System will be an iterative process and certain components will be updated after each GHG inventory prepared under the National Communications process.

The methodology for achieving this output will be supported by an Eastern and Southern Africa Capacity Building project for sustainable national GHG inventory management systems and will involve establishment of a GHG inventory management systems and training on the use of software based on IPCC Guidelines for determining GHG emissions from agriculture, forestry and land use(AFOLU). However, use of this software requires improved national activity data and country emission factors, which will serve as an input in the development of the national GHG baseline.

Further, the Integrated Land Use Assessment (ILUA II) will generate information on deforestation rates, carbon soils and land classification types which will serve as an input in the development of the national GHG baseline for Zambia.

This project will complement Zambia'sSNC by creatingthe technical and institutional capacity for developing a national GHG inventory system. The technical advice through this action will facilitate the establishment

and long-term sustainability of national technical teams for the preparation of future national communications, including GHG inventories, on a continuous basis.

Linkages to other relevant initiatives

As noted above, the **National GHG Inventory Management System in Eastern and Southern Africa (ESA GHG)** project has very similar outputs to our ones under Outcome 1 such as key source category analysis, documentation, QC/QA and data archiving. The main focus will bethe AFOLU sector but USAID may provide assistance in other sectors as well. Furthermore, the outputs under this outcome can be easily expanded to include other sectors.

Gaps identified in the Draft **Second National Communication** and the **National Climate Change Response Strategy**:

- QA/QC for energy sector,
- harmonization between energy balance reporting classifications of Zambia and that of UNFCCC,
- lack of activity data for all sectors except energy but this will be addressed under the NAMA component for relevant baseline development work

Lastly, the **UNREDD programme** will generate input data for REDD+ projects and the **IULA II** on land use.

Outputs and activities

Output 1: Institutional arrangementsand processes for NIS described

This will involve putting in place national platforms for preparation of GHG inventories. The following **activities** will be undertaken:

1. Form thematic working group on GHG inventory. To avoid duplication, the formation of this group will build on the team that is working on the ESA GHG. This will bring together key government sectors, national centers of expertise (universities and research centers)
2. Identify lead agencies (national entity and inventory coordinator)
3. Assign source leads and establish cooperation agreements
4. Sensitize the dialogue platforms on the opportunities and requirements for developing GHG inventories and identifying capacity building needs;
5. Prepare and/or refine workplans, procedures and instructions
6. Establish an IT-based platform (website) for monitoring and evaluation, benchmarking, and learning;

The first output will cover the mapping of relevant institutions and their capacities and the establishment of an institutional framework for the management of the GHG inventory system. This is necessary since the INC and SNC have not put in place sustainable institutional frameworks that could have retained expertise, provided for institutional cooperation mechanisms in data provision or archiving of data. This work will also be linked to institutional structures proposed by the National Climate Change Response Strategy under the Mitigation/Low Carbon working group of the National Climate Change Development Council.

The activities necessary to deliver the desired output are the identification of relevant institutions with the participation of which the thematic working group on GHG inventories could be established. Subsequently lead agencies for the whole inventory process (Ministry of Energy and Water Development or Central Statistical Office) and source leads would be identified. Cooperation agreements or other similar documents will be signed between the agencies and data providers to ensure that roles are clear and what the

cooperation will entail. The working group will have to prepare (or assign someone to prepare) workplans, manual of procedures and instructions to the members of the group and constantly liaise with the ESA GHG process to ensure complementarities. An Information Technology -based platform will also be established where documents can be posted. This can become the basis of an electronic archiving system and the MRV platform to be covered under subsequent outcomes and outputs.

From the creation of the working group, its members will be sensitized about the importance of a robust inventory system and the challenges and required skills and capacities associated with it. This sensitization will provide the basis of tailor-made capacity development activities of the different members and individuals. Care will be taken to link capacity building activities with other similar activities of this project as well as related initiatives to avoid duplication. A capacity building plan will be developed accordingly.

Output 2: Capacity Building for key source categories

Given below is status of GHG emissions by sector and gas based on Zambia's GHG inventory for the year 2000. In the year 2000, the largest contribution to GHG emissions came from land use change and forestry (40.31 million CO_{2equiv}) at 73.7% followed by agriculture (10.36 million) at 18.9%. Energy(2.63 million) registered a low 4.8% followed by industrial processes(1.01 million) and waste(0.41 million) at 1.8% and 0.8%, respectively(figure A1) .

