African Centre for Technology Studies ANNUAL REPORT 2005

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Consolidating Our Achievements



and Focusing on the Future

ACTS Executive Director Prof. Judi W. Wakhungu

The year 2005 was momentous for both ACTS and our Partners. We are now mid-way through implementing our Strategic Plan 2004 – 2008, and we are pleased with our achievements thus far.

I would like to start by highlighting the ACTS Institute of Science and Technology Policy Analysis and Training. The Institute is designed to offer executive courses, to government officials, state corporations, non-governmental organizations (NGOs), private sector, research bodies, and generally individuals with a keen interest in science and technology policy. We set up the Institute as a means of strengthening science and technology policy analysis in order to make it more responsive to sustainable development challenges facing Africa. We have structured the courses to enhance the participants' policy analysis skills so that they are able to integrate science and technology into national development strategies and plans.

Another objective was to equip relevant policy makers and stake holders with the knowledge and skills to foster practical measures for improving access to results and benefits arising from technological advances. We embarked on this project cautiously, not knowing how well the idea would be received. But we have been encouraged by the overwhelming support for the Institute, which led to our pilot courses being oversubscribed.

ACTS continues its engagement in biotechnology/biosafety policy analysis. The Regional Approach to Biotechnology and Biosafety Policy in Eastern and Southern Africa (the RABESA initiative) originated from the Common Market for Eastern and Central Africa (COMESA) community in 1997. It was founded on concerns that the proliferation of Genetically Modified Organisms (GMOs) may impact trade and food security in ways that were unknown. This project aims to generate and analyze technical information needed to inform COMESA and the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) countries on regional biotechnology and biosafety policy choices. National and Regional workshops have been held in Egypt, Ethiopia, Kenya, Tanzania, and Uganda.

Another area where the Centre played a pivotal role in 2005 is the International Assessment of Agricultural Science and Technology Development (IAASTD). ACTS was privileged to host the IAASTD Sub-Saharan Africa Regional meetings in Nairobi, and I am honored to continue serving as the IAASTD co-Chair.

The composition of the ACTS Governing Council has also changed to enhance both our geographic and representation and fields of expertise. I am indeed, honored, to welcome the following new members - Prof. Alfred A. Oteng-Yeboah, from Ghana, and Ambassador Pius Y. Ngw'andu, who comes to us from the government of Tanzania where he served as the Minister for Science and Technology for 10 years.

ACTS is approaching the future with confidence and a resolve to achieve all our aspirations and attain our set goal of Harnessing Science and Technology for Africa's Sustainable Development. We are appreciative of our development partners' keen interest and involvement in our activities.

As usual, members of the ACTS Secretariat continued to serve the organization diligently and to multi-task like magicians! We take the challenges before us with renewed zeal and confidence that 2006 will see a stronger ACTS.

Prof. Judi W. Wakhungu Executive Director The African Centre for Technology Studies (ACTS) is a Nairobi-based international intergovernmental science, technology and environment policy think-tank that generates and disseminates new knowledge through policy analysis, advocacy and outreach. The Centre's mission is to *strengthen the capacity of African countries and institutions to harness science and technology for sustainable development.* We strive to rationalize scientific and technological information to enable African countries make effective policy choices for improved living standards. ACTS works with partners and networks including academic and research institutions, national governments, UN bodies, regional and international processes and NGOs. ACTS' research and capacity building activities are organized in five programmatic areas: Biodiversity and Environmental Governance; Energy and Water Security; Agriculture and Food Security; Human Health; and Science and Technology Literacy. Its member states are: Kenya, Malawi, Malta, Uganda and Ghana. The International Centre for Research in Agroforestry (ICRAF) and the Third World Academy of Sciences (TWAS) are also founding members of ACTS.

ACTS Programmes have evolved over the years in response to shifting challenges. In 1988-1993, the Centre invested its energies and resources into demonstrating the feasibility of independent policy research on science, technology and environmental issues. These were the formative years of ACTS, which coincided with UNCED where the Centre played a key role in building the capacity of African countries to implement the provisions of the international agreements concluded at UNCED. The second phase (1994-1997) of programme development was marked with the formulation and implementation of programmes and projects on Agenda 21 and related Conventions on biological diversity and climate change. In the subsequent period, 1997-2002, there was a further evolution of the programmes drawing on the foundation laid before. ACTS focused on bio-safety in a regional context in the midst of the debate on the challenges facing a number of countries in Africa by designing laws and policies for harnessing biotechnology and managing its risks.



Participants of the first ACTS Institute of Science and Technology Policy Analysis and Training

These programmes have evolved with national, regional and global agendas. For example, the biodiversity programme has moved from focusing on the implementation of the Convention on Biological Diversity (CBD) to exploring the threats to natural habitats across international borders, the extent to which scarcity of resources induces political conflicts within or between countries, the way that intellectual property rights become controversial as a result of global economic liberalization, and the impact of giving more responsibility to local actors to conserve natural resources.

Under the Science and Technology Literacy Programme, ACTS has set up the **Science and Technology Policy Analysis and Training Institute.** This institute was set up to strengthen science and technology policy with a view to making it more responsive to sustainable development challenges facing Africa.

