

## ATPS Hosts Socialization of Science Technology and Innovation Workshop

Building Africa's Science, Technology and Innovation (STI) Capacity Today for Sustainable African Development Tomorrow



### African Science, Technology and Innovation for Africans by Africans in Africa

**E**arly this year, ATPS and SET-DEV partners launched a process aimed at creating an African Manifesto for Science Technology and Innovation 'by Africans, for Africans in Africa'. The initiative aims at bringing science closer to societies and promoting collective responsibility towards science and technology through the democratization of science.

It also aims to meet the changing needs of the dynamic continent and challenge African people themselves to offer evidence based solutions through the socialization

of scientific and technological research. As part of the manifesto drafting process under Work Package 4 of the SET-DEV program, a four day workshop was convened on July 14 in Mombasa, Kenya under the themes: Science in Society; Science mediation and Practice, Science Communication and Evaluation; and Innovation and Governance.

It involved a dynamic mix of fifty participants drawn from different learning and research institutions, government, private sector, international bodies, civil society as well SET-DEV project partner representatives from Kenya and Europe attended ■

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# A Word from the Executive Director



Once again I am pleased to welcome you to this issue of ATPS News.

During the period under review, ATPS continued to play the key knowledge brokerage role, in seeking answers to questions such as, 'Is Africa gaining from the Global Knowledge Economy or should it look within itself for answers?'

The period saw the progressive development of an African Manifesto for Science – African Science, Technology and Innovation, *For Africans, by Africans in Africa*, from the collaborative project under the auspices of the EU Framework VII Coordinated Action Program: *"Science Ethics and Technological Responsibility in Developing and Emerging Countries" (SETDEV)*. The entire process will culminate in the drafting of two manifestos - an African and an Indian manifesto and generate discussions around each of their constituent elements and the relationship between science ethics and socialization of science.

During the period, ATPS launched the Intellectual Property Rights Program, which is a 4-year program under the ATPS Phase VI Strategic Plan (2008 – 2012). The period also saw the successful launch of two exciting innovation incubation Programs - *The Youth Innovation Challenge (Y I CAN)* program, read as "Why I Can" which is designed to build a culture of innovation amongst young

people in Africa and the *Women Innovation Challenge Program (WE CAN)* which is an innovation network for transformational change for women in STI.

Modeled after the British Council African knowledge Transfer Partnerships, the ATPS (Y I CAN) and (We Can) programs aim to promote innovation through targeted collaboration within the quadruple helix: (Researchers, Private Sector Actors, Civil Society and Policy Makers). The applicants are required to identify original innovative ideas, craftsmanship, technologies and knowledge for solving specific challenges in a production or service chain either in the private sector or in rural communities. Successful applicants will be deployed with relevant actors in the relevant areas (private or public sectors) in the continent for three to six months to incubate the idea and turn it into tangible technologies or innovations for solutions to practical problems identified.

This newsletter captures only some of ATPS program activities for the period January – July 2009. Other programs including the 'Donor Watch', 'Nanotechnology' and the 'Climate Sense' Programs are still in their preparatory stages and will be covered in the next issue. The achievements highlighted herein illustrate the steps taken by the ATPS to bridge the science, technology and innovation policy gaps in Africa in line with its Phase VI Strategic Plan 2008-2012. The stories paint a vivid picture of how ATPS builds effective bridges between the quadruple helix to enhance innovation capacities and cultures for African development. We hope that you will find this edition of the Newsletter stimulating and interesting ■

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## From the Editorial desk:

In this issue of ATPS News, we focus on the highlights of the first half of 2009, tracking progress on implementation of the ATPS Phase VI Strategic Plan 2008-2012. This period saw the launch of several new programs aimed at building Africa's science, technology and innovation (STI) capacity today for sustainable development tomorrow.

This period saw ATPS strengthen its engagement with the Quadruple Helix; policymakers, science experts, private sector actors and the civil society (see Figure 1). The period also saw the commemoration of Scientific Revival Day for Africa and the recruitment of several staffing positions to boost the secretariat's capacity to implement key programs.

As we welcome you to this edition we would like to acknowledge the overwhelming support we continue to receive from our donors, chapters, partners and all our stakeholders in the way of funding,

technical support and feedback. Your assistance brings us closer to realising our vision; to become the leading international centre of excellence and reference in science, technology and innovation systems research, training and capacity building, communication and sensitization, knowledge brokerage, policy advocacy and outreach in Africa ■



Fig 1: Quadruple Helix (Urama 2009)



# New Program on Intellectual Property Rights Launched

## Strengthening National IP Policy and legal framework in Eastern and Southern Africa

The Intellectual Property Rights Program under the ATPS Phase VI Strategic Plan, 2008-2012 was officially launched on April 2, at the Hilton Hotel in Nairobi, Kenya.

In attendance were ATPS National Coordinators, secretariat staff and Mr. Joseph Wekundah, The Executive Director of Biotechnology Africa (BTA). Speaking during the launch of the Program, Dr Kevin Urama, Executive Director of ATPS said "The IP Program is part and parcel of the ATPS Phase VI Strategic Plan under the component on International Cooperation and Partnerships. We are pleased to partner with BTA in the implementation of this program." The Executive Director of BTA Mr Wekundah is under a contractual agreement to coordinate the program on behalf of the ATPS.

The objective of the Intellectual Property Rights Program is to improve policy and legal framework development for traditional knowledge access, benefit sharing and effective intellectual property systems in Eastern and Southern Africa. It aims to promote stakeholder participation in policy and legal framework development. Specifically, the program aims:

- To enhance knowledge sharing and collaboration by establishing both a regional and national intellectual property networks.
- To generate disseminate and maintain an interactive database and body of knowledge on the intellectual property policy environment.
- To promote awareness on traditional knowledge access, benefit sharing and effective intellectual property systems at the grassroots levels to encourage the integration of their concerns to national intellectual property policymaking process.

The Intellectual Property Rights program involves six African countries namely Ethiopia, Kenya, Tanzania, Uganda, Swaziland and Mozambique. The process of establishing the implementation structures including the Regional Steering Committee and National Steering Committee

is underway and ATPS National Coordinators in the six countries have already been contacted to assist in nominations of qualified and capable persons to constitute the National Steering Committee.