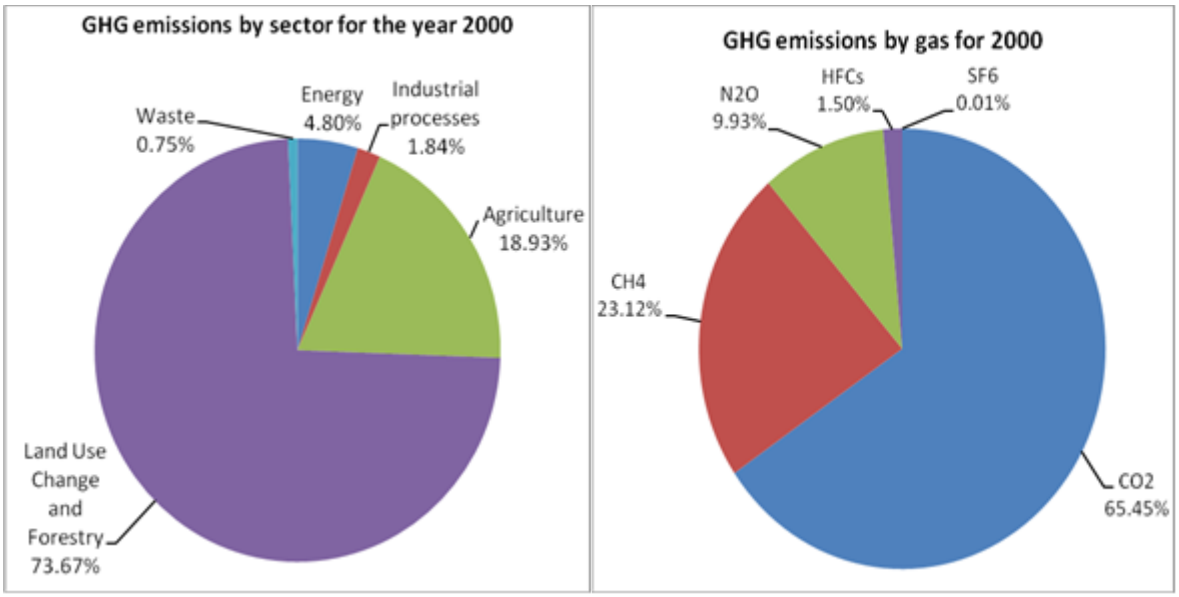


Figure A1 GHG emissions by sector and by Gas (Gg CO_{2Equit}) for 2000

The largest contribution by gas was CO_2 from land use change and forestry at 95.3%, of total CO_2 emitted in the year 2000, followed by energy and industrial processes at 4.2% and 0.5%, respectively. As regards CH_4, the largest contribution came from land use change and forestry at 48.1%, followed by agriculture at 42.1% and energy at 7.5%. Waste registered a meagre 2.3%. In case of N_2O, the largest contribution came from agriculture at 92.7%, mainly due to use of fertilizers and burning of savannah and crop residues. Energy

came second at a low of 3.2%, followed by waste and land use change and forestry at 2.2% and 1.9%, respectively.

Key category analysis was undertaken as part of the ESA GHG project for the year 2000. The results of the analysis are shown table A1. More specifically, the key category analysis based on the 2000 GHG inventory show that six categories are key within Zambia's national GHG inventory and all are within the LUCF and agriculture sectors.

Table A1 Key Category analysis

Source/sinkcategory	Direct GHG	Sector	2000 CO2e	Levelassessment	Cumulative total
On site burning	CO2	LUCF	18'135.82	29.7%	29.7%
Off site burning	CO2	LUCF	14'337.80	23.5%	53.2%
LUCF	CH4	LUCF	6'078.45	10.0%	63.2%
On site decay	CO2	LUCF	3'630.52	6.0%	69.1%
Agricultural soils	N2O	Agriculture	2'965.15	4.9%	74.0%
PrescribedBurning of Savannas	CH4	Agriculture	2'649.62	4.3%	78.4%
Carbon uptake in abandoned areas* (removals)	CO2	LUCF	2'504.01	4.1%	82.5%
Enteric Fermentation	CH4	Agriculture	2'496.56	4.1%	86.6%
Manure Management	N2O	Agriculture	1'550.00	2.5%	89.1%
Change in soil carbon in mineral soil	CO2	LUCF	1'468.00	2.4%	91.5%
Carbon uptake by plantations* (removals)	CO2	LUCF	959.52	1.6%	93.1%
Fuel combustion: Commercial, agriculture, forestry&fishing	CH4	Energy	873.60	1.4%	94.5%
Fuel combustion: Manufacturing industries & Construction	CO2	Energy	806.50	1.3%	95.8%

