



United Nations Development Programme

**THE AFRICA ADAPTATION PROGRAMME (AAP)
FINAL Project Document: Tanzania**

Project Title	Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa - Mainstreaming CCA in the National Sectoral Policies of Tanzania.
UNDAF Outcome(s):	Outcome 1: Increased access to sustainable income opportunities, productive employment and food security in rural areas Outcome 2: Increased access to quality basic social services for all by focusing on the poor and the most vulnerable
Expected CP Outcome(s):	Outcome 1: Increased adoption of equitable pro-poor and gender sensitive economic policies and programmes Outcome 4: Effective mechanisms in place, including social protection, that address institutional barriers and socio-cultural dimensions to promote and protect the rights of the poor and vulnerable. Outcome 5: Improved community access to safe, clean water and environmental sanitation in the rural and urban areas.
Project Objective	Tanzania mainstreams climate change adaptation mechanisms in planning, market/fiscal/financial and implementation processes.

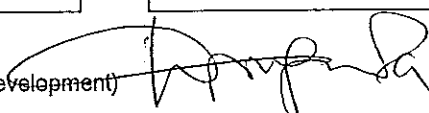
Expected Output(s): (Those that will result from the project)	<ol style="list-style-type: none"> 1. Dynamic, long-term planning mechanisms to cope with the inherent uncertainties of climate change introduced 2. Leadership and institutional frameworks to manage climate change risks and opportunities in an integrated manner at the local and national levels strengthened 3. Climate-resilient policies and measures implemented in priority sectors 4. Financing options to meet national adaptation costs expanded at the local, national, sub-regional and regional levels 5. Knowledge on adjusting national development processes to fully incorporate climate change risks and opportunities generated and shared across all levels
Executing Entity:	VPO-DOE
Implementing Agencies:	UNDP


Brief Description

The proposed project seeks to mainstream CCA mechanisms in Tanzania's policy, development and investment frameworks. The expected proposed outputs are: introduction of long term mechanisms that can cope with CC uncertainties, strengthened leadership and institutional frameworks that can manage CC risks and opportunities, enhanced CC resilient polices and measures in priority sectors, national adaptation financing options established and dissemination of CC-knowledge generated, stored and shared nationally, regionally and internationally. The project will focus on enhancing of CCA skills of government (national, local government and district levels), development partners, private sector, civil society and the general public. Capacity building is expected to enhance skills in leadership, management, planning and budgeting skills amongst the MDAs on how to utilise/integrate recommendations in CC research studies in their planning, budgeting and implementation strategies and develop market/fiscal/financial mechanisms that can deliver integrated CC investment plans and formulation of climate resilient polices in priority sectors. At community level, pilot measures will develop guidelines and toolkits on how to climate proof community development in integrated approaches in three different ecological zones in 4 districts. Adaptation benefits will include: community coping mechanisms to climate change enhanced, private sector businesses climate proofed, communities livelihood options diversified, enhanced environmental management and reduced socio-economic impacts of climate change risks to all sectors.

Programme Period:	2years
Key Result Area (Strategic Plan)	_____
PIMS Number:	4380
Atlas Award ID:	00058939
Atlas Project ID:	00073448
Start date:	January/Feb 2010
End Date	December 2011
PAC Meeting Date	23/November 2009

Total resources required:	US \$ 2,971,576 Million
Total allocated resources:	
• Regular	
• Other:	
o Japan	US \$ 2,971,576
o Donor	_____
o Donor	_____
o Government	_____
Unfunded budget:	_____
In-kind Contributions	_____