ATPS will engage international bodies in the field including the World Intellectual Property Rights Organization (WIPO) and academic experts from Africa and beyond in the Regional Steering Committee for the project ■



Above; Program Coordinator, Mr. Joseph Wekundah. Below, ATPS National Chapter Coordinators and staff during the Launch.

## In Brief:

### ATPS Joins International Resource Panel

ATPS Executive Director, Dr Urama participated in the UNEP Resource Panel for Sustainable Natural Resources Management in Paris on June 2 - 4 during which he was nominated to lead the scoping group on Sustainable Water Management.



Dr. Urama and Deputy ED UNEP

### Nanotechnology Project

ATPS in collaboration with Maastricht University (Netherlands) and University of Hyderabad (India) submitted a proposal to WOTRO, the science division within the Netherlands Organisation for Scientific Research (NOW) - Nanotechnologies for development in India, Kenya and The Netherlands - Towards a framework for democratic governance of risks in developing countries.

The program will focus on the role of advanced research and technology for development, and especially the democratic governance of the inevitably associated risks and benefits of such new technologies.

### Africa Knowledge Transfer Partnerships



Dr. Kevin Urama gave a keynote address at the Africa Knowledge Transfer Partnerships Conference in February. The event, which was sponsored by the British Council and the Ministry of Higher Education, Science and Technology, Kenya sought to highlight the essential characteristics for successful partnerships between academics and business leaders that add value to the national economy.

# Finals of the Women and Young Professionals in Science Competitions

Addis Ababa, Ethiopia, April 20 – 24, 2009

The competitions succeeded in mobilizing women scientists and young professionals both in Africa and the Diaspora who are doing pioneering research and communicating the results and making impact on agricultural and rural sectors in Africa.

The Women and Young Professionals in Science Competitions reached their climax on April 21, 2009 during the finals held in Addis Ababa, Ethiopia. ATPS coordinated the two competitions in collaboration with the Technical Center for Agricultural and Rural Cooperation (ACP-EU), the Forum for Agricultural Research in Africa (FARA), the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), the New Partnership for Africa's Development (NEPAD) and the Alliance for a Green revolution in Africa (AGRA).

The competitions themed; Improving Agricultural Performance in Sub-Saharan Africa took place under the auspices of the ATPS Phase VI program on youth and gender empowerment and were widely regarded as major success. Prof Mary Abukutsa Onyango's presentation on "Development and Promotion of Technologies for Sustainable Production and Utilization of Indigenous Vegetables for Nutrition Security and Wealth Creation in Kenya" scooped first prize in the Women's category. In youth category, Joel Nwakaire won the first prize with his presentation entitled; "Design, construction, and test-running of a biodiesel pilot plant."

The awards were presented at the Ministers of Agriculture, Land and Livestock conference held at the African Union, Addis Ababa, Ethiopia on April 24, 2009. The expert Group Committee constituted to carry out a peer review of the abstracts was overwhelmed by the number of submissions from across Africa. One observation from the event however was that there were some glaring imbalances in representation between

various regions; Southern Africa was singled out as the least represented. Most participants acknowledged their support came from outside agencies which reveal increasing overdependence on donor funding for science, technology and innovation (STI) policy research, dialogue and practice for African development.

In his keynote address during a dinner to announce the winners, Dr. Monty Jones, 2004 World Food Prize Laureate and Executive Director, FARA, Ghana called upon African Governments to invest more in agricultural science, technology and innovation (STI) policy research, dialogue and practice for African development. "It is time for African Governments to show their commitment towards investing in agriculture as a means to achieving the UN Millennium Development Goals, by increasing their budget allocations for it, no matter how modest their spending plans. Furthermore their focus should be trained on the young people and women if we are to make any real progress."

In his opening remarks, read on his behalf by Mr. Marsden Momanyi of ATPS, Dr Kevin Urama, Executive Director, ATPS observed that 50 per cent of Africa's population is below the age of 18 and an extraordinarily high percentage of it is between the ages of 15-25, and this percentage is growing by the day. This places Africa amongst the most 'youthful' continents in the world. On the other hand, women and girls make up 51 per cent of Africa's population and 70 percent of the continent's agricultural producers are women. Despite this, African Youth and Women are often placed in the margins of the public sphere and major political, socio-economic, and



***Such competitions Promote excellence and innovation in pioneering research and communicating the outputs to improve agricultural productivity and livelihoods***

cultural processes! It is for this reason that ATPS places a huge emphasis on youth and women as drivers of their own destinies, through engagement in science, technology and innovation capacity building and policy engagement.

Although there is evidence of participation of stakeholders particularly women farmers and youth, the expert panel noted that there was greater need for researchers to interact with the farming community in order to do ground breaking science. During the event, special status was given to Prof. Ameenah Gurib-Fakim from Mauritius on her abstract titled "Traditional Medicine and its Impact on Livelihoods." Her presentation underscored the need for Africa to value its abundant indigenous scientific knowledge and capacities which are yet untapped.

The ATPS used the opportunity during the event to announce the launch of its Youth Innovation Challenge Program (Y I CAN), and Women Innovation Challenge Programs (We Can).

Overall The competitions succeeded in mobilizing women scientists and young professionals both in Africa and the



*Participants at the competition finals in Addis Ababa, Ethiopia, listen to the presentations by the women and young professional finalists.*

Diaspora who are doing pioneering research and communicating the results for making impact on agricultural and rural sectors in Africa.

The response to the competitions by participants at the AU 4th Conference of Ministers Agriculture, Lands and Livestock, where the prizes were awarded was very positive. Ministers and senior officials who presented prizes to winners from their countries displayed a great sense of pride and a keen interest to engage the Young Professionals and Women Scientists in seeking solutions to Africa's agricultural challenges. The response of those present at the prize giving ceremony reconfirmed the importance of such competitions in promoting excellence and innovativeness in pioneering research and communicating the outputs to improve agricultural productivity and the livelihoods of rural people. It pointed to the need to continue and expand the scope of these competitions.

