IITA
Research to Nourish Africa

THE BULLETIN

Special Issue 17 May 2013

Tanzanian President inaugurates IITA's new science building in Dar

IITA's state-of the art science building for the Eastern Africa Hub was inaugurated by the President of the United Republic of Tanzania, His Excellency, Dr Mrisho Jakaya Kikwete, on 13 May, in a colorful ceremony which attracted high-level participation from the agriculture research sector both from in and out of the country. Also present from IITA were the Board of Trustees members, hub directors, and coordinators of the CGIAR Research Programs in IITA.

The science building represents an investment of over US$5 million and is a beautiful work of art, making maximum use of natural elements--light, space, and water--for lighting and cooling making it an energy-efficient and airy working space.

Speaking while officially opening the building, President Kikwete lauded the construction of the science building, saying that it provided a much-needed support to his government's effort to boost agriculture research which is constrained by resources.

"We are well aware of the importance of agriculture research in developing the agriculture sector of this country. We have the will. However, we are constrained by too many urgent and conflicting needs," he said. "It is our wish to allocate 1 percent of our GDP to agriculture research. We are not yet there but we are working on it."

According to IITA Director General Dr Nteranya Sanginga, the investment is part of IITA's efforts to strengthen its research capacity and that of its partners in sub-Saharan Africa, a region that continues to grapple with food shortages, malnutrition, and famine every other year.

"The science building is a symbol of IITA's commitment to continue waging war against hunger and poverty and is part of its efforts to boost agriculture through capacity development and improve the livelihoods of small-holder farmers in East Africa through its research-for-development approach," said Sanginga.

Pres Kikwete addresses dignitaries and guests during the opening program and launching of the new Science Building.

Former Nigerian President, Chief Olusegun Obasanjo, who is also IITA's Goodwill Ambassador, while delivering a keynote address at the forum, extolled IITA for its past successes such as controlling the cassava green mite and cassava mealybug, and for the construction of the building.

He said the science building raises hope for Africa in solving the problem of food insecurity that has plagued the continent for decades.

He said agricultural development in sub-Saharan Africa, home to more than 27% of the world's arable land, is being stymied by low funding for research, dilapidated infrastructure, and poor access to markets by

next page, please...

Dignitaries and guests led by Tanzanian President Kikwete (in red tie) and former Nigerian President Olasegun Obasanjo (in light blue traditional dress), with IITA's Board of Trustees.

The IITA Bulletin is produced by the Communication Office. For more information, please email: Andrea Gros (a.gros@cgiar.org), Katherine Lopez (k.lopez@cgiar.org), Jeffrey T. Oliver (j.oliver@cgiar.org), Godwin Atser (g.atser@cgiar.org), or Catherine Njuguna (c.njuguna@cgiar.org).

Tanzanian President inaugurates...

next page, please...

Left: H.E. Jakaya Kikwete (in red tie) accompanied by, from left, IITA's Victor Manyong, Chief Olusegun Obasanjo, former president of Nigeria and IITA's goodwill ambassador, H.E. Benjamin Mkapa, former Tanzanian president, after cutting the ribbon at the official opening of the science building. Right: CGIAR CEO Frank Rijsberman (left) with IITA Board member John Griffith.

small-holder farmers who account for more than 70% of agricultural production.

According to him, over the years, IITA's research on biological control saved cassava from pests that threatened to wipe out the crop from Africa. Also, the institute has consistently delivered new and improved crop varieties and technologies, therefore generating wealth for farmers and showing significant impact through improved livelihoods. He called upon African government leaders and the donor community to continue supporting IITA in its efforts to solve Africa's agriculture problems.

Other speakers at the event included the Chief Executive Officer of the CGIAR Consortium, Dr Frank Rijsberman, who noted that agriculture was back in the donors' agenda following the 2008 food crisis. This he said had enabled institutions such as IITA to raise funds to construct the science building which would advance the development of the critical innovations needed to tackle the bottlenecks to agricultural development in Africa.

Hon. Christopher Chiza, Minister of Agriculture, Food Security, Irrigation, and Cooperatives of Tanzania, praised IITA"s efforts on capacity building which he said contributed greatly to strengthening the Agriculture Research Institute of Tanzania. He added that he was a beneficiary of IITA's capacity building program.

Dancers keep the crowd entertained during the inauguration program.

The Hon. Tress Bueyanayandi, Minister of Agriculture, Animal Industries and Fisheries, Uganda, Personal Representative of His Excellency Yoweri Museveni, the President of the Republic of Uganda, in his goodwill remarks, also praised IITA's success in supporting the Ugandan government and national research institutions to fight key pests and diseases of major crops. He commended the Institute's work on cassava mosaic disease and cassava brown streak disease and on banana Xanthomonas Wilt disease.

Other dignitaries at the inauguration include H.E. Mr Benjamin Mkapa, former President of the United Republic of Tanzania and the Ambassador of the United States of America to the United Republic of Tanzania, H.E. Alfonso E. Lenhardt.

The ribbon cutting and inauguration by President Kikwete was followed by a tour of the new building and exhibition booths showcasing IITA's work in East Africa. The inauguration was followed by a workshop with the theme "Grow Africa and the role of agricultural research by national systems, IITA, and its partners."

The workshop had two parts: the first was a panel presentation and the second was a speed dating exercise around the four major crops the IITA Eastern Africa Hub was focusing on cassava, maize, banana and plantains, and vegetables. Small interactive group discussions were also held to allow detailed deliberations.

