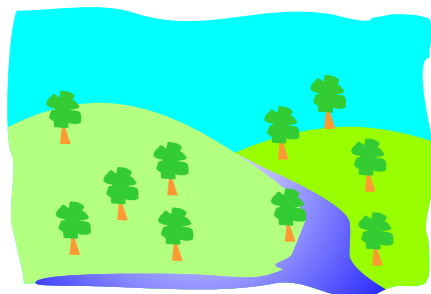




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ATPSnews

The Newsletter of
African Technology Policy Studies Network



The African Technology Policy Studies Network (ATPS) has inaugurated a new programme that will enhance the generation, use and communication of knowledge in driving environmentally sustainable use of water resources in Africa.

The ATPS Programme on Water and Environment responds to issues that have been raised during conferences and workshops in the past two decade. These meetings include the Agenda 21 (1992 Earth Summit, Rio de Janeiro), the Third World Water Forum in Kyoto (2003) and the World Summit on Sustainable Development (2002). The Millenium Development Goals (MDGs) and the African Ministerial Council on Water and the actions articulated under the New Partnership for Africa's Development are other forums where concerns for environmental sustainability and the use and management of water resources have been raised.

The specific objectives of the programme are:



Prof Kinfe Abraham, President, EIIPD, Dr Osita Ogbu, Executive Director, ATPS and Prof Norah Olembo, ATPS Chair discussing water and environment during ATPS Conference in Addis Ababa

- > To improve water management and conservation for poverty reduction
- > To enhance the capability of the water and sanitation governance and delivery institutions in meeting their service delivery objectives in selected key countries
- > To induce attitudinal and behavioural changes with respect to sustainable water and environmental management at various levels
- > To harmonize national and regional water Acts and Environmental Acts/Policies to avert potential cross-border conflict
- > To enhance knowledge exchange by forming an African Water and Stakeholders' Forum (AWSF)
- > To generate new knowledge and build capacity for efficient management
- > To improve African-wide policies on Water and Environmental Management through support to the New Partnership for Africa's Development (NEPAD)

There are many that are playing key roles in improving water access and management but the ATPS programme will differ markedly in many ways. "Our goals may be the same but our entry points differ," explains Dr Osita Ogbu, "Where there are areas of overlap, ATPS, as one among a few Pan African International non-governmental organizations

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Water & Environment Issues
Chapter Activities
ATPS Collaborations
Activities and Events

ATPS Organizes Conference on Science, Technology, Water and Environment

"Water is finite. Just 2.5% of the world's water is fresh, rather than seawater. And most of the fresh water that does exist is locked in ice caps and glaciers. Of the remaining amount, some two-thirds is "lost" through evaporation. From what is left, some 20% is in areas too remote for human access," bemoaned Prof Kinfe Abraham, the President of the Ethiopian International Institute for Peace and Development (EIIPD).



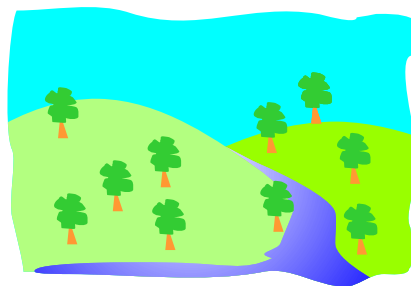
ATPS National Coordinators during the 2004 Annual Conference and Workshop

Prof Kinfe was speaking during the official opening of the ATPS Annual Conference and Workshop running from 29 November to 3 December 2004 at the International Livestock Research Institute (ILRI) Campus in Addis Ababa, Ethiopia.

Objectives

The conference and workshop, organized jointly by EIIPD, ILRI and the African Technology Policy Studies Network (ATPS) brought together participants from at least 23 countries in Africa and Europe to deliberate on the following objectives:

- > creating a forum for science and technology policy scholars to interact and share ideas and knowledge with policy makers and water administrators
- > providing conceptual and practical underpinnings to understanding water and environmental management with respect to behavioural change, resource-use and conflict, and how new knowledge can improve the situation
- > getting a sense of the overall knowledge gap in the sub-sector and how research and training can be used to address these gaps
- > sharing and learning how lessons from other regions of the world can be adapted in Africa



how research and

Opening ceremony

Contributing to the 'Knowledge-Water-Environment Nexus' debate, Dr Osita Ogbu, explained that one of the banes of Africa's developmental crisis is knowledge dependence. He informed the meeting that various estimates and studies including the World Environment Outlook suggest that at least 10 countries in Africa will have severe water scarcity by 2025. He also highlighted the plight of Africans living in urban and rural areas, saying that many suffer from preventable water-borne diseases, and many still suffer from severe food insecurity because of dependence on rain-fed agriculture.