The proposed theme of the 2009 competitions is "Agricultural Innovation in a Changing Global Environment" ■

COUNTRY	NO. OF ABSTRACTS
Kenya	29
Nigeria	28
Uganda	16
Ethiopia/South Africa/Benin	5
Cameroon/Sudan	4
Tanzania/Zimbabwe/Sierra Leone	3
Ghana/DR Congo	2
Togo/Cote D'Ivoire/Niger/Mauritius/Madagascar/Senegal/Namibia/Malawi/Burkina Faso/Central African Republic	42
<b>TOTAL</b>	<b>130</b>

**Table 1:** Entrants in the Women in Science Competitions by Country

COUNTRY	NO. OF ABSTRACTS
Kenya	22
Nigeria	22
Uganda	15
Ethiopia	10
Ghana	7
Cameroon	6
Senegal	5
Tanzania/Malawi	4
South Africa/Burkina Faso/DR Congo	6
Sudan/Rwanda/S Leone/Niger/Lesotho/Chad/Egypt/Germany/Zimbabwe	47
<b>TOTAL</b>	<b>140</b>

**Table 2:** Entrants in the Young Professionals in Science Competitions by Country





# ATPS Hosts SET-DEV Manifesto Workshop



SET-DEV Manifesto Workshop, May 20 – 22, 2009

## By Editorial Team

The European Commission (DG Research) is funding the Coordination Action ‘Science, Ethics and Technological Responsibility in Developing and Emerging Countries’ within the context of the Seventh Framework Program for Technology Research and Development. The Coordination Action aims to support the research systems in India and Africa.

The process is aimed at creating an African Manifesto for Science, Technology and Innovation ‘by Africans, for Africans in Africa’. The initiative aims at bringing science closer to societies and promoting collective responsibility towards science and technology through the democratization of science.

On May 20, ATPS hosted a Workshop in Nairobi, with the purpose of sharing and creating dialogue on the results of the project so far, with partners from India, Africa and Europe and to create a broader interest in and support of the African Manifesto process. The views and comments stemming from this workshop are to be used in improving on the draft manifesto which should incorporate the theoretical and methodical approaches as well as the best practices gathered.

In his opening remarks, the SET-DEV Project Coordinator Dr. Alfonso Alfonsi said, “Our main thrust was to bring science closer to society, and to promote collective responsibility towards science and

technology, what we refer to in our project as “the democratization of science.”

Participation in this meeting constituted 26 select experts drawn from the learning and research institutes, government/public institutes; private sector; international bodies and civil society. SET DEV project partners from Kenya, India and Europe also attended the meeting. Initially the manifesto was targeted

**“Our main thrust was to bring science closer to society, and to promote collective responsibility towards science and technology, what we refer to in our project as - the democratization of science.”**

**Dr. Alfonso Alfonsi, SET-DEV Project Coordinator**

specifically at two countries - India and Kenya, however a strong demand for an African Manifesto during the early stages of the project created a need for widening the scope to cover the whole of Africa. The three-year project began in March 2008 and will involve a series of activities between SET-DEV partners including study coordination,

experimentation, and awareness raising initiatives to meet its objectives

The preliminary SET-DEV Manifesto drafting workshop was held on May 20, 2009. The purpose of the brainstorming workshop was to share and dialogue on the results of the project so far with partners from India, Kenyan and Europe and to create a broader interest in and support of the Kenyan manifesto process. The workshop collected various views and comments from participants, which were used to improve on the draft manifesto. Participants were urged to incorporate the theoretical and methodological approaches as well as the best practices gathered.

Participation to the workshop constituted 25 select experts drawn from the learning and research institutes; government/public institutes; private sector; international bodies, civil society as well representatives from SET-DEV project partners from Kenya, India and Europe.

The afternoon of May 20 was reserved for the SET-DEV Steering Committee, which held a special meeting to reach an agreement on the content, methodology and timetables of the pilot activities. The meeting was chaired by Prof. Wiebe Bijker of Maastricht University. The Steering Committee held a formal session with Mr. Jean-François Dechamp on May 21 to agree upon and plan the project’s activities up to the end of year II (February 2010) ■

# ATPS plays a key role in the formation of the Global Adaptation Network (GAN) in Africa



*The Network will enhance adaptive capacity of developing countries by mobilizing knowledge and technologies (Photo credit: Scott Davies/UNEP)*

**A**TPS participated in a consultative workshop hosted by United Nations Environment Program from 19 – 20th January 2009 to facilitate the setting up of the Africa component of Global Adaptation Network (GAN).

Following consultative meetings both globally and in Africa – the Africa component has now been set up, and is evolving under the guidance of the Interim Steering Committee. Dr. Kevin Urama was subsequently appointed as Co-Chair of the GAN Interim Steering Committee.

The GAN Africa builds on the outcomes of the international consultation meeting held 30-31 October 2008, in Changwon, Korea, as well as on other consultations including those held at the United Nations Framework Conference on Climate Change (UNFCCC) COP14 in Poznan, Poland where member states identified a need for a global adaptation network to address climate change issues.

The Global Adaptation Network is a United Nations Environment Programme (UNEP) initiative, implemented in partnership with key UN and other international

organizations. 13 UN agencies, as well as over 35 organizations, governments, foundations, and research institutions are involved in the development of the Global Network. The overall objective of the Network is to help build climate resilience of vulnerable human systems,

ecosystems and economies through the mobilization of knowledge and technologies to support adaptation policy - setting, planning and practices.

The GAN Africa will support African governments, practitioners and communities with knowledge, technologies, good practice demonstration and capacity building.