ACTS maintains contact with scholars of national, regional and international repute from several institutions including the University of Edinburgh, Harvard University, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenyatta University, University of Strathclyde, University of Nairobi, University of Makerere, Maseno University, Moi University, Penn State, and Sokoine. We also maintain close ties with African governments, organizing routinely seminars and training courses on their behalf. The Centre also collaborates with sub-regional and regional organizations. These include the Association for Strenghtening Agricultural Research in East and Central Africa (ASARECA), the Common Market for Eastern and Central Africa (COMESA), the East African Community (EAC), the New Partnership for Africa's Development (NEPAD), and Southern African Development Community (SADC).

ACTS Objectives

The specific objectives of the Centre are to:

- undertake policy research on issues of agriculture, energy, water, biological diversity, biotechnology, international trade and intellectual property protection, and natural resources tenure and management;
- contribute to the strengthening of national capacities of African countries to participate in international policy processes, negotiate and implement international agreements such as those on trade and environment.
- monitor global trends in science and technology, public and corporate governance, and promote the transfer of environmentally sound technologies to Africa;
- foster exchange of information and ideas among researchers, government officials, civil society and private sector at local, national, regional and international levels to widen options for policy change; and
- provide affiliation to scholars, students and government policy-makers working on issues of science, technology and environment.



Dr. Torsten Andersen, talks to Prof. Norman Clark, ACTS Director of Research

Several projects were concluded successfully during the year under review. Notable among these were the project - *Preventing Conflict Through Improved Policies on Land Tenure, Natural Resource Rights and Migration in the Great Lakes Region: An Applied Research, Networking and Advocacy.* This served at the follow-up to the pioneering Ecological Sources of Conflict project. The year also saw the successful implementation of the activities planned for the East Africa Cross-Border Biodiversity Project and the Pan-African Programme on Land and Resource Rights (PAPLRR). The final technical and narrative reports for both projects will be finalized and submitted in 2006.

In addition the Centre continued to collaborate with many partners. Some of these include organizing the 6th *Global Civil Society Forum (6th GCSF)* in preparation for the 23rd UNEP Governing Council meeting held in February 2005; *Capacity strengthening in the Least Developed Countries (LDCs) for Adaptation to Climate Change (CLACC)* with the International Institute for Environment and Development (IIED); serving as Sub-Saharan Africa's coordinating institution for the International Assessment of Agricultural Science and Technology for Development (IAASTD); and coordinating the Regional Approaches to Biotechnology and Bio-Safety in East and Southern Africa (RABESA).



Dr. Teresa Sengooba, of PBS, Mr. David Wafula, ACTS and Prof. James Ochanda UoN, discuss a point at a RABESA meeting in Nairobi

International Assessment of Agricultural Science and Technology for Development (IAASTD)

This Assessment is funded jointly by many institutions including the World Bank, Global Environment Facility, Food and Agricultural Organization (FAO), and the United Nations Educational Scientific and Cultural Organization (UNESCO). It is an assessment of the long-term challenges facing world agriculture, and how to develop the appropriate use of agricultural knowledge, science and technology (AKST) in order reduce hunger and poverty, improve livelihoods and health, increase incomes and facilitate equitable and sustainable development. It started in earnest in 2005 and continues until December 2007.

The IAASTD comprises both global and sub-global assessments. It brings together a broad range of stakeholders (consumers, governments, NGOs, private sector, producers, scientific community, and international agencies) involved in the agricultural sector and rural development to share

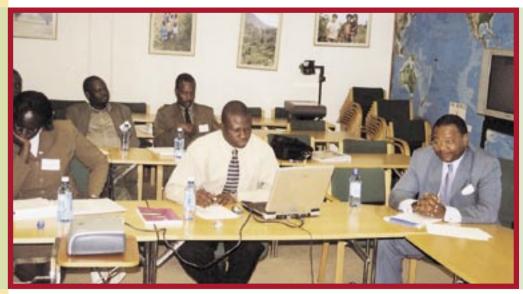
views, gain common understanding and vision for the future. It aims to provide robust information for decision makers on how to ensure that policies, practices and institutional arrangements enable AKST to contribute to reducing hunger and poverty, improving rural livelihoods and health, increasing incomes, and facilitating equitable, environmentally, socially and economically sustainable development.

During the year under review ACTS served as a focal point for the Sub-Saharan Africa region. In that capacity ACTS organized a series of sub-regional workshops. These included sub-global author workshops (author meetings). Using various media, ACTS is engaged heavily in IAASTD's outreach and communications activities, and the publication and distribution of IAASTD publications.

ACTS Institute of Science and Technology Policy Analysis and Training

ACTS together with its partners initiated the *Institute of Science and Technology Policy Analysis and Training* as a strategic initiative under its Science and Technology Literacy Programme. During the year under review, several activities were undertaken by the institute. A Director of Programmes, and a Technical Advisor to the Executive Director were hired, a business plan was developed, the process of developing a curriculum and obtaining accreditation form various Universities was initiated, and the first pilot course on "Introduction to Biotechnology and Biosafety Policy Analysis" was conducted.