"If you combine all of these with climate change, bio-diversity and water-catchment degradation taking place across Africa, it is easy to foresee how Africa may not be in a position to meet the millennium development goals and poverty reduction targets set by the World Summit on Sustainable Development and elaborated by various African governments," emphasized Ogbu.

He challenged Africans working with various international partners to take the lead in deploying new knowledge to avert catastrophic outlook pertaining to problems associated with water and environmental management.

Prof Norah Olembo, Chair, ATPS Board, pointed out that while strategies have been drawn, policies formulated and constraints identified at various forums on water, more effort needs to be put on management and coordination. "International and inter-sectoral approaches that recognize inter-linkages between nations, and between such sectors as land and water, agriculture and water, technology and water, health and water, gender and water need to be consolidated," she advised.

Keynote address

Dr Tewolde Berhan Egziabher, the Director General, Environmental Protection Authority of Ethiopia addressed Genetic Engineering, Biodiversity and Africa, in his keynote address, discussed why genetic engineering is so appealing to humans, both in industrialized and developing worlds. He also examined the many

reactions that genetic engineering can elicit; the likely impacts of genetic engineering now and in the near future; the safety of genetic engineering products, and unjust global governance including the rule of patenting made compulsory by the Agreement on trade-Related aspects of the Intellectual Property Rights (TRIPs) of the World Trade Organization (WTO).

He concluded that as long as genetic engineering is restricted to the private sector of the industrialized countries, it will not be relevant in improving food production, especially in the poor developing countries. Tewolde is pessimistic that the poor can coordinate their actions and become emancipated to produce what their potential would allow them. "Then it would be appropriate to see what incremental production could be made through genetic engineering," he adds.

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The African Technology Policy Studies Network (ATPS) in collaboration with the African Forum on Science and Technology for Development (AFSTD) and the Technical Centre for Agricultural and Rural Cooperation (CTA) hosted a meeting, [Enhancing the Science and Technology Dialogue - Innovation for Development](#), from 14 to 16 September at the Hilton Hotel in Nairobi, Kenya.

The collaborative meeting brought together representatives of national, regional and international institutions and civil society who are committed to promoting, applying and attaining excellence in science, technology and innovation for meeting social and economic goals and more specifically, agricultural and rural development.

The meeting aimed at updating knowledge on related science, technology and innovation (ST&I) initiatives, also discussed and shared experiences on strategies that can be considered for achieving developmental goals and national, regional and international competitiveness, among other objectives.

ATPS/CTA/AFSTD co-host the African Regional ST&I Policy Review in Nairobi

The meeting also sought to develop strategies and plans to improve the ST&I policy dialogue in Africa between Africa and other African, Caribbean and Pacific (ACP) regions, due to the increasing urgency and greater focus for incorporating ST&I strategies in national and regional policy formulation and implementation for achieving sustainable economic development.

Prominent personalities, among them Mr Carl B. Greenidge, Director, CTA; Dr John Mugabe, Executive Secretary, New Partnership for Africa's Development (NEPAD) and Dr Banji Oyeyinka, Senior Researcher, UNU-INTECH, the Netherlands, attended and presented papers.

Among the speakers was Maurice Bolo, Research Assistant, ATPS, presenting the

findings of his research, Agricultural Science, Technology and Innovation Systems (ASTI): Elements of a National Case Study Kenya, a CTA-sponsored national study on the floriculture industry, conducted in collaboration with ATPS.

Giving the background of the project, Bolo explained that CTA funded the project in recognition of agricultural potential in transforming the economies of developing countries from agrarian systems to industrialized economies. These countries have huge agricultural potential, but they remain poorly-developed, the national markets small and highly fragmented and the science and technology systems poorly linked and unable to compete effectively in the global markets.

Bolo explained the role of horticulture, and especially floriculture, in the national economy. He noted that Kenya's flower industry has been growing at an average of 200 hectares annually. It is the third largest foreign exchange earner accounting for Kshs. 28 billion and employing about 50,000 people.

He further explained that during the study, he reviewed various government policies affecting agriculture from 1963 during



Participants during the Workshop held at Hilton Hotel, Nairobi, Kenya

independence to date and found that the role of ASTI is well recognized.

Bolo cited, among other key issues, the role of research, which is captured in most policies. "However, there is need to develop linkages between different agencies, such as breeder's rights, besides the protection of intellectual property rights," he asserts.

Bolo concurs that Kenya has almost all the institutions and organizations necessary in systems of innovation; however, he advises that the innate capacity of the actors to forge linkages and interactions should be accorded supremacy.