In addition, a broad trend analysis has also been conducted for the years 1994 (INC) and 2000 (SNC), and figures from the INC were recalculated. Below are the emissions by sector (Gg CO2e)

Year	Total w/ LULUCF	Total w/out LULUCF	Energy	Industrial processes	Agriculture	LULUCF	Waste
1994	51,520	13,354	2,778	2,008	8,098	38,165	371
2000	54,716	14,406	2,629	1,006	10,359	40,310	412

There is room for improvement by:

- Introducing Tier 2 analysis if uncertainty estimates are/will be available
- Building the capacity of government institutions on KCA and the meaning of its outcomes (currently it is only one institution CEEEZ with notions about KCA)

Accordingly the following **activities** will be undertaken

1. Training to government institutions on key category software
2. Identify key-source categories of emissions in Zambia (T2 if results of uncertainty analysis are available, refine T1 in light of data collection under other initiatives)
3. Prepare trend analysis
4. Propose data improvements such as for the in data for key categories or disaggregating data in certain categories

Output 3: QC/QA plan developed

A Quality Assurance/Quality Control (QA/QC) checklist or strategy will be prepared and tested on key sources and the sectors covered by NAMAs; the complete QA/QC process is presumed to be done under the SNC and/or future national communications.

The **activities** will include:

1. Identify QC personnel and draft Terms of reference
2. Prepare QC/QA plan
3. Establish peer review group and TOR for QA/QC plan
4. Identify QA expertise and constitute QA group for external review
5. Define procedures and checklist for QC T1 to check assumptions, criteria for activity data and emission factors, transcription errors, emission calculations, conversion factors, uncertainties, check integrity of database files, consistency of data between source categories, movement of inventory date among processing steps, methodological and data changes resulting in re-calculations and completeness checks
6. Undertake review of internal documentation and do the checks listed under point 3
7. Compare estimates to previous estimates
8. Prepare Tier 2. Source specific QC procedures (if relevant) to evaluate emission factors, activity data, conversion factors, the resulting emission estimates and uncertainty estimates
9. Propose improvement plan for QC/QA

QC is a system of routine technical activities to measure and control the quality of the inventory as it is being prepared implemented by the inventory team. QA is a review system conducted by personnel not involved in the inventory development process. The methods used will depend among others on the tiers of methods used to estimate emissions. The proposed activities include the establishment of procedures to check assumptions about data and other input, about databases, files and processes, methodological and data changes, completeness check and to compare estimates. Tier 2 QC will also be prepared if applicable. In addition, a peer review process for QA will also be established. The peer review and the peer group will be established in conjunction with the institutional structures under output 1.

Output 4: National Inventory System documented and archived

This output will involve the archiving and documentation of data, assumptions, processes and methods so that the GHG inventory can be regularly updated, following rules and procedures for documentation and archiving. The GHG inventory management system will be officially adopted or acknowledged by the government and its results disseminated across government agencies. The improvement strategy may foresee further dissemination.

- Define procedures for archiving (both physical and electronic)
- Archive all activity data and emission factors, including source of data, assumptions, methods, and uncertainties
- Document the procedures and arrangements undertaken to collect and archive data for the preparation of national GHG inventories,
- Organize workshop for presentation and discussion on the results obtained from the GHG inventory in conjunction with the ESA GHG process;
- Prepare and formally adopt the national manual of procedures or inventory report.

Output 5: Inventory improvement strategy prepared

The following activities will be undertaken:

- Identify areas and activities that are key to developing a robust NIS that can be undertaken under the current project as well as those that may not be feasible under the project due time, financial and other constraints. This will include short-term goals: what we can achieve under this project, and medium-term goal (what would be achieved under subsequent projects such as the Third National Communication, for example).
- Prepare inventory improvement strategy (a short 2-3 page-long document based on the analysis done under the point above)

Based on the assessments conducted under the previous outcomes, the findings during the data collection and findings of the relevant other initiatives (SNC, NCCRS, ESA, GHG) areas for improvement will be identified. These are areas where action should be taken but cannot be at the given stage for lack of funds, time or capacity. This can cover longer-term capacity building, development of national emission factors, improvement of data, a more rigorous QC/QA plan, source-specific ideas for research, corrections or peer review that could not be included, archiving improvements, new data sources. These necessary improvements will be incorporated into a work plan for improvement of the inventory management system (both medium and long term).