Agreed by (Ministry of Finance and Economic Development)  Date: 17/5/2010

Agreed by (Vice President's Office Division of Environment):  Date: 09/04/10


Agreed by (UNDP):  Date: 18/5/2010

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List of Acronyms

AAP	Africa Adaptation Programme
CC	Climate Change
CCA	Climate Change Adaptation
CDM	Clean Development Mechanism
CEEST	Centre for Energy, Environment, Science and Technology
CIDA	Canadian International Development Agency
CIF	Climate Investment Fund
COMESA	Common Market for Eastern and Southern Africa
COSTECH	Commission for Science and Technology
CPAP	Country Programme Action Plan
DANIDA	Danish International Development Assistance
DDC	Drylands Development Centre
DFID	Department for International Development
DOE	Division of Environment
DPG	Development Partner Group
DPG-E	Development Partner Group-Environment
EC	European Commission
EMA	Environment Management Act
EWG	Environmental Working Group
FCPF	Forest Carbon Partnership Fund
GCCA	Global Climate Change Alliance
GDP	Gross Domestic Product
GEF	Global Environment Facility
GoT	Government of Tanzania
IDRC	International Development Research Centre
INC	Initial National Communication
IPCC	International Panel for Climate Change
IRA	Institute of Resource Assessments
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
LGA	Local Government Authority
LPAC	Local Project Appraisal Committee
M&E	Monitoring and Evaluation
MAFC	Ministry of Agriculture, Food Security and Cooperatives
MDA	Ministries, Departments and Agencies
MDG	Millennium Development Goals
MEM	Ministry of Energy and Minerals
MOFEA	Ministry of Finance and Economic Affairs
MKUZA	Zanzibar Strategy for Growth and Poverty Reduction
MLDF	Ministry of Livestock Development and Fisheries
MNRT	Ministry of Natural Resources and Tourism
MOEVT	Ministry of Education and Vocational Training
MOH	Ministry of Health
MSP	Medium Sized Project
MTEF	Medium Term Expenditure Framework
MWI	Ministry of Water and Irrigation
NAP	National Action Programme
NAPA	National Adaptation Programme for Action
NEMC	National Environmental Management Council
NCAP	Netherlands Climate Change Assistance Programme
NCCSC	National Climate Change Steering Committee
NCCTC	National Climate Change Technical Committee
NEMC	National Environment Management Council

NGO	Non Governmental Organisation
NORAD	The Norwegian Agency for Development Cooperation
PMO-RALG	Prime Minister's Office, Regional Administrations and Local Governments
PRSP	Poverty Reduction Strategy Paper
REDD	Reduced Emissions from Deforestation and Forest Degradation
SADC	Southern Africa Development Community
SC	Steering Committee
SGP	Small Grants Programme
SIDA	Swedish International Development Cooperation Agency
SLM	Sustainable Land Use Management
SUA	Sokoine University of Agriculture
TA	Technical Assistance
TMA	Tanzania Meteorological Agency
UDSM	University of Dar es Salaam
UN	United Nations
UN HABITAT	United Nations Human Settlement Programme
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nation Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UN-Habitat	United Nations Human Settlements Programme
UNIDO	United Nations Industrial Development Programme
USAID	United States Agency for International Development
VPO	Vice President's Office
WWF	World Wide Fund for Nature.

I. SITUATION ANALYSIS

1. Problem statement

2. Root causes – climate change related

Climate change risk, expected impacts and vulnerability

1. Tanzania is considered one of the poorest countries, vulnerable to disasters, which include periods of drought and floods in some parts of the country (tropical hazards; vulnerable to flooding on the central plateau during the rainy season) and sudden outbreaks of diseases.

2. According to the National Adaptation Programme for Action (NAPA, 2007) analysis of total annual rainfall for 21 meteorological stations in selected regions of Tanzania indicated that there is a decreasing trend (1970-2005) for over 13 stations (61.9%) whilst others showed an increase or constant trend. The most affected stations were Pemba, Zanzibar, Moshi and Arusha. However, one common feature of the rainfall pattern was a greater variability in cycles. In addition, the Disaster Vulnerability Assessment Report¹ further shows that rainfall in areas getting bimodal rainfall particularly North Eastern, North West, Lake Victoria basin and Northern parts of coastal belt will increase (both short and long rain seasons), while in areas experiencing unimodal patterns, rainfall will decrease. Such areas include parts of South Western, Western, Central and Eastern parts of the country.

3. With regard to temperature, its variations will have significant impact on both the agro-ecological zones and the adaptation strategies in the agriculture sector. According to the Initial National communication (INC, 2003), the mean temperatures may increase throughout the country, particularly during the cool months, by 3.5°C while annual temperatures may increase between 2.1°C in the North Eastern parts to 4°C in the Central and Western parts of the country. These changes in temperature can affect the coping strategies of the local communities in various sectors.

4. Studies undertaken during the INC indicate that increase in temperature by 2°C-4°C would alter the distribution of the agro-ecological zones. Consequently, areas that used to grow perennial crops would be suitable for annual crops. Furthermore, global warming would tend to accelerate plant growth and hence reduce the length of growing seasons. With increase in temperature and reduced rainfall as well as change in rainfall patterns, average yield of maize is expected to decrease by 33% country wide. Yield of the same crop could decrease by up to 84% in the central regions, 22% in North Eastern highlands, 17% in the Lake Victoria region, and 10 – 15% in the Southern highlands. As a result, livelihoods are expected to be affected negatively with increased food insecurity, malnutrition and starvation already witnessed between 1997 to 2006². However a temperature increase of 2-4°C, is likely to boost coffee production by 18% in bimodal rainfall areas and 16% in unimodal rainfall areas.

