

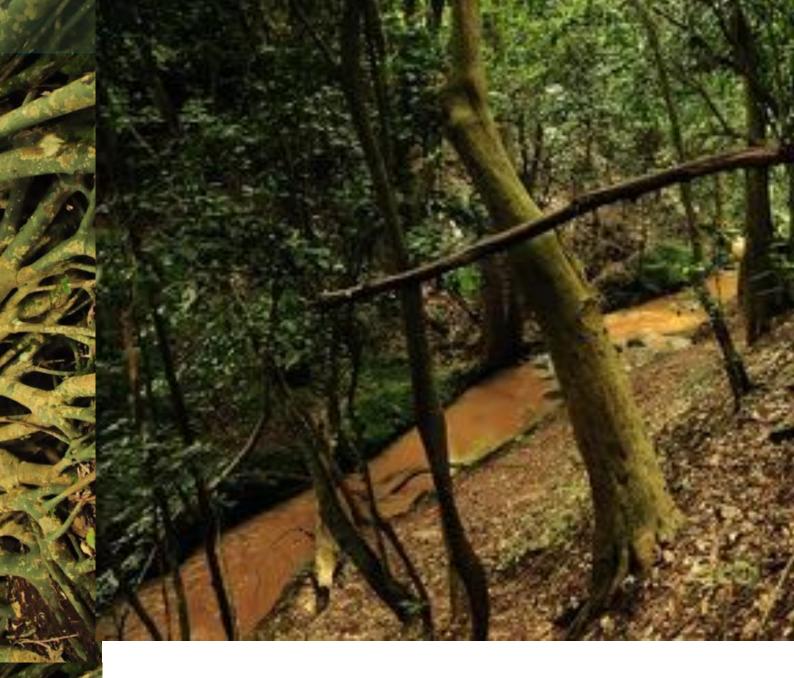
# African Centre For Jechnology Studies

Knowledge for Better Livelihoods

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#### **ACTS' Vision**

Knowledge for better livelihoods

#### **ACTS' Mission**

To strengthen the capacity and policies of African countries and institutions to harness science and technology for sustainable development

#### **Core Activities**

The research activities of the Centre rotate around the core issues of biodiversity and environmental governance, energy and water security; agriculture and food security and science and technology literacy. Human health is a cross cutting issue

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Secretary to Governing Council (Ex-Officio)



## **ABBREVIATIONS AND ACRONYMS**

ACSAD Arab Center for the Studies of Arid Zones and Dry Lands

ACTS African Centre for Technology Studies
BCAS Bangladesh Centre for Advanced Studies

CAG Consortium Advisory Group

CBAA Community Based Adaptation in Africa
CBAA Community Based Adaptation in Africa

CBO Civil Society Organization
CBOs Civil Society Organizations

CCAFS Climate Change, Agriculture and Food Security
CDKN Climate and Development Knowledge Network

CDM Clean Development Mechanisms

CGIAR Consultative Group on International Agricultural Research
CLACC Capacity Strengthening in the Least Developed Countries for

Adaptation to Climate Change

COMESA The Common Market for Eastern and Southern Africa

CDP Community Dialogue Platforms

COP Conference of Parties
CS Communication Strategy
CSOs Civil Society Organizations

CSTD Commission on Science and Technology for Development
CURE Coordination Unit for the Rehabilitation of the Environment
DENIVA Development Network for Indigenous Voluntary Association

DfID Department for International Development

DoR Director of Research

DRD Directorate of Research Management and Development

DTIA Development Trust Innovation

EAC East African Community

ED Executie Director

EECZ Energy and Environmental Concerns – Zambia,
ELCI Environnemental Liaison Centre International
EPMS Environmental Protection Management Services

ESMAP Technical Advisory Group (TAG), Energy Sector Management

Assistance Program

EU European Union

FAC Future Agriculture Consortium
FAO Food Agricultural Organization

FV Fundacion Vida

GALVmed Livestock Veterinary Medicines

GDP Gross Domestic Products

GES Global Economic Symposium
GIS Geographic Information Systems

GPS Global Positioning System

GW Germanwatch

IAASTD International Assessment of Agricultural Knowledge, Science and

Technology for Development





IAQ Indoor Air Quality

**ICIPE** International Centre of Insect Physiology and Ecology

**ICRAF** World Agroforestry Centre

**IDRC** International Development Research Centre

IDRC-CCAA International Development Research Centre-Climate Change

Adaptation in Africa

**IGAD** Intergovernmental Authority on Development

IIED International Institute for Environment and Development

**IPCC** Intergovernmental Panel on Climate Change

JIG Joint Implementation Group

**JKUAT** Jomo Kenyatta University of Agriculture KARI Kenya Agricultural research Institute **KBC** Kenya Broadcasting Corporation

**KCCWG** Kenya Climate Change Working Group **KEPHIS** Kenya Plant Health Inspectorate Service KICC Kenyatta International Conference Centre

ΚU Kenyatta University

**LDCs** least developed countries LPI Livestock Policy Initiative **LVBC** Lift Valley Basin Commission

**LVBDC** Lake Victoria Basin Development Commission

**MDGs** Millennium Development Goals MoU Memorandum of Understanding

**MSC** Most Significant Change

Swaminathan Research Foundation **MSSRF** 

**NBC** National Biofuel Committee

**NCCRS** National Climate change Response Strategy **NCST** National Council for Science and Technology NEMA National Environment Management Authority

**NEPAD** New Partnership for Africa's Development

**OWSDW** Organisation for Women in Science and Development for the

Developing World

PA **Practical Action** РΑ Personal Assistant

PFM Participatory Forest Management

**PISCES** Policy Innovation Systems for Clean Energy Security

**PMM** Participatory Market Mapping

PV Participatory Video **PWG** Policy Working Group

RBM Results Based Management

**RETs** Renewable Energy Technologies RIU Research Into Use programme

RMGI Recording Media Group International

S&T Science and Technology

**SADEC** Southern African Development Community **SCIR** Council for Scientific and Industrial Research

SECS Sudanese Environment Conservation Society

SEI Stockholm Environmental Institute

SIDA Swedish International Development Cooperation Agency

SSA Sub-Saharan Africa

STEPS Social Technological & Environmental Pathways to Sustainability

STPI Science and Technology Policy Institute
TERI The Energy and Resources Institute
TWAS Third World Academy of Sciences

TWM Trans-boundary Water Resources Management

UDSM University of Dar es Salaam

UK United Kingdom
UN United Nations

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

Conference of Parties

UNHCR United Nations High Commissioner for Refugees

UoE University of Edinburgh

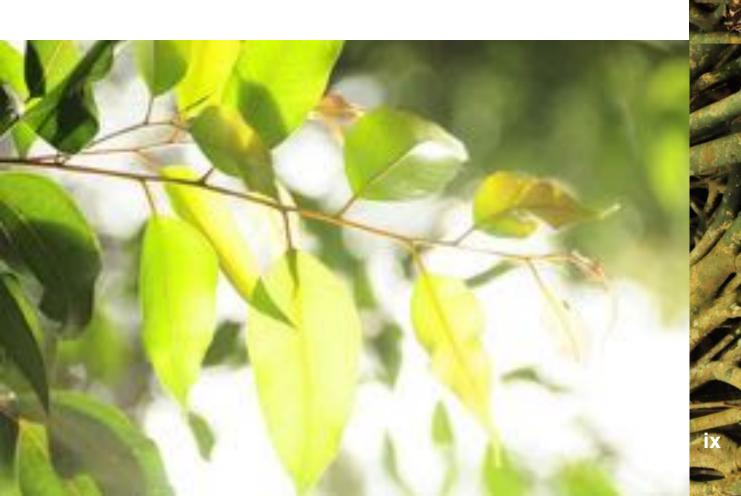
USAID United States International Development

WBA World Bioenergy Association
WSED World Sustainable Energy Days
Y.M.CA Young Men Christian Association

YPARD Young Professionals' Platform on Agriculture Research and

Development

ZERO Regional Environment Organization - Zimbabwe





## AN APPRECIATION: WANGARI MUTA MAATHAI

n October, 2011, Prof. Wangare Muta Maathai passed on, succumbing to cancer. The larger than life conservationist, environmentalist and Nobel Laureate, will be remembered for her tireless efforts in protecting the environment even at the risk of her own life. Prof. Maathai loved the environment, lived for the environment and almost died protecting it. Wangari Maathai is internationally recognized for her persistent struggle for democracy, human rights and environ-



mental conservation. We at ACTS have lost a great friend and fellow environmentalist. The founding director of ACTS Prof. Calestous Juma, paid glowing tribute to Prof. Maathai, recognizing the fact Prof. Maathai gave him his first job in the environment and conservation fora. Through the years Maathai has been associated with ACTS in various ways. While she was the Assistant Minister for Environment, Natural Resources and Wildlife in Kenya's ninth parliament, Maathai was closely associated with ACTS on issues of the management of transboundary natural resources in East Africa in a project that eventually led to the development of guidelines for Regional Environmental Impact Assessment of Shared Ecosystems of East Africa by the East African Community (EAC).

It was while she served in the National Council of Women that she introduced the idea of planting trees with the people in 1976 and continued to develop it into a broad-based, grassroots organization whose main focus is the planting of trees. The focus was women groups in order to conserve the environment while improving their quality of life. Through the Green Belt Movement that she set up in the early 80s, Maathai assisted women in planting more than 20 million trees on their farms and on schools and church compounds.

The Movement established a Pan African Green Belt Network that has exposed over 40 individuals from other African countries to the tree planting initiative. Some of these individuals have established similar tree planting initiatives in their own countries or they use some of the Green Belt Movement methods to improve their approaches. So far some countries in Africa have successfully launched such initiatives (for instance Tanzania, Uganda, Malawi, Lesotho, Ethiopia and Zimbabwe). In September 1998, Prof. Maathai launched a campaign of the Jubilee 2000 Coalition which then sought cancellation of the unpayable backlog debts of the poor countries in Africa by the year 2000. She played a leading global role as a co-chair of this Coalition. Her campaign against land grabbing and rapacious allocation of forests land has caught the limelight in the recent past.

Prof. Maathaiis no longer with us but the memory of her efferves cent self will remain for ever.



## **FOREWORD: ANNUAL REPORT 2011**

he situation can no longer be termed as an "unfolding scenario". It is now a vivid reality. As always, Africa is deep in the vicious cycle of drought, poverty and hunger. According to a World Food Programme report, 9 million people in the Horn of Africa are in need of humanitarian assistance, and the number is growing. Thousands are fleeing Somalia in search of food and shelter in neighboring Kenya, which in turn has humanitarian and development problems of their own, and Ethiopia, itself a food deficit country. About 2.4 million people need help in Kenya alone. The situation is not much different in the other African nations. To be mild, the situation is dire. Of course emergency measures are being put



in place to address the situation. That is laudable. But what we actually need are long-term plans and policies to prevent recurrence of such situations.

The African Centre for Technology Studies (ACTS) is known for its policy research on issues that impinge on human survival. Through its policy research on issues of climate change, the search for alternative fuels, the Centre has in the last decade been advocating for change in the way Africa manages its resources. In our Strategic Plan, our program: Agriculture and Food Security, we have the objectives of putting in place policies to improve food production and food security in the rural areas. We expect that by improving the capacity of women to use science and technology in agricultural food production, we will create a situation of food security for the family.

In the Energy and Water Security program, ACTS is advocating for policies that will enable more people to have better access to safe, reliable and affordable energy and water supply. This will in turn help households in Africa to adapt to the changing climes by using available energy and water resources sustainably and looking for other alternatives for these valuable resources.