Institutional and political considerations

Institutional mapping and MOUs will help overcome confidentiality issues. It is indispensable to coordinate with consultants and institutions working under the ESA GHG project since some of the activities described above may be undertaken in that context. It is the role of the project management unit and the GHG inventory technical working group to identify these overlaps and coordinate with the institutions and project management units involved in the two relevant initiatives and make best use of complementarities.

Outcome 2: Up to four (4) NAMAs developed in the energy, industrial processes, agriculture, and waste management sectors

The purpose of this component is to support Zambia to plan, design and implement and evaluate appropriate mitigation actions and strategies. In the NCCRS,the following priority sectors for low emission work were identified: *land use, energy, transport and mining*. Furthermore, the SNC presented GHG projections and mitigation options. Lastly, the TNA currently being undertaken with UNEP support will develop project ideas in the sectors above by the end of 2012. Based on these outputs,up to 4 NAMAs will be developed in twosectors. If time and resources allows, NAMAs up to concept stage will then be developed in further sectors, building on the experiences gained.

Linkages with other initiatives

The **SNC** presents GHG emission projections and mitigation options for five sectors (energy, waste, agriculture, LUCF and industrial processes).The tools used included LEAP for energy, COMAP and GAMCO. Baselines were set and scenarios analyzed based on the proposed mitigation options. Below is a summary of these:

Table A2

	2000	% of total	2030	% of total	change in % of total	Mitigation options	Reduction potential by 2030 in mT
Energy	2.80	5.11	8.10	6.31	1.21	Fuel switch (diesel with biodiesel partial substitution)	2.1
						Grid extension w/ hydro	
						Fuel switch and partial substitution from coal to biomass loose in industry	
						Partial substitution of gasoline with ethanol	
Agriculture	10.30	18.79	15.20	11.85	- 6.94	Biogas and biomass for electricity generation	0.539
						Conservation farming (green crop manure)	
LUCF	40.31	73.54	100.73	78.52	4.97	Improvedtraditionalcookstoves	16.1
						Improved charcoal kilns and retort	
						Electric stove	
						Enhanced regeneration and reforestation	
						Biomass electricity from forest and sawmill waste	
						Conservation farming	
Waste	0.40	0.73	1.00	0.78	0.05	Landfill	0.747
						Biomethanation	
Industrialprocesses	1.00	1.82	3.26	2.54	0.72	Not assessed	
TOTAL	54.81		128.29				20.0

Technology Needs Assessment (TNA) project supported by UNEP is currently developing project ideas under energy, agriculture, land use change and forestry and waste. It is providing capacity building on cost benefit analysis for non-market projects. CEEEZ used various tools, including the UNIDO Comfar for detailed financial analysis for productions and the TNA is using multi criteria analysis for assessing contribution to sustainable development of identified projects. Some of these proposalscan be developed into NAMAs. In addition to project development, this would entail the identification of elements beyond a project based approach such as support policies, capacity building and public finance mechanisms that would ensure the success of the proposed mitigation measures. The TNA project will identify 4 technologies that will be developed up to concept phase from a shortlist of appropriate technologies. In the NAMA prioritization, the LECB project will rely on the work undertaken in the framework of the TNA and select 4 additional technologies that would be developed as NAMAs including policy elements, finances and capacity building in line with international requirements for supported NAMAs under the UNFCCC.

The DoE, with **Japanese s**upport,isplanning to develop a NAMA for improved cooking stoves.

Methodological Approach

This outcome will involve the development of up to four NAMAs (in key sectors). Since several steps of the process have been, or are being, covered by other initiatives (e.g., TNA, Japanese cooperation), the objective of the work under this outcome will be to consolidate existing work and complement it wherever gaps are identified for the development of detailed NAMA proposals respecting international standards. In general, the project will provide input and guidance for the GRZ to identify possible areas for NAMA development, document and justify choices, get buy-in from all concerned government agencies and other stakeholders, develop the NAMA concepts taking into consideration local conditions and the international environment. This latter will be important for the format the NAMAs would need to take to be incorporated into the international registry, pass ICA and obtain the necessary finding. Besides proposing evaluation criteria, the approach of the project is to develop a small number of quick-win NAMAs that are not too complex to prepare (in terms of project design, GHG accounting and other criteria) and for which local capacity already exists.