The course, which took place on the 24th to 28th of October, brought together a total of 21 participants from various agricultural institutions, regulatory bodies, universities, and NGOs. Resource persons with expertise in the field of biotechnology and bio-safety were pooled from a variety of institutions. The training was interactive and participatory, and used case studies to illustrate the salient aspects of science and technology policy analysis. As a final exercise, the participants were then divided into small multi-disciplinary working groups to develop policy briefs. In the working groups, they assumed the role of members of a high level advisory panel to an African government on issues of biotechnology and bio-safety. They presented the policy briefs in a plenary session.



A session at one of ACTS Institute of S&T Policy Analysis and Training

Consolidation of the Institute will take place in 2006. This will take the form of a detailed market demand study, which will inform the development of a long-term business plan as well as marketoriented networking that will focus on regional institutions such as IGAD, COMESA, ASARECA, NEPAD, and the EAC. This will increase awareness and consequently the demand of the Institute.

The Centres consultations on collaborating and partnering with other institutions bore fruit, and a Memorandum of Understanding (MoU) between ACTS and the University of Nairobi was signed, and a Memorandum of Accession (MoA) was signed between ACTS and Penn State. Overtures have also been made to other universities including Strathclyde.

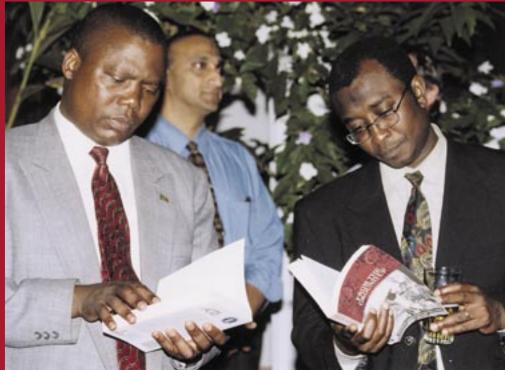
Ecological Sources of Conflict in Sub-Saharan Africa

This project is a continuation of a body of work that ACTS has conducted since 1999. It seeks to understand and explain the root causes of conflicts in Sub-Saharan Africa, generally, and the relationships between natural resources scarcity and the conflicts, in particular. The first phase of this project involved intensive research in Rwanda, Burundi, DRC, Sudan, Somalia and Ethiopia. The aim was to identify the extent to which environmental factors have contributed to political conflicts in the region. The findings of this project were published by ACTS in collaboration with the Africa Security Analysis Programme of the South Africa-based Institute for Security Studies (ISS), and published in September 2002 in a book entitled *Scarcity and Surfeit: The Ecology of Africa's Conflicts.* The book has influenced a number of important actors and it is believed that it has contributed to the focus on natural resource management in peace processes such as the IGAD peace processes for Somalia and Southern Sudan.



Elwin Nyukuri of ACTS receives a copy of the book: "From the Ground Up" from Ambassador Bethuel Kiplangat at ACTS Secretariat, Nairobi

The second phase of the project was completed recently. It examined the role of land access and livelihoods challenges in conflicts and post-conflict reconstruction in Burundi, Rwanda, and Eastern DRC. Unlike the first phase which focused more on macro-level environment-conflict issues, this phase focused on more localized challenges facing land reforms within the Great Lakes. It involved interactive research and policy dialogues with local communities and policy makers. The key findings have been published and disseminated in policy briefs and reports, as well as in a book entitled **From the Ground UP: Land Rights, Conflicts and Peace in Sub-Saharan Africa**.



Dr. J.Singh, Dr. Mohamed Bakar and Zambian Deputy High Commissioner

The results of this project have allowed us to appreciate the role of participatory research for the purposes of understanding the policy challenges surrounding the problematic issues of land tenure, conflicts and natural resource management (NRM). The results also underscore the urgent need to focus on many more critical issues that have direct and important implications for livelihoods within sub-Saharan Africa. Among the more pressing of these are the effects of globalization of capital and decentralization of NRM on the continent. These events are causing transformations in the responsibilities and power relations between institutions and social groups, as well as causing differentiated access to benefits accruing from natural resources. Their potential to disenfranchise the poor, and trigger or generate disputes that could lead to conflicts cannot be underestimated.

The effects of these events definitely vary temporally and spatially. They are particularly important in the more fragile dry marginal enclaves where policies have not been able to reconcile or articulate the necessary balances in multiple land uses, for example wildlife conservation, mining, and by pastoralists. Signs of tension in addressing these issues in policy are already emerging in many areas in sub-Saharan Africa, as countries grapple with ways and means of overhauling colonial and immediate post-colonial land tenure and environmental policies. It is important to seize an early opportunity to research, understand, and inform the planned and on-going policy reforms.

The publication *From the Ground Up: Land Rights, Conflicts and Peace in Sub-Saharan Africa* was launched successfully in Nairobi, Kigali, and Pretoria. In attendance at the launches were government officials, diplomats and NGO officials from the Great Lakes region and beyond. Useful exchanges and interaction were achieved and the output disseminated widely. It is hoped that these activities will spur interest in the subject and lead to meaningful partnerships for the project's successive phases.

