



## African Women's Forum on Science and Technology

### LAUNCH OF THE WOMEN'S FORUM

The African Women's forum on Science and Technology (AWFST), an initiative within the ATPS Strategic Plan Phase VI 2008-2012 was launched to become a Pan-African network program, on the 17th of July at the Sun and Sand Hotel in Mombasa, Kenya.

The aim of AWFST is to provide a vehicle through which African women can express their ideas, contribute their expertise and participate in policy and decisionmaking processes in Africa. The Interim Steering Committee (ISC) was inaugurated and is constituted of women leaders drawn from the various parts of Africa and the Diaspora and who are innovators in their respective fields.

The ISC members elected Prof. Mwang'ombe, University of Nairobi as the Chair to be supported by Prof. Norah Olembo, BioTechnology Trust Africa (BTA) as the Co-Chair. The members resolved to provide governance and steer the operations of the AWFST forum which includes: producing publications and promotional materials on AWFST; creating awareness about women in Science Technology Innovation (STI); fundraising for the activities of AWFST; establishing a resource library and website to enhance women's access to international journals; developing a Programme of Action (PoA) for the AWFST; and providing the Terms of Reference (TOR), and oversight mechanisms for the inaugural Steering Committee.

This agreement will hold until an inaugural election of the steering committee who will take over the operations henceforth. It was also agreed that all the operations of the AWFST would be done in liaison with the African Technology Policy Studies Network (ATPS).



*AWFST is an initiative within the ATPS Strategic Plan Phase VI 2008 -2012, which will operate under the policies of ATPS. The purpose is to provide a vehicle through which African women can express their ideas, contribute their expertise and participate in policy and decision-making processes in Africa.*

*AWFST will be governed by an elected Steering Committee, with members drawn from countries of all the African regions and the Diaspora on a rotational basis.*

*This committee will among other things, steer the process of designing gender sensitive programs that will promote Science Technology and Innovation (STI) for sustainable development.*



**“THE FUTURE BELONGS TO THOSE WHO BELIEVE IN THE BEAUTY AND POSSIBILITY OF THEIR DREAMS (URAMA, 2007)”.**

## **AFRICAN WOMEN FORUM FOR SCIENCE AND TECHNOLOGY (AWFST)**

*by Dr. Kevin Urama,  
ATPS Executive Director*

To demonstrate the very essence of AWFST, Dr. Urama pointed out that *“if developing countries hope to prosper, and if world leaders expect globalization to foster sustainable development and poverty reduction, Science Technology and Innovation (STI), capacity building is an absolute necessity. In today’s rapidly changing economy, the critical economic development issue is no longer whether countries should build STI capacity but what type of capacity to build and how to build it, given each country’s economic constraints and starting point”.* (World Bank, 2008).

He regarded AWFST as an important platform which will create a group of African Women who regard innovation as the norm by becoming:

**Technology enthusiasts:** through the application of knowledge, including the skills necessary to deploy principles, procedures, processes, that can be used to modify, manipulate and otherwise produce changes in the specific features of the physical world to serve human or social purposes and also;

### **Responsible Innovators Today for Sustainable Development Tomorrow:**

this pertains to the introduction of new products, processes and services for societal renewal, i.e. the valorization (use / application) of the results of science and technology for development. AWFST will therefore not be a forum to articulate the challenges for African women, or to mainstream gender in national policies, nor a forum to empower African women but rather, its designed to address those challenges that women face through STI, to mainstream innovation cultures amongst African women and as a forum for women to empower themselves through STI. In a nutshell, it is about how women can innovatively transform their own lives and those of others for a better quality of life. He underscored the importance of focusing on harnessing opportunities through STI as opposed to feeling disempowered to act.

### **Interview with Prof. Agnes Mwang’ombe**



**Prof. Agnes Mwang’ombe** is a Professor in Plant Pathology, & Principal of the College of Agriculture and Veterinary Sciences, at the University of Nairobi

*“I believe the WE CAN Programme is about how to help women grow and take on more challenging jobs and to become more involved in policy making. Currently, we are having variations in the different sciences. For instance, in hard sciences such as in engineering there is a very low women representation. If you move to biological sciences such as in agriculture there has been an increase with a representation of about 30% to 40% of women in universities.*

*But in masters level the graph becomes skewed towards men and as one moves to even higher levels then it becomes more male dominated. The need for more female representation in all disciplines cannot be overemphasized. For instance if we look at agriculture in Sub-Saharan Africa, farmers are mainly women who make up about 60%-80% of small scale farmers.*

*We should therefore endeavor not lose this talent and should have a greater female representation and a greater voice in policy making to influence how resources are allocated.*

*This new program has great potential and needs people of good will to nurture it to grow for the benefit of our own continent”.*

“IF YOUR DREAM DOES NOT SCARE YOU, IT IS NOT GOOD ENOUGH (URAMA, 2008)”.

## ABOUT AFRICAN TECHNOLOGY POLICY STUDIES NETWORK (ATPS)

The African Technology Policy Studies Network (ATPS) is a multi-disciplinary network of researchers, private sector actors, policy makers and civil society actors promoting the generation, dissemination, use and mastery of science, technology and innovation (STI) for African development, environmental sustainability and global inclusion.