Potential sectors and scope of work

Based on the initiatives described above the following sectors are proposed for NAMA development: energy, agriculture, waste and industrial processes[2].NAMAs will initially be developed in two sectors. If time and resources allows, NAMAs up to concept stage will then be developed in additional sectors, building on the experiences gained.

Outputs and activities

Output 1: NAMA readiness actions undertaken

The objective of the preliminary activities under this output is to organize the institutional framework around the NAMAs, and assess and develop capacities by raising awareness about NAMAs in general. Specific capacity building needs would be identified in conjunction with the capacity assessment undertaken for the GHG inventory management and the MRVs. Areas for capacity development can include preparation

[2] Actions to be identified under the land use sector will be relevant from an energy access point of view as well.

of baseline and mitigation scenarios, evaluation of costs, assessment of financing options, assessment of required policy options etc. The activities will include:

- Establish working group institutions to lead NAMA development including: lead agencies, technical teams, political/decision making teams
- Involve stakeholders from outside of government in awareness raising: private sector, civil society, support providers (selecting NAMAs to support, negotiating finance and MRV conditions and funding
- Capacity development about NAMAs in general (ICA, registry, NAMA development process in Zambia etc.)

Output 2: Identification and scoring of possible NAMAs

The TNA is identifying priority mitigation technologies in 6 steps, of which the first 5 are relevant for the NAMA development:

1) Identify and categorize priority sectors and subsectors for mitigation. These are: energy, agriculture, LUCF and waste
2) Identification of a long list of technologies. These are: hydro (large and small), biomass combustion and gasification, biomass digester, biomass landfill, biomass wastewater, PV (utility and small), CSP, SHS, wind (utility and small), geothermal, biofuels (sugarcane, maize, 2nd generation, jatropha, soy bean, sunflower), BRTS, improved charcoal stoves, improved firewood stoves, improved biomass institutional stoves, biogas for cooking, ethanol, lanterns (solar, bio oil, ethanol gel), improved traditional kiln, brick kiln, metal kiln, retort, energy management systems in industry, supply side transmission efficiency, en-use efficiency (commercial), building EE, green manure and cover crops, conservation tillage, organic manure, weed control, application of lime, afforestation/reforestation, landfill
3) Prioritization of long list using multicriteria analysis
4) Assessment of prioritized technologies (cost/benefit, GHG reduction, capital budgeting)
5) Prioritization of final list of 4 NAMAs.

In addition at this stage, the LECB project will analyze Barriers to implementation (institutional, cultural etc. + must be substantiated) and apply weighted criteria to prioritize potential NAMAs. The proposed criteria to consider include:

1. Variety of stakeholders involved
2. Number of stakeholders involved
3. Proximity of current regulation
4. Awareness and acceptance
5. Potential to leverage private investment

Based on the analysis, NAMA fact sheets will be prepared for a set of NAMAs.

The majority of this analysis has been or is being conducted. When results are available, the work will consist in summarizing it in NAMA fact sheets.

The detailed activities include:

- Agree on additional NAMA scoring criteria and weights (if necessary)
- Prepare NAMA fact sheets using agreed criteria

Outputs 3: Prioritization and selection of NAMAs to be developed (Result: priority NAMAs selected)

At this stage, the NAMA fact sheets are presented to key decision makers, along with the scoring. They are discussed and a subset of NAMAs will be selected and prioritized for further development. NAMAs will be identified in batches, i.e. 4 relatively simple ones to be developed in the framework of this project and others to be developed on the medium or longer run to benefit from first experiences and further resources as they will become available. The activities include:

- Present and discuss NAMA fact sheets
- Prioritize and select NAMAs to be developed with government (possibility to make selections on different time frames i.e. NAMAs to be developed immediately, NAMAs to be developed later)

Output 4: NAMA concept notes prepared (Result: NAMA concept notes)

Most of the analysis will be done during this phase. The work will be based on the guidance provided in the UNDP *How-to-Guide: Low Emission Development Strategies and Nationally Appropriate Mitigation Actions: Eastern Europe and CIS*.