In a nutshell, ACTS has been and will continue to address the ever-pressing needs of environment and development concerns through engaging policy and decision makers and use information generated by ACTS researchers and our national, regional and international public and private institutional partners to make sound policies that can be implemented.

As Africa fights the vagaries of climate change, ACTS will be there to strengthen the capacity and policies of African countries and institutions to harness science and technology for sustainable development.

Prof. Judi Wakhungu Executive Director





## INTRODUCTION

esearch work at the African Centre for Technology Studies (ACTS) continued in earnest during 2011. The year marked the third year of the implementation of the Strategic Plan (SP) 2009-2013. This is roughly midway into this SP. Some activities that were accomplished include the revision of the Science and Technology Policy Institute (STPI) Business Plan. We were also in the process of operationalizing the plan in 2012. In addition, a draft marketing strategy has been developed. This is intended to roll out the implementation of the Business Plan. The Business Plan will steer the STPI towards sustainability through generating income from tuition fees and related consultancies

The STPI carried out three scheduled training courses and four project-based courses with a total of 215 participants. Through a consultative process, a tentative schedule of courses has been developed. This has largely been linked to current programmes and activities under ACTS Strategic Plan. In addition, a draft marketing strategy has been developed that is intended to roll out the implementation of the STPI Business Plan.

The ACTS Communication Strategy (CS) continued to direct the dissemination, outreach and public relations activities of the Centre. Through the strategy, the Centre adopted the use of interactive social media like facebook and twitter that has increased the institution's visibility globally. This visibility is evidenced by the appearance of the Centre in local and international media. In the area of publications and outreach, the Centre printed and distributed a total of 4000 policy briefs on various subjects, 3500 working briefs and 7 books. In addition, the Centre organized six workshops that brought together 300 participants in 2011. There was active participation in major worldwide and local seminars, workshops and meetings by ACTS staff. In this respect staff participated in over 35 national and international conferences.

The year 2011 also marked the successful completion of two major projects: the Tranboundary Resources and Water Management project, funded by the Swedish International Development Cooperation Agency (SIDA) and the three year research project on Community Based Adaptation in Africa (CBAA) funded by International Development Research Centre (IDRC).

The Policy Innovation for Clean Energy Security (PISCES) project was quite active in 2011. The project spearheaded the drafting of the Kenya National Biofuel Policy. PISCES has been providing information for policy makers to apply in efforts to unlock the potential of bioenergy to improve energy access and livelihoods in poor communities in Africa and Asia. As fossil fuels diminish, this project has succeeded in mobilizing researchers to go into high gear in the search for alternative fuels, particularly biofuels for cooking and firing engines, including motor vehicles.

Another area where ACTS has been very active is the Research into Use project in partnership with the UK Department for International Development (DFID).





This project was concluded in June 2011. Implementation of this programme has provided useful learning lessons for ACTS researchers in relation to their work, and how this can enhance research outputs. Towards this end and under coordination of the Director of Research, progress has been made in trying to integrate these lessons into ACTS approach to policy research and analysis.

### **Background**

Africa is presently facing multiple problems brought about by the changing and unstable world economy, seriously exacerbated by governance issues and armed conflicts in the oil producing world, the ravages of climate change that has hit Africa frontally in the last decades, fast globalization and outright famine and food shortages. All these have exposed African countries to an ever declining economic base, which in turn leads to low per capita incomes that lead to more conflicts. Prolonged droughts have brought with them food shortages and to a large extent, famine. Whole regions are ravaged by gripping famine that has triggered population movements across boundaries from areas perceived to have food deficits to areas that have seemed in the past to be food secure, only to be disappointed to find worse situations at their countries of destination.

That is the African scenario that ACTS was involved with in the year 2011. Through various programmes and projects, ACTS is playing its role in the alleviation of sufferings in Africa. This is mainly through research that is science-based and policy-oriented. A few examples are mentioned below to illustrate this endeavour.

The PISCES project has been providing information for policy makers to apply in efforts to unlock the potential of bioenergy to improve energy access and livelihoods in poor communities in Africa and Asia. As fossil fuels diminish, this project has succeeded in mobilizing researchers to go into high gear in the search for alternative fuels, particularly biofuels for cooking and firing engines, including motor vehicles. Another example where ACTS is contributing to policy and practice is in climate change debate. Among the many initiatives under climate change, ACTS joined a consortium to implement climate change compatible developments. The geographical area of operation for the consortium includes Kenya, Bangladesh and Honduras. The project: Advancing Climate Compatible Development for Food Security through the Implementation of National Climate Change Strategies is coordinated by Perspectives GmbH of Hamburg, Germany. The key project role is to assist policymakers in developing countries to optimally harness climate finance for food security-related elements in national climate change strategies. It addresses key concerns, namely the vulnerability of agriculture as a key sector relevant for food security as well as emissions from agricultural activities.

ACTS' focus has also included the livestock and health sectors. For instance, a new project funded by Wellcome Trust through RAND Europe augments research in health innovations for better livelihoods. Under this project, ACTS is involved in networking and communication activities within the African Institution Capacity Building Initiative that brings together different African institutions in health and livestock sectors. The main focus in 2011 was to develop and conduct a short survey on capacity and other needs in terms



of relationships/linkages and information sharing across different levels of consortia in different levels of responsibility with level one targeting directors, deputy directors. An academic report on capacity needs linked to communication and knowledge sharing in the involved African research institutions has been developed. Later on in 2012, other activities will capture the capacity needs of other levels of actors within this initiative. ACTS will host and maintain a website to support learning and sharing of experiences between different actors, including creation of feedback mechanisms. Fundraising activities will also be scaled up. These activities will increase networking and enhance collaboration between ACTS and a wide stakeholder base in the health sector.

Overall 2011 was a year of output and outreach. The dissemination of the IAASTD publications was ongoing and the publications continued to form a base for many other agricultural projects by other institutions in Africa and beyond.

## **Meeting the Regional Mandate**

The Centre collaborates and associates with various regional organizations that include the East African Community (EAC), with whom it has collaborated in the formulation of policies governing shared ecosystems and recently the publication of several books related to the management of Lake Victoria resources through the Lake Victoria Basin Commission. The Common Market for Eastern and Southern Africa (COMESA) which is a free trade area with nineteen member states stretching from Libya to Zimbabwe is another regional organization that ACTS has engaged with in the areas of Biotechnology and Biosafety. Research in biotechnology has also engaged the EAC. The Intergovernmental Authority on Development (IGAD) is another organization that ACTS has also collaborated with in the areas of Climate Change and natural resource conflicts in the Horn of Africa region. Activities under Climate Change have also involved the EAC. The recent partnership in the health sector with Welcome Trust through Rand Europe hopes to enhance an increased reach out to other regional blocks like the EAC, African Union, SADEC among others. Under the RIU programme mentioned elsewhere, the popular innovation platforms enticed the participation of numerous policy blocks within and without the countries of operation. In Kenya for instance, the Army worm and farm inputs consortia involved players from Kenya, Uganda, Tanzania and some countries in West Africa. These consortia have proved to be avenues for influencing policy and institutional change thus attracting the interest of existing regional blocks as a way of curbing persisting poverty in Africa.



## **PROGRAMMES**

The Programmes implemented in 2011 include; Agriculture and Food Security, Biodiversity and Natural Resources Management, Energy and Water Security and the ACTS Science and Technology Policy Institute (STPI); and implementation of the Communication Strategy. As in the 2010 report, this report continues to adopt the Results Based Management (RBM) format that focuses on reporting impacts of the various programmes rather than a focus on individual projects.

## 1. AGRICULTURE AND FOOD SECURITY

The Programme focuses on the functioning linkages among research, extension, education and communication in the promotion of agricultural production; policy and legal measures for harnessing agricultural biotechnology for food security; assessing the science content of agricultural policies and development strategies; and improving the state of knowledge on land degradation, land resources tenure and use, agricultural water use and associated best practices.

Current projects under this programme include:-

# 1.1. Evaluating the roles and impacts of media advocacy on policy change in the livestock sector in Kenya

ACTS was commissioned by Global Alliance for Livestock Veterinary Medicines (GALVmed) to carry out an evaluation of the 'Kenyan Dream Initiative' campaign, an initiative conducted by GALVmed in collaboration with Nairobi based creative communications company Well Told Story. The objective of the campaign was to get Kenyan policy makers to recognize the importance of livestock as an engine for growth and a potential pathway out of poverty and enhanced food security. ACTS carried out the research to evaluate the impacts of mass media as an advocacy tool in Kenya amongst players in the livestock sector. This research builds onto earlier work conducted by the Centre in collaboration with IGAD-Livestock Policy Initiative (LPI) on 'Enhancing policy-relevant capacities for livestock sector development in the IGAD region. This research study contributed to increasing awareness on the potential of media advocacy as a tool that can be adopted by research organizations to influence policy change especially in agriculture sector. In addition, it contributed to the strategic goal 1.3 on the ACTS Strategic Plan 2008-2013 on 'Developing policies that improve agriculture production and food security in rural areas.

# 1.2. Advancing Climate Compatible development for food security through implementation of the National Climate Change Strategies

As a partner, ACTS has joined a consortium to implement climate change compatible developments. This consortium includes Kenya, Bangladesh, Fundacion Vida (FV) from Honduras and two German based organizations namely Germanwatch (GW) and Perspectives GmbH implementing a new project namely: Agriculture, Food Security and Climate Compatible Development. The project will run for 2 years beginning August 2011. The project intends to build on the vast knowledge generated from both the Energy and Water Security and Agriculture and Food Security programmes at ACTS. It seeks to addresses key concerns, namely the vulnerability of agriculture as a key sector relevant for food security as well as emissions from agricultural activities. The research aims to provide policymakers with tools to act as a national climate strategy "gatekeepers" in order to integrate climate funding streams for the agriculture sector in a way that mitigation and adaptation benefits of a given funding volume are maximized without jeopardizing food security.

Among other goals, the project will assist the policymakers in Kenya to optimally harness climate change finance for food-security related





elements in national climate change strategies. ACTS is leading the Kenyan project components and will develop a case study focusing on Kenya.

#### 1.3.2. Gender and agricultural innovation

This was an activity under the DFID-funded Research Into Use programme. The research behind this activity endeavored to bring together two major streams of debate and policy analysis, gender issues and innovation in agriculture which could make a major contribution to equitable development. The purpose of this research was to reflect on the opportunities that a systems understanding of innovation provides for addressing gender issues and to provide some insight for policy and practice.

## Summary of main activities implemented in 2011 under this programme include:

- Outreach and dissemination of IAASTD findings.
- Commencement of an activity to develop a list of updated resource on adaptation and mitigation aimed at informing case studies on the synergies between food security and climate change financing.
- Development of a database of key policy makers on agriculture, food security and climate change commenced.
- An inception meeting for policy makers to generate initial feedback and introduce the CDKN project.
- Share initial results in a side event at COP17 in Durban.
- Carrying out a study on the role of mass media as an advocacy tool amongst actors in the livestock sector.
- Carrying out research on gender and agriculture innovations.
- Publishing policy and working briefs which is on-going.

#### Summary of outputs under this programme in 2011

- Policy guidelines that promote agricultural production & food security policy-making developed.
- Established linkages & active collaboration in research, extension, education & communication to promote agricultural production & food security.
- Food security gaps identified in the National Climate change Response Strategy (NCCRS)
- Capacity gaps in policies governing biotechnology, livestock, trade, food security & food aid identified in the region
- Developing a matrix that contains a list of resource materials on adaptation and mitigation synergies has commenced.



- A project inaugural breakfast meeting for policy makers and actors on links between climate change and food security has been hosted.
- Project meeting during COP17 held in Durban where ACTS was represented.
- A project side event on policy awareness targeting development partners in Durban during COP17. Again ACTS was represented.
- Dissemination and awareness of initial project outcomes has commenced e.g. as guided by breakfast meetings held in respective countries.

