

PROJECT INFORMATION SHEET



QUANTIFYING LOCAL INDIGENOUS KNOWLEDGE AND PRACTICES OF AGRARIAN COMMUNITIES/SOCIETIES TO COMPLEMENT CLIMATOLOGICAL/METEOROLOGICAL INFORMATION FOR CLIMATE CHANGE ADAPTATION AND MITIGATION IN CAMEROON, TANZANIA AND ZAMBIA.

SUPPORTED BY: AUSTRALIA AWARDS SMALL GRANT SCHEME





Introduction

Climate change is a defining issue of our era, with its impacts reaching global, regional and local scales. The current magnitude and variability have critical implications for agriculture, fisheries, forestry, life histories, community composition, and ecosystem function across most developing countries. Households and families in countries of the African continent are among the most vulnerable to climate variability and extremes, given that only 5% of their cultivated land is irrigated and food production is dependent mainly on rain-fed agriculture. New agricultural technologies and scientific practices have been introduced to improve the capacity to adapt to climate change. Policies have emerged at different levels (local, national and sub-regional) that encourage the adoption of such practices, and new tools and financing mechanisms are being introduced to shield farmers from the impacts of climatic risks. However some of these actions have sidelined Local Indigenous Knowledge and Practices (LIKPs) that are currently recognised as making significant contribution to community adaptation and changing circumstances at household and community level. These traditional practices and strategies that have been linked to the observations of changes in climate and long-term extreme weather conditions, transferred from one decade to another and from generation to generation through a process of mutual and collective learning passed on orally and practically, have been grossly neglected policy research and discourse.

Overview

Households and families in countries of the developing world especially in the African continent are among the most vulnerable to this climatic variability and extremes, given that only 5% of their cultivable land is irrigated and food production is dependent mainly on rain-fed agriculture. How serious the repercussions will be, depends on how fast measures and strategies are adopted to facilitate coping with the extreme and inevitable conditions posed by climate change especially for such communities. Unfortunately, some of these agriculture-dependent communities that are most vulnerable to negative effects of climate change are quite remote with improper coverage by scientific forecasting stations. Thus early warning systems are often absent and so these farm-dependent communities are face with damaging and irreversible impacts from climate change. An example is the impact on

the once staple food crop taro, known simply as cocoyams (its roots serving as a source of carbohydrate and its big fleshy leaves serving as vegetable with both used to produce assorted local delicacies including “achu”, “Ekwang” “Black Soup”, porridge, “aquacoco”) in Cameroon. This staple crop is almost going extinct following devastating plumes of dust that covered the production hotspots in Cameroon from 2010 as a result of an unexpected long dry season, creating a favourable environment for the thriving of a fungus that causes the plant to rot from leaf to tuber in addition reducing soil quality for the growing of this crop. The diseases rapidly spread as a result of the unusually long dry season with the transfer of the spores of the fungus across different agro-ecological regions by dust clouds that filled the air in several regions of Cameroon. This phenomenon had never been witnessed before and caught the communities and the research institutions unprepared. Currently there is an almost irreversible impact on this important community food source with significant price hikes in the market since 2010. Local communities have therefore resorted to using their LIKPs including the use of wood ash to preserve the seedlings of these staples for future planning and sprinkling of this ash during different periods of the growth of this plant growth to prevent the spreading of the pest. These LIKPs are proving to be resistant to the changing climatic factors and pest attacks.

The above example is just one of the many examples that demonstrate that grass root communities and households (families) that are highly dependent on agriculture are not just victims of the climate change phenomenon. Their ability to excellently observe and interpret changes on atmosphere, sea and land is an asset for our era. These stakeholders are capable of giving valuable insights into the state of the environment. Their knowledge processes possesses a chronology, context-specific, precise and details which serve to bridge the gap in scientific data and models developed at broader spatial and temporal scales, which are useful to improve understanding of the climate change phenomenon. In addition, many schools of thought have pointed out the central role Local Indigenous knowledge and Practices (LIKPs) has for community based adaptation and mitigation. They have emphasised the need for the integration of indigenous and science-based knowledge in environmental management processes as a key strategy to fill scanty scientific data. Farmers at household levels in many these developing countries have been modifying their farm practices to adapt to changing climate and have evolved approaches that increase resilience to variable and changing climatic conditions. Many case studies in some communities across East, West, South and Central Africa reveal that households are using with success their Local Indigenous knowledge and Practices (LIKPs), in addition to new technologies leading to enhanced food security than less innovative farming communities. In attempt to value LIKPs of these stakeholders, the challenge has been harnessing these LIKPs in appropriate forms that can complement scientific data and shared with a wider audience, thus helping farmers

to continue to produce food in the face of changing and challenging climate. In addition, little comparative analysis has been done in-country and between countries so as to make use of contextual best practices while avoiding the pitfalls.

AGGEM with its partners in East Africa (Tanzania Meteorological Agency) and Southern Africa (Zambia College of Agriculture) in collaboration with Dr Karen Elizabeth McNamara of The University Queensland's School of Geography and Environmental Management seeks to further gather, evaluate, compare and disseminate evidence in appropriate forms to key audiences. This is aimed at strengthening the capacity of agrarian communities/societies, households and other development stakeholders to develop and adopt policies that integrate LIKPs with scientific tools and approaches that make agriculture become more resilient and productive under changing climate. In addition, the project seeks to enhance the potential of local communities as co-creators of knowledge and practices that cushions them against climate risks, transformation of LIKPs into business and education opportunities for a wider audience.

This collaborative project shall be executed by three Australia Awards Alumni who are founding members or hold key executive positions in organisations and institutions working in the environment and climate change sector in Cameroon, Tanzania and Zambia with the project coordinated from Cameroon. The research phase of this project has been supported by the Australia Awards Small Grant Scheme (AUD 30,000) and more project collaboration and support is needed for the second phase especially in elaborating policy briefs and engaging in lobby at local, national and international level for stronger consideration of Local Indigenous Knowledge and Practice (LIKPs) on climate change mitigation and adaptation. Details on the executing organisations can be had from the sites listed below;

Organisation name	Representative	Website
Action Group on Governance and Environmental Management (AGGEM)	Ngang Eric Ndeh Mboumien, Founder/CEO Tel: +237 673520243 Email: ngangeric@gsdmagazine.org Project Lead	http://freetocharities.org.uk/aggem/
Tanzania Meteorological Agency	Pamela William Levira Research officer Tel: +255785068996 Email: nanziap@gmail.com	http://www.suanet.ac.tz/cciam/docs/cciam8.pdf , or http://www.meteo.go.tz/about_us/index.php
Zambia College of Agriculture	Nelson Chilambo Senior Training Officer - Crops Acting Head of Production Department Tel: +26 0976 053 093 Email: chilambonelson@yahoo.com	www.zcampika.com