Its mission is to improve the quality of STI research, policy and practice for sustainable development in Africa, by Africans and for Africa.

The fundamental strategic goal of the ATPS is to “*Build Africa’s STI Capacity Today for Sustainable Development Tomorrow*”. With a regional secretariat in Nairobi, it operates through national chapters in 23 countries with an expansion plan in place to cover the entire sub-Saharan Africa (see Figure 1 below).



### Prof Norah Olembo



**Prof Norah Olembo** is the Executive Director of Africa Biotechnology Stakeholders Forum (ABSF), Kenya and former chair to the board of African Technology Policy Studies Network (ATPS). She holds a PhD in Biochemistry; Msc in Zoology; and a Bsc (Honours) degree (Chemistry, Zoology, Botany) from the University of Nairobi.

She has trained in recombinant DNA techniques at the Courtauld Institute, Middlesex Hospital, London.

Prof. Olembo has worked as a consultant for various organizations including the Kenya Non-governmental Committee for the 1985 United Nations End of Decade Women’s Conference; the UNEP Biodiversity/ Biotechnology Program; the CGIAR Secretariat/World Bank; the International Service for National Agricultural Research; among others.

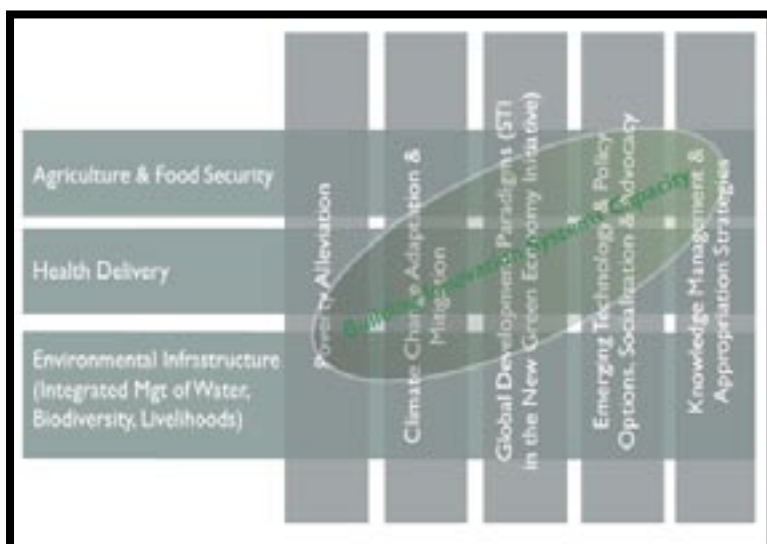
She has published over 30 proceedings, abstract reports and research papers in various international scientific journals. Prof. Olembo belongs to over 30 professional societies and organizations including the Genetic

Resources Policy Committee of the International Plant Genetic Resources Institute (IPGRI), the Commission for Biological Education (CBE) of the International Union Trustee of the Public Law Institute, the National Committee of Kenya National Academy of Science, the International Association for Women Biochemist, among others.

“The hen knows the dawn is here but watches the mouth of the rooster”.

*Swahili Proverb*

## ATPS Strategic Objectives for the programme



ATPS achieves its mandate through

- **Knowledge Generation**  
(research, capacity building and training)
- **Knowledge Brokerage**  
(participatory multi- stakeholder dialogue, knowledge circulation and networking)
- **Knowledge Dissemination and Outreach**  
(science communication/ dissemination and sensitization, STI Journalism and Policy advocacy)
- **Knowledge Valorization**  
(innovation incubation, social entrepreneurship and innovation challenge) programmes.

AWFST is an initiative within the ATPS Strategic Plan Phase VI 2008 -2012, which will operate under the policies of ATPS. It intends to provide a vehicle through which African women can express their ideas, contribute their expertise and participate in policy and decision-making processes in Africa. AWFST will be governed by an elected Steering Committee, with members drawn from countries of all the African regions and the Diaspora on a rotational basis.

This committee will among other things, steer the process of designing gender sensitive programmes that will promote STI for sustainable development.

## Dr. Warigia Bowman



**Dr. Warigia Bowman** 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.

Dr. Bowman's research is multi-disciplinary, and is informed by the fields of anthropology, history, political science and public policy. She has significant work experience in the public sector at the Federal State and local level in the United States. She has worked in a number of U.S. Federal Agencies, including the United States Department of Labor and the United States Department of Energy. She served at the United States Department of Justice as an honors trial attorney in the Wildlife Section of the Environment Division under Janet Reno during the Clinton Administration.

She also has experience working with African NGOs and academic institutions. Ms. Bowman taught at Kabarak University in Nakuru, Kenya from 2003-2005. She has acted as a research consultant for the African Technology Policy Network (ATPS) and the New Economic Partnership for African Development (NEPAD) since 2003. In 2009, Bowman participated as a lecturer at the International School on Digital Transformation in Porto, Portugal.

