



ScienceAfrica

AFRICA'S LEADING PUBLICATION ON SCIENCE INNOVATION AND DEVELOPMENT

Vol. 7 August - September, 2009

Kshs. 100 Tshs. 2000 Ushs. 3000



Focus on African Technology Policy Studies (ATPS) Pages 9-12

\$100,000 Awards for Innovative Research

Additional \$1 million if Promising

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African Specialist Doctors Graduate at Gertrude's Children's Hospital in Nairobi



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Advances in Management of HIV/Aids

By Daisy Ouya and Kristen Jill Kresge

With the theme "From Cause to Cure," the 5th International AIDS Society (IAS) Conference on HIV Pathogenesis, Treatment and Prevention, was held from July 19-22 in Cape Town, South Africa. It attracted over 7,500 delegates to discuss everything from the earliest events of HIV infection to how best to eradicate HIV from an infected individual.

Françoise Barré-Sinoussi, co-recipient of the Nobel Prize for the discovery of HIV said "one challenge is to develop a vaccine, another is to have a cure."

Researchers continue to focus on developing new interventions to prevent the spread of HIV including vaccines and those already available, such as adult male circumcision. There was also a chorus of support for sustaining and increasing the availability of anti-retroviral therapy (ART) and initiating treatment earlier in the course of HIV infection, both to save lives and prevent new infections from occurring.

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AGRA President Meets the Father of India's Green Revolution



Dr. Namanga Ngongi, President, Alliance for a Green Revolution in Africa (AGRA)



Dr. M. S. Swaminathan, The Father of India's Green Revolution

By Otula Owuor

Why is Africa haunted by what seems to be endless famine with deaths reported in even a nation like Kenya with a relatively credible scientific base? What should African researchers and policy get

right? And how did the Asian nations, like India with more people than Africa, overcome widespread famine and mass starvation?

There are no easy answers. However, there are intense efforts - by organizations like Alliance for Green Revolution in Africa (AGRA)- to learn from those who have practically helped push former

famine ridden nations like India into the arena of sufficient food production using science.

The country has at least 60 million tons of food reserve expected to last 13 months according to the plain talking 84 years old science and development guru, Prof M.S Swaminathan, also considered the father of India's Green Revolution. The poor in India can buy food at cheaper prices from government stores in their neighbourhood.

Prof Swaminathan was in Nairobi, Kenya to attend two important science conferences - 2nd World Agroforestry Conference head at UN headquarters in Gigiri and Sustainable Water Conference at the University of Nairobi Chiromo Campus- held towards the end of August 2009,

However, he found time for consultative discussions with experts at AGRA led by their president Dr. Namanga Ngongi. In welcoming Prof Swaminathan to AGRA headquarters in Nairobi, Dr Ngongi said that "India's Green Revolution was an inspiration to all and had it failed it would have never succeed elsewhere in Asia thus visiting AGRA to exchange experiences will help African nations follow India's footsteps."

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Straight talking US Secretary of State, Hillary Clinton gives a thumbs up for African agricultural researchers especially women while visiting KARI. Accompanying her are Hon. William Ruto Minister of Agriculture, (2nd Right) PS Dr. Romano Kiomi, (Right) Dr. E Mukisira, Director KARI (3rd Right) Senator Donald Payne, Tom Vilsack, US Agriculture Secretary, US Ambassador to Kenya Mr. Michael Raineberger and Prof. Wangari Maathai, Nobel Laureate. Far left: KARI experts Miriam Otipa and Dr. Lusike Wasilwa briefing Clinton and dignitaries.

US Praises Agricultural Research in Kenya

By Mbae Lawrence

Agriculture is Africa's primary economic sector and the engine of future growth therefore the continent needs to invest more in research and technology to tackle food insecurity, US Secretary of State Hillary Rodham Clinton said recently in Nairobi.

"For the global community, agricultural development could help address some of the most urgent challenges we face like chronic hunger, which afflicts nearly 1 billion people worldwide,

including one in three Africans, many of whom are children," Clinton said after touring Kenya Agricultural Research Institute (KARI). She praised KARI, the countries premier research center, for taking the lead in the region to spearhead agricultural research.

At KARI, the US secretary of state said "scientists are developing tools to boost the productivity of Africa's farms, which is part of a broad strategy to strengthen the entire agricultural sector and to increase incomes, to support rural communities and drive economic growth."

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FOCUS ON ALL AFRICA HORTICULTURE CONGRESS



MESSAGE FROM THE MINISTER

Horticulture plays a significant role among the rural and urban populations of Africa; contributing to food security, nutrition and improved livelihoods. Over the years, African horticulturalists have felt the need to bring together scholars, researchers and other stakeholders to address constraints and opportunities in developing the horticulture industry on the continent.