The RABESA Initiative

The history of Biotechnology at ACTS is as long as the Centre itself. The founder of ACTS, Prof. Calestous Juma, wrote a pioneering publication: *The Gene Hunters* that is considered a seminal work in the field of Biotechnology policy and research. As the years have gone by, the pros and cons of biotechnology have been played out in the public domain and issues raised have formed part of the overall agenda of technology research at the Centre.

ACTS has published several books on this subject since the advent of the *Gene Hunters.* In collaboration with the University of Toronto Joint Centre for Bioethics (JCB), ACTS organized a fiveday executive course on Genomics and Public Health Policy in Africa.

This course, though not directly related with Biotechnology, it was a forerunner to other studies in the "new" sciences. ACTS has also recently published a book: Introducing BT Cotton: Policy Lessons for Smallholder Farmers in Kenya.

Presently, the Centre is implementing a project: Towards Regional Approach to Biotechnology and Biosafety Policy in Eastern and Southern Africa (the RABESA initiative). This project originated out of concerns by Common Market for Eastern and Southern Africa (COMESA) community in 1997 on the proliferation of GMOs that may insidiously impact on trade and food security. COMESA, being a mainly regional trade organization, was not prepared to the guide the region through the anticipated eventualities. COMESA therefore approached ASARECA in 2003, seeking technical guidance and policy advice on how to address biotechnology/biosafety issues at a regional level. The implementation of the RABESA initiative was endorsed at the COMESA/ECA Maize Trade Policy Conference in Nairobi in September 2003. After endorsement of the initiative, ASARECA delegated the implementation of the RABESA initiative to the Eastern and Central Africa Programme for Agricultural Policy Analysis (ECAPAPA) which deemed it necessary to bring on board the Programme for Biosafety Systems (PBS) and the African Centre for Technology Studies (ACTS) as core implementing partners.

The overall objective of the RABESA initiative is to generate and analyze technical information needed to inform COMESA and ASARECA countries on regional biotechnology and biosafety policy choices. Specific objectives include:

- a. Undertaking stakeholder analysis in the ASARECA/COMESA countries highlighting opportunities, challenges, views and positions related to their engagements in trade, GMOs and food security;
- b. Estimating impacts of GMO crops on farm income in the ASARECA /COMESA region;
- c. Analyzing commercial risks that ASARECA/COMESA countries are likely to face in the destination export markets both regionally and internationally if permission to plant GMO crops was granted.
- d. Estimating impact of precautionary GMO principles on access to emergence food aid and food security in the ASARECA/COMESA region; and
- e. Identifying a range of regional biosafety policy options for decision-making on issues of GMOs and trade in ASARECA/ COMESA countries.

In 2005, five national workshops were planned for the year. Three of them were held in Nairobi, Kenya; Lusaka, Zambia and Dar es Salaam, Tanzania. Two workshops were set to be held in January, 2006 in Cairo, Egypt and Addis Ababa, Ethiopia. A policy brief on issues emerging from the first phase of the project was published. The brief was reviewed by COMESA prior to publication and covered a number of issues including stakeholder analysis and commercial export risks. Hard copies of the policy brief were circulated widely to the stakeholders interviewed in the project countries, relevant institutions and individuals in the COMESA/ASARECA region. The same brief was posted on the project website for wider circulation with the aim of popularizing the project and deepening stakeholders understanding of the objectives and focus of the project.



A participant at the Energy and Enviroment workshop receives a certificate from ACTS ED. Prof. Judi Wakhungu. Looking on is Prof. Norman Clark

The national consultative meetings had three objectives. First, the meetings discussed the impacts of biotechnology (read GMOs) and biosafety on agricultural productivity, trade, and food security in the COMESA/ASARECA region. They also discussed the implications of national policy options on biotechnology and biosafety for agricultural trade promotion and food security. Options for regional policy cooperation in biotechnology and biosafety in the region were also discussed. Some of the issues presented the workshops included an overview of biotechnology/biosafety situation in the case study countries; stakeholder analysis and commercial export risks; analysis of maize and cotton data and estimation of potential farm income gains from commercialization of Bt cotton and Bt maize; the food security situation and access to emergency food aid and food aid policy choices.

The second phase of the RABESA initiative began in March 2005. NRPs generated and analyzed two sets of data as part of the process aimed at informing countries in the COMESA/ASARECA region on a range of policy choices and feasible options for handling biotechnology and biosafety issues at a regional level. Two sets of data were collected simultaneously. The first set of data covered different import policies toward GM commodities. Information on the food security and food aid situation in the six countries was also gathered. The data was collected to estimate the impact that different import policies toward GM commodities might have on food security and to establish the benefits that countries in the COMESA/ASARECA region may gain from placing fewer restrictions on GM commodity imports in form of emergency food aid. The second set of data focused on production constraints and agronomic issues impacting on cotton and maize. The information was collected specifically to estimate farm income benefits that might come down to farmers if the relevant authorities in the ASARECA/COMESA region permitted planting of Bt maize and Bt cotton.