# Strategic Plan of the AWFST Interim Steering Committee

Mrs. Bola Olabisi, LLM, FRSA,

## Main Objectives

- **To mobilize women and empower them to harness STI for development in Africa.** Support and facilitate regional knowledge sharing and cooperation among African women. Facilitate and promote gender engagement in agriculture, science and technology, and social entrepreneurship programmes in their countries.
- **To facilitate S&T career mentoring for African Women by their senior colleagues in Africa and in the Diaspora.** Provide targeted training and research capacity building especially in agriculture, STI research and practice to address the declining expertise and growing disinterest in the sector.
- **To promote women's involvement in ATPS research and other MDG related STI projects elsewhere.**

## Expected Outcomes

Enhanced skills/capacities in agriculture, S&T research and policy advocacy.

Improved skills in STI research and project management and implementation practices.

Increased women's participation in STI research projects and other innovative and productive interventions at local, regional and national levels.

Increased internships at various STI related research institutions and non-governmental organizations in Africa and elsewhere.

A functioning networking platform; forum (online & offline) in which the women can exchange views and opinions.

Increased awareness amongst women about the need for multi-disciplinary approaches in STI research and policy making.



**Bola Olabisi**, is the Founder and CEO of the Global Women Inventors & Innovators Network (GWIIN) Ltd. She is also the Vice President of the British Association of Women Entrepreneurs. Bola sits on the European Commission's Network for 'Women in Decision Making and the Economy' to assist with the promotion of women's empowerment and gender balance in decision making positions.

In 2004, Bola Olabisi was invited by Lord Sainsbury of Turville, Parliamentary Under-Secretary of State for Science and Innovation to join the DTI's Innovators Stakeholders Group which plays an advisory role to progressing government policy on innovation. Bola has gained national and international recognition for her work across the UK and Globally.

In 2003, she received her Majesty The Queen and The Duke of Edinburgh's invitation to Buckingham Palace to mark her contribution as a Pioneer to the Life of the Nation for her work with inventive and innovative women.

In 2008, Bola was awarded the TIAW World of Difference Award recognizing her for her efforts to advancing the economic empowerment of women locally, regionally and worldwide.

## ABOUT The Interim Committee Members

The AWFST Interim Steering Committee members were drawn from the various parts of Africa (Nigeria, Kenya, Lesotho, Tanzania, and Egypt) as well as the Diaspora (UK and USA). They are all influential leaders with a great interest in driving STI in their respective fields of expertise. They all have a common desire to promote and harness the capabilities of women who hold rich tacit technological knowledge but are currently under-represented in STI. Their qualifications and experience are briefly highlighted as follows:

**Table 1: Members of the AWFST Interim Steering Committee**

| NAME                    | REGION          | COUNTRY  | SECTOR                        | POSITION |
|-------------------------|-----------------|----------|-------------------------------|----------|
| Prof . Agnes Mwangombe  | East Africa     | Kenya    | Academia                      | Chair    |
| Prof. Norah Olembó      | East Africa     | Kenya    | Academia/ Private Sector      | Co-chair |
| Ms. Bitrina Diyamett    | East Africa     | Tanzania | Government / Academia         | Member   |
| Ms. Noah Matovu         | East Africa     | Uganda   | Civil Society                 | Member   |
| Prof. Obioma Nwaorgu    | West Africa     | Nigeria  | Academia/ civil society       | Member   |
| Mrs. Ogugua Eboh        | West Africa     | Nigeria  | Academia                      | Member   |
| Mrs. Mamolise Falatsa   | Southern Africa | Lesotho  | Media                         | Member   |
| Ms . Manal Samra        | North Africa    | Egypt    | Civil society                 | Member   |
| Mrs . Bola Olabisi      | Diaspora        | UK       | Private Sector                | Member   |
| Dr. Warigia Bowman      | Diaspora        | USA      | Academia                      | Member   |
| Ms. Martha Ugwu         | Diaspora        | UK       | Government                    | Member   |
| Ms. Nicola Jones        | International   | UK       | Private sector/ civil society | Member   |
| Ms. Deepa Pullanikkatil | Southern Africa | Lesotho  | Academia                      | Member   |

### Ms. Nicola Jones



**Nicola Jones** is a director and CEO of the Schumacher Institute for Sustainable Systems. She was a lawyer for 18 years and her career spanned corporate/ commercial work to private client and investment and banking law. She specialized in UK tax. She worked in London in international legal and accounting practices and moved to Bermuda in 1996 where she worked at the largest international offshore firm and subsequently headed the Private Client legal team at a major bank.

During the last decade Nicola has trained, mentored and worked on interdisciplinary/ relational approaches and systems thinking. Nicola's principal focus is on gender and she recently completed an MA in Gender Studies at London University's School of Oriental and African Studies. Her thesis was *'The Transformative Capacity of Global Philanthropy: Why Do We Desire to Give?'* She was a director of the Women's Resource Centre in Bermuda which supported women in abusive relationships, and ran the first conference for women for the Bank of Bermuda in 2003.

During this last decade Nicola has also trained and worked in relationship and family business advisory services, incorporating mediation, group relations and psychology. She has presented to a variety of international audiences on subjects ranging from philanthropy and gender to climate change and has published work on governance.