Hon. William Ruto, Minister for Agriculture

This congress provide a platform where African stakeholders in horticulture can exchange ideas, experiences and design coordinated perspectives for the growth of the horticulture industry. In addition it is expected to promote public-private sector partnerships in horticulture, and give rise to a forum for the dissemination of horticultural research innovations and the joint formulation of proposals and training in the horticulture industry.

The congress will also expose participants to global market trends, market requirements and other critical issues that producers must comply with in order to compete favorably in the export and domestic markets.

I am happy to note that these activities are in line with Kenya's "Vision 2030" which is a long-term development blueprint for the country. This vision is motivated by collective aspiration for a much better society than the one we have today, by the year 2030. The vision "aims at a globally competitive and prosperous country with a high quality of life by 2030." Transforming Kenya into "a newly-industrialized, middle income country providing a high quality of life to all its citizens in a clean and secure environment"

Through the Exhibitions you will also have a chance to meet our Kenyan service providers, input suppliers, agricultural equipment dealers, regulators, researchers, development partners and other organizations working within the horticulture industry.

Today almost 33% of the population of Sub-Saharan Africa (SSA), or close to 200 million people are food. Sub-Saharan Africa is the only region of the world where hunger is projected to worsen over the next two decades unless some drastic measures are taken to ensure increased productivity in agricultural activities, peace stability, improved governance and an accelerated economic development to reverse the current trend.

In Kenya Agriculture remains the backbone of Kenya's economy. Over 80% of the population is directly engaged in agriculture production. The Kenyan agricultural sector contributes about 24% of the country's GDP and 60% of the export earnings.

The horticulture industry is one of the fastest growing in the country. The sub sector employs approximately 4.5 million people country-wide directly in production, processing, and marketing, while another 3.5 million people benefit indirectly through trade and other activities.

Production in volume, in the horticulture sector in 2008 was 6.6 million Metric Tonnes valued at Kshs 130 Billion of which Ksh. 74 billion was foreign export earnings. This sector has developed to be Kenya's the leading foreign exchange earner.

Horticultural sector records an average growth rate of between 15% to 20% per annum and impacts positively on wealth and creation of employment and alleviation of poverty.

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New Era Begins

The pioneering all Africa Horticultural Congress held in Nairobi, Kenya from 31st August to 3rd September 2009 was a major eye opener on what was definitely the beginning of a new era in Africa's efforts towards self-sufficiency in adequate production of nutritious food. It was an indicator of the unlimited potential or room for horticulture production in Africa.

Much of research and development efforts in crop science have been seem to have been confined to cereals, especially maize, rice and wheat while horticultural crops- fruits, vegetable and flowers- only gained prominence when treated as exports destined to countries outside Africa. Even more indigenous vegetables - same to native livestock - were never seen as deserving improvement though modern science or appropriate research and development activities.



Dr. E. Mukisira, E.D. KARI and Dr. Stephen Mbiti, CEO FPEAK

However, horticulture plays a significant role among the rural and urban populations of Africa. It contributes to food and nutrition security, poverty alleviation and overall agricultural development. Horticulture in Kenya it is among the most successful in sub-Saharan Africa. It continues to grow at annual rate of 15-20% in a very dynamic environment in term of production and marketing trends, dictated by consumer demands.

In 2008 horticulture in Kenya was ranked the highest foreign exchange earner, contributing about US \$ 2 billion (KSHS 150 billion) to the general economy half of it in foreign exchange from exports. Up to 4 million people are directly and indirectly employed in this sub-sector. Smallholder growers constitute 80% of the producers. The sub-sector therefore plays an important role in alleviation of poverty by providing increased income to the smallholder farmers who constitute about 75% of Kenya's farming population.

For Kenya it was also measure of the confidence that Africa and the rest of world have in the country's horticultural sector- researchers, scholars, private sector, farmers and all other related sectors and groups. It was also a contribution towards Kenya's image as the destination of important conferences hence tourism.