**The core Network functions will include:**

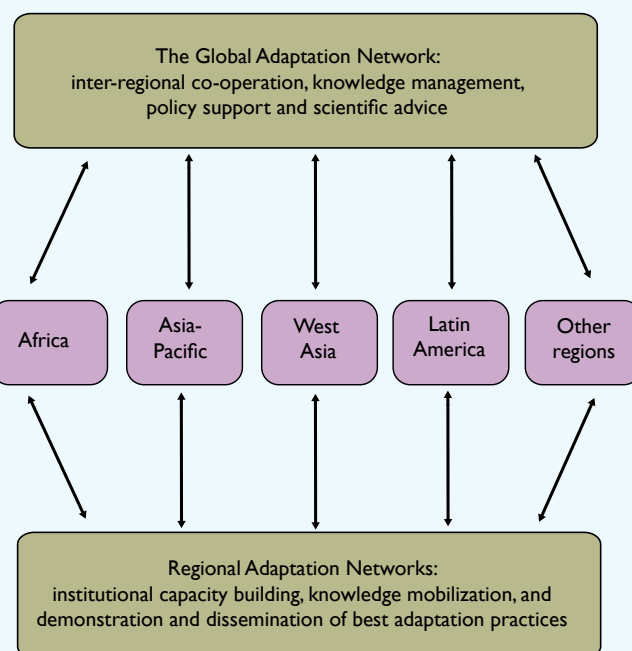
***Mobilizing knowledge and technology by improving their availability, accessibility and usability; Demonstrating and disseminating good practices; Providing packages of adaptation services and policy supporting; Building institutional capacity; Promoting collaboration between various sectors, and regions***

Speaking during the meeting, Dr Kevin Urama drew on lessons learnt from the ATPS Network. He underscored the importance of agenda setting and program prioritization that is driven by the demands from the network members. Further, membership to a network should be based on a shared vision, mission and mandate, and perceived (preferably non-financial) benefits and value-added to the members. He warned

participants to avoid centralization of power. Some key suggestions for the Adaptation Network include ensuring a shared vision and commitment by the members, flexible and adaptive priorities and management structure, dissemination of success stories, and grassroots empowerment.

As most of the Network core activities will be undertaken at regional, national and local levels, Regional Networks will form the key operating entities forming the Global Adaptation Network. The global level Network structures will support the Regional Networks, facilitate inter-regional co-operation and knowledge management, and provide policy support and scientific advice. The core Network structure will be built around institutions that will be supported through the Network to expand their capacity on adaptation, and to provide adaptation services to governments, practitioners and communities. These can include for example ground facilities and regional centers that meet agreed criteria for delivering quality services. A group of international institutions will provide technical support to the component members ■

## GAN Structure







# ATPS Launches New Innovation Challenge Programs

“YICAN” and “WE CAN” Programs

**A**frica's youths met in Mombasa, Kenya to map the future of Science Technology and Innovation in the continent through the new innovation program

By Marsden Momanyi

Traveling from East, West, South, and Francophone Africa, country representatives, steering committee members and advisors of the African Youth Forum for Science and Technology (AYFST) converged in Kenya's port city of Mombasa to seek ways to strengthen and deepen their collective influence through the AYFST.

The forum founded in 2005, held its fourth annual Steering Committee Meeting from 13th to 14th July, 2009 and was followed by the launch of the Youth Innovation Challenge Programme (Y I CAN). The Y I CAN 'read as "Why I Can" has been developed under the auspices of the ATPS Phase VI Strategic Plan, 2008 – 2012. The programme is designed to build a culture of innovation amongst young people in Africa by promoting innovation through targeted partnerships within the quadruple helix



**Bright Simons**, Innovator of MPedigree (a technology that uses mobile phones in the fight against counterfeit drugs), addresses youths during the Launch

(Researchers, Private Sector Actors, Policy Makers and Civil Society) and through entrepreneurship incubation programs. The AYFST is amongst the priority programs of the African Technology Policy Studies (ATPS) Phase VI Strategic Plan, 2008 - 2012. The meeting took stock of AYFST progress to inform its implementation of planned youth activities under the Phase VI Plan 2008 - 2012. The meeting resolved that AYFST National Chapter Committees would work closely with the ATPS National chapter coordinators in

their countries, to receive mentorship and access opportunities for funding for youth activities in their countries. It was also agreed that they shall be answerable to the ATPS Management structure and shall report to both the AYFST Steering committee and the ATPS Management.

The meeting saw the consolidation of the membership of the AYFST Steering Committee and the election of its leadership. Through an agreed democratic process the following countries were



elected to be members of the steering committee: Malawi, Sierra Leone, Ghana, Nigeria, Uganda, Kenya, Tanzania, Ethiopia, Benin, Zambia, Lesotho, Cameroon and Cote d'Ivoire. Tennyson Magombo (Malawi) was elected AYFST Chairperson and Festus Amadu (Sierra Leone) its vice chair. Phina Magara from Kenya was elected as the secretary.

The meeting also called for a reliable mechanism for absorbing new members emphasizing the need to be innovative in the ways it creates and sustains young people's interest in AYFST. At the same time the AYFST reaffirmed its dream of having 'knowledge-based' development in Africa, and its belief that harnessing the knowledge and ability of the youth is vital to this pursuit.

Speaking to the youths' during an open session, Dr Kevin Urama, the Executive Director of the African Technology Policy Studies Network (ATPS) asserted that "Knowledge for development is not just in universities, libraries, and books. Knowledge exists beyond these boundaries, with youths outside formal

institutions for education." He called on the AYFST leadership in its work with formal education institutions to strive to reach youths outside the academia.

He added that the ATPS believes that development will be driven by a generation of youth that value their ideas and visions for the future. "We need ideas as the engine of development," said

Dr Urama. Furthermore he challenged the young people to think outside the box and dared them to dream big, because true innovators dare to dream. "If your dream does not scare you, then it is probably not good enough," he added.

The meeting reaffirmed the vision of AYFST for Africa, "empowered African communities that enjoy sustainable livelihoods." The youth further expressed their dream of living in a continent where innovation is the norm. "We dream of an AYFST which is reflective of our passion for innovation and curiosity about new ideas, said Mr. Tennyson Magombo the newly elected Chair person of AYFST during his maiden speech to participants. The meeting also called for an expansion of its website functions to include membership

recruitment and e-learning activities. Additionally, plans began for the annual Youth Congress. The AYFST expressed a mission to showcase AYFST outreach and capacity building programs as well as the skills and inspiration they engender among youth.