## Nominations for Associate Members AWFST Steering Committee

Table 2: Nominees for Associate Membership of AWFST, steering committee.

| NAME                     | REGION                   | COUNTRY     | SECTOR         | POSITION |
|--------------------------|--------------------------|-------------|----------------|----------|
| Dr . Rose Kigundu        | Diaspora                 | USA         | Academia       | Member   |
| Dr. Peggy Oti-Boateng    | West Africa              | Ghana       | Academia       | Member   |
| Dr . Lucy Muchoki        | Pan African organisation | Kenya       | Private sector | Member   |
| Dr . Mamaa Entsua Mensah | West Africa              | Ghana       | Academia       | Member   |
| Dr. Afaf Marei           | North Africa             | Egypt       | Civil society  | Member   |
| Dr. Yaye Aissetou        | Pan African              | Francophone | Academia       | Member   |

The AWFST Coordinator shall liaise with the ISC to nominate a member from South Africa.

Dr. Sheila Ochugboju shall become the AWFST Coordinator assisted by Ms Wairimu Mwangi until otherwise stated by the ATPS Executive Director.

The ATPS Executive Director, Dr. Kevin Urama, shall direct the AWFST program.



### Prof. Obioma Nwaorgu



**Prof. Obioma Nwaorgu** is a public health parasitology/epidemiologist. She holds a BSc. in Zoology (1973) and best student in her class and a PhD in Parasitology from University of Cambridge UK (1978). She is a Takemi fellow of the department of public health Harvard School of Public Health, Boston USA (1994-1995), a global health leadership fellow Roll Back Malaria, World Health Organization, Geneva, Switzerland (1999-2001) a British Council strategic leader.

Prof. Nwaorgu is a faculty member at the Nnamdi Azikiwe University where she is involved in research, teaching and supervision of students in the department of parasitology and entomology. She consults for the following organizations WHO, APOC, Federal and State Ministries of Health and Education in Nigeria; National Committee on HIV/AIDS (NACA); Global 2000; UNICEF; WB, DFID, British Council and PATHS. She is also the founder and Executive Director of a nongovernmental organization – Global Health Awareness Research Foundation (GHARF) involved in adolescent, youths and women sexuality and reproductive health issues, communicable diseases prevention and control, water and sanitation issues.

It has received funding from MacArthur Foundation USA, The Ford Foundation for West Africa; Global Fund for women; WHO, UNICEF, Action Aid Nigeria; MSA, WB; SFH; CEDPA among others. She has published extensively in peer review journals. She sits on various Boards including the Sahara Board in South Africa.

## Resolution of the Interim Steering Committee.

### AWFST/RESOLUTION/2009/001

The first African Women Forum for Science and Technology (AWFST) Interim Steering Committee meeting held at Sun and Sand hotels Mombasa, Kenya on 16th & 17th of July, 2009 deliberated on the AWFST agenda and resolved as follows:

1. AWFST shall be a pan African network program of the African Technology Policy Studies Network (ATPS).
2. AWFST shall operate under the policies of the ATPS.
3. AWFST shall be governed by a Steering Committee composed of elected members from countries of the following African Regions: East Africa (2); West Africa (2); North Africa (1), Central Africa (1), Southern Africa (2); Francophone region (1); Lusophone region (1) and selected special interest groupings including the Diaspora (2).
4. Regional representation on the steering committee shall be based on number of countries within the region.
5. The steering committee shall be composed of a minimum of six (6) and a maximum of twelve (12) members.
6. Membership of the AWFST Steering committee shall be for a period of three years renewable once.
7. For continuity, the inaugural steering committee shall decide on procedures for rotation of steering committee leadership from time to time.
8. The Chair of the Steering Committee shall be rotated amongst each of the regions in Resolution 3 above.
9. The Chair of the committee shall be elected by the members of the Committee.
10. A Coordinator appointed by ATPS Secretariat (Executive Director) shall coordinate the day to day activities of the AWFST.
11. The AWFST Coordinator shall liaise with the African Women in Diaspora to design suitable terms of reference for their active engagement in the program.

### Mr. Kennedy Ondimu



**Kennedy Ondimu** holds a BA in Social Studies and a diploma in information technology. Currently, He is the Regional Programme Associate Men to Men of the African Women's Development and communication Network – FEMNET. Kennedy was the first national Coordinator of the Men for Gender Equality Now – MEGEN from 2004 to 2008. The project covers seven African countries including Kenya, Uganda, Tanzania, Malawi, Zambia, Malawi, Mali and Democratic republic of Congo – DRC. Kennedy presided over the process of turning the project into an autonomous organization.

Kennedy is the national coordinator for the We Can Campaign in Kenya, a social campaign that works to end social acceptance of violence. He is also a member of the regional pool of male trainers for the UNHCR on sexual gender based violence - SGBV. He has a wide range of experience in training of men in gender and development, human rights and adolescent sexual and reproductive health. Kennedy has contributed to the work of expanding the role of men in ending sexual gender based violence. He has contributed to publications in print and electronic media. He has also documented the experience of working with men in a publication in *"Defying the Odds – Lessons from MEGEN. Other areas include World Pulse magazine, local and international media channels"*. He also developed a tool kit for engaging with boys in gender equality and women's rights.