The RABESA Initiative regional meeting is set to be held sometime mid-of 2006. The regional workshop will be the apex event in the implementation of the project. The Centre is currently compiling all the country reports and proceedings into a number of publications for dissemination in the COMESA region and beyond.

Climate Change and Energy Projects

The world is caught up in a Climate change scenario that has left many countries vulnerable to the vicissitudes of weather patterns that are erratic and unfamiliar. The environment for growing staple food crops has gone haywire with whole countries or regions caught up in a recurring cycle droughts, floods and other natural phenomena that were previously unknown, in terms of intensity and severity. Africa is the worst affected continent as most African countries are least prepared for dealing with natural catastrophes and disasters of the magnitude witnessed in the recent past. Whole nations have been ravaged by droughts, floods and land slides that have left destitution in their wake. ACTS has developed projects that seek to address policy issues related to Climate Change.

The project "Capacity Strengthening in the Least Developed Countries (LDCs) for Adaptation to Climate Change" (CLACC) is a global support programme working in the least developed countries to strengthen their efforts to adapt to the impacts of climate change. CLACC aims to strengthen the civil society to enable it to participate effectively in climate change initiatives including governmentled processes such as the National Adaptation Programmes of Action (NAPA). Other objectives of the project include:

- Strengthening the capacity of civil society in LDCs to adapt to climate change and fostering adaptive capacity among the most vulnerable groups.
- Establishing an information and knowledge system to support countries to deal with the adverse impacts of climate change.
- Mainstreaming the NAPA process with key non-governmental stakeholders.



Dr. Songo and Dr. Nalo at a RABESA meeting

The activities of CLACC take place at the local, national regional and international level. The activities are being implemented in a number of LDCs including Bangladesh, Bhutan and Nepal in South Asia; Sudan, Tanzania and Uganda Eaatern Africa; Malawi, Mozambique and Zambia Zambia in Southern Africa; Benin, Mali and Mauritania in West Africa. The activities take the form of action-research and awareness raising among vulnerable communities in twelve LDCs, engagement with national and international climate policies such as the NAPA and UNFCC respectively.



of ACTS **Climate Change and Human Health Workshop:** CLACC intends to carry out in-country research on climate and human health in 12 LDCs for a period of one year. In response to this, an initial training workshop was held in Kisumu, Kenya from October 24-28, 2005. The objective of this workshop was to present the different scenarios faced by the most vulnerable groups with regard to health impacts associated with climate hazards and come up with ways through which the vulnerable groups can build their capacities to deal with the impending climate change impacts. The workshop also served as a forum to develop the methodology for carrying out this in-country research on climate change and human health.

The Workshop was facilitated by the Climate Change Programme Director at the International Institute for Environment and Development and an Environmental Epidemiologist from the London School of Hygiene and Tropical Medicine. It drew participants who are CLACC Regional and Country Fellows from Kenya, Tanzania, Uganda, Malawi, Mozambique, Zambia, Zimbabwe, Bangladesh, and Senegal among other researchers working on climate change and human health from research institutions such as KEMRI/CDC. The workshop was organized and facilitated by the ACTS with IIED, and the UK's Department for International Development (DfID).



An attentive Session of ACTS Institute

ACTS Governing Council

As the Centre grows in stature and scope, there has been a need to widen its horizons. The Governing Council of ACTS is dynamic and includes of people from different fields and nationalities.

Dr. Barbara Gemmill, who resigned from the Environmental Liaison Centre International (ELCI) due to a new appointment ceased to be a member of the GC as was Mr. Wilfred Kenely, who left the Malta Council for Science and Technology (MCST). The Secretariat is awaiting the appointment of a new head of the MCST who will then be appointed to represent the Government of Malta on the GC. Dr. Chrissie Mwiyeriwa, formerly the Chair of Governing Council left due to a major reshuffle in various Ministries of the Government of Malawi.

We are pleased to welcome new members of the GC. The Hon. Dr. Pius Y. Ng'wandu, formerly Minister for Science, Technology and Higher Education joined the GC from Tanzania. Dr. Ng'wandu will serve in his personal capacity as he has left the Ministry. He holds a Ph.D from Stanford University. Prof. Alfred A. Oteng-Yeboah joins the GC from Ghana. He is the Deputy Director-General, Council for Scientific and Industrial Research (Environment and Health). Prof. Oteng-Yeboah will represent the Government of Ghana on the Council for 3 years. Mrs. Margaret Maimba, Head, Department of Environment and Art Sciences, National Council for Science and Technology, Ministry of Education, Science and Technology has also joined the Council. From Malawi, Mr. Alick K. Manda, Head of the Malawi National Council for Science and Technology (MCST) has replaced Dr. Mwiyeriwa on the Council as a representative of the Government of Malawi who are also signatories to the Charter of ACTS.