It was noted that the AYFST's country chapters operate in very different contexts, and the youth were drawn from various disciplines in agriculture, science and technology. Despite this eclectic range of backgrounds, the common, guiding vision of the AYFST – to participate in educational reform, policy advocacy, and youth empowerment in order to facilitate capacity building among African youths in areas of science and technology – proved that they have more in common than apart. Commitment to this vision propelled a fruitful week of dialogue and agreement.

ATPS would like to congratulate these young people for their commitment in seeing through a week of action and accomplishment and would like to assure them of its continued support ■



## The 1<sup>st</sup> African Women Forum for Science and Technology (AWFST) and Women Innovation WE CAN Workshop



*Eminent African Women and other Stakeholders at the AWFST Steering Committee Meeting*

The first African Women Forum for Science and Technology (AWFST) Interim Steering Committee meeting was held at the Sun and Sand hotel in Mombasa, Kenya from 16-17 July, 2009. Participation comprised of 12 key gender experts from Africa, Europe



and the Diaspora. A key outcome of the forum was a joint Resolution signed by all 12 participants stating that AWFST shall

be a pan African network program of the African Technology Policy Studies Network amongst other resolutions. The AWFST also provided an opportunity to launch the ATPS Women Innovation Challenge Program (WE CAN) program. WE CAN is an Innovation Network for Transformational Change for women in STI. The program is part of the ATPS African Women's Forum for Science and Technology (AWFST). It is built around an innovative Mentoring Program, which joins Strategic Women Leaders to at least 5 women each year, working on individual BreakThrough Innovations (BTIs) across Africa. The BTIs that are generated out of the program are carefully designed to solve an important development problem using innovations in science and technology.

The WE CAN Program will therefore establish networks that enhance inter-regional collaboration between women and girls across Africa and foster new Asia-Africa Partnerships to act as good practice ■



## Pictorial



*Dr Ragna Zeiss talks to participants during the SET-DEV Workshop to develop a Manifesto for Science, Technology and Innovation hosted by ATPS on February 4-5 in Nairobi*



*Panel of judges listens to the presentations by finalists during the Women and Young Professionals in Science Competitions in Addis Abbaba Ethiopia held on April 20 - 24, 2009. From left; Dr Demba Farba Mbaye, Dr Ruvimbo Mabeza-Chimedza and Prof. Michael Madukwe (ATPS - Nigeria Chapter Coordinator)*



*A Section of the ATPS Board of Directors during the 15th Board Meeting held in Nairobi on March 31 - April 1, 2009*



*Dr Urama during a tour of the Laboratory facilities at the Technology Transfer Centre on Environmental Risks - Italy*



*African, Indian and European partners participate in the SET-DEV Manifesto Process Coordination Workshop hosted by ATPS in Nairobi on May 20-22, 2009*



*Dr Sheila Ochugboju, ATPS Senior Communications Officer delivers a presentation during the 2nd National Conference on Dissemination of Research Results organised by the Kenya National Council for Science and Technology (NCST)*



## Partnerships



*The first interim steering committee meeting of the African component of the Global Adaptation Network (GAN) held at the UNEP Headquarters in Nairobi*

### Global Adaptation Network (GAN) - Africa

Following the successful launch of the Global Adaptation Network (GAN) - Africa in January 2009 Dr. Kevin Urama was nominated as the Co- Chair of the GAN Interim Steering Committee. He attended the first interim steering committee meeting which was held from April 27 – 28, 2009 at UNEP headquarters in Nairobi, Kenya.

### ATPS and AIAE to start Collaboration



**A**TPS recently signed a Memorandum of Understanding (MoU) with the African Institute of Applied Economics (AIAE). ATPS and AIAE will collaborate on wide-ranging issues such as training, advocacy and enlightenment. In addition, the collaboration will seek to improve mutually benefitting capacities and networking resources. The Memorandum of Understanding was signed by Dr Kevin Urama on behalf of ATPS and Prof. Eric Eboh representing AIAE.



*Dr Kevin Urama (Left) hands over the signed MoU between ATPS and AIAE to Prof Eric Eboh*

## ATPS 2009 Annual Conference



**Africa's Response to Global Challenges through Science, Technology and Innovation**

**Abuja, Nigeria  
November 24 - 27, 2009**

# ATPS and RMRDC Host an International Conference on Incentives for Building a National System of Innovation in Nigeria



*From Centre; Minister for Science and Technology, Nigeria Dr Alhassan Bako Zaku, Prof Oyebanji Oyeyinka (ATPS Board Member), Dr Kevin Urama, ATPS Executive Director and Dr Osita Ogbu, ATPS Former Executive Director during the workshop organised by The Raw Materials Research and Development Council (RMRDC) in collaboration with ATPS*

The aim of conference was to deliberate on how Nigeria can develop a national system of innovation for equitable and sustainable social and economic development

**By Wairimu Mwangi**

The Raw Materials Research and Development Council (RMRDC) in collaboration with African Technology Policy Studies Network (ATPS) hosted a two-day joint international conference in Abuja, Nigeria, on "Incentives for Building a National System of Innovation in Nigeria".

The workshop held from July 6 – 7, 2009 was structured to commemorate the African Union Science Revival Day which takes place on the 30th of June each year. The ATPS attaches great significance to scientific revival day and has used it over the years to drum up support for science technology and innovation policy in Africa through various platforms. It is a day when the Network refocuses its thinking around STI as the engine

for Africa's social and economic reconstruction. The main aim of conference however was to deliberate on how Nigeria can develop a national system of innovation for equitable and sustainable social and economic development. The two day conference brought together about 150 participants representing various stakeholder groupings/innovation actors and institutions, and professionals from Nigeria as well as resource persons from within and outside Nigeria.

Dr Alhassan Zaku, Minister of Science and Technology declared open the conference on Monday. He asserted that the role of science and technology in economic transformation and overall development of the country cannot be underestimated. "The ability of a nation to solve problems, initiate ideas and sustain her economic growth is dependent on her capabilities in science and technology" remarked Dr. Zaku. According to him, providing clean water, health care, infrastructure and healthy food is all components of science and technology innovations.