12. Until the inaugural election of the Steering Committee is held, the AWFST shall be governed by an Interim Steering Committee (ISC) with the following terms of reference:
- a. Awareness creation in liaison with the ATPS Secretariat
  - b. Membership drive to constitute chapters of the AWFST in liaison with the ATPS Secretariat, ensuring the representation of the quadruple helix [*Governance, Academia, Private sector and the Civil Society*]
  - c. Nurturing the AWFST in liaison with the ATPS Secretariat.
  - d. Oversee the development of the AWFST website in liaison with the ATPS Secretariat within one month of this resolution.
  - e. Oversee the election of the Inaugural Steering Committee within one year of this resolution.
  - f. Define the Terms of Reference (ToR) for the Elected Steering Committee of the AWFST.
  - g. The ISC shall liaise with the ATPS Secretariat to fundraise for the activities of the AWFST including the inaugural General meeting .
  - h. The ISC shall liaise with the Coordinator to design a Program of Action (PoA) for the AWFST.
  - i. The ISC shall review the planned activities of the WE CAN program and submit comments to the ATPS Secretariat within one month of this resolution.
  - j. The ISC shall produce a promotional Newsletter on the initiative in English, French and Arabic within one (1 ) month of this Resolution.
  - k. The ISC shall publish a communiqué of the ISC meeting with passport photos and full contact details within one week of this meeting.
  - l. The ISC shall liaise with the ATPS Secretariat to establish a Resource Library to enhance women's access to international journals.
  - m. The Interim Steering Committee shall liaise with the AWFST Coordinator in carrying out the tasks specified above.
13. The ISC shall govern the AWFST for one (1 ) calendar year commencing from the date on this Resolution.

### Ms. Bitrina Diyamett



**Bitrina Diyamett** holds a BSc (Ed) in Physics, Chemistry and Education at the University of Dar es Salaam, Tanzania. M.A in Science and Technology Policy from Research Policy Institute (RPI), Lunds University, Sweden. She is currently a Senior Research Officer at the Tanzania Commission for Science and Technology (COSTECH). She is the National Coordinator for the African Technology Policy Studies Network (ATPS), Tanzanian Chapter (ATPS-Tanzania).

ATPS-Tanzania is among the 24 African Think Tanks that won the Award for the First Cohort of the Think Tank Initiatives (TTI) in Africa. Bitrina is also the current President of the Tanzania Association of Inventors (TAI). She participated in the international review of S&T indicators launched by UNESCO Institute of Statistics (UIS) in 2001 as the only African participant in the review process. She contributed to Annex to Oslo Manual which is used by OECD countries to measure innovation.

Bitrina is a member of the NEPAD's ad hoc Group of Experts on Africa's Science, Technology and Innovation Indicators (ASTII). She has currently been co-opted by the Research Policy Institute (RPI), Lunds University to join the Faculty members to conduct training on Science, Technology and Innovation Indicators for Africa.

She is completing a Ph.D at the University of Dar es Salaam, where she is investigating innovation and interorganizational linkages in Tanzanian manufacturing.

The ISC shall be composed of the members listed in Table 1. (Page 6)

The nominees listed in Table 2 (Page 7) shall be invited to become Associate Members of the Steering Committee.

The AWFST Coordinator shall liaise with the ISC to nominate a member from South Africa.

Dr. Sheila Ochugboju shall become the AWFST Coordinator assisted by Ms Wairimu Mwangi until otherwise stated by the ATPS Executive Director.

The ATPS Executive Director, Dr. Kevin Urama, shall direct the AWFST program.

## Women scientists Nobel Prize winners

### Physics

|      |                        |
|------|------------------------|
| 1903 | Marie Sklodowska Curie |
| 1963 | Maria Goeppert Mayer   |

### Chemistry

|      |                          |
|------|--------------------------|
| 1911 | Marie Sklodowska Curie   |
| 1935 | Irene Joliot-Curie       |
| 1964 | Dorothy Crowfoot Hodgkin |

### Physiology or Medicine

|      |                             |
|------|-----------------------------|
| 1947 | Gerty Radnitz Cori          |
| 1977 | Rosalyn Sussman Yalow       |
| 1983 | Barbara McClintock          |
| 1986 | Rita Levi-Montalcini        |
| 1988 | Gertrude Elion              |
| 1995 | Christiane Nusslein-Volhard |
| 2004 | Linda B. Buck               |

### Peace

2004 Wangari Maathai

Source: [www.nobelprize.org](http://www.nobelprize.org).

## Mrs. Martha Ugwu



**Martha Ugwu** holds MSC, BA Hons, DIPHE, RM, RGN. She is a Public Health Practitioner, Midwifery Sister, Nurse Manager, Speaker, Wife, and Mother and the Founder/Chairperson Emeritus of Nsukka Elite Ladies Association, a non-profit organization that works to support and empower indigenous women, through a mentoring programme, social network, training and development.

Internationally, we work to support women and children from disadvantaged backgrounds. She has made valued contributions in the public sector / NHS in varied settings.

She has extensive experience, working at a managerial and leadership levels, leading significant change. She plays a central role in the Productive Ward project.

Her team won the Trust Stars Award 2009 in the category of "Support Service of the year". She has worked extensively in helping and supporting women through training and development into work that is sustainable, bringing positive impact to their families.