The analysis to be undertaken at this stage would cover the development of baseline and low-emission scenarios with the following sub-activities: review of existing models for the whole economy or the given sector, review existing information to see whether it is sufficient to develop Business-as-Usual (BAU) scenarios for the sector, choosing and training in analytical tools. It would also entail the determination of base year and timeframe of analysis, the development of BAU scenario and the mitigation scenario. Additional analysis would have to be carried out to evaluate policy instruments as well as costs and financing options. Areas should be identified where further analysis is required that will be carried out when the detailed NAMA proposal is finalized. Here again, the TNA will provide information into this output such as cost-benefit analysis for non-market projects, COMFAR for financial analysis and multi criteria analysis for assessing contribution to sustainable development of identified projects.

Wherever study results are already available, the work will consist in synthesizing and presenting them according to a NAMA concept template that would include the following information:

1. Sectoral background and existing policies and measures
2. NAMA description and rationale
3. Implementation barriers
4. Needs assessments and proposed interventions
5. Benefits: emission reductions and co-benefits (including baselines).
6. Required policy options
7. Costs and financing options
8. MRV plan including performance indicators
9. Actors, actions timing

The activities include:

- Developing baseline and low emission scenarios (will use those developed under the climate change policy development process)
- Identifying required policy instruments
- Identifying costs and financing options
- Drafting NAMA concept notes

Output 5: Endorsement by government and potential sources of support (result: government and donor endorsement)

This stage will involve the presentation of the NAMA concept note and the government's endorsement. It will also be possible to involve potential sources of support at this stage because the analysis should be robust and defendable, but not final allowing for adjustments according to preferences of the entity providing support. The activities include:

- Present NAMA concept notes
- Government to endorse NAMA concept notes

Output 6: Development of up to 4 detailed NAMA proposals (result: Detailed NAMA proposal)

This output will involve further research based on input from government as well as sources of support. At the concept note stage, additional research and analysis may also have been identified that could be covered during this phase. The detailed NAMA proposals would provide further detail on what is already in the concept note and would describe:

- Financing details
- Detailed baseline and interaction with other instruments (other overlapping NAMAs, carbon instruments etc.)
- Stakeholder analysis and final list of potential donors and partners including key support criteria
- MRV
- Plan of action

It is also expected that the detailed proposals will be submitted to the UNFCCC registry and for support (if supported NAMAs). The activities include:

- Preparing detailed NAMA proposals
- Submission to UNFCCC registry
- Submit for funding (if supported NAMA)

Output 7: Support to identificationof financing (result: financing matrix developed for NAMA implementation)

A financing matrix will be developed for each NAMA according to sector, duration, activity type, type of funding sought; donor interest etc. This activity is linked to Activity 2.4.3.

Institutional and political considerations

It is clear that NAMAs will need to be embedded in national development policies and within the existing institutional framework at the national level. The challenge will be to build and sustain high-level stakeholder support (both public and private). Working arrangements will have to be planned so as to encourage cross-sectoral cooperation and the involvement of stakeholders from outside the government. Besides adequate project management arrangements, effective linkages to existing economy-wide objective and sectoral plans will be explored and reinforced.

Outcome 3: MRV systems designed to support implementation and evaluation of identified NAMAs

This will be done by establishing appropriate indicators for monitoring mitigation actions, as well as by helping to create conditions necessary to support future investment in mitigation measures. The focus will be on establishing scope, metrics/indicators, reporting mechanisms, verification mechanisms, and time frames. An improved MRV system will take into account whether NAMAs are to be implemented autonomously, through support from developed countries, or through an international crediting mechanism. It also depends on the sector the NAMAs cover, as well as the type of action (i.e. capacity building, investment project, sector strategy etc.). Suggested criteria for the MRV systems include: credibility, cost-effectiveness, timeliness, and a simple and clear procedure which provides enough flexibility for a wide range of mitigation actions.

Scope

MRV at this stage will only be developed for the NAMAs that would seek external funding. It is possible to scale this work up at a later stage depending on international developments and availability of international guidelines, government's interest, funding and further NAMAs developed.

Methodological approach:

New methodologies are being developed by different organizations for the development and adoption of MRV. Although there are still no formally adopted guidelines on MRV, this outcome assumes that there will be some overarching principles of good practice, such as using the GHG estimation and reporting processes described in the IPCC guidance materials for GHG inventories.