## 2. ENERGY AND WATER SECURITY

The goal of this programme is to contribute to enlarging the proportion of people with access to safe, reliable, affordable energy and water supply. Energy and water projects as well as broader and more specific issues of climate change are all executed under this programme. The activities under this theme enable ACTS to have greater impacts on energy, water and climate change issues in the region and at the United Nations Framework Convention on Climate Change (UNFCCC). The Centre also sought ways to research and provide information on climate change adaptation with the aim of informing policies on environment and sustainable development in Africa.

This programme yet again proved to be the most active in 2011 due to the global concern with vulnerability and adaptation to climate change. Major achievement under this programme during this reporting period was successful completion of the Community Based Adaptation in Africa (CBAA) project and the Trans-boundary Water Resources Management (TWM) projects. In addition, the National Biofuel Committee continued to lobby for approval of the draft biofuel policy by the Ministry of Environment to enable the draft policy move to the next step for debate by the parliament. The ACTS' PISCES project is spearheading the drafting of this national policy.

# 2.1. Community-Based Adaptation to Climate Change in Africa (CBAA)

ACTS with partners in Eastern and Southern Africa, Europe and South Asia undertook an action research, testing tools for community adaptation, knowledge generation and capacity building project on Community-Based Adaptation to Climate Change in Africa (CBAA). The project ran from February, 2008 to February, 2011. ACTS was the coordinating organization and partnered with the following organizations: Sudanese Environment Conservation Society (SECS)- Sudan, Environmental Protection Management Services (EPMS)- Tanzania, Development Network for Indigenous Voluntary Association (DENIVA)- Uganda, Coordination Unit for the Rehabilitation of the Environment (CURE)- Malawi, INDIGO development and change - South Africa, Energy and Environmental Concerns (EECZ) - Zambia, ZERO Regional Environment Organization (ZERO)- Zimbabwe,





International Institute for Environment and Development (IIED)-United Kingdom, Bangladesh Centre for Advanced Studies (BCAS)- Bangladesh, Stockholm Environmental Institute (SEI) – Sweden. This 3-year project was being implemented with selected vulnerable communities in Kenya, Malawi, Sudan, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. The aim of the project was to identify ways of communicating climate information between and amongst poor and vulnerable communities, and other stakeholders. Capacity building and support will be given to NGOs and communities through training to facilitate integration of climate change into their plans and activities. The project was co-funded by the International Development research Centre-Climate Change Adaptation in Africa (IDRC-CCAA) and DFID.

In Kenya, ACTS partnered with a local organization called Uhai Lake Forum in implementing the Community-Based Adaptation (CBA) project in Oyola and Wakesi village in Nyando basin, Kano Plains in Kisumu, western part of Kenya. The project area faces frequent floods and drought impacting on the local communities' lives and livelihoods. The piloting phase of some selected CBA activities ended in February 2011 and the implementation of the viable CBA activities continued in Oyola and Wakesi villages, Kisumu with support from IIED, which ended in September 2011.

In January 2011, the ACTS Governing Council visited the CBAA project sites: Oyola and Wakesi villages, to ascertain the extent of work that had been going in the project areas since its inception in 2008. They were accompanied by various stakeholders from Uhai Lake Forum (local partnering NGO), representatives from key government ministries and departments, Area Member of Parliament, journalists, CBOs and farmers. It was an opportunity that local community and its CBOs got to share the experience in implementation of CBA and various challenges they experienced.

The project progress and lessons learnt were shared through ACTS website and in relevant local, national, regional and international meetings. Participatory project monitoring and evaluation continued with the remarkable success in the use of the Participatory Video (PV) and the Most Significant Change (MSC).

# 2.2. Capacity Strengthening in the Least Developed Countries for Adaptation to Climate Change (CLACC)

CLACC is a global programme working in the least developed countries (LDCs) to strengthen their efforts to adapt to the impacts of climate change. With increasing evidence of extreme weather events attributable to impacts of climate variability and change, such as frequent droughts, floods, storms, among others; the need for greater and more urgent climate change adaptation and mitigation action is imperative. Under the CLACC umbrella, ACTS is spearheading the climate change initiatives in the Eastern Africa region. The project is funded by a consortium of donors through the International Institute for Environment and Development (IIED). This is an open ended project with new contracts signed annually.



## Summary of milestones under the two climate change projects, CLACC and CBAA

- The capacity of local partners was enhanced through training and networking provided at different levels: locally, nationally and internationally.
- Understanding of climate change vulnerability and adaptation needs within communities and research teams was improved through participatory approaches to learning and participatory video monitoring.
- Viable CBA projects were identified, formulated and implemented in the project areas.
- Increased consultation and participation on climate change action research and dissemination by African scientists.
- Enhanced engagement of both gender in diversification and improvement of livelihoods to effectively adapt to changing climate.
- CBA methodologies developed, refined and applied in varied ecosystems.
- The capacity of relevant stakeholders developed to mainstream climate change adaptation into plans and activities through knowledge exchanges and information provision (CBOs, CSOs, government).
- Climate change publications (both non-scientific and scientific) have been published to inform climate change policy formulation and decision-making at local, national, regional and international levels.

# 2.3. Policy Innovation Systems for Clean Energy Security (PISCES)

PISCES is a five year initiative funded by the UK's DFID. PISCES is working in partnership with Kenya, India, Sri Lanka and Tanzania to provide policy makers with new information and approaches that they can use to improve energy access and livelihoods in poor communities. It is managed from ACTS with four other members forming a consortium. These members are the University of Dar es Salaam (UDSM) in Tanzania, the University of Edinburgh (UoE) in the UK, the Swaminathan Research Foundation (MSSRF), in India. Practical Action (UK, East Africa and South East Asia) forms the fifth member of the group.

# Solar Transition: Facilitating South-South-North Transfer of Social and Technological Innovations on Solar Energy

This project is being implemented in partnership with the University of Oslo, Norway and The Energy and Resources Institute (TERI), India. The project aims to contribute to the understanding of success factors and lessons learned in the process of implementation and use of solar power plants in local communities in the South, as well as how such experiences can be transferred and adapted to other communities and countries. It is funded by the Norwegian Science Council through the University of Oslo. ACTS' role is to participate in the implementation of the project activities in India and Kenya. The project is in its second year of implementation.



#### Trans-boundary Water Resources Management (TWM) Project

This was a 5 year project that targeted middle to high level personnel working on water issues that are transboundary in nature. The focus was effective water resources management primarily targeting the Lake Victoria Basin whose waters are contributed to by 5 nations in the eastern Africa region. These countries are Burundi, Kenya, Rwanda, Tanzania and Uganda. It was funded by SIDA and implemented through a partnership between Ramboll Natura, ACTS and Stockholm Environmental Institute. The year 2010/2011 was the 5th and last phase of this project that came to completion in June 2011.

#### **Main Activities**

- Training covering relevant TWM case studies from different lake and river basins of the world, including the Baltic Sea and the Mekong River.
- Conducting project monitoring and evaluation to assess the impact of the training.
- Preparation and implementation of TWM feedback seminar(s) through a final project promoting the home institutions and each participants' further engagement in TWM and job processes.
- Networking with other training programme participants as well as Swedish and international organizations.

#### **Milestones**

- Participants prepared and implemented projects based on lessons learnt from the training e.g., Lift Valley Basin Commission (LVBC) finally financed and rolled out the Community Dialogue Platforms (CDP), a project by one trainee in 2010/2011.
- Collaboration in transboundary resource management e.g., Rwanda and Burundi collaborating in addressing land degradation in the shared water areas.
- FM radios in Burundi synchronizing environmental messages across the country and now working to have the same in all Lake Victoria basin Countries.
- Draft policy brief prepared.
- Regionally the taking up of community dialogue platform by the LVBC provides an avenue for EAC to adopt the same.

#### Summary of main activities under this programme in 2011

- Final technical reports for the CBAA project prepared and submitted to the funder, the IDRC.
- Building capacity of stakeholders in the region for sustainable development and management of energy, water resources and climate change:
  - Training workshop on safe use of ethanol fuel and clean cook stoves and field monitoring on air quality.
  - Developing the capacity of stakeholders to mainstream climate change adaptation into plans & activities through knowledge exchanges & information provision.

- Developing community level generic tools for adaptation to climate change.
- Contributing to policy development for sustainable energy, water resources and climate change by participating in national, regional and international policy initiatives including meetings/conferences/workshops.
  - E.g. ACTS participated in Conference of Parties (COP) 17 in Durban, South Africa
- Developing and/or promoting appropriate technologies in energy & water.
  - Developing Access and Delivery Models for bioenergy
  - Piloting off grid community solar systems.
- Organizing and participating in project meetings with partners in different countries
- Creation of a climate change adaptation database.
- Assessing the existing local indigenous knowledge and socio-cultural factors that affect vulnerable groups and their capacities to adapt to climate change.
- Strengthening existing networks to enhance understanding of the climate adaptation needs of vulnerable communities.
- Providing technical support to Kenyan Climate Change Working Group forum.
- Outreach & dissemination through national & regional workshops, & publications.



- Preparing and producing publications (policy briefs, working briefs, books).
- The University of Dar es Salaam hosted the PISCES Joint Implementation Group (JIG) meeting which was held at the Snow Crest Hotel, Arusha Tanzania on 1-3 March.
- Benard Muok attended various Quarterly Policy Working Group (PWG) meetings that continued to take place with good inputs and attendance chaired by the Sri Lanka Sustainable Energy Authority.
- A 2-day residential Biomass Policy Workshop was held 14-15<sup>th</sup> May with a wider stakeholder group to produce a Policy Brief and roadmap for Bioenergy in Sri Lanka.
- A PISCES JIG meeting was held on 21-22 June in Nairobi at the Windsor Hotel. The meeting was hosted by ACTS.
- Annual PISCES, JIG meeting at Amaya Hill Resorts, Sri Lanka from October 17-24, 2011.
   The meeting was held to discuss progress of the PISCES project and the way forward.
- There was a brainstorming meeting at the Hilton Hotel, Nairobi, Kenya, from April 7—8,
   2011. Partners from each of the countries involved in the PISCES project attended.
   The purpose of the meeting was to prepare a proposal for post-PISCES activities.

#### Summary of major outputs under this programme

#### Selected highlights of PISCES

PISCES seeks to improve bioenergy policy by addressing gaps in knowledge through interdisciplinary research and building governance systems by actively engaging with and building the capacity of stakeholders. To this end, the following are some highlights of undertakings that have purposed to address the mentioned gap.

**Shaping national policy:** PISCES has established multi-stakeholder policy working groups (PWGs) in Kenya and Sri Lanka while processes to establish these in Tanzania and India are ongoing. In Kenya, PISCES signed a Memorandum of Understanding (MoU) with the Department of Energy leading to the drafting of Kenya's new Biofuel policy.

**Training tomorrow's leaders:** PISCES has trained over 40 Masters Graduates and over 10 PhD students. Through PISCES, these students have benefited from interdisciplinary training and exposure to working as part of an international network.

**Igniting entrepreneurship:** PISCES is increasingly engaging with entrepreneurs to ensure that its ambitious impact targets are met. PISCES is working with small-scale entrepreneurs (e.g appliance and equipment producers) as well as larger private firms (e.g ethanol and sugar companies) in Kenya, Sri Lanka and Tanzania.

**Engaging in public debate:** PISCES has made a contribution to global public debate regarding biofuels, seeking to bring a balance to an increasingly fractious debate by drawing on ACTS research findings, and identifying knowledge and policy blindspots.