5. Increasing drought due to climate change is expected to further decrease the acreage of grazing areas³ which are important for livestock keeping communities in Tanzania. Shrinkage of rangelands is likely to exacerbate conflicts between farmers and agriculturalists in many areas. Surveys show that existing number of cattle in Tanzania has already surpassed the normal carrying capacity in most of the areas and as a result, most livestock keepers are shifting their herd towards southern Tanzania in search for pastures.

6. The INC shows that rainfall pattern and soil moisture will vary due to changes in mean temperature hence affecting the runoff of rivers. For instance an increase in temperature between 1.8°C - to 3.6°C in the catchments areas of River Pangani in the North and North East of the country and the decrease in rainfall, could lead to a decrease of 6-9% of the annual flow of the river. Floods on Rufiji and Pangani Rivers would cause damage to major hydropower stations and human settlements found along these river basins in the country.

¹ Prime Minister's Office (2003). Disaster Vulnerability Report.

² Analysis conducted by McKinsey and Company during study on Economics of Adaptation 2009.

³ 60% of total rangelands are already unsuitable for grazing as a result of tsetse infestation.

7. Recently malaria has been observed to occur in non-traditional areas found in high altitudes such as Kilimanjaro and Arusha, pointing to another effect of climatic change. Furthermore the study further indicates that women and children are more vulnerable to malaria than men due the roles they play in the society, and that poverty influences adaptation to malaria/cholera in the area.

8. Other sectors that are likely to be adversely affected include the wildlife and tourism sector where some wildlife species may disappear due to increasing temperatures, and coupled with the snow cap decrease (between 50-80% between 1993-2000) on Mt. Kilimanjaro.

3. Root causes – non-climate change factors

9. Poverty remains overwhelmingly in rural areas where about 87 percent of the poor population lives. It is highest among households who depend on agriculture. As the population is growing, the absolute number of the poor raises concern according to the MKUKUTA. A majority of the rural population lack access to efficient energy and water sources, which creates a burden for women and children tasked with collecting water and firewood. Poverty is highest amongst women, the youth and households who depend on agriculture and traditional energy (firewood, farm residues and charcoal). As such, the broader rural economy, and environmental degradation deserve focused attention⁴.

4. The constraints to rural growth are largely related to the agricultural sector, broadly defined to include livestock and bee-keeping. The constraints include low productivity of land, labour and production inputs; underdeveloped irrigation potentials; limited capital and access to financial services; inadequate agricultural technical support services; poor rural infrastructure hindering effective rural - urban linkages; infestations and outbreaks of crop; animal pests and diseases; erosion of natural resource base and environmental degradation. In addition wanton tree-felling for charcoal production and soil erosion due to inappropriate farming methods and unsuitable fishing methods are unsustainable.

Baseline situation, ongoing adaptation action and critical CCA needs

5. The Government policy with regard to climate change is to mainstream climate change into development planning and sectoral decision-making. However implementation of this policy has not yet progressed far. The Initial National Climate Change Committee, which provided a forum for national dialogue, was allowed to lapse after the INC was produced and has only recently been reconstituted into a National Climate Change Steering Committee (NCCSC) which first met in its new form in May 2009. The Committee is composed of Permanent Secretaries in priority Ministries. This committee is advised by a National Climate Change Technical Committee (NCCTC) that is composed of MDAs, research institutions, and the civil society. The NCCTC meets monthly. The NAPA was produced in 2007 through a consultative process involving key ministries, but its recommendations are yet to be fully implemented due to lack of resources. Currently the VPO-DOE is developing a National Adaptation Strategy and Action Plan whilst sourcing funds to revise the NAPA comprehensively.

6. Studies are ongoing to prepare the Second National Communication to the UNFCCC. The studies were initiated in September 2006 as part of a three-year project due to expire in July 2009. The Tanzania State of the Environment Report also highlights CC risks and impacts.

7. There are ongoing efforts to incorporate climate change into the reviewed MKUKUTA (PRSP) and thereafter into the sector and local government plans. However, there has been limited consideration of the potential impact of climate change on the growth and poverty strategies. CC has already been incorporated in the agricultural policy but is yet to receive the same prominence in the energy, water, community development, land, health and other policies. Budgeting for CC related interventions has also not yet been integrated into the Medium Term Expenditure Framework (MTEF).