Dr Osita Ogbu, ATPS, Executive Director, addressing the theme of the meeting posed the question, "Why do we have weak demand for S&T policy

"Good science is NOT enough; there is need for an innovation system,"

research?" He cited forced consensus, lack of vision by the leadership; absence of market for contestation of ideas; and absence of policy entrepreneurs as responsible for the current African policy landscape.

He recommended promoting policy entrepreneurs; restoring self-confidence and building capacity by training policy makers, researchers, journalists, among other measures as the remedy for the current state of S&T in Africa. "Good science is NOT enough; there is need for an innovation system," he added.

Delegates of the meeting noted the dismal performance of African economies and the major role that ST&I can play in the continent's development. They also recognized that for a ST&I system to thrive, the innovation culture must be promoted and supported at national level.

The absence of capacity building of grassroots representatives to improve their ability to participate in the process and the need to improve communication among and between actors for successful policy making was also discussed.

"Africa should not be looking to anyone to solve its problems but focus on building capacity to address the issues," was the final consensus of the delegates.



INVENTORS & INVENTIONS



Prof John R. Okalebo
Moi University, Eldoret

Prof. John R. Okalebo, a researcher at Moi University, Eldoret, has invented what the Kenyan media describe as a "solution to the problems facing many a Kenyan farmer each year as they grapple with either shortage or the high prices of imported fertilizers.

The fertilizer, named PREP-PAC, is assembled locally at Moi University. The name PREP-PAC originates from Phosphate Rock Evaluation Project (PREP), while PAC simply means Package. Okalebo says that Kenyan soils cannot be considered to have a uniform set of characteristics, such as similar mineral contents and it is, therefore, wrong to apply the same fertilizer and rates to all agroecozones because their effectiveness is site-specific and most of the nitrogen containing fertilizers, such as the widely used diammonium phosphate (DAP), contributes to soil acidity, which is associated with poor soil health and declining crop yields. PREP-PAC, on the other hand, has little nitrogen content and is, therefore, suitable for highly nutrient depleted acidic soils, environmentally friendly and affordable.

The ATPS Newsletter interviewed Prof. Okalebo on this innovation and the discussions are presented below:

Question: How does PREP-PAC work and what motivated you to take up the challenge?

Answer: First, thank you ATPS/Lily for giving me this wonderful opportunity to highlight the background, the

formulation and functioning of the PREP-PAC and also to clarify some media issues on this product. Indeed, food insecurity in sub-Saharan Africa is a well-known recurring and bleak constraint to human survival and this is attributed to many factors including frequent and prolonged droughts, unstable economies, civil strife and above all, the low and declining inherent fertility of soils in the region. Just to expand a little bit on soil fertility, sub-Saharan Africa has highly weathered and acid soils that have lost nutrients over millions of years through complex processes that are simply explained in terms of erosion and downward movement (leaching). The commonly deficient nutrients are nitrogen, phosphorus and potassium in the sub-region. The other important property of these soils is that soil acidity (mentioned above) is widespread as a result of wide variations in the characteristics of the parent rocks that form the soils and the leaching of cations (potassium, calcium, magnesium mainly) down the soil profile.

Soil acidity favours the release of some elements in soils, such as aluminum, iron and manganese, in large quantities, some of which are associated with crop injuries and fixation of added phosphate fertilizer. But coming back to the question, the depletion of nitrogen and phosphorus in soils is further accelerated through the continuous cultivation without nutrient returns to the rapidly diminishing land parcels, particularly in the highly populated highlands in eastern Africa. With this background, efforts to restore soil fertility in Kenya are numerous and began in the 1920s. These include the uses of imported inorganic fertilizers, on-farm manures and composts, agroforestry practices and limited crop rotations.

But of major concern is that the adoption of this soil fertility management technologies has been none to minimal over a long period of time, in spite of positive or improved crop yields resulting

from the use of these materials. Farmers, particularly the smallhold farmers, argue that fertilizers are unaffordable and their prices are increasing every cropping season. In summary, therefore, the development of PREP-PAC addressed the affordability, availability, environmental and adoption issues. Thus PREP-PAC is an integrated nutrient management package consisting of 2 kg of the readily available Minjingu (Tanzania) reactive or biogenic phosphate rock, 0.2 kg urea, 120 g of seed food legume of farmer's choice (beans, soybeans, groundnut, cowpeas etc), Rhizobial inoculant (Biofix) for the seed packaged with components of lime pellets and gum Arabic sticker (from Isiolo, Kenya) to enhance the fixation of atmospheric nitrogen.