All the new members of the Council will serve a period of 3 years. Here is full list of Governing Council Members in 2005:

Prof. Ratemo W. Michieka

Formerly Director General National Environment Management Authority (NEMA), Kapiti Road off Mombasa Road P O Box 67839 00200, Kapiti Road, Nairobi Tel: 254 20 605522/26/27: Dir.line: 609694 Fax: 254 20 608997: Email: dgnema@swiftkenya.com *Chair of Council*

Mr. Bruce R. Scott

Director of Partnerships and Communication International Livestock Research Institute (ILRI) P O Box 30709, Nairobi, Kenya Tel: 254 020 422 3000 Fax: 254 020 422 3001 Cell Phone: 254-0733 633205. E-mail: b.scott@cgiar.org *Chair Executive Committee*

Prof. Mohamed H. Abdel Aal

Vice-Dean Environment and Community Service Faculty of Agriculture, Cairo University 12 Emil Nashid St. Pyramid Road, Giza, Egypt Tel: Home: 202 585 6475 Office:: 202 797 6978 Cell:012 31 66908: Fax: 202 795 7298 E-mail: mohaal@aucegypt.edu Nominations and Programme Committees

Prof. Judi W. Wakhungu, Executive Director

African Centre for Technology Studies United Nations Avenue, Gigiri, P O Box 45917 -00100, Nairobi, Kenya Tel: 254 020 722-4715/13: Fax: 254 020 722-4701 E-mail: j.wakhungu@cgiar.org *Ex-Officio*

Prof. Alfred A. Oteng-Yeboah

Deputy Director General (Environment & Health Sector) Council for Scientific and Industrial Research P O Box M.32, ACCRA, GHANA Tel: 233-21-777651-4 Fax: 233-21-777655 Cell phone: 0244 772-256 Email: otengyeboah@yahoo.co.uk *Programme Committees*

Mr. Alick. K. Manda,

Head of the National Research Council of Malawi P O Box 30745, Lilongwe 3, Malawi Fax:265-1772 431: Main: 265 177 1550 Dir.: 265 177 5891 Cell-phone: 265 831 8047 E-mail: akmanda@yahoo.co.uk Nominations Committee

Prof. G.B.A. Okelo

Third World Academy of Sciences (TWAS) African Academy of Sciences (AAS) Miotoni Lane, P O Box 24916, Nairobi Tel: 254 2 884401/5 Fax: 254 2 884406 Cell phone:0733-743213 E-Mail: aas@africaonline.co.ke Executive and Programme Committees

Mr. Ivar Baste

Chief, Environment Assessment Branch Division of Early Warning and Assessment United Nations Environment Programme P. O. Box 30552, Nairobi, Kenya Tel: (254-2) 623373/3267:Fax:(254-2)623495/624269 E-mail: Ivar.Baste@unep.org Vice-Chair, Executive and Nominations Committees

Mrs. Margaret Maimba

Head, Department of Environment and Art Sciences National Council for Science and Technology Ministry of Education, Science and Technology Utalii House, P O Box 30623 Nairobi Tel: 219420 Fax: 330947 Email: wamaimba@ncst.go.ke *Executive Committee*

Executive Director Environmental Liaison Centre International (ELCI) Muringa Road, Off Ngong Road P O Box 72461, City Square, Nairobi Tel: 254 020 576114/19/25: Cell: 0722-654047 *Programme Committee*

Ambassador Pius Y. Ngw'andu

P O Box 75430, Dar es Salaam, Tanzania Tel: 255 22 2780813 personal mobile 255-748-200747 Email: yaseba7432000@yahoo.co.uk *Programme Committee*

Human Resources

All activities and achievements at ACTS revolve around our human resource base. We are dynamic and personnel are expected to be dextrous. As noted by the Executive director, ACTS employs personnel of various disciplines. However, due to the nature of activities that the Centre is involved in, it has become necessary to be flexible as circumstances and opportunities arise in order to allow ACTS to be effective. It is not uncommon to find an engineer playing the twin roles of researcher and programme assistant. Not to mention the administrative staff taking full part and participation in scientific workshops and training courses. This is now business as usual, and most experts are willing to give instant on the job training to meet the immediate challenges of running our dynamic centre.

The Centre currently employs about 15 members of staff with a few interns occasionally joining us. In 2005 the following staff joined the Centre: Ms. Fridah Nkirote from Kenyatta University joined ACTS in January as Accounts Assistant after working as an Intern in the Finance Unit for two months. Mr. Andrew Adwerah from the University of Nairobi joined us in April as Research Assistant after working as Research Intern for eight months. Mr. Ronald Ajengo joined the centre in May 2005 as Management Accountant. Mr. Ajengo previously worked with Pyrethrum Board of Kenya. Departures included Mr. George Sikoyo, Research Fellow/Consultant, who left in April at the end of his contract. Mr. Chris Huggins, Research Fellow/Consultant, left in April at the end of his contract to take up employment in Kigali, Rwanda. Mr. Joseph Nyabicha, Finance Manager, resigned in April to take up employment elsewhere. Ms. Celline Achieng, Research/Admin Assistant, resigned in April to pursue further studies.