Prof. Peter Onwualu, Director-General, RMRDC mentioned that the conference was targeting fruitful identification of critical issues in building a system of innovation in Nigeria.

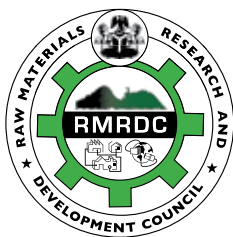
Low level industrialization and neglect of science and technology are perceived to be some of the major factors enhancing economic retardation in the continent. Zaku urged the participants to embrace national duty, hence evolve a national

## Scientific Revival Day for Africa

Abuja

Building a National System of Innovation in Nigeria





system of innovation for the country. Besides, the latter placed more emphasis on the significance of using science and technology novelty to drive the government's

7-Point Agenda with Vision 20:2020 and the Millennium Development Goals.

Impressively, participants enunciated words filled with optimism that the conference would birth productive recommendations. Consequently, the course of action would ensure that appropriate policies were formulated via science, technology and innovation.

The conference identified key issues in building a system of innovation in Nigeria. The overall objective of the conference was to identify key issues in building a system of innovation in Nigeria. Specifically, the conference:

- Identified the institutional, knowledge and policy gaps that may constrain effectiveness of science, innovation and technology policies in Nigeria and what needs to be done to bridge these gaps in future;
- Provided the opportunity for dialogue and knowledge sharing amongst Nigeria and non-Nigeria actors and stakeholders to identify and prioritize issues and action for greater impact of S&T in development;
- Demonstrated to policy makers and other stakeholders the relevance of a system of innovation in enhancing national development.

*Some of key achievements of the conference include;*

Improved understanding of the concepts of innovation systems and their relevance to national development; a prioritized list of strategies for building a national system

of innovation in Nigeria; Identification and prioritization of gaps in the national innovation system and agreed strategies and steps for addressing them; and a on strategies for developing a national innovation system for consideration by the different sectors of the economy, different levels of government and legislature (under development).



**Dr. Kevin Urama** shares a light moment with the Minister for science and Technology in Nigeria during the meeting

## DIGITISING SOCIAL SCIENCE AND HUMANITIES: Global challenges and opportunities

*By Editorial Team*

**A**TPS along with the Maastricht Virtual Knowledge Studio and the Social Sciences and Humanities Research Council of Canada took part in a special session during the World Social Science Forum in Bergen from 10-12 May 2009.

The Forum was organized by the International Social Science Council in co-operation with the Stein Rokkan Centre for Social Studies and the University of Bergen. ([conference homepage: http://www.rokkan.uib.no/wssf](http://www.rokkan.uib.no/wssf)).

ATPS Executive Director, Dr. Kevin Urama presented a special paper on "Digitization, Globalization and Commercialization

of Social Sciences and Humanities: Implications for Socialization of Science & Technology in Africa". The paper explored the implications of digitization, globalization and commercialization (DGC) of social sciences. In his presentation, Dr. Urama argued that the current social science research infrastructure and techniques for knowledge generation, valorization and use are significant constraints that inherently limit the capacity of new technologies to contribute tangible solutions to tangible problems of the global poor, especially in Africa.

He also identified lack of IT facilities and development infrastructure as core limitations to the African countries ability to harness the potential benefits of DGC in the new global economy. Drawing lessons from access to ATPS hosted internet knowledge facilities, he warned that unless the global digital divide are addressed through STI capacity building, DGC may have reverse and adverse implications for Africa ■

# Higher Education in Sustainable Development in Africa

## The Association of African Universities (AAU)

**T**he Association of African Universities (AAU) held its 12th General Conference in Abuja, Nigeria from May 4-9, 2009. The theme of the Conference was “Sustainable Development in Africa: The Role of Higher Education”.

Dr. Kevin Urama was invited alongside renowned personalities such as Prof. Jeffrey Sachs of Columbia University to deliver a keynote address at the conference. The conference had four sub-themes - Teaching & Learning, Research & Development, Community Engagement and Campus Greening.

Dr. Urama's keynote presentation on Higher Education for Sustainable Development in Africa (HESDA) received rave reviews and the AAU has since expressed interest in publishing it as the main story of the special edition of its newsletter on the General conference.

“Empirical studies find significant correlation between university enrollment rates and growth in national incomes

in many countries,” said Dr Urama. No educational factor correlates as strongly

with national incomes as university enrollment rates. Analyses show that attaining full primary education for all which has been the main focus of government policies in many African countries may be a necessary but no sufficient condition for development in most countries globally. (see figure 5)

“A rapid assessment of selected Higher Schools and Universities in Africa show that the current pedagogies and incentive structures in are discipline base, focuses on literacy and publications, organized in faculties with rigid boundaries and hence discourages collaboration, trans-disciplinarity and responsible innovation. The disciplinary domains focus on scientific enquiry and building “academic tribes rather than collective learning.” The paper has also informed dialogue on how Africa's education systems can be transformed to make them more relevant and responsive to the continents development agenda rather than existing as a mere artifact of colonialism.

### Recommendations

The recommendations hinge around six interrelated aspects of our knowledge systems needing urgent reforms: the current pedagogy, knowledge diffusion structures, mindsets of the actors, institutional governance structures, and policy frameworks. It advocates for re-design of curricula to mainstream sustainable development principles