The PREP-PAC has an instruction sheet for use written in English, Kiswahili and other local languages. One packet is targeted to replenish the fertility of widespread depleted smallhold farmland patches of size 25 m² each. Larger size PREP-PAC packages are assembled according to the demand. The overall philosophy of the PREP-PAC is "add phosphate from the bag but most nitrogen from the air". Small size packages (2 kg) are targeted towards the hypothesis that consumers tend to buy products packaged in small quantities, such as sugar, detergents, salt, etc. available in shops.

Question: What was the thrust of the research?

Answer: As outlined above, the research focused on the testing of the newly formulated and affordable PREP-PAC product for its effectiveness on nitrogen and

phosphorus replenishment in the highly nutrient depleted acid soils, but pinpointing the smallhold farmers, who constitute about 90% of the farming community in Kenya.

These farmers have frequent food shortages and do practice maize-legume intercropping with minimal to no nutrient inputs. These considerations indeed formed the entry point of research. Above all, the economic considerations were included as these impact on adoption. Thus research demonstrated clearly that all components of the PREP-PAC were needed, giving a synergistic effect on increases of crop yields. On simple side-by-side demonstrations, with or without PREP-PAC, maize yields were raised from the average farm yields of 0.5t/ha to 3-5 t/ha.

Actual statements from some farmers on field days were:

Bwibo of Bumala, Busia: "From the time Moi University came to test PREP-PAC on my farm, I have obtained increased maize yields. On expanded farm area, I have been able to build iron-roof houses and educate my children from increased cash from my maize sales"

Anyanzwa of Vihiga, Kakamega: "My bean yield is 6 'gorogoro' (12kg) from PREP-PAC fields of 25m² size whereas I get only one 'gorogoro' (2 kg) from no PREP-PAC fields of the same size."

Arising from field days and demand, about 6000 PREP-PACs were distributed in 1999-2001 in Western Kenya and Eastern Uganda, with the demand increasing. The other important issue towards adoption is that comparisons have been made between the performance of PREP-PAC and other technologies across

seven districts in Western Kenya. This is a continuing study, whereby PREP-PAC continues to give good crop yields with a positive residual effect on crop productivity.

Question: Where was the research conducted?

Answer: In Western Kenya (Trans Nzoia, Mt. Elgon, Bungoma, Teso, Vihiga, Kakamega, Busia, Homa Bay, Siaya districts). In Eastern Uganda (Palissa, Iganga, Tororo districts). The research focused smallhold farmers. Soil testing was done alongside with the on-farm trials. PREP-PAC was also tested on tea in Central Kenya.

Question: Who funded your research?

Answer: The Rockefeller Foundation Forum on Agricultural Resource Husbandry (FORUM) from 1997 to 2000.

Question: What is your impression of the farmers' receptivity to this new fertilizer?

Answer: Farmers have observed positive yield increases arising from the use of PREP-PAC. They complain about the difficulty in accessing it as the university is still not in a position to assemble and distribute the fertilizer on a commercial scale. They complain about small packages of 2 kg size. They also suggest improvement of the powdery nature of Minjingu phosphate rock through pelleting and probably blending with some

In summary, therefore, the development of PREP-PAC addressed the affordability, availability, environmental and adoption issues

Interview cont'd on page 10

PICTORIAL



Prof Norah Olemba, ATPS Chair and Mr Carl B. Greenidge, Director, CTA welcome participants to the ATPS/CTA/NEPAD workshop, Hilton Hotel, Nairobi



Mr Kouadion Stanislas, Cabinet Head, makes his opening remarks during the Technology Policy and Issues for Development Seminar held in Abidjan by the ATPS Cote d'Ivoire Chapter



Dr Julius Mangisoni, Malawi, contributing to discussions during the 2004 Annual Workshop and Conference



Participants at the 2004 Annual Conference and Workshop, Addis Ababa, Ethiopia



Maurice Bolo, Research Assistant, ATPS, assists students to select documents during the



Judith Francis, Senior Programme Coordinator, CTA and Peter Odoch, Uganda at the African Regional ST&I Policy Review held at Hilton Hotel, Nairobi



Koffi K. Paul, Special Advisor, Prime Minister, Yeo Guefala, General Director, 12T and Arsene Kouadio, National Coordinator, Cote d'Ivoire attentive at the Technological Policies and Issues for Development Seminar in Abidjan organized by ATPS Cote d'Ivoire



Science Congress held November at the University of Nairobi



Professors Olemba, Isoun, Massaquoi, Wangwe, Mytelka, Saasa and Dr Ogbu relax after a board session

ATPS Cameroon

ATPS-Cameroon Chapter successfully completed its membership recruitment exercise. Among prominent personalities that have joined the Cameroon Chapter is Mr Peter Ngufor the CEO of Ngufor's Agro-Industrial Complex. The chapter has also been registered as a legal entity and can solicit for funding from donors for its activities.