PISCES findings and reports are repeatedly cited in the papers and policies of NGOs. A PISCES member contributed to the drafting of the chapter on 'ethical principles and biofuels policy' in the recent Nuffield Council for Bioethics report on Biofuels: Ethical Issues (which includes an analysis of the contested European Commission Renewable Energy Directive).

**Piloting of Croton biodiesel on Stationary engines:** PISCES in collaboration with the Ministry of Energy is piloting Croton megalocarpus for biodiesel on stationary engines. This project is being conducted with communities in Naromoru around Mount Kenya. Data generated from this project will inform the biofuels policy on commercialization of biodiesel for household, stationary engines and transport in Kenya. ACTS is leading the policy aspects of the project.

Pilot project on bioethanol as an alternative household fuel in Western Kenya: The PISCES project in collaboration with the Ministry of Energy and United Nations Development Programme (UNDP) are conducting a research project to pilot ethanol for household cooking in Kenya. This pilot is testing the delivery models for poor households to access ethanol and CleanCook Stove. Ethanol as a household fuel has promising results on reduction of indoor air pollution (IAP). The target community and project area is Nyalenda settlement in Kisumu County.

Under this project, a training workshop was conducted on safe use and field monitoring on air quality in Nyalenda slum. The objective of the training was to build the capacity of stakeholders and the project implementation team on safe handling of the CleanCook stove and ethanol as fuel. Ethanol is a highly flammable fuel and in Kenya, it has never been used at the household level. The trainees were trained on monitoring indoor air quality (IAQ). This training was vital for pilot project implementation purposes and for promotion of ethanol adoption as an alternative household fuel in Kenya. The training was attended by different stakeholders participating in the bioethanol value chain including: community representatives, leaders, potential local ethanol distributors, project implementation team and other potential stakeholders in the bioethanol sector like UNHCR who are planning to initiate a similar programme in Dadaab refugee camp in North Eastern Province.

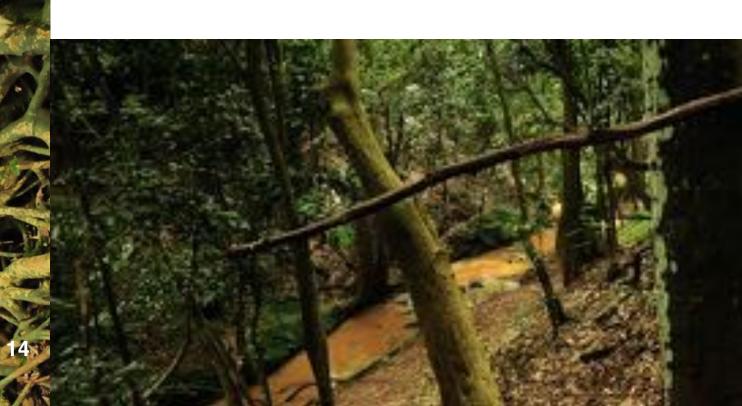
This pilot project is aimed at generating data to inform policy on the potential of ethanol as a alternative household fuel and a replacement for kerosene and fuel wood, a clean source of energy that will free households from indoor air pollution, contribute to enhanced environment management and a potential source of employment in the rural areas in Kenya. This project contributes to the overall goal of ACTS which is to promote evidence based policies grounded on facts and best technologies and in addition feeds into strategic goal on promoting policies that enable more people to have better access to safe, reliable, affordable energy.

#### Outputs under the CBAA project include:

 Improved capacity of stakeholders in energy and water security, and climate change adaptation.



- Enhanced use of appropriate energy and water technologies at house hold level.
- Novel technologies patented.
- Contributed in developing the Intergovernmental Panel on Climate Change (IPCC 5) report on climate change financing mechanisms
- Capacity gaps in policies governing energy, water, and climate change adaptation identified in the region.
- Policy guideline on energy, water, and climate change adaptation developed.
- Increased participation in national, regional and international fora on energy, water and climate change.
- Influenced bioenergy, water and climate change policies at local, national, regional and international levels
- Access and Delivery Models for bioenergy described and developed.
- Access to Improved clean energy among rural communities enhanced.
- Information disseminated through publications (policy briefs, working briefs, books).
- Generic tools for adaptation to climate change customized to community needs and requirements.
- Factors that affect vulnerability among certain community groups & existing knowledge on CBA identified.
- Ph.D. study on socio-cultural dynamics that exacerbate vulnerability to climate change
   & effects of community based adaptation on socio-cultural set up.
- Enhanced networking with partners.
- Piloted community based adaptation projects in the eight countries.
- Identified viable climate adaptation and mitigation strategies for implementation in three countries.



# 3. Biodiversity and Natural Resources Management

The purpose of this Programme is to develop and promote policies for sustainable management of biodiversity, environmental governance, domestication of multilateral environmental agreements, and understanding the linkages between ecology, conflicts and peace building. In addition, spillovers from the other programmes in particular the CBAA and PISCES project are promoting planting of woodlots to increase the forest cover, provide alternatives to deforestation for wood fuel and improve biodiversity. This initiative is aimed at enhancing the adaptive capacities of communities in Western province.

Current projects under this programme include:-

# 3.1. Assessing the impact of Participatory Forest Management on community livelihoods in Mt. Kenya

Under the biodiversity and natural resources management programme, the Centre is supporting a female PhD student from Kenyatta University to conduct research work on participatory forest management (PFM) with communities. The related research was carried out in Hombe and Upper Imenti in Mt. Kenya forest. PFM approach is form of forest management which aims at shifting away from the command and control system that alienated communities in the past. Under the PFM arrangement, communities and other stakeholders are deliberately involved in the planning, management and utilization of forest resources in gazetted, private and trust lands, with the aim of improving livelihoods, ecosystem health, forest management and equity in resource distribution. This study will generate information on benefits and costs of PFM and the mechanism of sharing out these benefits and costs with the Kenya Forest Service and other stakeholders. Information gathered will be used to make policy recommendations for improving participatory forest management in the study sites and other similar regions of Kenya and beyond.

# 3.2. Establishment of woodlots for increased biodiversity and enhanced livelihoods

The PISCES and CBAA teams are collaborating to enhance the adaptive capacities of communities living in flood prone areas in Kenya. This initiative is funded by DFID through the PISCES project. It is on its' second year of implementation. The project is aimed at enhancing the adaptive capacity of vulnerable communities for improved livelihoods. To achieve this, the initiative is promoting fast growing and beneficial species for the woodlots including: eucalyptus, cypress, Grevillea robusta, Casuarina equisetifolia and Prunus africana. Establishment of woodlots and fruit tree orchards will serve as an alternative fuel source, promote biodiversity, promote livelihood diversification options and increase the forest cover. The project is looking into upscaling through increasing the tree species in the woodlots to include other beneficial





indigenous species including *Croton megalocarpus* which can also be a source of biodiesel. Out of a group of 100 farmers participating in this initiative, 40 are women.

# 3.2.2. Environmental Health, Housing Rights and Informal Settlements: Experiences from Kigali and Nairobi

The populations of most African cities have been growing since the 1960s at some of the fastest rates in the world. Africa is now the world's fastest urbanizing region and by 2050, 55 per cent of Africans will be living in urban areas (from 38 per cent in 2000). Urbanization occurs due to a variety of different 'push' and 'pull' factors, and the interaction between urban and rural areas is often subtle and complex.

Over 90 per cent of new urban development in Africa is informal. Housing is generally defined as 'informal" because it has been constructed without the formal approval of the authorities. Typically, informal housing does not meet legal standards for construction (for example, regarding building materials, or the distance between housing units), and/or is constructed on land which is not legally owned by the inhabitants. There is generally a great diversity of legal issues and practical concerns, and extra-legal settlement systems have long-since expanded beyond the point at which they can be regarded as a single category or process. Squatter settlements now represent a small proportion of all extra-legal urban housing for low-income groups. More recent practices, such as illegal commercial sub-divisions, may involve building permanent structures on land designated for housing development, and for which the occupants possess a form of title, but for which no building permit has been obtained.

Informal settlements are not purely the domain of the poor: a number of low-cost housing units in some informal settlements may be owned by wealthy landlords. In Nairobi, for example, landlords make considerable profits from their rental units in informal settlements, recouping capital investments in as little as two years. Some homes in informal areas may be purchased by middle-income groups, who are able to upgrade the quality and value of the buildings.

While the construction of informal dwellings is by definition 'illegal', it has continued unabated in the developing world and the boundary between formal and informal is rarely clear. Rather, the informal and formal city meet at a series of interfaces, as when regulatory frameworks are adjusted and readjusted in response to the widening boundaries of informalities, or when government agents arbitrarily enforce some rules but not others. In many cases, some activities are formally extra-legal, but are considered legitimate by the actors concerned.

#### Summary of main activities under this programme

 Assessing the impact of participatory forest management on community livelihoods in Mt. Kenya (supporting a PhD student).



- Training on establishment and management of tree nurseries and in improved grafting techniques.
- Establishment of woodlots and fruit trees orchards.
- Developing policy guidelines on management of Prosopis juliflora.

#### Summary of main outputs under this programme

- Human and institutional capacity on biodiversity and natural resource management built.
- Enhanced adaptive capacity of vulnerable communities for improved livelihoods.
- Improved biodiversity.
- Improved management of Prosopis juliflora.

## 4. Science and Technology Policy Institute (STPI)

ACTS' Science and Technology Policy Institute (STPI) is a training institution that focuses on providing training programmes on two broad areas; science and technology literacy, and policy related issues. The Institute has developed in two phases. Phase one mainly involved planning activities like capacity building for the institute, staff recruitment, curriculum development, initial marketing of the Institute and establishing links with universities. A pilot programme consisting of two short courses with about twenty Kenyan students for each was conducted in September and October 2005. In the second phase beginning 2006, ACTS worked towards commercializing the Institute. In this phase, participants were sourced from all ACTS' member states. The future plan was to bring on board other African countries based on the results of the second phase implementation.

In year three (2007), the institute revised its curriculum as necessary, based both on participatory evaluations of previous courses, changes in technology and international environmental governance frameworks. In years 2008 and 2009, the Training Institute has been built up more strategically and systemically to enhance and complement the programme work carried out at the centre. The Institute's activities have been integrated into regular research work to ensure better overall coherence, synergy and quality assurance of all capacity-building carried out in order to impact ACTS as an organisation. The Institute has currently revised the business plan for 2009 - 2013. The design of the training programmes is akin to the Short Courses or Executive Programmes format, with a post-graduate curriculum accredited by internationally acclaimed universities, coordinated and hosted by ACTS.

The courses are targeted at technical and management staff in NGOs' government ministries. Research is accredited by a number of overseas universities. The objective is to provide academic credibility and to enable universities themselves play a more direct role. On the international front, the current candidate bodies are Penn State





University (US), Harvard University (US) and Strathclyde University (UK) and Open University (UK). This initiative is critical and timely and comes at a time when the role of science and technology (S&T) in economic development is increasingly being recognized not just in the developed world, but in developing countries as well. More than ever, development institutions, not least the World Bank, are increasingly accepting and demonstrating strong correlations between the percentages of Gross Domestic Products (GDP) spent in research and development and GDP per capita. Furthermore, S&T is increasingly becoming part of the agenda of both the international community and policy makers in developing countries. These strengthen prospects for the viability of the STPI and for ACTS to realize its vision of "Knowledge for better livelihoods." The strategic expectation here is that through the Institute, ACTS is better placed to influence change and complement other strategies adopted by the African governments to realize the Millennium Development Goals (MDGs).