8. The EMA establishes the legal basis for the GOT's climate change activities. The EMA assigns responsibility for ensuring that actions related to the implementation of international conventions on environment are coordinated by the Vice President's Office (VPO-DOE). With specific regard to climate change and adaptation the VPO is meant to:

⁴ CPAP (2007-2010)

- Issue guidelines periodically to Ministries and any other institutions in order to address climate change and its impact as a result of global warming,
- Require Ministries and independent Government departments to put in place strategies and action plans to deal with climate change and to advise schools and higher learning institutions to include matters relating to climate change in their curriculum,
- Review and approve any measures undertaken to address climate change by any institution, firm, sector or individuals be it foreign or local, including those related to the use of land, water, forest or any ecosystems within the United Republic to sequester greenhouse gases,
- Project national positions at global level on how to deal with the problem of climate change in the context of the United Nations Framework Convention on Climate Change, and its related Protocol(s).

1. With regard to CC action, there are a considerable number of efforts being coordinated by the VPO-DOE and being financed by bilateral and multi lateral development partners⁵. Most of the efforts are ongoing and planned from 2009 such as:

- The UN Joint Programme being financed by UNDP, UNEP, DDC, GOT and being implemented by GOT.
- Sustainable Land Management Programme by UNDP-GEF currently in the design phase seeks to mainstream SLM in development processes, review sector investment plans in order to incorporate SLM, create a country investment framework for SLM and establish a national platform for mainstreaming SLM.
- Mainstreaming of CCA into Integrated Water Resource Management (IWRM) in Pangani River Basin by UNDP-GEF/EU being implemented by Pangani Basin Water Board and IUCN-EARO.
- The REDD programme seeks to establish accessible, flexible funding mechanisms and create regional funding mechanisms for REDD, developing national guidelines, developing CC policy and legal frameworks capacity building of communities around forests.
- Others with CC activities are USAID (RANET), Netherlands (NCAP), DFID (Regional Climate Change for SADC), SIDA (EFD & CDM), CIDA (Climate Change Module), Danish (Capacity Building), Austrian (CDM), German (Preservation of the Mountain Forests in the Eastern Arc, French (RESON) and Finnish (CDM) and the EC in Renewable Energy.

2. There are also other ongoing efforts of documentation of impacts of CC on livelihoods by Oxfam, assessing impact on CC on GDP by UNEP and IUCN's CC and development project in partnership with WWF. Tanzania's universities and other research institutions have also initiated several research programmes and joint undertakings in the field of climate change e.g. Dar es Salaam University has two appointees to the IPCC's scientific panels. Research covers specific climate change research on forecasting and remote sensing technology, as well as sector-specific research in agriculture, forest conservation and energy efficiency, greenhouse gas inventory, impact studies and CDM and key assessments of sources/sinks as regards greenhouse gases.

9. Proposed responses

10. The following responses are envisaged under the 5 programme outputs.

i. **Dynamic long-term planning capacities and tools to manage inherent uncertainties of climate change enhanced**

1. *Who will be targeted?:* Tanzania Meteorological Agency (TMA), National Environmental Management Council (NEMC), University of Dar es Salaam (UDSM), Sokoine University of Agriculture (SUA), MDAs, LGAs, Disaster Management Units at national and LGA levels.

2. *Who will do the work:* TMA, NEMC, UDSM and consultants identified and managed through coordination with the VPO-DOE.

⁵ See full list in ANNIM 3.

3. *What will be done?* The CC information base currently scattered in various institutions which include (UN, development partners, MDAs, civil society) will be consolidated under the guidance of the VPO-DOE. The planning implications of these studies will then be linked to socio-economic data and disseminated to MDAs and LGAs for planning purposes. This action will be linked to the UNDP BCPR project on climate risk management which will also be addressing various climate change assessments.

4. Capacity gaps in CC data collection and analysis, framed by the needs of government planners, will be identified in TMA, NEMC, and UDSM among other research institutions. A capacity building plan will then be developed and implemented by the VPO-DOE. Emphasis will be on training and equipping TMA on downscaling global CC models to national levels and packaging and dissemination of Early Warning System (EWS) information for the appropriate MDAs and other target groups. The development of planning tools by priority sector MDAs will be informed by CC projections.

5. *How will it progress adaptation:* Enhanced CCA information management and its subsequent use in the development of planning tools and policy influence by MDAs and other stakeholders.

ii. Climate Change leadership and coordinating CC framework strengthened to manage climate change risks/opportunities

1. *Who will be targeted?* VPO-DOE, DOE Zanzibar, MOEVT, NCCTC, EWG, NEMC, District Environmental Committees in the pilot areas, sector environmental sections, regional secretariats, members of parliament, councillors, LGAs, women and youths groups

2. *Who will do the work?* VPO-DOE, NEMC and consultants.