The Cameroon Chapter from 13-15 July 2004 organized a successful methodology workshop in Buea. The chapter also conducted a Medical Technology Assessment and the exercise involved visiting, documenting and filming all medical devices and equipment used in all hospitals and health centres.

ATPS Cote d'Ivoire

held a seminar with the theme Technology Policies and Issues for Development at the Hotel Communal of Cocody in Abidjan, Cote d'Ivoire. The seminar was chaired by the Minister for Higher Education, Mr. Fofana Zemogo.

The meeting recommended the following actions:

- > The government should establish technological policy to create a framework for disseminating research findings and their application to local situations.
- > Researchers should participate actively in setting up strategic plans and documents on science and technology while ensuring quality research that focus on local technologies.
- > Industrialists should form partnerships with national researchers and research centers and offer research grants to deserving youth in registered centers and technical schools.
- > The youth should invest more time in organizing scientific competitions and create scientific clubs instead of 'fan clubs' to encourage a culture of research and innovation.
- > The media should cover scientific and technological events, such as mathematics competition, technological debate and youth programmes to publicize works of young inventors in the newspapers.
- > The civil society should participate in the research programmes by supporting local innovations and locally-produced products.

ATPS Ethiopia

The Ethiopian Technology Policy Studies Association (ETPSA) was, on 30 August 2004, invited to a policy dialogue organized by the Inter-Africa Group and the Initiative for Policy Dialogue (IPD). The three-day event was part of IPDs country dialogue. Technology policy was at the centre of the panel discussion conducted by Prof. Joseph Stiglitz, founder of IPD.

Prof Stiglitz emphasized that Ethiopia should play a key role in promoting innovations and that public sector investment is a necessity in the promotion of science and technology. He added that because of the risk and uncertainty associated with major innovations, the private sector is reluctant to bear the costs of investing in certain R&D. The national coordinator, Dr Aredo Dejene, used this platform as a forum to discuss ETPSA's role in promoting S&T policy in Ethiopia.

Dr Aredo also attended a workshop organized by the International Food Policy Research Institute (IFPRI) and the Ethiopian Economic Development Research Institute to discuss a revised research agenda for the coming years. At the workshop, he was given the chance of presenting a sub-theme on science and technology.

ATPS Annual Conference and Workshop

ETPSA hosted the 2004 ATPS Annual Conference and Workshop whose theme was Science and Technology, Water and Environment from 29 November to 3 December 2004. The chapter won the ATPS prize of 2004 Best Overall Chapter for the effort towards making the event a success.

ATPS Ghana

ATPS-Ghana, held its Annual General Meeting on 28 May 2004 whose theme was "Science Acculturation for National Development Defining Effective Strategies". The AGM was officially opened by the Honorable Minister for Environment and Science, Prof. Kassim Kassanga. In his keynote address, the Honorable Minister echoed the importance of science acculturation. He said that the low level of science culture in Ghana is a serious obstacle to national development and that it was vital that strategies are devised to acculturate the society in science and technology. He expressed his unflinching support for ATPS and hoped that he could continue to participate in the chapter's activities. Members took far-reaching decision towards infusing dynamism into the chapter.

ATPS Lesotho

ATPS-Lesotho Chapter was from February to June 2004 involved in a countrywide project of the Ministry of Education, Lesotho and the World Bank on "Textbook Availability and Utilization in Lesotho Primary

Schools". The National Coordinator, Prof Zacharia Matsela solicited support from the Lesotho Ministry of Science and Technology for future activities. The chapter is positive about securing grants from the donor community in Lesotho.

ATPS Uganda

In June 2004, ATPS-Uganda was formally registered with the Uganda National NGO Board. The chapter participated in the first national workshop on Zero Emission Initiative (ZERI) organized by the Uganda National Council for Science and Technology. The chapter also participated in the AGM of the Development Network of Indigenous Voluntary Associations (DENIVA) and the National Coordinator was elected to serve as a member of the Board of Directors. This gives the chapter an opportunity to interact, network and relate with other NGOs whose activities involve utilization of science and technology and policy advocacy. It also serves as a challenge to the chapter as it has to demonstrate that ATPS occupies a critical niche in science and technology policy advocacy and prove that its activities contribute to national development programmes geared to improving human welfare.

ATPS Partnerships

The ATPS Executive Director continued to build partnerships with international and regional institutions in Africa. Among the meetings/workshops he attended are:

African Society for Ecological Economics (ASEE) Steering Committee meeting, Aberdeen, UK

African Strategic and Research Group (AFSTRAG) roundtable on The Formation of a Policy Framework for Africa's Economic and Technological Development, London, UK

Final Project Management Committee (PMC) COMESA Meeting, Lusaka, Zambia

Workshop on Providing Demand organized by the University of Maastricht, Leiden, The Netherlands

These meetings are useful in sharing ATPS vision and ideas as well as the products of its research activities.