The team overseeing the implementaition of the Institute has undertaken further market research and participated in other relevant programmes. It found that though there are many capacity building courses across the Sub-Saharan (SSA) region, most of these are designed as fairly narrow activities dealing with provision of specific skills. As it is, there are no programmes dealing systematically with policy analysis capacity. Thus, ACTS decided to establish the Institute to meet the same need but in a more cost effective manner.

Implementation of the STPI Business plan is on schedule and a tentative schedule of courses for year 2012 has been developed after several brainstorming meetings amongst the researchers. This is expected to be rolled out early December 2012 through several marketing avenues. A draft marketing strategy has been developed for this purpose.

#### **Health Innovations for Better Livelihoods**

In partnership with RAND Europe, ACTS will provide networking and communication activities in connection with African Institution Capacity Building Initiatives undertaking research in health innovations for better livelihoods. This RAND/ACTS activity is a complementary aspect feeding into the larger health innovation programme that is funded by Wellcome Trust.

#### Areas of focus in 2011

Developing and conducting a short survey on capacity and other needs in terms of relationships/linkages and information sharing across different levels of consortia undertaking health research.

#### **Output**

Networking and enhanced collaboration with a wider stakeholder in the health sector.

Progress reports on capacity needs linked to communication and knowledge sharing in African health based research institutions.

Linking ACTS strategic plan with the wider African networks and related policy initiatives.

# Study on Perspectives on Gender and Science, Technology and Innovation

The Institute was commissioned by the Organisation for Women in Science and Development for the Developing World (OWSDW) to carry out a study on the perspectives of stakeholders and decision makers on gender, science and technology in East Africa. The aim of the study was to explore the understanding of stakeholders on the topic and the importance of involving women in STI for development in their countries. This study contributed to an international campaign on gender issues in science, technology, innovation and education – GenderInSITE – which was launched by OWSDW, TWAS and the Gender Advisory Board (UN Commission on Science and Technology for Development- CSTD) in March 2011. The aim of the campaign is to overcome existing gender stereotypes among scientists, policymakers and community at large by raising awareness of the contribution of women to science and technology. This research generated evidence on the current state of gender issues in science and technology and facilitated in shaping an informed campaign aimed at policy makers in Africa and contributed to ACTS' goal of promoting policies that reflect gender considerations in Science, Technology and Innovation.

#### **Training Courses**

#### GIS agricultural mapping for farmer lands

The Institute in collaboration with the Young Professionals' Platform on Agriculture Research and Development (YPARD) hosted a training workshop for young professionals in agriculture research and development (ARD) field on GPS for agricultural mapping technology. The objective of this training was to impart GIS knowledge and skills in young people in agriculture which they can in turn use to obtain consultancy opportunities with agricultural research institutions, therefore improving their economic status. This training looked also into improving institutional support and capacity of young professionals in order for them to effectively contribute to agricultural policy debates. This will contribute to promotion of policies that reflect the youth considerations in Agriculture and in Science, Technology and Innovation which is one of the goals of ACTS as reflected in the current Strategic Plan.

#### **CLACC Capacity building for youth on Climate Change**

ACTS partnered with Norwegian Aid in hosting a capacity building workshop on Climate Change and Advocacy for the youth in Kenya Climate Change Working Group. The objective of this workshop was to enhance the understanding of climate change issues at international level by the youth and also equip them with advocacy skills prior to their participation in a caravan to Durban through several countries. This will contribute toward policy influence through awareness creation.





ACTS, in partnership with Uhai Lake Forum in Kisumu hosted a workshop for civil societies from Western Region on Networking and Climate Change. The main objectives of the workshop were to:

- Strengthen civil society networks in western Kenya with a view to strengthening and coordinating civil society action on climate change in the area.
- Providing a platform for civil society from western Kenya to share their experiences in climate change issues from their area, success stories and challenges.

#### Technology shaping policy in East Africa

This training was one of the many scheduled to be held in partnership with the Open University, UK. The overall objective is to enhance the understanding of critical issues on technology shaping, policy and research including:

- Knowledge and understanding on concepts and definitions on innovation and design research, technology shaping, technology policy, and technology adoption and transfer.
- Role of different actors in technology policy and research within local settings.
- How technology shaping affects the society.

The training targets development practitioners mid to higher levels and other related stakeholders involved in science, technology and innovation in policy making.

#### Summary of outputs under the STPI

- Improved linkages and networking with national, regional and international research, academic institutions and development organizations.
- Improved capacity of relevant stakeholders in the region to undertake policy analysis.
- Improved capacity amongst the youth on the use of GIS for agricultural research and on climate change issues.
- Networking and knowledge sharing platform developed Agri-mappers Kenya discussion group created by the GIS trainees.
- Survey conducted to explore gaps and needs in terms of relationships/linkages and information sharing across different levels of consortia within the African Institution Capacity Building Initiatives.
- Evidence on the current state of gender issues in STI generated.
- Influencing the shaping of GenderInSITE campaign aimed at policy makers in Sub Saharan Africa (SSA).

#### **Milestones**

The Science and Technology Policy Institute (STPI) Business Plan was revised and plans to operationalise it have commenced with the drafting of a marketing strategy. It is hoped that the Business plan will steer the Institute towards sustainability through generating income from tuition fees and related consultancies.



## 5. Communications and Outreach

The communications department has developed an in-house Communications Policy and related strategy to guide the communications operations of the Centre. Dissemination of publications was ongoing as this report was being prepared. ACTS has been active in attending and exhibiting its publications at local university fora. This year, ACTS has attended and exhibited at the yearly Moi University International Conference, a practice done over many years. This is a forum where the university invites scholars from all over the world to discuss academic trends and learn from each other. ACTS has been taking advantage of this conference to reach as many people as possible with publications and information on the Centre.

ACTS has also increased its media presence in Africa and abroad with several citations in the media. The executive director of ACTS was interviewed by Reuters news agency on issues related to ACTS' Climate Change programmes. Other media that carried ACTS messages included but not limited to Hope FM, the Standard newspaper, business daily and the Nairobi Star.

ACTS is well known in Africa for its publications and throughout the period under review, several publications resulting from research projects have been published. Such is the pioneering role for ACTS for science publications in Africa that the Centre is synonymous with these outputs that are popular in and around Africa. ACTS has been invited to several workshops and seminars solely because of these publications. A recent example is the 7th Annual International Conference on the theme: Knowledge Creation and Dissemination for Realization of Millennium Development Goals at Moi University in Eldoret. ACTS publications were disseminated at this conference and the number of people inquiring about the activities of the Centre was quite high.

Still on the subject of publications, the culture of collaborative publishing was maintained. The Centre collaborated with Development Trust Innovation (DTIA) in engineering and research on a broad range of development subject that included research on Kenya's county governance in the era of devolved government to the counties. This resulted in the publication of a timely volume: Kenya's Urban Development in the 21<sup>st</sup> Century: the Call for Innovative Initiatives from Local Authorities. Among the authors of the book is Prof. Judi Wakhungu, the Executive Director of ACTS. The publication was launched at a colorful ceremony in Nairobi.

ACTS Press was invited to collaborate with the East African Community (EAC's) Lake Victoria Basin Development Commission (LVBDC) in production of six publications. So far ACTS runs three websites that give information on the Centre and some of its projects. ACTS also disseminates information on social networks such as Facebook and Twitter.



In the period under review the Communications department produced policy briefs, working briefs, brochures and newsletters, monographs and books, developed and maintained three websites, produced media briefs and press releases, organized media coverage, outreach workshops, banners and posters, held an e-conference and disseminated publications. The main audiences for these outputs were non-governmental organizations, government ministries, research institutions, universities, regional economic communities, consultancy firms, private sector and media houses. The communications department faced a few challenges in the implementation of its mandate. This included an increasing demand for ACTS publications that sometimes put constraints on the Centre's resources. There is also the question of delayed response and monitoring of these outputs. This process can take a long time to be realized and measured. It is also difficult to precisely meet the needs of varying research disciplines as to language, content and suitability.

#### **ACTS** in the news

#### **World Bioenergy Association**

The Executive Director, Prof. Judi Wakhungu, attended a major press conference in Vienna where together with Kent Nystrom, who is also a member of the World Bioenergy Association, was interviewed about their perspectives on bioenergy, peak oil, and increasing fossil fuel prices.

#### Reuters

The chief environment correspondent for *Reuters* in Oslo had an interview with Prof. Judi Wakhungu, on various issues related to adaptation to Climate Change and how this is affecting food security in Africa. The interview was also aired on Kenya Broadcasting Corporation (KBC), a national radio station in Kenya. ACTS has several projects on Climate Change and food security issues are highlighted in the programme: Agriculture and Food Security.

#### Hope FM, Business Daily and Star Newspaper

On March 14, 2011 Prof. Judi Wakhungu was nominated to serve on the commission of CGIAR, climate change. Prof. Wakhungu's nomination as commissioner was aired on Hope FM, a Kenyan FM station focusing on religious programmes. The nomination was also carried in the Business Daily and the Star Newspaper.

# Business Daily, Tuesday 9/6/2011- Youth seek to reap profits from farming with technology

ACTS was mentioned in the paper as having partnered with a Rome-based Young Professionals' Platform on Agriculture Research for Development. ACTS had





coordinated programmes tailored for youths keen on pursuing a career in agriculture. The organization recently partnered with ACTS to implement a programme on geographic information technologies targeting unemployed and underemployed graduate students in agriculture-related disciplines. The participants drawn from public universities were trained on how to use Geographic Information Systems (GIS) and Remote Sensing to provide solutions to agriculture, health and environmental challenges

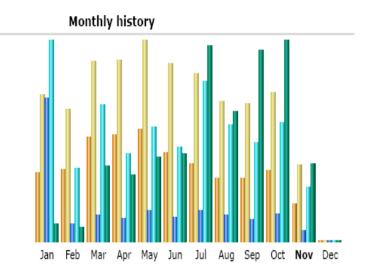
## **ACTS Webpage hits in 2011**

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2011	1,414	3,040	54,681	76,668	1.46 GB
Feb 2011	1,500	2,748	6,631	27,938	1.26 GB
Mar 2011	2,154	3,742	10,172	52,271	6.59 GB
Apr 2011	2,212	3,759	8,570	33,507	5.82 GB
May 2011	2,322	4,162	11,626	43,743	7.36 GB
Jun 2011	1,845	3,690	9,335	35,824	7.60 GB
Jul 2011	1,605	3,479	11,743	61,323	17.07 GB
Aug 2011	1,313	2,907	9,873	44,677	11.29 GB
Sep 2011	1,317	2,852	8,501	37,534	16.63 GB
Oct 2011	1,472	3,088	10,575	45,187	17.49 GB
Nov 2011	778	1,580	3,948	20,451	6.79 GB
Dec 2011	0	0	0	0	0
Total	17,932	35,047	145,655	479,123	99.36 GB

The highest number of website visits was recorded in the month of March, 3,982. March remains highest in terms of visits in 2011 just as in 2010. The lowest number of visits was recorded in December at 2,816. The highest number of unique visitors was recorded in July at 1,543, whereas the lowest was recorded in November at 1,174 visitors.