The first pillar of the MRV strategy will be the work undertaken under Outcome 1 of this project, which will provide the framework for a clear and transparent system for accounting, recording, monitoring data and emissions, as well as underlying assumptions and data/information sources. However, additional measurements and/or indicators will be needed for NAMAs beyond GHG emission data. These may be quantitative such as:

- Technical: built units/capacity, number of vehicles, passenger km, households
- Financial: funds granted, investment triggered, private sector/household investments leveraged
- Process: number of workshops conducted, studies completed, number of officials trained etc.

Or qualitative such as:

- Content: policy defined, adopted, enforced,
- Process: stakeholder processes in place
- Institutions: institutions appointed, created, capacity increased[3]

Further methodological issues concern double counting and the netting of impacts. The first one comes to play when NAMAs are scaled up from carbon market instruments such as CDM. Double counting will have to be addressed and avoided. The second is to be considered when several NAMAs are developed simultaneously or several projects or actions are part of one NAMA proposal and the GHG impacts are difficult to link to one single action or that one action may reduce emissions in one sector but may generate emissions in other sectors.

[3] Based on Nationally Appropriate Mitigation Actions: Insights from example development, Ecofys, 2010

Output 1: Awareness raised and capacities built on MRV in general

Create awareness and understanding in MRV-related activities in order that high government officials can support mitigation actions and low-emissions strategies. This includes line ministries. Activities will consist primarily of tailor-made information sessions. This will include information sessions with stakeholders and teams involved in the GHG inventory system and the NAMA development but it will not be an independent activity, i.e., these will included in Output 1 and 2 activities as relevant.

Output 2: MRV systemdesigned to support the implementation and evaluation of selected NAMAs, with linkages to the GHG inventory system

This will include the selection of methodologies and monitoring protocols for measuring and reporting on NAMA implementation been established including timeframes and frequency at which data is submitted and QA/QC system if feasible and linked to the GHG QA/QC system. Trainings will also be organized on the use of the protocols and tools in conjunction with other training activities under the GHG inventory outcome. Verification bodies will also be identified and/or selected, again in conjunction with the QA peer review body to be put in place under Outcome 1. The outputs under this component will be fine tuned as international agreement is achieved on MRV.

The activities include:

- Select appropriate methodologies and monitoring protocols;
- Training in the use of protocols and tools;
- Establish and organize a reporting process, and;
- Identify and/or select verification bodies.

APPENDIX B: VISIBILITY & OUTREACH UNDER THE LECB PROJECT

CONTEXT

The Low Emission Capacity Building Programme is considered by its donors as an innovative pathfinder project – allowing national governments to build capacities to plan their own low-emission development pathways within the context of national circumstances and national development goals. National teams are in the best position to identify on-the-ground experiences that can be collated and disseminated.

As such, national LECB project teams are encouraged to program approximately 5% of their budget for learning, knowledge sharing, communication and outreach activities and materials[4]. Visibility is a major criterion from donors for measuring success and national teams are encouraged to develop an outreach strategy the beginning of the project that is regularly monitored. At times, national teams may be called upon to provide updates on their project progress for featuring in donor publications.

Required Visibility Products

National Fact Sheet/Case Study
Each national team is expected to prepare a National Factsheet/Case study that can be used at the national and global levels (via the LECB Programme's global website, newsletter, and other outreach tools) to promote national project results and activities.

Lesson Learned/Best Practices Documents
Each national team is expected to produce a lessons learned/best practices document at the completion of each project component to showcase their results and impacts. The Global Support Unit will provide guidance on how to develop these best-practice documents, which will also be used as guidance for other developing countries embarking on a LEDS/NAMA process.

Contributions to LECB Programme newsletter
The Global Support Unit will prepare a quarterly newsletter. National teams are required to contribute with at least one newsletter article during the life of the project.

Recommended Visibility Products

National web page
National teams are requested to develop a web page or, at minimum, post relevant project activities on the mostappropriate institutional website. The Global Support Unit will link to the national page from the global programme site, www.lowemissiondevelopment.org,and encourages similar linkages to the global site wherever programme promotion is featured.

[4]It is noted that these funds may be embedded in other activities, such as producing a Lessons Learned document at the end of a project component, or developing a joint webpage with the government ministry implementing the project and need not appear as a separate budget line or activity.

National media reports

National teams are requested to liaise with the communications focal point in the UNDP Country Office regarding any media produced by or about the project, and to share media reports with the Global Support Unit for global promotional efforts, including featuring on the programme website, www.lowemissiondevelopment.org.

Appendix C: Endorsement letter

Please include endorsement letter from the appropriate government representative/focal point within the institution responsible for the project