The Executive Director was also invited to serve in the UNESCO-International Advisory Board for the Reform of the Science and Technology System of Nigeria. He attended the Board's First meeting held in Paris, France.

ATPS Chapter Awards

Best Overall Chapter
ATPS Ethiopia

Outstanding Effort
Cote d'Ivoire

Most Innovative Advocacy Activity
Nigeria

Best Exhibition
Cote d'Ivoire



Transition

The ATPS Network is saddened by the demise of one of its members, Ms. Lillian Muchena who passed away on 28th December 2004. Ms. Muchena was one of the researchers who participated in the programme - ICT Policy in Africa Governance, Equity and Institutional Issues. She represented Zimbabwe.

She will be missed by the Zimbabwe Chapter and the ATPS fraternity

*May God Rest
Her Soul in
Peace*

inorganic fertilizers. These are, however, some researchable issues calling for an overall improvement of the PREP-PAC. Nonetheless, the fertilizer is effective and farmers do ask for it.

Question: The area of intellectual property rights is complex and yet extremely important. Is PREP-PAC patented; how do you retain ownership?

Answer: Yes, I fully agree with you that the intellectual property rights issue is important. My university is equally concerned about this issue. However, let me approach this question as follows: many researchers from public institutions have been brought up as seeing the products they develop or invent as part of their work and properties of their institutions. Hence they have not seen the potential recognition or economic values of their products. In other words, their work is taken for granted.

The second complication arises from teamwork inventions. For example, in Kenya, both KEMRI and Oxford University and possibly others are working towards the development of the HIV/Aids vaccine. Often there are arguments about the intellectual property rights, should they succeed. In the case of PREP-PAC, I recognize the contributions of Prof. Nancy Karanja, a Microbiologist at the University of Nairobi, who supplied all the Rhizobial inoculants (Biofix) and the technical input of Dr. Paul L. Woomer of SACRED Africa NGO, Nairobi Office, particularly studying the economical based issues related to the use of PREP-PAC. Nevertheless, these two collaborators recognize my original interest and the leading role on the development of PREP-PAC. They would recognize and accept a patent for the product from me or a team leader.

The third issue is that at Moi University, we are not yet in a position to distribute the PREP-PAC on a commercial scale because we simply do not have facilities to do so. Initial capital is required; infrastructure is needed to pack the product, including personnel, transportation facilities, materials and other logistics. We have not found a donor to assist us with outreach activities. When donor funding for the project ended we could not move far. These factors have subsequently contributed to our slow approach to obtaining the ownership of the PREP-PAC. I further believe that soil analysis should complement any technology targeted towards soil fertility restoration. Again we do not have a strong soil testing facility at Moi University. We hope the issue of PREP-PAC ownership will come one day.

Question: What are the implications of this sort of work

ATPS Calendar

Date	Meeting	Venue
March 7-10, 2005	Science, Technology and Innovation Sensitization & Training Workshop/Science Writers & Training Workshop	Freetown, Sierra Leone
March 31, 2005	National Dissemination Workshop and Exhibition, ASTI Systems: The Case of Kenya's Floriculture Industry	Nairobi, Kenya
April 28-29, 2005	Consultative Meeting for the Youth and Science Congress	Nairobi, Kenya
May 04-06, 2005	Training Course and Workshop and Knowledge Exchange Seminar on Sustainable Use of Water in the Niger Basin	Nsukka, Nigeria
May 16-18, 2005	Training Course and Workshop and Knowledge Exchange Seminar on Sustainable Use of Water in the Nile Basin	Nairobi, Kenya
June 18, 2005	ATPS Board Meeting	Nairobi, Kenya
June 20-23, 2005	African Regional Youth Congress on "Youth and Employment/Wealth Creation Opportunities in AST and Youth Leadership for HIV/AIDS Prevention"	Nairobi, Kenya
June 30, 2005	2005 Scientific Revival Day	Nairobi, Kenya

Executive Director's Visits/Activities

Date	Meeting	Venue
14-16 September 2004	CTA/NEPAD/ATPS Africa Regional Meeting on Science and Technology	Nairobi, Kenya
21-23 September 2004	Network of African Science Academies (NASAC) Scientific Conference on HIV/AIDS Pandemic in Africa (organized by the African Academy of Sciences)	Abuja, Nigeria
10-13 October 2004	Attend UNECA's fourth ADF meeting	Addis Ababa, Ethiopia
27-28 October 2004	UNESCO-International Advisory Board for the Reform of the Science and System of Nigeria Meeting	Paris, France
8-9 November 2004	1st Consultative Meeting of AFORNET with its Potential Donors (organized by the African Academy of Sciences)	Nairobi, Kenya
Nov. 29 - Dec. 04 2004	2004 ATPS Annual Conference and Workshop	Addis Ababa, Ethiopia

to agriculture in general?