#### **Milestones**

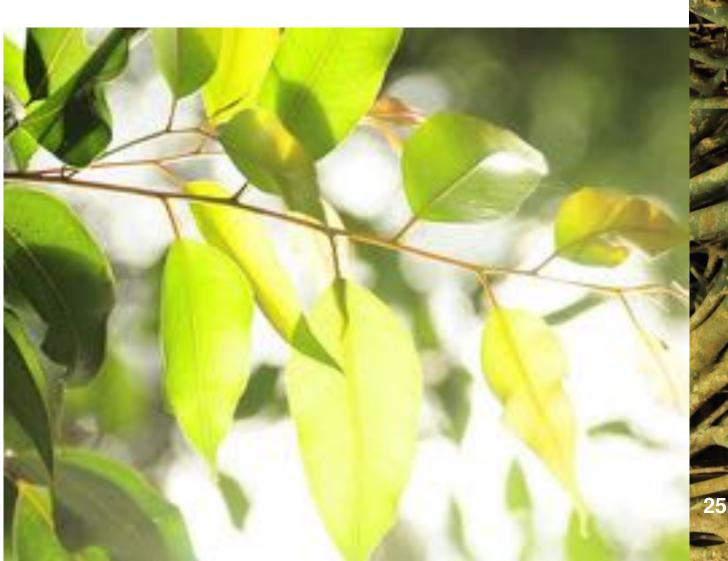
ACTS was able to exhibit at the Moi University International Conference that took place in September 2011 where publications were distributed to varied





The executive director, ACTS, and the director, DTIA at the launch of the book: Kenya's Urban Development in the 21st Century: the Call for Innovative Initiatives from Local Authorities

category of people from all over Africa and the world. The outreach team also distributed several other publications at the Climate Change Expo at KICC between 1s3<sup>th</sup>-15<sup>th</sup> October 2011. Other staff members also participated in dissemination whenever they attended local and international meetings.





#### **Finance**

#### 1. Financial performance

The Centre's annual operating budget for the year 2011 of US\$ 2.7M was approved by the Governing Council in January 2011 followed by review and approval of audited accounts for the year 2010 in April 2011.

ACTS closed the year with a surplus of US\$39,748. The Total revenue was US\$2.5m compared to US\$2.8m of the preceding year.

The Centre continued its fund raising efforts for its programmes and operating expenses in order to improve its long-term financial stability despite various challenges with donor organizations undergoing major reforms on funding regulations.

The audited income statement for the year ended 31 December 2011 are presented below.

THE AFRICAN CENTRE FOR TECHNOLOGY STUDIES (ACTS) STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2011 2011 2010 **INCOME** Grants 2,357,110 2,444,653 Consultancy 175,767 427,471 2,872,124 2,532,877 **EXPENDITURE** 1,085,709 1,009,239 1,010,974 1,248,985 Consultancy 145,204 411,001 Travel costs Telephone and postage 46,981 41,931 49,503 53,750 47,381 45,693 Repairs and maintenance Training, Meetings, workshops and conferences 25,492 59,240 Depreciation 18,728 36.793 **Publications** 51,359 30,963 Bank charges 4,722 1,875 9,170 13,771 9,240 Stationery, printing and photocopying 11,504 Professional fees, Subscriptions and licences 1,449 1,484 Other expenses 9,165 11,786 2,494,206 2,998,959 OPERATING SURPLUS/ (DEFICIT) 38,671 (126,835)Interest received 8.607 7,753 Foreign exchange loss (21.039)(55,695)9,944 Sundry income 4,875 Interest earned on Endowment Fund 2071 8,634

SURPLUS/ (DEFICIT) FOR THE YEAR

39,748

(162,762)

#### **Human Resource**

#### 2. Administrative and HR Systems

#### 2.1 Organization policy, procedures and manuals

The Centre revised its key organizational procedures manuals and management policies to reflect the changes in laws and regulations of the Government of Kenya.

The Centre has also prepared an Ethics and Anticorruption policy to guide the matters of integrity and also in line with donors 'requirements. This was launched in December 2011, with staff training workshop.

The Centre carried out staff Performance Evaluation for year 2010 in line with the approved Staff Development Policy/Strategy and Staff Performance Management System. This process was useful to employees as it is a way of facilitating opportunities for staff to gauge their achievements and performances. On the other hand the organization was able to recognise staff potential and reward performance as necessary.

#### 2.2 Staff movements

ACTS maintains a regular staff of about 18 at any one time and also engages consultants with expertise in various areas of research to fit with the Centre's programmatic/thematic areas. There was a marked improvement during the year 2011 in the caliber of staff in terms of qualifications and experience.

The Centre appointed Dr. Anna Kingiri as the Director of Research (DoR) effective July 2011. She is responsible for the leadership and development of a comprehensive institutional research Programme to support the Centre's strategic objectives. She brings a wealth of experience from the UK-RIU programme and the Kenya Plant Health Inspectorate Services (KEPHIS)





Shadrack Kirui who was on study leave completed his Masters of Science degree in Environmental and Energy Management. His thesis was on "Barriers to Financing Renewable Energy Technologies (RETs) in Kenya: A Case Study of Biomass Cook stoves".

The Centre offered Internship programs to qualified students from a number of Universities. Two interns, Richard Kibet (Kenyatta University) and Faith Rono (Maseno University) were hosted, both of whom worked under different departmental roles.

#### 2.3 Staff development and capacity building

The Centre continued to develop the capacity of its staff through training in line with the policy of strengthening the competence, efficiency and effectiveness of its staff in various areas. The management of ACTS is committed to developing the human resources of the Centre to its fullest potential.

Susan Murunga attended three day Conference on Strategic & Business Thinking Styles for Modern PA'S & Office managers which was organized by Africa Management Communications International Limited and was able to gain relevant skills for her current position. Mary Muthoni required an in house training that would enable her perform all her publishing and design duties within the organization. The training was provided by Bell Institute of Technology. In addition, Mary Muthoni, Millie Mwango and Dorothy Osoro attended one-day training on Creating a Culture of Impeccable Customer Service in July, organized by Classique Concepts Limited.

The Centre also provided opportunities for researchers to attend and participate in various forums, conferences and workshops both regional and international. This proved useful to them for acquisition and dissemination of new research knowledge.



## An overview of ACTS Staff 2011



Prof. Judi Wakhungu Executive Director



Benard Muok Director of Programmes



Anne Kingiri Director of Research



Fridah Nkirote Finance & Administration Manager



Susan Murunga PA to Director



Joan Kungu Research Fellow



Andrew Adwera Research Fellow



Serah Nderitu Research Fellow







Charles Tonui Research/Project Assistant



Harrison Maganga Publications/Public Relations Officer



Mary Muthoni Administrative Assistant/ Publications



Millie Mwango Communications Assistant



Thomas Ogaga Procurement Officer



David Njenga Project Accountant



Michael Mbugua Office Driver / Office Assistant



Simon Ihumba
Office Assistant / Caretaker

## **News and Events**

Meeting	Date	Attended by	Comments	Venue
Climate Change, Agriculture and Food Security (CCAFS)	February 15,	Executive Director	The Executive Director was invited and accepted to be a Commissioner of the new CCAFS set up by the CGIAR-ESSP Climate Change, Agriculture and Food Security (CCAFS) Program.	Washington DC
World Bioenergy Association Board, No. 10.	16 February	Executive Director	The Executive Director attended the World Bioenergy Association Board Meeting via telephone	Nairobi
World Sustainable Energy Days (WSED) Next	29 <sup>th</sup> February- 2 March	Executive Director	This was a conference to present the work and achievements of young researchers in the fields of biomass and energy efficiency, a platform for interaction with experts and decision makers from industry and institutions.	Wels, Austria
European Pellet Conference 2011, World Sustainable Energy Days	2-4 March	Executive Director	The Executive director attended and gave a presentation on: "Programmes for Sustainable and Affordable Biomass Fuels". She then proceeded to a meeting held in the framework of the World Sustainable Energy Days 2012 (WSED12) Conference.	
Bionergy World Africa	March 13	Director of Programmes	ACTS Director of Programmes, was a speaker at the Bioenergy World Africa 2011, that took place in conjunction with the 13 <sup>th</sup> Annual Power and Electricity World Africa Conference and Exhibition.	Johannesberg, South Africa
ESMAP Knowledge Exchange Forum,	March 17-18	Executive Director	The ED attended the World Bank Energy Sector Management Assistance Programme as a member of the Experts Group	Washington, D.C.
RMGI Conference	March 22-24	Executive Director	The ACTS Executive Director was invited to the conference on solar radiation management research, England in her capacity as an expert in the energy and climate change field. She could however not attend as she was on mission to Berlin and Washington for a World Bank meeting. In Washington, she attended the Consultative Group Meeting of World Bank Energy Trust Funded Programs.	Kavli Royal Society International Conference Centre, England. Washington DC
The 28 <sup>th</sup> Forum on Global Issues on "The Future of Food Security"	May 10, 2011,	Executive Director	The Executive Director was invited to participate in the conference as one of the keynote presenters.	Berlin, Germany
Agricultural Biotechnology in Africa: Fostering Innovation	May 12-15, 2011	Executive Director	The Executive Director attended the Agricultural Biotechnology in Africa: Fostering Innovation conference at Addis Ababa University, Ethiopia. The overall aim of this conference was to outline strategies for building the competence needed to enable Africa to integrate biotechnology into its agriculture in a sustainable way.	Addis Ababa University, Ethiopia,
World Fish Center Board meeting	25-27 May	Executive Director	The Executive Director attended in her capacity as a member of the board.	Penang, Malaysia,
3rd UK Biochar Conference	May 24	Executive Director	The 3rd UK Biochar Conference took place in the city of Edinburgh .The event was preceded by the official unveiling of new pilot-scale 'specified biochar' production pyrolysis facility.	Edinburgh
Board of Trustees Meeting	11 <sup>th</sup> August	Executive Director	The Executive Director participated in 49 <sup>th</sup> Board of Trustees teleconference as a member.	Nairobi, Kenya
Global Bioenergy Outlook Pre-Conference Seminar and International Nordic Bioenergy Seminar	5-9 September	Executive Director	The purpose of Global Bioenergy Outlook Pre-Conference Seminar was to show the possibilities of increasing biomass for energy on a global level. The presentations showed the benefits of efficient use of biomass all over the world. The Executive Director also attended the International Nordic Bioenergy 2011- at the same time and place.	Jyväskylä, Sweden
Forum- "Developing our region in a devolved government system	30 <sup>th</sup> September	Executive Director	The Executive Director attended a forum organized by the Development Trust Innovation Africa on behalf of the County Council of Wareng and the Municipal Council of Eldoret (Uasin Gishu County) and partners. She participated in the Panel Debate Sessions with other leaders from the private sector, civil society and the government.	Sirikwa Eldoret.
Biofuel Seminar	October 12— 13,	Executive Director and Director of Programmes	The two attended a biofuel seminar. The Executive Director presented on "large scale land acquisitions in Africa", where the theme incorporated the effects of large scale acquisitions on the local inhabitants.	Sweden