During the 2006 Horticultural Congress in Seoul, South Korea, attended by the Horticultural Council of Africa (HCA) and Horticultural Association of Kenya (HAK) and others, it was agreed that Kenya was unanimously host the 1st All Africa Horticulture Congress. However, it involved much collaboration among various local and regional stakeholders including Kenya's Ministry of Agriculture, public and private sectors, Global Horticultural Initiative (GHI), in Arusha, Tanzania. However, international delegates and will bring together International Society of Horticulture

Science members from other Africa nations, Asia, Europe, and Latin America. The Congress which included exhibitions had themes that included:

- Food Security and Food Safety
- Human Health, Nutrition and Lifestyle Horticulture
- Environment and Natural Resources

Management

- Socio-economic Issues: Poverty Alleviation and Wealth Creation
- International Trade: Opportunities & Challenges

Some of the organizations present included Food and Agriculture Organization, African Union, Kenya Plant Health Inspectorate Service (KEPHIS), New Partnership for Africa's Development (NEPAD), Forum for Agricultural Research in Africa (FARA), European Union-Pesticide Initiative Programme (PIP), Cente for Tropical Agriculture (CTA), Asian Vegetable Research and Development Centre (AVRDC), International Centre for Insect Physiology and Ecology (ICIPE)

Apart from provided Kenya with an opportunity to show case what she can offer to local and international markets in the horticulture industry, it facilitated "researcher-producer-consumer interactions and provided an opportunity for exchange of ideas, experiences, and design coordinated perspectives for the industry. It also enhanced and strengthened business and research networks on matters related to horticulture between African nations and other international organizations. □

Summary of Plenary Sessions: Issues to Consider

By Lusike Wasilwa, Ph.D.

Africa is the only continent with increased food insecurity?

How do we make horticulture the hope to millions of Africans?

How do we use messages from the past to inform the future?

How do we ensure that Africa is amongst developing countries horticulture crops statistics?

How do we bring smallholder farmers to the horticulture gravy train?

1. Smallholder farmers – What is the future of smallholder farming in Africa (Ministers of Agriculture?) How do we use the smallholder farmers to contribute to reducing the food deficit in Africa? Improve incomes through horticulture crop diversification; promotion of utilization; commercialization of horticulture; formation of producer groups; increased involvement of private sector. How do we engage the smallholder farmers in the horticulture value chains? How do we increase access to markets? How do we han-

dle the issues of marketing and consumer acceptance?

2. Production – Very few countries in Africa have enough fruits and vegetables, how do we increase production and productivity. What is the impact and effect of horticulture research on production? How do we commercialize research to produce products the market wants? How is science contributing to make horticulture profitable i.e. what are the local production systems, sustainable and commercially viable? How do we ensure plant health and food safety?

How does horticulture contribute to food security? Are research products being used to inform policy makers? How do we increase production and value of the domestic market?

3. Environment – The challenge of climate change – how do we make horticulture production more predictable i.e. in terms of production? How do we use our natural resources e.g. water harvesting to increase horticulture production; what controls for pests and diseases will

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FOCUS ON ALL AFRICA HORTICULTURE CONGRESS



Summary of Plenary Sessions: Issues to Consider

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protect the environment. Need to address the impact of horticultural activities and how efforts are been undertaken to reduce the size of the carbon footprint i.e. avoid pollution. Need to show how horticulture contributes to reducing the carbon footprint. Need to use this information to inform and promote trade regionally and internationally.

4. Utilization/consumers – The production, processing and consumption of horticulture crops how do we promote this? How do we ensure food availability, accessibility, stability, utilization and consumption of horticulture crops? This is best presented by “Where are the ingredients in the fruit/vegetable salad”? The use of relevant technologies such as use of solar disinfection system to provide safe water.

5. Investments in horticulture – How do we stimulate major investments for horticulture in Africa? How can joint investments between the private and public sector be fostered? How do we get governments and private investors to invest in infrastructure e.g. solar energy; challenge of provision of niche markets. How do we best show that horticulture crops are profitable?

6. Trade – How do we promote healthy eating to stimulate trade?



Participants follow proceedings during the All African Horticultural Congress

Are the regulatory frameworks in place to safeguard trade? Do we have the infrastructure in place to ensure trade? How do we promote horticulture trade e.g. the issue of export of Kenyan avocado to South Africa. Phytosanitary Issues. The use “Grown under the sun” to increase trade. Challenges of traceability and standards particularly for smallholder farmers. The issues of trade ethics, how do we address this? How do we ensure a 52 week production of horticulture crops in Africa?

7. Partnerships – How do we ensure

good partnerships of relevant institutions that represent different regions of Africa so as to foster constant interactions that contribute to the development of the horticultural sector in Africa? What forum is in place to stimulate exchange of horticulture information in Africa?

- Locally (within country)
- Regionally
- Internationally/Globally

8. Visibility of horticulture – Where is horticulture placed?

- Consumers – Are communities, processors, input suppliers,

transporters, exporters, researchers, educators etc know what horticulture is?