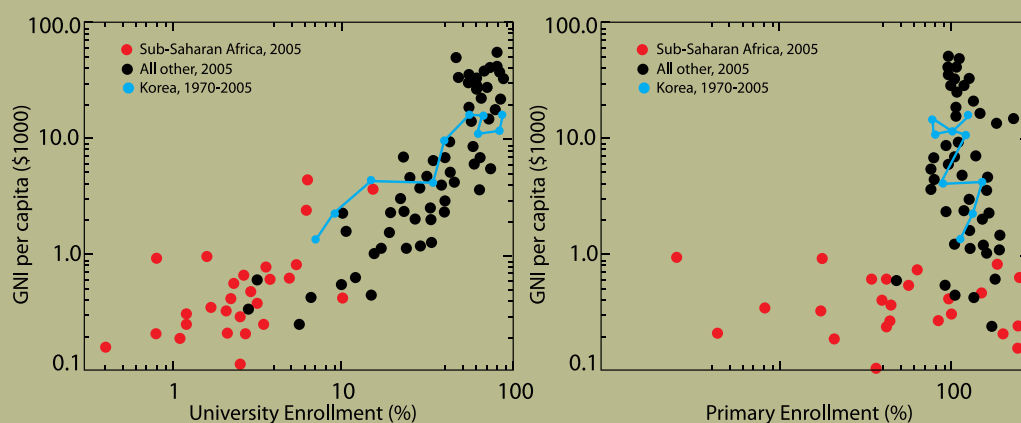
A youth from the AYFST Chapter in Uganda demonstrates how a solar system developed by the Logel Project works. Africa's education systems need to be transformed to make them more relevant and responsive to the continents' development agenda.

including trans-disciplinarity, systems thinking and innovation; expansion of RAE systems to include societal relevance, innovation indicators and policy relevance. Reform of institutional governance structures and teaching and learning methods to mainstream participatory democracy, stakeholder engagement, participatory learning and full socialization of science in Africa.

“We need a change in mindsets to move from doing different things to doing things differently, learning to learn rather than teaching codified knowledge as the superstructure for development.

The conference created new opportunities for collaboration amongst universities and institutions of higher learning within and beyond Africa on the pertinent issues of

education for sustainable development. It also highly complements ATPS efforts in contributing to curriculum review support activities in close collaboration with S&T higher institutions and Education Ministries in Africa. At the policy level, it recommends investments in trans-disciplinary entrepreneurship incubation centers and knowledge networks to foster innovation and systems thinking and establishment of student loan programs ■



Correlation between Gross National Incomes (GNI) and Enrolment Rates in (a) Universities and (b) Primary Education (Source: Moyer, E.J. (2007).



# ImpresAmbiente Scarl Information Day

The University of Palermo invites ATPS to the panel for natural resource management

**P**rof. Goffredo La Loggia, Head of the Department of Hydraulic Engineering and Environmental Applications (DIIAA), University of Palermo, invited ATPS to a promotional event of ImpresAmbiente which was held in Palermo, Italy on May 28,

2009. The aim of the event was to illustrate the mission and activities of this centre of technology transfer on environmental risks, composed by research institutions and Small and Medium Size Enterprises (SMEs) of excellence in environmental risk management across the six regions of South Italy.

University of Palermo wanted to use the event as an opportunity to reinforce existing working relationships with RTD partners, at institutional and business level, in Italy and abroad, hence the invitation extended to ATPS, which was honored by Dr. Kevin Urama. Following the event, discussions were initiated

on how to establish a collaboration framework for Research and Technology Development activities in the wide domain of Environmental Research and Technology Transfer between DIIAA and ATPS.

It was noted that intensive and effective working collaboration activities among the two organizations have been forged since February 2009 that have resulted in the submission of two EU-ACP projects involving ATPS twice as applicant and DIIAA as partner. Both submissions are under evaluation under the EDF funding programs.

The new opportunities and activities were analysed during the Palermo meeting held between Dr. Kevin Urama,



*ATPS Executive Director during the resource panel meeting in Palermo*

Professor Goffredo La Loggia, Dr. Umberto Pernice and the staff of the DIIAA. A draft Memorandum of Understanding between both institutions has been drafted and is currently being discussed ■

## ATPS Prepares to Roll Out New Program on Climate Change

**T**he ATPS is in the final stages of designing a concept paper on "Making Sense of Climate Change." This follows widespread global debate surrounding the issue.



The Kyoto Protocol drafted in 1997 is an amendment to the United Nations Framework Convention on Climate Change. It required many countries to reduce their emissions of greenhouse gases by 2012. It was ratified in 2005, but was not

fully ratified by all countries and many feel that Africa, the most vulnerable continent to climate change profited least from the provisions of the protocol. The Clean Development Mechanism whereby rich industrialized countries generate revenues through a levy for an Adaptation Fund to help poor countries, did not raise significant

funds to help the African continent. By December 2009, at the Climate Change summit in Copenhagen, world leaders will sign a new agreement that will reduce CO2 emission by at least 25% by 2020. The global challenge is to avert a 2 degree Celsius rise in global temperature, which

could cause the destruction of at least 30 per cent of all known species on earth, increase extreme weather events such as floods, droughts, cyclones and cause a sea level rise of at least one or two metres. At Copenhagen the global climate deal will be decided. Who pays for the Adaptation Fund? How will rich and poor countries share the burden of developing cleaner technologies? How does the Polluter Pays Principle apply to Climate Change Adaptation Policies? Can Africa exercise its comparative advantage in natural resource endowments for Climate Change Adaptation? How do Climate change adaptation policies support growth and poverty alleviation in developing economies? The proposed new Program will address these and other related issues with the aim of helping Africa make sense of climate change ■

"Once in every season the earth that we feed and sit on asks for food and we hurry to do her will."  
Osmond Enekwe "Broken Pots" Enugu. 2004.

# ATPS Board Welcomes its New Chair



*Prof. Sam Wangwe, the new Chair of the ATPS Board*

Amongst the significant structural changes in the ATPS governance that took place last year was the election of Prof. Samuel Wangwe as the New Chair of the ATPS Board following the ATPS 14th Board meeting held on 17 – 19 July 2008. During the 15th ATPS Board Meeting, that was held on March 31 – April 1, 2009, ATPS held a farewell reception during which Prof Norah Olembo handed over the mantle of leadership to Prof Wangwe.

Speaking during the ceremony, Prof Olembo said, “I believe ATPS has made massive strides in building a truly African science research knowledge hub. As I step down as chair of the ATPS Board

of Directors, I am confident that the contribution ATPS is making is on an upward spiral in making a real and lasting impact on the lives of communities all over Africa.

To all our donors, I would like to thank you for the confidence bestowed upon us and for entrusting us with the necessary support to pursue the huge responsibility of furthering STI policy research and policy practice in Africa. Through your unrelenting support, our programmes continue to make a real and lasting impact in the fight against poverty in Africa.