The STEPS Centre Advisory Committee Meeting	October 13	Executive Director	The Executive Director attended the 2011 STEPS Centre Advisory Committee.	Institute of Development Studies, Sussex University
Technical Advisory Group (TAG) Meeting,	October 17 - 20th	Executive Director	The Executive Director attended a Technical Advisory Group (TAG), Energy Sector Management Assistance Program (ESMAP) meeting.	Washington DC United States.
The Legatum Convergence	October 27-18	Executive Director	The Executive Director attended the MIT Legatum Centre, Advisory Board Meeting and MIT Legatum Convergence where she made a presentation on "Private Investment: Public Purpose" as an opening keynote panelist.	Cambridge, Massachussets.
7 <sup>th</sup> Annual International Conference,	September 6 <sup>th</sup> -10 <sup>th</sup>	ACTS researchers	ACTS staff represented the organization and displayed publications from different programmes and project. The theme was "Knowledge Creation and Dissemination for the Realization of Millennium Development Goals". There was a high demand and follow up of ACTS work and the different projects and programmes. The publications were and are still on demand after the exhibition.	Moi University
Global Economic Symposium (GES)	October 5-6	Executive Director	The Executive Director participated as a panelist.	Kiel
Climate Changes Development: Challenges & Opportunities for sub- Saharan Africa	November 1 <sup>st</sup>	Executive Director	The Executive Director attended the Symposium. As a speaker at the event, she was able to meet with scientists from various disciplines and research clusters as well as foster initiative to implement and also update the IAASTD results. As per IASSTD's objectives the symposium brought together people who are dedicating their time and energy to promote the very important assessment as meaningful information for decision makers thus supporting MDG-oriented policies.	Berlin at the Heinrich Boll Stiftung
International Conference, Beyond the cross Roads: New Issues, Persistent problems Linking food security, sustainability science and sustainability politics.	November 9-10	Executive Director	This conference was attended by the Executive Director and was a public event. There were various new issues discussed such a s policies subsidizing fuels from biomass for transportation in the EU and other countries, resulting in conflicts and competition on land also in food-insecure countries, amongst others.	Urania, Berlin
New Routes of the Life and Peace Institute, Uppsala.		Dr. Michael Ståhl, a member of the ACTS Governing Council	Micheal was guest editor for a thematic issue of the <i>New Routes</i> journal. The theme of the issue was: "Consequences for the local communities". It focused on the transactions leading to an investment, if conflicts arise and how they can be resolved.	
Governing Council Annual Meeting	January 26-28	All Staff	The ACTS Governing Council held the 14th Session of the Annual General Meeting and the 10 <sup>th</sup> Donors meeting respectively The Programme Committee and Nominations Committee visited Kisumu City on January 24-25, 2011 to view the progress of PISCES /CBAA project in Oyolla and Wakesi Villages.	Lord Errol Hote Kenya
International Training Programme on Transboundary Water Management.	In February 2011	ACTS Staff	An ACTS researcher participated in the International Training Programme on Transboundary Water Management. This was the 5 <sup>th</sup> and last year of the training program.	Sweden
Inter-ministerial Technical Committee Meeting,	March 7	Director of Programmes	Dr. Ben Muok represented ACTS on the National Biofuel Committee (NBC) at an Inter-ministerial technical committee meeting on development of biofuel, This was in preparation for a stakeholders' workshop that was held later where perspectives of different experts on the policy was sought.	held at the Prime Minister' office, Kenya
EU Energy Partnership	March 15 – 18	Director of Programmes	The Programmes Director represented the Executive Director at the Joint Experts Group Meeting of the Africa – EU Energy Partnership	Port Louis, Mauritius
International Workshop on Intra-regional learning and technology transfer as a tool for adaptation to climate change in East African Dry lands,	March 24—25	ACTS Researcher	A research fellow at ACTS participated and gave a presentation in a panel addressing the role of local knowledge and learning for the building of adaptive capacities.	Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya
EU Energy Partnership	March 15 – 18	Director of Programmes	The Programmes Director represented the Executive Director at the Joint Experts Group Meeting of the Africa – EU Energy Partnership.	Port Louis, Mauritius

5 <sup>th</sup> International Conference on Community Based Adaptation to Climate Change	26 -31 March	ACTS Researchers	ACTS participated in the 2011, 5th International Conference on Community Based Adaptation to Climate Change.	Dhaka, Bangladesh from
Social Enterprise Forum	April 4-7	Project Accountant	ACTS Project Accountant, attended a Social Enterprise Forum at the For the first time in South Africa, the world's premier event engaging social enterprises over all the continents .The theme for this annual Social Enterprise World Forum (SEWF) 2011 was "Social enterprise as a catalyst for sustainable development".	University of Johannesburg, South Africa
Civil Society Organization/ CBO meeting on Climate Change for Western Kenya.	20 <sup>th</sup> and 21 <sup>st</sup> April	ACTS Staff	The African Centre for Technology Studies (ACTS), the Uhai Lake Forum in collaboration with the Capacity Building in the Least Developed Countries on Adaptation to Climate Change (CLACC) network organized a Civil Society Organization/CBO meeting on climate change for Western Kenya.	Hillside Village Hotel, Kisumu
Learning Platform Workshop for Climate Change	May 27	ACTS Researcher	An ACTS researcher attended the Regional Learning Platform Workshop for Climate Change, Agriculture and Food Security in East Africa and One World on April 18, April, 2011 at ICRAF. She also attended a meeting for international NGOs and other institutions involved with Climate Change work	Kenya School of Monetary Studies, Ruaraka
National Action Plan on Climate Change	May 26,	ACTS Researcher	An ACTS researcher attended a National Stakeholders Workshop on the National Action Plan on Climate Change at	Kenya School of Monetary Studies, Ruaraka.
PISCES Consortium Advisory Group (CAG) meeting	June 13-15	ACTS Staff	ACTS staff attended a PISCES Consortium Advisory Group (CAG) meeting.	Oxford and Rugby, UK
Climate Change Advocacy Training	June 20—21st	ACTS Staff	ACTS held a climate change advocacy training, for the youth in partnership with Kenya Climate Change Working Group and Norwegian Church Aid at the Young Men's Christian Association (YMCA),.	Nairobi, Kenya.
Mapping training for young agricultural entrepreneurs in Kenya	August 29 - September 2	ACTS Staff	There was a 5-day training workshop for young agricultural entrepreneurs in Kenya The meeting was organized by ACTS and the Young Professionals in Agriculture Research and Development (YPARD), an international movement by Young Professionals for Young Professionals in Agricultural Research for Development which operates as a network. The training centered on GPS/GIS for young unemployed or underemployed agricultural professionals in Kenya. It focused on GPS/GIS to provide a marketable skill that can be used by research organizations, universities, NGOs, consultants and farming cooperatives.	Y.M.CA, Nairobi.
National Climate Change Expo	October 13—15	ACTS Staff	ACTS was invited by the Ministry of Environment and Natural Resources to exhibit at the National Climate Change Expo The aim of the Expo was to create awareness at all sectors and levels of society on adaptation initiatives and technologies in the Country. The Expo dubbed "Kenyans Innovative Response to Climate Change" was aimed at displaying innovative climate change technologies and opportunities for enhanced partnerships towards a climate change resilient Kenya.	KICC courtyard
Launch Event for UN Women's first Global Report	July 8	ACTS Staff- Communi- cations Depart- ment	A breakfast launch event for United Nations' Women's First Global Landmark Report was held. The event's theme was "Ordinary Women Making a Difference". Important guests in attendance included the Minister of Gender, Children and Social Development, Dr. Naomi Shaban and the Minister of Justice, National Cohesion and Constitutional Affairs, Hon. Mutula Kilonzo. An ACTS staff represented the Executive Director.	Hilton Hotel from
EC Committee Meeting	26 <sup>th</sup> July	Director of Programmes	ACTS Director of Programmes, PA EA Manager, Tanzanian team, and stakeholders attended a brainstorming meeting at the UDSM on the new technology market development.	ACTS offices, Nairobi
Bioethanol Stove Stakeholders Training	1 <sup>st</sup> - 5 <sup>th</sup> .of June.	Director of programmes	A Bioethanol stove stakeholders training was held. The training was organized by PA and ACTS	Kisumu, Kenya

Breakfast Meeting Planning: Climate Compatible Development and Policy Makers	25 <sup>th</sup> October	ACTS researchers	An ACTS Researcher attended a Breakfast Meeting Planning: Climate Compatible Development and Policy Makers,	Intercontinental Hotel, Nairobi
Consultative Workshop on USAID/East Africa's Regional Clean Energy Program	October , 17-18	ACTS researchers	An ACTS researcher attended a Consultative Workshop on USAID/East Africa's Regional Clean Energy Program. USAID/East Africa (EA	Hyatt Regency, Dar-es-Salaam, Tanzania.
Foresight Exchange Workshop and Science Forum, October	October 16- 19th	Director of Research	ACTS Director of Research attended two meetings. The first meeting was a foresight Exchange Workshop "How to integrate agriculture and environmental stakes in foresights. The Workshop addressed the question of taking simultaneously into consideration agriculture and environment stakes when developing foresight studies. It brought together professionals who work with a forward thinking approach related to the future of agriculture and rural development.  The second meeting was a forum held from 17th-19th. The theme of the meeting was 'The Agriculture- Environment Nexus: Perspectives from Environmental Organizations.	Beijing, China.
Strategy Meeting on Climate Change and Energy,	October 25-26	Director of Programmes	ACTS Director of Programmes attended a strategy meeting on Climate Change and Energy. The aim of the meeting was to identify opportunities to influence policy and funding at national, regional and International level so as to increase access to renewable energy for the poor.	The Hill Park Hotel, Nairobi.
National Youth Conference on Climate	2-4 <sup>th</sup> Nov 2011	Director of Research	ACTS Director of Research representing the Executive Director, made a presentation entitled "Panel discussion on Environmental friendly entrepreneurial innovations" in relation to climate change	Multi Media University, Mbagathi, Nairobi.
The Lemelson Foundation Advisory Committee Meeting	November 29th - 30th	Executive Director	ACTS Executive Director was in attendance during the Advisory Committee meeting of the Lemelson Foundation. The outcomes of this meeting are to be integrated in the Foundation's overall strategy work and presented to the Board.	Portland, Oregon USA
UNFCCC COP 17 and COP/ MOP 7	28 Nov - 9 Dec, 2011	ACTS Researcher	An ACTS researcher represented the organization at the 17th session of the UNFCCC Conference of the Parties (COP 17) and the seventh session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP 7).  -The event also hosted a Side Event: 30 <sup>th</sup> November, 15:00-16:30, Room: Levebu River Developing countries face the challenge of adapting to climate change and feeding their growing populations, on a low carbon development path. In this side event the focus was how technologies that are pro-poor can bring synergies between these challenges.	Durban, South Africa



## 7. Annexes

## **Annex 1: Collaborating Institutions**

Action Group for Renewable Energies and Sustainable Development (GED), (CLACC) Mozambique

Africa Virtual University (AVU)

AMBERO-IP with Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ) – Mozambique

Bangladesh Centre for Advanced Studies (BCAS), Bangladesh, (CLACC)

Capacity Strengthening in Least Developed Countries for Adaptation to Climate Change (CLACC)

Centre for African Bio-Entrepreneurship (CABI)

Centre for Innovations and Technology Transfer (CITT), Kigali Institute for Science and Technology (KIST) – Rwanda

Centre for International Climate and Environmental Research (CICERO). Norway

Centre for Science and Technology Innovations - Kenya

Commonwealth of Learning (COL)-Funder (seed funds)

Coordination Unit for the Rehabilitation of the Environment (CURE), Malawi

Department of Resource Survey and remote Sensing (DRSRS)

Development Network for Indigenous Voluntary Association (DENIVA), (CLACC) Uganda

**Egerton University** 

Energy and Environmental Concerns for Zambia (EECZ) (CLACC), Zambia

Environmental Development Action in the Third World (ENDA), (CLACC), Senegal

Environmental Protection and Management Services (EPMS), (CLACC) Tanzania

Equity Bank

German Watch

INNOGEN Centre, University of Edinburgh

Institute of Development Studies, Sussex, UK

International Institute for Environment and Development (IIED), (CLACC) UK: www. iied.org

International Institute for Sustainable Development

Kenya Agricultural Research Institute (KARI)

Kenya AIDS Intervention Prevention Project Group (KAIPPG),

Kenya Department of Metrology

Kenya Forestry Research Institute (KEFRI)

Kenya Forestry Research Institute (KEFRI)

Kenya Wildlife Service (KWS)

Lake Victoria Basin Commission (LVBC)

Local Initiatives for Biodiversity, Research and Development (LI-BIRD), (CLACC) Nepal London School of Hygiene and Tropical Medicine (LSHTM), (CLACC) UK: www.lshtm.

ac.uk

M.S.Swaminathan Research Foundation (MSSRF)

Makerere University – Resource persons

Makerere University, Uganda





Masinde Muliro University of Science & Technology (MMUST) Millennium Institute – Resource persons

Ministry of Agriculture

Ministry of Energy

Ministry of Environment and Natural Resources

Organisation des Femmes pour la Gestion de l'Energie, de l'Environnement et la promotion du Developpement Integre (OFEDI), (CLACC) Benin.