The Centre hosted the following interns between January 31 and March 11, 2005 to work on the CLACC Project: Sumaya Zakieldeen from Society for Environmental Conservation (SECS), Sudan; Ben Twinomugisha from the Development Network of Indigenous Voluntary Association (DENIVA), Uganda; Euster Kibona from the Environmental Protection Management Services (EPMS), Tanzania. In addition, Mr. Sander Franse from the University of Amsterdam was with ACTS from June to October to do research for his Masters' thesis. The thesis explored issues concerning the construction of Kenya's National Biosafety Framework. Mr. Bob Bell, a graduate student of Prof. Calestous Juma at Harvard, was with ACTS between June and August to do research on Biotechnology Development in East Africa for Economic Transformation. Mr. Brian Otiende, a graduate of the University of Nairobi, is currently with ACTS on an internship in Research and Publications.

ACTS staff list April 2005

Staff Name	Designation
Judi Wakhungu	Executive Director
Norman Clark	Director of Research & Technical Adviser to the ED
Lawrence Gumbe	Director of Science & Technology Institute
Benson Ochieng	Research Fellow
Anna Ogalo	Information Systems/HR Manager
Ronald Ajengo	Finance Manager
Victor Orindi	Research Fellow
David Wafula	Research Fellow
Elvin Nyukuri	Research Fellow/Librarian
Joan Kariuki	Research Assistant
Andrew Adwerah	Research Assistant
Susan Murunga	Personal Assistant to the ED
Tom Ogaga	Procurement Officer
Brian Otiende	Intern Research/Publications Assistant
Fridah Nkirote	Accounts Assistant
Mary Muthoni	Publications Officer
Harrison Maganga	Communications and Public Relations Officer
Johnson Njenga	Driver

Finance and Administration

The Finance and Administration continued to provide valuable support that contributed to the smooth running of the Centre's activities. Because ACTS relies entirely on donor funding, we are striving to achieve international standards of astute financial management practices. During the year 2005, the Finance Unit started the design and implementation of a computerized budgetary control system. This system will be completed and implemented next year.

List of Donors

ACTS would like to acknowledge the support of the following donors:

- 1. United States Agency for International Development (USAID)
- 2. Swedish International Development Agency (Sida)
- 3. Norwegian Agency for Development Cooperation (Norad)
- 4. The World Bank
- 5. United Nations Environment Programme (UNEP)
- 6. The Ford Foundation
- 7. Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)
- 8. International Institute for Environmental Development (IIED)
- 9. Environmental Law Institute
- 10. Norwegian Embassy

SUMMARIZED AUDITED FINANCIAL STATEMENTS

1. Income & Expenditure St	tatement		2005 US\$	2004 US\$	
Income					
Grants			703,071	834,391	
Consultancy			152,574	193,171	
Sundry			55,208	2,173	
Total Income	·				
	Expenses Programmo				
Administrative	Programme			778,374 252,941	
Total expenses				1,031,315	
Surplus / (Deficit) for the Ye				(1,580)	
			36,763		
2. Balance Sheet			2005	2004	
			US\$	US	
Assets			1,342,150	1,279,943	
	Non-current Assets				
Current Assets			563,749	227,299	
Total Assets			1,905,899	1,507,242	
Equity & Liabilities				_	
Capital & Reserves			1,441,638	1,366,581	
Current Liabilities	•			140,661	
Total Equity and Liabilities				1,507,242	
			1,905,899		
3. Cash Flow Statement					
	Operating (deficit) / surplus			7,345	
Net Cash generated from	Net Cash generated from / used in operations			(186,928)	
0	Cash flows from Investing activities			-	
	Increase / (Decrease in cash and cash equivalents			(186,928)	
-	Cash and cash equivalents at beginning of year			323,491 136,563	
Cash and cash equivalent	Cash and cash equivalents at end of year				
4. Statement of	General	Endowmer	nt Capital		
Changes in	Fund	Fund	Fund	Total	
Reserves	US\$	US\$	US\$	US\$	
At 01 January 2004	88,218	1,272,833	14,829	1,375,880	
Deficit for the Year	(1,582)	-	-	(1,580)	
Equipment Depreciation	-	_	(7,719)	(7,719)	
At 31 December 2004	86,638	1,272,833	7,110	1,366,581	
At 01 January 2005	86,638	1,272,833	7,110	1,366,581	
Surplus for the Year	36,763	-	-	36,763	
Interest earned	-	40,556	-	40,556	
Received during the Year	-	-	1,247	1,247	
Equipment Depreciation	_	_	(3,509)	(3,509)	
At 31 December 2005	123,401	1,313,839	4,848	1,441,638	

Executive Director's office

The Executive Director's (ED) office continued to provide overall leadership to the Centre. As mentioned earlier, the year 2005 was devoted to consolidating our gains and focusing on the future. The funding situation was favourable. The funding from our development partners allowed us to carry out our programmes and projects. A list of our donors is available in the financial statement in this report.

The Executive Director held fruitful discussions with Embassy of Sweden officials seeking Sida support for Core and programme activities. Discussions were at advanced state with Swedish International Development Agency (Sida) and proposal has been submitted to them for their consideration. Sida has invited the ED to Sweden in March 2006 for strategic meetings.

During 2005 the ED and the Centre's research staff were involved in various meetings, workshops and seminars. Under IAASTD the ED, as a Co-Chair attended the Plausible Futures meeting in Washington DC, the Global and Sub-Global Authors' meetings in Alleppo, Bangkok, Montpellier, and Nairobi. The ED was also involved with the RABESA projects workshops in Tanzania, Uganda, Zambia, Ethiopia, Kenya and Egypt.