# Women Innovation Challenge Program “We Can”



**Ms. Manal Moustafa Samra**

## Giving Voice to African Women to Discover, Decipher and Develop Advances in Science and Technology.

The African Technology Policy Studies network (ATPS) places a huge emphasis on building capacities of African women as drivers of their own destinies and Africa's development, through dynamic engagement in science, technology and innovation (STI) policy research, policy process and policy practice. It was in pursuance of this objective that the African Women Forum for Science and Technology (AWFST) was initiated in 2007. Building upon this platform, The ATPS is now pleased to announce the launch of a new program, “The Women Innovation Challenge (WE CAN) program.

### The WE CAN Program

WE CAN is an Innovation Network for Transformational Change for women in STI. It is centred around an innovative Mentoring Programme, which joins Strategic Women Leaders to at least 5 women each year, working on individual BreakThrough Innovations (BTIs) across Africa. In Africa, science and technology sits within the heart of culture and how African people see themselves. African women have a rich cultural heritage of geometry, calculation and skills acquired at an early age through the practice of crafts. These traditional crafts like textiles and pottery should act as springboards for industrial capacity building and economic growth.

Such skills of precision and creativity can easily be transferred to the technological world. African women have an important part to play in African development, especially those who can imaginatively apply their human ingenuity to promote advances in science, technology and innovation (STI). Already, they constitute 29% of researchers in Science and Technology in Africa, according to UNESCO, yet more must be done to increase gender equity, equality and empowerment to ensure an integrated, developed and prosperous continent.



**Manal Moustafa Samra** holds a master's degree in Political Science, specializing in Development, and currently working as a Youth Development Advisor for various national and international development agencies and NGOs. She is a founder of the Youth and Development Consultancy Institute (YDCI) in Egypt, that was established in 2006 and is concerned mainly with promoting a comprehensive understanding and appreciation of young people as an asset to economic development. YDCI is enhancing and disseminating meaningful development methodologies, tailored to meet and respect Arab cultures, for youth and community development.

Manal is a consultant and facilitator for the British Council's InterAction Leadership Programme that runs across 8 Arab countries in addition to the UK. She has an extensive experience in volunteerism, education, youth employment, leadership for community development, health and environment. She is skilled in designing and delivering participatory training in areas such as training of trainers (TOT), participatory rapid appraisal (PRA), project design and evaluation, and utilizing the Asset-Based Community Development (ABCD) approach in developing local communities.

Ms. Samra has planned and coordinated various activities related to building the capacities of young people, especially women to lead in the development of their local communities.

# Women Innovation Challenge Program “We Can”



There are numerous opportunities and challenges facing the African continent now, which women as half of the population can help to solve.

1. How to create sustainable systems for utilising the vast natural and human resources?
2. How to manage the resplendent biodiversity, large forests and a rich culture?
3. How to obtain food security and reach the Millennium Development goals by 2015.

African women are still under-represented in mathematics, science, technology, and engineering, due to many social, economic and cultural barriers. *“That is the biggest challenge that we in this generation can bequest the next generation and to change the history of Africa”* Phumzile Mlambo-Nguka. South African Deputy President. 1st AU Women in Science Conference - Aug 2007.

In order to address these challenges, WE CAN will be implemented under the *“Pay It Forward”* (PIF) mentorship concept described overleaf.

Inequality between men and women represents a structural barrier to growth in Africa. Women are an important source of economic growth and we must consider ways of promoting the active participation of women in the economy as well as in the society in general

*Lúisa Dias Diogo,  
Member of the Africa Commission*

## Mrs. Deepa Pullanikkatil



**Mrs. Deepa Pullanikkatil** has a Bachelors degree in Civil Engineering (1998) from Mahatma Gandhi University (India), a Post Graduate Diploma in Management (2000) from Amrita Institute of Management (India) and a Masters in Environment Management (2009) from University of Freestate, South Africa. She has also undergone training by Dialogue Matters, UK in public participation and stakeholder dialogue (2008). She is Associate Member, Institution of Engineers (India).

Mrs. Pullanikkatil worked as a Civil Engineer in projects such as construction of hospital in India and, rural water supply and sanitation projects in highlands of Lesotho. She now heads the Department of Civil Engineering at Lerotholi Polytechnic, Lesotho, where she initiated and has introduced a new Higher National Diploma in Water and Environmental Engineering. Mrs. Pullanikkatil has been an ATPS researcher in the past and her research in Water Pollution has brought about policy changes in Lesotho.

She is currently also undertaking research work on Climate Change impacts on subsistence farming communities in Lesotho, funded by National Science Foundation, US. Deepa is inspired by Nelson Mandela’s quote *“There are few misfortunes in the world that you cannot turn into a personal triumph if you have the iron will and the necessary skill”*.

# Women Innovation Challenge Program “We Can”



## Paying it Forward Initiative (PIF)

Successful Women “Pay Forward” to a new generation of women leaders, by investing their skills, sharing their knowledge and providing personal support to at least 5 Women, with important spheres of influence in different sectors of science, technology & innovation. The BTIs which are generated out of the programme, are carefully designed to solve an important development problem using innovations in science and technology. The results of each year’s endeavours will be published in *The WE CAN Change Africa Report*.