Plan International, Kenya

Potsdam Institute for Climate Research (PIK), (CLACC) Germany

Practical Action - East Africa

Practical Action Consulting South Asia

Rangpur Dinajpur Rural Service (RDRS), Bangladesh: www.rdrsbangla.net

Real IPM Company Ltd

Royal Society for the Protection of Nature (RSPN), (CLACC) Bhutan: www.rspn-bhutan.org

Stockholm Environment Institute-Oxford, (CLACC) UK

Sudanese Environment Conservation Society (SECS), (CLACC) Sudan

Sustainable Agricultural Centre for Research and Development Africa

Sustainable Agricultural Centre for Research and development in Africa (SACRED)

TENMIYA, (CLACC) Mauritania

The Open University, UK

Ugunja Community Resource Centre (UCRC),

UHAI Lakes Forum – (CBO-CBAA Project)

United Nations Environment Programme - Division of Technology, Industry and Economics (UNEP DTIE)

United Nations Environment Programme-Global Environment Facility -- UNEP-GEF

United Nations Framework Convention on Climate Change (UNFCC)

University of Dar es Salaam (UDSM)

University of Edinburgh

University of Edinburgh

World Agroforestry Centre (ICRAF)

Zimbabwe Regional Environmental Organization (ZERO), (CLACC) Zimbabwe: www. zeroregional.com

#### **Annex 2: Resource Persons**

Dr. Colin Pritchard, University of Edinburgh

Dr. Ewen Macpherson, University of Edinburgh

Dr. Arivudai Nambi Appadurai, MSSRF

Jay Anand, MSSRF

Mr. Santosh Patnaik, MSSRF

Mr. Innocent Kabenga, NELSAP Rwanda

Dr. Ana Cascao, SIWI

Dr Alfred Opere, UoN Meteorology Department

Dr. James Smith, Edinburgh University

Dr. Owen McIntyre, National University of Ireland

Dr. Bruce Lankford, University of East Anglia

Dr. Anthony Turton

Jones Agwata, UoN

Emily Polack, IDS, UK

Terry Cannon, IIED, UK

Prof. Karoli Njau, University of Dar es Salaam

Dr Agnes Mwakaje, University of Dar es Salaam

Namiz Musafer, PAC SL

Sumudu Silva, PAC SL

Neeshiya Dilrukshi, PAC SL

Hannah Wanjira, PAC EA

Ewan Bloomfield, PAC UK

Katie Welford, PAC UK

Mr. John Rao Nyaoro

Directorate Ministry of Water Kenya

Dr. Rose Mukankomeje, REMA Rwanda

Mr. Bjorn Hansson, Ramboll Natura, Sweden

Benito Mueller, (ECBI) UK

Saleemul Hug, (ECBI) UK

Hohit S. Gebreegziabher, (ECBI) UK

Liberal Suburikoko, (ECBI) Rwanda

David Lesolle, (ECBI) Botswana

Emily Massawa, (ECBI) Kenya

Lulu Hayanga, Consultant-PISCES

Hannah Reid, IIED, UK

David Dodman, IIED, UK

Simon Anderson, IIED, UK

Chris Huggins, Independent Consultant

Paul Goldsmith, Methodist University

Osman Balgis, Methodist University

Robert Mudida, UON

Ben Smith, SEI-UK

Isabelle Lemaire, IIED-UK

Dr. Francis Kimani, Ministry of Health, Kenya



Mr. Parmindar S. Lotay, PharmAccess Africa Limited, Kenya

Prof. Christian Borgemeister, ICIPE, Kenya

Prof. Judith Sutz, Universidad de la Republica, Uruguay

Dr. Rebecca Hanlin, Open University, UK

Dr. Padmashree Gehl Sampath, Open University, UK

Dr. Harold Bisase, Private Sector Medical Practitioners Association, Uganda

Dr. Seife Ayele, ILRI, Kenya

Prof. Shem Wandiga, Centre for Science and Technology Innovations, Kenya

Mary Hendrickson, National Press Club

Kawther Latiri, World Conservation Congress

Kevin Akoyi, CDS High Level SA Ministerial

Alia Gana, CDS IPM-FEB

Shelley Feldman, National Press Club

Carol Markwei-SSA, UNEP-GC

Rodger Leakey, UNEP GC

Molly Anderson, CSD IPM-FEB

Marcia Ishii-Eiteman, CSD IPM-FEB

Elizabeth Robinson, SSA Planning Meeting

Maria Cristina Plencovish, UNESCO

Shelley Fieldman, Writing Team

Davo Vodouhe, CDS IPM-FEB

Romeo Quijano, LAC

Inge Armecht, ESAP

Molly Anderson, Food Systems and Public Health

Janice Jiggins, UNESCO

Ivette Perfecto, Int. Assoc. Landscape Ecology

Joann Jaffe, Univ Toronto

Mr. Jon Sibi-Okumu

Niels Roling

Peter Clarke

Elinata Dano

Romeo Quihano

Elenita Dano, CDS ESAP

Erika Rosenthal, CSD-LAC

Dr. Andy Hall

Dr. Rasheed Sulaiman

Dr. Jeroen Dijkman

Dr. Andy Ward

Dr. Andy Frost

Prof. Waiswa Charles, Makerere University

Prof. J.D. Kabasa, Makerere University

# Annex 3: Tentative Schedule of Courses 2012 – STPI Capacity Building Institute

COURSE	DATES	COLLABORATORS	TARGET GROUPS
Empowering researchers in proposal writing to attract successful grants relevant to Science Technology and Innovation (STI)	End of January 2012	ACTS/National Council for Science & Technology (NCST)	Scientists/researchers at \$ & T institutions (universities, public research etc), any other interested parties.
Bioenergy and Energy access for Sustainable development in SSA	Mid Feb 2012	ACTS, CEMA, University of Edinburgh	Research and policy makers in renewable energy
Enhancing the capacity of researchers/scientists in implementation of Science Technology and Innovation Policy	March 2012	ACTS/National Council for Science & Technology (NCST), NEPAD/AU, EAC.	Staff at NCST and Directorate of Research Management and Development (DRD), researchers at \$ & T institutions (universities, public research etc).
Understanding the Carbon financing Mechanisms  • Clean Development Mechanisms (CDM) proposals, voluntary markets etc.  • REDD++ (Low carbon but high diversity lands)	April 2012	ACTS/AGRA/ Carbon Africa/ Vi Agroforestry and other interested collaborators	Line government ministries, research organizations. private sector e.g. manufacturers, NGOs, CBOs
Environmental Impact Assessment (EIA)	May	ACTS , Jomo Kenyatta University of Agriculture (KUAT), Kenyatta University (KU), National Environment Management Authority (NEMA)	Individuals and corporate actors interested in environmental management Environmentalists (regulators, researchers, scientists, students, NGOs, youth associations)
Strengthening capacities for putting research into use: a policy and development perspective (case studies approach)	July 2012	ACTS, Open University (UK), Development agencies	Practitioners in development policy and practice, researchers in \$ & T arena, farmers' organizations, entrepreneurs,
Public Private Partnerships approach to development	September 2012	Several government ministries (Regional Development Authorities; Energy, Environment and Mineral Resources, Agriculture, fisheries Development, Medical Services, Public Health, Water and Irrigation, Privatization Commission	Actors in the public and private sector (government officers, entrepreneurs, NGOs, corporate sector etc)
Research communication/Science communication: enhancing capacity of \$ & T researchers in communicating research to policy makers & other non academic audiences	November 2012	ACTS, Future Agriculture Consortium (FAC) – Open Source, Ministry of Higher Education, Science and Technology, NCST, Kenya Agricultural research Institute (KARI)	Researchers (social scientists, natural scientists etc) in various academic, policy and civil society institutions
Others in the pipeline  1) Mainstreaming climate change into National Policies in Africa.  • Community Based approaches in relation to climate change adaptation and mitigation.  2) Climate Change, Agriculture and Food security in the Horn of Africa with focus on:  • Policy  • Entrepreneurship and climate change  • Financing  3) Value Chains in Food and Agribusiness in Africa			

#### **Annex 4: Selected ACTS Publications 2010-2011**

- ACTS, ACC. 2011. Towards a National Biodiversity Conservation Framework: Key Findings of the International Conference on Biodiversity, Land-use and Climate Change.
- ACTS, Practical Action Consulting. (2010). Bioenergy Advance Market Commitments (AMCs) in Sri Lanka. PISCES Policy Brief No. 5.
- MSSRF. (2011). Bioenergy Resource Status in India PISCES working paper. May 2011.
- Broadhurst, T. (2011). Biofuels and Sustainability: A Case Study from Tanzania. PISCES Working Brief No 3. May 2011.
- Juma, C. (2011). The New Harvest: Agricultural Innovation in Africa. Oxford University Press & ACTS as a distribution centre.
- Kingiri A. N. (2010). Gender and agricultural innovation: revisiting the debate through an innovation system perspective. LINK-Learning, Innovation, Knowledge and Research into Use (RIU); Discussion paper 06. October 2010.
- Kingiri, A. 2011. Beyond Biosafety Regulation: Implications for Putting Biotechnology Research Into Use in a Developing Country Context. LINK-Learning, Innovation, Knowledge and Research into Use (RIU); Discussion paper.
- Kingiri, A. 2011. The bumpy path towards knowledge convergence for pro- poor agrobiotechnology regulation and development: exploring Kenya's regulatory process. Book Chapter: Biotechnology: Book 3; ISBN 979-953-307-738-2. Intech Publishers.
- Kingiri, A. and Hall A. (2011). Dynamics of Biosciences Regulation and Opportunities for Biosciences Innovation in Africa: Exploring Regulatory Policy Brokering. LINK-Learning, Innovation, Knowledge and Research into Use (RIU); Discussion paper.
- Koelle, B., Oettle, N., Parring, S., Lissel, A. and Kotze, D. (2010). Farmers Moving Towards Resilience. Suid Bokkeveld Case Study on Climate Change Adaptation, South Africa. Eds., Wakhungu, J.W et.al. CBAA project.
- Mwakaje, A. G. (2010). Bioenergy Policy Review in Tanzania. PISCES Policy Brief No. 4, June 2010.
- Mwakaje, A., Mlay H., Katima J., Minja R. and Njau K. (2011). Opportunities of Using Pure Plant Oil for Running Stationary Diesel Engines in Rural Areas of Tanzania PISCES Policy Brief No. 6. May 2011.
- Mwakaje, A., Moshi, N. H., Nyamora, A. M. S. and Manoko, M.L.K. (2011). Potential Non-Edible Plant Species for Biofuel Industry in Tanzania. PISCES Policy Brief No. 7, March 2011.
- Nanduddu, S. (2010). Lived Experiences: Adaptation to Climate Change in Gogonyo Sub-county, Palisha District, Uganda.. Eds., Wakhungu, J.W et.al. CBAA project.
- Wakhungu, J. (2010). Climate Change: An African Response. Keynote address presented at the African Green Revolution Forum 2010 in Accra, Ghana. September 2010.
- Wakhungu, J. (2010). Gender Dimensions of Science and Technology: African Women in Agriculture. Paper presented at the Expert Group Meeting on gender, Science and technology in Paris, France. September 2010.
- Wakhungu, J. (2010). International Assessment of Agricultural Knowledge Science and Technology for Development (IAASTD): The Process Re-visited. Panel discussion, Rome, Italy. September 2010.
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