3. *What will be done?* Under this output, the project will assist in building the capacities of the NCCTC and EWG which comprise of similar members and where MDAs, civil society and the private sector are represented. The project will also assist in capacity building the District Environmental Committees in the 4 pilot districts as they will serve as the CC coordinating structures at district level. The idea will be to link the coordination at regional, district and community levels to the national coordination so that there is a constant flow of CCA information both upstream and downstream. Since there are also other CC related coordination platforms proposed under the REDD and SLM initiatives the project will assist in linking the NCCTC with these. In addition action plans and M&E frameworks will be developed.

4. The VPO-DOE, DOE Zanzibar and CC coordination frameworks will be trained based on a needs assessment. The training will enhance CCA knowledge, leadership, planning, budgeting, and management and M&E skills of CCA activities. Sensitising members of parliament and councillors will also be undertaken as they are crucial decision makers in planning and policy formulation processes. Consultants or institutions identified by the VPO-DOE will design the CCA sensitisation packages and build the capacity of VPO-DOE and NEMC to undertake awareness campaigns.

5. The project will also allocate resources to NEMC to enhance the CC component in the National Environmental Education Strategy which is being used to mainstream environmental education in school curriculums. Thereafter CC can be integrated into the primary, secondary and tertiary curriculums.

6. *How will it progress adaptation?* Strengthened CCA coordination frameworks, developing champions for change; greater technical capacity to manage adaptation from national to community levels and develop adaptation interventions; increased knowledge of CCA in the future generations. In addition the establishment of the national framework coordinated by the VPO-DOE that seeks to promote the CC national strategy, the REDD strategy and the SLM strategies will be important when it comes to planning and harmonising CCA interventions across various donor funded programmes.

iii. Climate change adaptation policies mainstreamed in MDAs

1. *Who will be targeted?* MDAs, LGAs, 4 districts, community groups especially women and youth groups within 3 ecological zones.

2. *Who will do the work?* MDAs, LGAs, VPO-DOE and DOE Zanzibar to coordinate.

3. *What will be done?* The project will allocate resources to the VPO-DOE to develop guidelines and an action plan on how CCA should be integrated into MDA programmes and projects. An action plan for this will also be developed. Thereafter the VPO-DOE will be supported to assist in the revision of MDA policy documents so as to mainstream CCA.

4. With a view to scaling up lesson-learning in climate change adaptation the AAP will pilot CCA interventions using multi-sectoral and integrated approaches in semi-arid, coastal and semi-humid zones. The project priorities listed in the NAPA will be taken as the starting point. There will be 3 projects on the mainland and 1 pilot in Zanzibar. In addition to demonstrating CCA at community level, the reduction of poverty levels, enhancement of sustainable livelihoods and reduction in environmental degradation in the different ecological zones will be the main objective of the pilot projects.

5. *How will it progress adaptation?* Developing long-term sectoral policy and planning frameworks for adaptation, encouraging greater community support for climate change adaptation; establishing demonstration activities on adaptation to reduce climate change damage due to drought, sea level rise and increasing temperatures, with a view to generating adaptation learning.

iv. Regional, sub-regional, national, and local financing options to meet national adaptation costs expanded

1. *Who will be targeted?* MOFEA and the private sector.

2. *Who will do the work?* MOFEA and consultants, VPO-DOE to coordinate.

3. *What will be done?* The AAP project will identify qualified trainers who will strengthen the skills of the MOFEA personnel in developing market/fiscal/financial mechanisms/guidelines for harmonised and well coordinated CC financing at national, local government and community levels. These mechanisms/guidelines should also integrate accountability procedures for CCA funding linking them with the NCCTC at national and local government levels. The project will also train personnel in MOFEA on mainstreaming CCA in budgeting and investment planning using tools developed under output 1 and in the identification of long term funding and investment for CCA.

4. The MOFEA will also be assisted to develop a financing model for the private sector so that they can contribute to adaptation interventions. Furthermore they will be supported to identify global long term financing schemes for Tanzania.

5. *How will this progress adaptation?* Changes to domestic national budgets to accommodate adaptation plans that have been facilitated and informed by climate risk assessments and CCA options analysis in Output 1. There will be more investments in adaptation by the private sector and international funding mechanisms.

v. Knowledge on the implications of climate change generated and shared among stakeholders at all levels

1. *Who will be targeted?* MDAs, LGAs, communities (especially women and youth groups), Tanzania Chamber of Commerce, Industry and Agriculture.

2. *Who will do the work?* VPO-DOE, NEMC, Ministry of Community Development, Gender and Children, Mass Media.