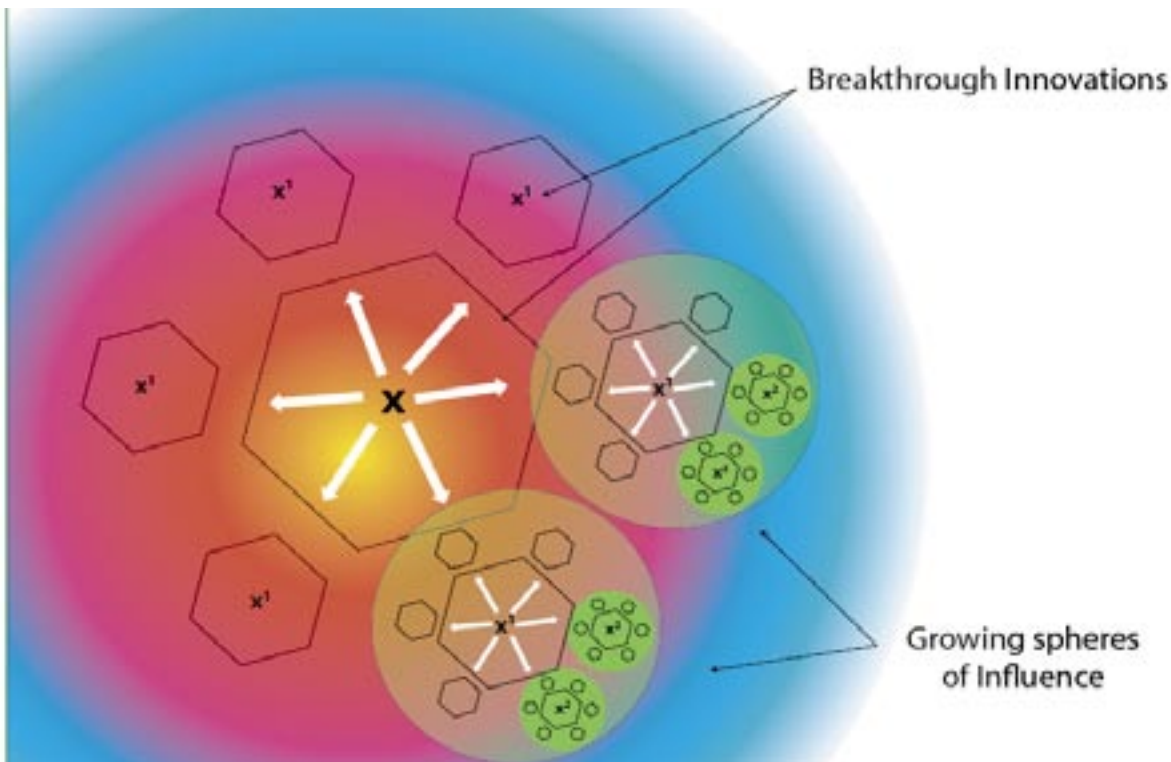
WE CAN will work with all the women to achieve their individual **Break Through Innovations**, through four strategic pathways (described below), using our infrastructural support networks and professional capacity building expertise across our Pan African networks.

\*The PIF concept is adapted from a community leadership model developed in Nigeria. *Urama 2007*

## Mrs. Rita Ogugua Eboh



Mrs. Rita Eboh Ogugu holds an Msc in Social work and Community Development and a Bachelors Degree in Adult Education and Community Development. She works as an Extension Specialist at the Centre for Entrepreneurship and Development Research, University of Nigeria. She has keen interest in the areas of gender, entrepreneurship and innovation



*This Diagram is Designed by Masden Momanyi, ATPS Science Communication Officer*

# Women Innovation Challenge Program “We Can”



## 1. Peer-to-Peer Collaboration

The picture above shows a team effort in Bolgatanga, Ghana. A teenager does her school homework on a blackboard painted on the wall of her house, while her older sister checks the girls exercise book. With a literacy rate of around 57.9% in the 2006, the nation is working to improve this figure. According to UN's Report on Africa for 2007, the Millennium Development Goal to provide Universal Primary Education for all is most likely to be met by 2015.

Enrolment at primary school has increased from 57% in 1999 to 70% in 2005, an increase of 13% in 6 years. The hardest goals for Africa to meet by 2015 are those that affect women most directly. Goal 3, Gender Equality and Goal 5; Improving Maternal Health. Promoting gender equality will increase growth and reduce poverty, because of the unique multiplier effect on other development efforts. Women invest more in children's education and health than men.

However, women's pay is often lower than that of men. It is not efficient that half of the world's population does not have equal access to resources such as property, finance, education, labour and business services. In sub-Saharan Africa, subsistence agriculture is largely the domain of women, who contribute a large percent in food production. Agricultural productivity can increase by up to 20 per cent if women's access to resources such as land, seed and fertilizer is equal to men's.

**Ms. Mamolise Falatsa**



Ms Mamolise Falatsa holds a Bachelor degree in Development studies and human geography. She is currently working with Ministry of Communication Science and Technology as series producer interested in Science at Lesotho Television.

Her main duties include: writing scripts, researching, conducting interviews and presenting programs on science. She participated in several workshops such as the Science Communicators workshop in Naivasha organised by ATPS which was useful in contributing to solving water problems in Lesotho.

She has also attended a training workshop on solar energy technology application in China. She is looking forward to forming a Women's Science and Technology Association in Lesotho.