- Research institutions – NARI, IACs and CGIAR
- Industry – Private sector investments to stimulate horticulture
- Policy and advocacy – Is horticulture well placed?
- Economic plans (e.g. Kenya's Vision 2030)
- Networks (ASARECA, CORAFC, SADC etc); platforms/forums (GHI, ISHS, FAO etc).
- Frameworks – What frameworks are available for horticulture
- How, when, and who should be involved in making horticulture more **VISIBLE** or a **FACTOR** to ensure its prominence.

9. Policy – How can all countries in Africa develop and implement a horticulture master plan. How do we promote horticultural crops for food security and nutrition security in Africa with policy makers to increase the budget allocated to this sector, the number of appropriate programmes so that these crops get due accord i.e. importance of horticulture amongst the poorest of the poor. The urban dwellers (Kinshasha and Lagos) in some countries have outnumbered the rural populations.

Congress Resolutions

Way forward

- Agreement for such continental event, to follow International Society for Horticultural Sciences standards (ISHS). Agreement to have the next AAHC in 2012 and thereafter on a 4 year and regionally circulating basis;
- In between the AAHCs African sessions could be convened during the IHC. This will allow for free accommodation of the event;
- Candidates for hosting AAHC shall receive the mandate from the participants, and legitimacy from ISHS;
- The AAHC shall continue to represent all stakeholders of horticulture: science, production, industry, policy and consumption;
- Candidature of The Republic of South Africa to organize the next AAHC in 2012 on behalf of the Southern African Region has been unanimously agreed by the floor and by ISHS; and
- Candidature of Nigeria for hosting the AAHC after 2012 has been acknowledged.

African Horticulture Journal

- AAHC unanimously agreed here is a strong need for better information flow on horticulture in Africa;
- It further agreed that the first step could be consolidating what already exists;
- To facilitate the above GlobalHort agrees on bringing together the African and associated editors and help build up such an initiative. This will be implemented through, though not limited to meetings and workshops;
- To facilitate greater readership, the proposed journal shall be issued in English and in French, and

in both electronic and paper versions.

African Horticulture Forum

- The constituencies to be involved shall cover the following (but not limited to) research and development, policy, private sector, education, and civil society organizations like consumers' organizations;
- NEPAD agrees to give more legitimacy to a forum on horticulture, with regional entities;
- Some regional fora already exist, like the Horticulture Council of Africa gathering 12 countries, Cop Horti gathering 5 countries, or RadHort gathering 10 countries;
- GlobalHort agrees to facilitate networking between these fora and strengthen them;
- Invitation to join GlobalHort in formulating a proposal for Co-Ordinated Regional Innovation Platforms on Horticulture for Africa (CORIPHA).

Sensitization and Advising Policy Makers

- AAHC acknowledges the need to ensure its deliberations and resolutions provide a basis for guiding policy agenda for the development of horticultural sector in Africa;
- AAHC agreed to ensure AAHC deliberations and recommendations are packaged and transmitted to policy makers at continental and national and sub-national levels; and
- AAHC through its various institutions such as GlobalHort will strive to work with national horticultural organizations to ensure increased visibility of horticultural issues in the formulation and operationalization of agricultural, health, trade, education, and other developmental policies relevant to the horticultural sector in Africa.

Hon. Ruto's Message

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Kenya's national “*Vision 2030*” Strategy, isolates agriculture as a key sector for the country to realize the targeted GDP growth rate of 10% annually in the next 25 years. Small scale producers are important to the sector as there are over 1.8 million small scale farmers producing for the domestic market in Kenya with few of them participating in the export market.

Currently the European market is the most important market for many African countries. However, the European market is becoming more and more stringent.

It is estimated that over 11% of the urban household food consumption in Kenya is catered for by fruits and vegetables. In addition most small-scale market vendors are engaged in selling horticultural produce. Over 95% of the total horticultural produce is consumed locally. There is high post harvest losses experienced in the domestic market due to undeveloped markets and market infrastructure. The government, in an effort to address these challenges plan to put up 210 market infrastructure (one per constituency) through out the country by 2010.

Appropriate information on consumer preferences regarding products, packaging and value addition should be available and accessible to all end users. In addition, issues of food hygiene, sanitary and Phytosanitary regulations and Minimum Residue Levels should be strictly observed.

Indeed, Kenya's private sector such as Fresh Produce Exporters Association of Kenya and Kenya Flower Council, International Centre for Insect Pest (ICIPE), the Universities, in close collaboration with the my Ministry, Kenya Agriculture Research Institute (KARI), Horticultural Development Authority (HCDA), Kenya Plant Health Inspectorate Service (KEPHIS), and Export Promotion Council (EPC) have dedicated themselves to developing and promoting the horticulture industry over the past decades, both locally and internationally.