Answer: There is a tremendous impact on crop yield increases resulting from the use of PREP-PAC (e.g. from 0.5 t/ha maize to 3 t/ha maize). This implies a positive change towards food security in a country. This impact will however arise when farmers adopt the PREP-PAC technology. There is also a hidden factor on the prolonged effectiveness of PREP-PAC in soils. This again reflects the economic impact resulting from the use of this fertilizer.

Question: Bringing a product in the market clearly involves a great deal of interaction with other players, especially in the private sector. Who are you currently working with?

Answer: This is a great question. But as you may know, private sector generally is interested in handling products of bulky nature. For example, the MIPCO Minjingu phosphate rock Mining Company near Arusha, Tanzania, sells bulky quantities of materials. They would, of course, sell their product at a reduced cost at their factory. The middlemen in Nairobi have their own prices.

Nevertheless, to come back to the question, we one day approached MEA Fertilizer Company in Nakuru, Kenya, who repackaged and blend fertilizers. But we were to provide inputs and starter costs for them to work together with us. We did not have the starting facilities and our outreach project proposal got no funding. Hence the private sector

intern

Jacinta Mwikali Nzinga an Environmental Health Science student from Moi University was in ATPS in 2004. She worked under the Finance and Administration department. Her duties mainly involved administration work that includes sourcing for quotations, handling petty cash, filing and taking charge of customer care.

She acquired experience on administration that she says is not available in schools. She hopes to combine health management skills with the practical administrative skills learnt at ATPS.

Jacinta says that staff relations was excellent because interns are given a chance to air their views.

issue was shelved. But with goodwill, we plan to have a strong private sector input in the distribution of PREP-PAC. We also propose to involve some NGOs e.g. SCODP in Siaya.

Question: Innovations, particularly in the sphere of science and technology, are seen as extremely key to economic growth. How can developing countries harness science to combat poverty?

Answer: This is an interesting observation and question. First, like any other human beings, Africans have talents towards innovations to alleviate or correct specific problems. Perhaps African scientists are viewed to lack competitiveness in whatever products they come up with. Example, farming has been over a long period been considered as a poor man's job in most African countries. Researchers did not see the seriousness of developing products and even patenting them. But now many people are appreciating that farming is a business and hence whatever knowledge they contribute will be associated with financial benefits.

Secondly, the current 'donor based era' has both positive and negative effects on research. Good researchers may not necessarily obtain donor funding and therefore, they cannot contribute much. Goodwill is needed in African countries to provide research funds to projects they consider to be a great potential towards development. African countries also have a tendency to remove good researchers to do general administration, thus denying them their talents. Africa has resources which they can utilize for development and poverty alleviation. Example, Africa has large and widely distributed phosphate rocks which they prefer to export and import back from the developed world. Why not use directly the effective phosphate rocks at a reduced cost towards sustained agricultural productivity? There should be goodwill from African Union in particular to fund promising development projects.

Question: How can ATPS support or contribute to the development and commercialization of significant innovations from its research?

ATPS not being a funding institution, is not likely to provide direct funding to inventors to help market their product. But ATPS is likely to know a range of donors or

appointment



The ATPS secretariat has appointed Kennedy Auka as the Finance and Administration Manager. Mr. Auka a Certified Public Accountant of Kenya, CPA (K), holds a Bachelor of Science in Business Administration from the

United States International University (USIU), Nairobi and is currently studying for Masters Degree in Business Administration at the University of Nairobi

Previously he worked with the International Center for Research in Agroforestry (ICRAF) as Finance Officer, Chief Accountant with Treadsetters Tyres Limited and as an accountant with Mitchell Cotts Kenya Limited, Kenya Duty Free Complex, Kenya Pipeline Company and Orbit Chemical Industries Limited.

He brings a wealth of experience in financial management, broad based accounting knowledge, systems implementation and electronic banking, staff supervision and training and management accounting. Kennedy has worked in multi-cultural and international environments equipping him for challenges ahead.

institutions, including private sector, who may finance some activities.

It would be useful if they could circulate the lists of donors etc. to key institutions. Personal contact is also useful. For example, the ICRAF and TSBF staff do circulate the lists to the people they know for funding. Sometimes funding is obtained that way. I would personally request the assistance of ATPS first to circulate this interview (and others) and highlight my plight for a donor and private sector to assist with commercialization of the PREP-PAC and also a donor to put up a soil testing laboratory for Moi University. Farmers want their soils tested but there is no readily available facility for the tasks over Western, Nyanza and the North Rift provinces in Kenya.