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Dr. Sheila Ochugboju

## gender FACTS

- One third of all rural households in sub-Saharan Africa are headed by women.
- Women farmers receive only 1 percent of total financial credits to agriculture.
- African women's workdays may be 50 percent longer than men's, and their work is closely integrated with household production systems.
- In Kenya, giving women farmers the same level of agricultural inputs and education as men could increase yields obtained by women by more than 20 percent.
- In Tanzania, reducing time burdens of women could increase household cash incomes for smallholder coffee and banana growers by 10 percent, labor productivity by 15 percent, and capital productivity by 44 percent.
- In Zambia, if women enjoyed the same overall degree of capital investment in agricultural inputs, including land, as their male counterparts, output could increase by up to 15 percent.



Dr Sheila Ochugboju is the **Senior Communications and Outreach Officer** at the Secretariat of the African Technology Policy Studies Network, in Nairobi, Kenya. Formerly the Operational Director for the Global Women Inventors & Innovators Network (GWIIN) in the UK. She was a Facilitator for the British Council InterAction Leadership programme in 19 African countries, Egypt, Jordan and Pakistan (2005-2009).

She launched the African Science Cafes for the British Council at the Grahamstown Sasol SciFest in March 2007. This growing network established a creative new model for public engagement with science and technology in South Africa, Kenya and Uganda in February 2008. She is a biochemist with Post-Doctoral Research experience as The Daphne Jackson Fellowship at St Hilda's College, Oxford (1998 – 2000), which focused on genetically modified baculoviruses for pesticide control. She has managed a portfolio of International Development projects across Europe and Africa. Her experience in science policy implementation comes from working as a Senior Executive for the Education and Policy Innovation (EPI) team at the Engineering and Technology Board, U.K.

Dr Ochugboju is featured on the British Council Online Exhibition as one of the Women Excelling in UK Science and Technology. Good Housekeeping Magazine (Nov 2003) also named her as one of 12 “*Women Shaping our Future Today*”. She is currently a member of the Wellcome Trust Arts Committee. The scheme is part of the £4 million Wellcome Trust Engaging Science programme.

She is a popular voice online, as a TED Fellow (Technology, Entertainment and Design - [www.ted.com](http://www.ted.com)) and has just launched a unique photoblog [www.Africaknows.com](http://www.Africaknows.com).

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specific sectors, including Climate Change adaptation and mitigation in Africa; agricultural innovation systems; public health and disease prevention (including HIV/AIDS, malaria and Cholera); Water and sanitation, and sustainable management of ecosystem services.

The WE CAN Programme therefore intends to establish networks which enhance inter-regional collaboration between women and girls across Africa. It will also foster new North-South and South-South Partnerships to increase women's entrepreneurship and its contribution to economic growth.

## 2. Innovation Challenge Awards

The WE CAN programme invites women from sub-Saharan and North Africa to participate in this Pan-African initiative. The WE CAN programme will be launched with an Advisory Panel of 12 Inspirational Leaders in Science and Technology in Nairobi, July 2009.

### An Innovation Challenge Award

scheme will be launched to recognise outstanding achievement in addressing development challenges in





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## 3. Innovation Incubator Initiatives (3-Is)

This is a strategic mentorship initiative where competition winners are given the chance to take Ideas to Market.

Innovative women will translate ideas (*tacit or codified*) into actual technologies for addressing specific challenges in a production or service chain, across different specified sectors or stakeholder communities. Specific attention will be paid to the inclusion of ideas based on tacit or codified knowledge, scientific research and/or management, climate change, health and agriculture.

The idea or prototype technology should be aimed at solving a specific problem in the production or service chain of a target industry or stakeholder community in Africa.

It could be in the form of a specific research idea, science manuscript or craftsmanship that requires testing in a target laboratory, a private industry or a government ministry.



Particular attention will be paid to developing the capacity of women who work in the informal sector, an area where women predominate and where a consistent lack of government support has failed to recognize their pivotal importance to the survival of many African economies.

ATPS will work with policy-makers to address the inequalities in supporting these sectors, particularly in areas such as foreign-exchange earning and export-oriented economic activities, where government support largely favours men. Successful applicants will be deployed with relevant actors in the relevant areas (*private or public sectors*) on the continent for 3-6 months to incubate the idea or turn it into tangible technologies /innovations to solve practical problems identified.



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## 4. Post-Doctoral Fellowship & Internships Programme



Professor Tebello Nyokong of Lesotho (above), is a winner of the award L’Oreal and UNESCO award in science. Her research concerns the development of drugs to treat cancer. As a young girl, Professor Nyokong says she went to school on some days and took care of sheep on other days. She did jobs that were usually done by boys.

She said this had a good effect, because she was permitted to explore as she grew older. She says the biggest problem was feeling very alone as a woman in science. Professor Nyokong says she wants to support young women in science so they do not have to experience this.

\*The WE CAN\* programme seeks to provide opportunities for short-term mentoring of students in college, undergraduate and postgraduate levels in STI policy related subjects. The 3-6 month placements and staff exchange programmes aim to enable women at the beginning of their research careers to work in a multidisciplinary environments, under the supervision of senior colleagues in Africa, to establish networks to foster systems thinking and innovation under close supervision by experienced colleagues. The programme will also include training and mentorship for scientific writing; science publications and science journalism.