The ED was also busy with the ACTS Institute for Science and Technology Policy Analysis and Training. The first pilot course – "Introduction to Biotechnology and Biosafety: A Policy Analysis" was held at the ACTS Secretariat situated at the World Agroforestry Centre Campus. This pilot course and ensuing ones were organized under the ED's leadership together with Profs. Norman Clark, Lawrence Gumbe, and Mr. Andrew Adwerah.

Office of the Director of Research

The Director of Research and Technical Adviser to the ED was also assigned specifically to the ACTS Institute of Science and Technology Policy Analysis and Training. Prof. Clark undertook several activities in 2005. These included designing and facilitating the first pilot course on biotechnology and bio-safety, with specific reference to the High-Level African Panel on Modern Biotechnology of The African Union (AU) and the New Partnership for Africa's Development (NEPAD); serving as a Member of the Millennium Development Goals (MDG) Task Force Team 10 on Science, Technology and Innovation; and serving as Adviser to the NEPAD secretariat in Pretoria on Science Policy and Agricultural Research in Africa. In addition he is serving as Lead Author (LA) in the International Assessment Report of Agricultural Knowledge, Science and Technology for Development (IAAKSTD), World Bank, Washington (on-going). Other activities include:

 Assisting in the design, organization and implementation of a training course on the Use and Implementation of Innovation Systems Approaches in Agricultural Research held on 29th May to 6th June, 2005 at ILRI, Addis Ababa.

•Acting a Resource Persons in two training programs for Nigeria, organized jointly by the Ministry of Science and Technology (Raw Material Research and Development Council) and ATPS in collaboration with the African Leadership Forum (ALF), the African Strategic and Peace Research Group (AFSTRAG) and the National Planning Commission, held at Minna 5th-8th July and Ota 18th-21st September.

 Member of the mid-term evaluation team of the DGIS-supported Andhra Pradesh Netherlands Biotechnology Programme, Hyderabad, India, 3rd -13th October.

•Designing a semester-long course on Innovation Policy Studies for graduate students at the Xavier Institute of Management (XIM), Bhubaneswar, Orissa, India (also providing a small number of preliminary lectures, 15th-19th October).

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Publications & Outreach

Early in 2005, there was a concerted effort to disseminate ACTS publication to universities and other institutions of higher learning. The project was embarked on in February initially with universities in Nairobi and its environs. The mission was well received in several universities, some of whom receive our publications for the first time. The institutions visited included the Nairobi University, Jomo Kenya University of Agriculture and Technology, Kenyatta University, The Catholic University of Eastern Africa, Daystar University, The United States International University,

Further afield from Nairobi, ACTS publications were well received by the Land Alliance Organization in Nakuru, Egerton University, The Provincial Information Offices Library in Nakuru, The Ogiek Community Resource Centre, Nakuru, Maseno University, Sacred Africa, Bungoma, Moi University, The District Information Office, Mabanga Farmers' Training College, Nazareth University and the Methodist University.

ACTS Publications 2005

Huggins, C. et. al Land, Conflict & Livelihoods in the Great Lakes Region:Testing Policies to the Limit: Ecopolicy 14, 2005

Orindi, V.A and Eriksen, S. Mainstreaming Adaptation to Climate Change in the Development Process in Uganda, Ecopolicy 15, 2005

Huggins, C & Clover, J, From the Ground Up: Land Rights, Conflict & Peacein Sub-Saharan Africa, 2005

Clark, N., Mugabe, J.& Smith, J. Governing Agricultural Biotechnology in Africa: Building Public Confidence and Capacity for Policy-Making

Sikoyo, G.M et.al Intellectual Property protection in Africa: Status of Laws, Research and Policy Analysis in Ghana, Kenya, Nigeria, South Africa and Uganda. Ecopolicy 16, 2005

Prof. Norman Clark's Contributions;

"Science and Governance Of Modern Biotechnology In Sub-Saharan Africa--The Case Of Uganda" Journal of International Development 17, 679-694, (2005), with D Wafula

Governing Agricultural Biotechnology in Africa: Building Public Confidence and Capacity for Policy-Making (2005), ACTS, Nairobi, with John Mugabe and James Smith (ISBN 9966-41-137-2)

Science Policy and Agricultural Research in Africa--A Capacity Building Needs Assessment, Report to JAICA/NEPAD, Pretoria, S. Africa, January 2005.

Bovine Vaccine Development in East Africa: an Innovation Systems Perspective (2005), Discussion paper presented at the All-Africa Conference on Animal Agriculture, 20th September, Arusha, Tanzania, with James Smith & Maija Hirvonen.

Innovation: Applying Knowledge in Development, Report of Task Force 10 on Science, Technology and Innovation, United Nations Millennium Development Goals Project, Earthscan, London, Sterling Va. (eds. Calestous Juma and Lee Yee-Cheong). Norman Clark contributing author.

ACTS' Vision

Better living standards for all in Africa through harnessing science and technology for sustainable development

ACTS' Mission

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