Soil fertility management innovations go side by side with soil and plant tissue testing. We have a proposal for this activity; the university is not at the moment in a position to put up the facility for us. Can our great African Union save us? ATPS is welcome to visit major institutions in Africa. We will be happy to receive their Newsletters. I am sorry if I have not answered this question satisfactorily, but ATPS has great potential to assist African innovators to own and commercialize their products.

Meanwhile, we appreciate the assistance given to us in form of laboratory equipment (used or new) by the Universities of Reading (U. K.), Wageningen (The Netherlands) and Purdue (U. S. A.) without this help we would not have taken any significant soil measurements now. Thank you very much for allocating your valuable time for this interview.

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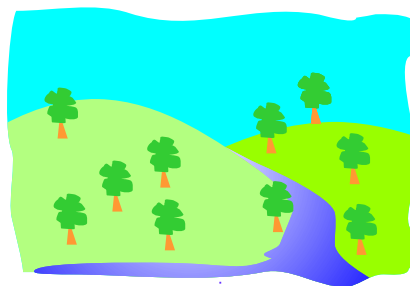
(NGOs) working on water and environment, will take the initiative to build synergies with the programmes and institutions," he adds.

The programme is well thought out and was informed by a consultation forum that ATPS organized on 15 June 2004, with major stakeholders to discuss Knowledge and Sustainable Water Resource Use in Africa. The participants, drawn from the academia, private sector, the government and NGOs acknowledged that it was the first time any institution has brought together various players on water and environment to exchange ideas and knowledge. They challenged ATPS to keep the forum active.

"ATPS is seen as an objective, honest broker with a wide African Network and should champion the creation of an informal association of the stakeholders in water and environment for exchange of ideas for policy advocacy," opined one of the participants.

The programme will emphasize knowledge-sharing at various levels, but primarily, through:

- > Joint research, training activities and deliberative workshops between African researchers, relevant government institutions and responsible water management



authorities and international researchers/institutions involved in sustainable water catchments management

- > Stakeholders and public participation events to share existing and new knowledge among researchers, government agencies and the public to encourage ownership of technology policies that result from the research and participatory exercises

ATPS, through this programme, intends to introduce a holistic and integrated approach to studying the water-environment nexus that would yield results that are implementable over the long-run, with direct relevance to the poor.

Cont'd from page 2

He was delighted that the organizers of the workshop asked him to speak on a subject, or rather subjects, about which he has been thinking seriously, "Africa, its biodiversity, both of which I love dearly, and how genetic engineering can affect them," he said.

Plenary session

The opening ceremony was followed by the plenary session. The following papers were presented:

Water Access, Conflict and Knowledge: Lessons from the Horn of Africa and the Great Lakes, by Chris Hodgins, Senior Research Fellow, African Centre for Technology Studies

Water Management, Stability and Collaboration within the Nile Basin by Prof Kinfe Abraham, President of Ethiopian International Institute for Peace and Development (EIIPD)

Understanding Public Attitude, Values and Behaviour towards Adoption of Sustainable Water Catchments Management Technologies: The role of economics, ethic and social psychology, by Dr Kevin Urama, Research Fellow, The Macaulay Institute, UK

Waste Water and Irrigated Agriculture: Lessons, knowledge transfer and possible applications in Africa, by Frans Huibers, Associate Professor, Health and Environment Irrigation and Water Engineering Group, Wageningen University, the Netherlands

Field visit to Debre Zeit Station

The participants visited the lake town of Debre Zeit, about 50 kms to the East of Addis Ababa, the International Livestock Research Institute's Experimental Station where they were briefed about the main objectives of ILRI and the various research programmes undertaken at the station. Forage genetic resources in relation to feed development and natural resource management were of particular interest to the visitors. Training and information dissemination in formal workshops and informal visits are a vital part of ILRI. The sharing of information is central to ILRI's work.

Collaborations

Dr Ogbu lauded collaboration between ATPS and EIIPD saying that both are knowledge generating and knowledge disseminating institutions concerned with relevance and appropriateness of knowledge and how policies can be better informed by ideas that are grounded in African cultures, values and aspirations. He thanked the management of EIIPD for being a "true partner".

He praised Prof Kinfe for being, "a true African patriot", who rose to the challenge of providing both intellectual and material support for this conference at very short notice. "Without his permission, I am designating EIIPD an ATPS long-term partner," he declared. Dr Ogbu also thanked the Management of the ILRI for their hospitality and cooperation in organizing the workshop.

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