As the organisation moves on to the next leg of its journey, I have every confidence that ATPS will continue this progress under the leadership and direction of Professor Sam Wangwe, who takes over the mantle as the Chairman of the Board and Dr Kevin

**As the organisation moves on to the next leg of its journey, I have every confidence that ATPS will continue to make significant progress under the leadership and direction of Professor Sam Wangwe...**

Urama, our Executive Director. I have every faith in their leadership and I will remain an active member of the ATPS Kenyan Chapter and continue to support STI capacity building activities planned under the new strategic plan.”

The ATPS Board, which sets the broad policy guidelines, monitors program implementation and approves the ATPS program of work and budget, usually meets twice each year. The 15th ATPS Board meeting was held March 31 – April 1, 2009. The meeting reviewed existing & planned programs of the Network, and in liaison with the National Coordinator’s Regional Steering Committee, reviewed the relationships between the different arms of the ATPS Network and ways to strengthen network performance. The members expressed general satisfaction with the Secretariat’s level of outputs and policy impacts and the general direction the network was taking.

Prof. Samuel Wangwe is a Professor of Economics, a former ATPS researcher who is an expert in policy analyses, STI for development. He is a Senior Associate with the Economic & Social Research Foundation, Dar es Salaam, Tanzania. Prof Olembo continues to provide support to ATPS through key programs including the Women Innovation Challenge Program (WE CAN).



*Members of the ATPS Board of Directors who attended the 15th Annual Board Meeting in Nairobi; From bottom Left; Prof Turner Issoun, Prof Norah Olembo, Prof Sam Wangwe, From Top Left; Dr Kevin Urama, Prof Oliver Saasa, Prof Sir Brian Heap and Mr Noel Akossi Bendjo*



*Outgoing Chair, Prof Norah Olembo during her farewell reception*



# New Appointments



*Dr. Sheila Ochugboju*

## Senior Communications Officer

**Dr Sheila Ochugboju** joined ATPS on May 1, 2009, formerly she was the Operational Director, Science & Innovation, Global Women Inventors & Innovators Network (GWIIN). She is uniquely competent at balancing the social, economic and political issues, to enhance economic growth, leadership development and Intercultural dialogue in diverse communities across the world. She is a UK Facilitator for the British Council Interaction Leadership program in 19 African countries, Jordan and Pakistan. She worked with schools and science communicators in South Africa since 1999 and launched the African Science Cafes.

She is a biological scientist who moved into the Science and Innovation Directorate at AWEI, through the management of International Health and Development projects with African Communities in Europe and Africa. Her Post-Doctoral Research as The Daphne Jackson Fellowship at St Hilda's College – 1998 – 2000, focused on genetically modified baculoviruses for pesticide control.

Her fine tuned cultural acuity and communication skills were demonstrated through her management of a portfolio of International Development projects across Europe and Africa for the London based Focus Consultancy. She is therefore very adept at relationship building, funding raising and winning bids for international capacity building projects. She is currently a member of the by the Wellcome Trust Arts Committee.

## Research Officer

**Wairimu Mwangi** joined ATPS on June 1, 2009 and is responsible for undertaking research, program and fundraising activities at ATPS. She was previously worked for The Kenya Institute for Public Policy Research and Analysis (Kippra) for the Environment and Development (EfD) initiative.

Wairimu holds a Masters of Science in Environment and Development from the London School of Economics and Political Sciences (LSE), UK and a Bachelor of Arts in Economics and Sociology from the University of Nairobi, Kenya. She is also a certified Environmental Impact Assessment and Audit expert by the National Environment Management Authority (NEMA). Her experience has been around various issues of environmental and resource management, with stints in both the United Kingdom and in Kenya. She has good computing skills and has had training in econometric packages such as STATA and Eviews



*Ms Wairimu Mwangi*

## Communications & Outreach Officer

**Marsden Momanyi** joined ATPS on March 16, 2009 as Communications and Outreach Officer.

He has a Masters Degree in Communication from the Institute of Communication Studies – The University of Leeds and a Bachelors Degree in Graphic Communication from Loughborough University, UK. His core competencies include developing and implementing effective communication strategies in line with organizations' corporate strategies to effectively communicate their mission and programs to their publics. He has extensive work experience in both the public and non profit sector. Previously he worked as a Senior Corporate Communications Officer at Athi Water Services Board and prior to that as a Media and Public Relations Officer at African Medical & Research Foundation (AMREF).



*Mr Marsden Momanyi*

## Post-Doctoral Program

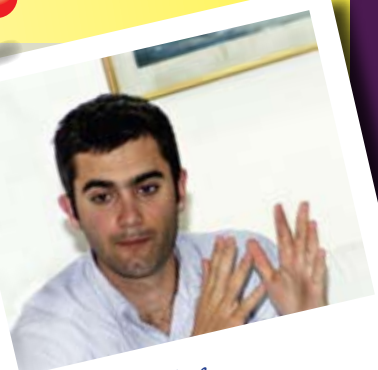
**Dr Warigia Bowman** joined ATPS on June 19, 2009. Warigia is an assistant professor at the University of Mississippi in the Department of Public Policy Leadership. She has earned degrees from Columbia University and the University of Texas, and a Ph.D. in public policy from Harvard University (2009).

Her research spans the areas of governance, development, technology, environment and politics in Sub-Saharan Africa. Her dissertation "Digital Development: Technology, Governance and the Quest for Modernity in East Africa" investigates the development of information and communications technology policy in Kenya, Tanzania, Uganda and Rwanda from 1990 to the present.

## Internship Program

**William Firestone**

joined ATPS on June 23, 2009 under the Internship Program. William is an undergraduate student at Harvard with a special interest in the role of scientific expertise in politics - a dynamic he believes varies widely across nations. His research experience includes working as a lab assistant at the Chemical Engineering Laboratory of the Massachusetts Institute of Technology and in the Department for Science, Technology and Society, Harvard University's John F. Kennedy School of Government.



*William Firestone*



*Dr. Warigia Bowman*

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