IITA Goodwill Ambassador, former President Olusegun Obasanjo, shares 40% cassava bread with African leaders

Former President and Goodwill Ambassador for IITA Olusegun Obasanjo introduced bread baked with 40% cassava flour during the launch. The President of the United Republic of Tanzania, His Excellency, Dr Mrisho Jakaya Kikwete, tasted the bread and commended IITA for the bread technology, saying that the bread had an "excellent" taste.

"There is no difference between this bread and the normal bread we are used to," he added.

Former President Benjamin Mkapa of the United Republic of Tanzania also tried the bread for the first time. The leaders supported the innovation, noting that it would bring several benefits to the continent.

The 40% cassava bread was first developed by IITA in Nigeria as part of efforts to boost the utilization of cassava and create a market for farmers.

IITA DG Nteranya Sanginga said the bread innovation is part of the cassava value chain, stressing that it complements breeding efforts.

Former President Obasanjo encouraged the Tanzanian president to promote the use of cassava in confectionaries in his country to transform agriculture. He said that the use of cassava flour in bread would stimulate the demand for the root crop and create jobs.

In Nigeria, former President Obasanjo, in 2002, initiated a policy on 10% inclusion in bread under a program called "Presidential Initiative on Cassava." The program which was implemented by IITA and national partners, stimulated the demand for cassava, increased productivity by about 10 million tons in 6 years, and made Nigeria the top world producer of cassava.

The IITA Ambassador urged African governments seeking genuine agricultural transformation to adopt the use of cassava in food products, and institute policies that would make the continent food secure and cut import bills on food.

To facilitate the adoption of the technology across countries in Africa, IITA deployed a team of experts to train local bakers on the inclusion of cassava flour in bread in Tanzania.

Dr Victor Manyong, IITA R4D Director for Eastern Africa, said that the adoption of the technology would improve the livelihoods of farmers and bakers, and have a positive impact on the economy of Tanzania.

Consumed by more than 600 million people in the developing world, cassava has been transformed from a food security crop to a cash crop with industrial uses in sectors such as brewery, pharmaceutical, and confectionary industries. The crop is one of Africa's major staples, with the continent cultivating about 50% of global production.

Pres Jakaya Kikwete (right) tastes bread made from 40% cassava flour and 60% wheat flour during the open house and exhibition. Inclusion of 40% cassava flour can reduce importation of wheat by African countries and create sources of income for small-holder farmers and jobs in rural areas.

Science Building Launch Scrapbook

Above: BoT members and staff, IITA Eastern Africa Hub. Top right: Former President Olasegun Obasanjo peers into a microscope. Right: IITA Scientist Fen Beed explains about the work that the IITA Eastern Africa Hub does on maize.

What they say about the Science Building

We are expanding our presence here in Tanzania and in fact this is our second largest facility and the building that you see behind me is symbolic of the investment that we are placing in the country of Tanzania. It is exciting! It's a building but this will house more than just IITA. It will be housing other international centers and organizations all with the same passion for improving productivity, health, and nutrition. It's an exciting time and I'm glad to be a part of it. – *BoT member John Griffith*

The science building is a good opportunity for IITA in East Africa. The mission of IITA is so important and we can't miss out on such an important mission. The building will attract scientists that will do science for the advancement of Africa. – *BoT Member Trine Hvoslef-Eide*

This project will make a very big contribution to IITA in achieving its mission in east Africa. It will allow and encourage partners and scientists to join IITA to come to such a beautiful building with such beautiful facilities and I think it will have a major contribution to our achieving our aims in Africa. – *CGIAR CEO Frank Rijsberman*

The name itself tells it all. I think it's very good news that with the new governance of IITA that science is put on the agenda against all the belief that we don't need to do any more science in Africa but just implement it. This is a very good signal that science is back and that we need innovative science to foster or make progress in Africa. – *BoT Member Roel Merckx*

The importance of this investment to Africa cannot be overemphasized because as far as this project is concerned, research on the challenges of food security in Africa is going to be tackled and even resolved since we know Africa's economy depends largely on agriculture. So the proponents of this project, those who brought the idea of having this science building are in the right direction as far as Africa's food security is concerned. – *BoT Member Hilary Odo Edeoga*

It is a wonderful project. When I visited the project construction of these buildings, I was wondering whether we would make it. It is unbelievable but the most important thing is that we have set up a

science building which will contribute to research and research is very important for us because without research we can't sustain agricultural development. This kind of investment is actually meant to sustain all investments which would be put into agriculture. So this is a very wonderful investment. IITA is doing a very wonderful job. IITA should stretch its tentacles now into the countries which form the family of GROW Africa so that they all benefit from the expertise available within IITA. – *Hon. Christopher Chiza, Minister of Agriculture, Food Security, Irrigation, and Cooperatives, United Republic of Tanzania*

It is a first class project, very necessary and it is long overdue because if well managed, it can well advance and will lend a great deal of dignity to Africa by ensuring food security. The number one priority for me is food. – *H.E. Mr Benjamin Mkapa, former President of the United Republic of Tanzania*

The building is extremely important because it will help to improve the production and productivity of a variety of crops like cassava, banana, soybean, and so on. IITA's role is extremely important because it handles basic research. – *Hon. Tress Bueyanayandi, Minister of Agriculture, Animal Industries and Fisheries, who represented H.E. Yoweri Museveni, President of the Republic of Uganda*

This is a fantastic building. I view it as part of efforts to help people on the ground. – *BoT Member Jill L. Findeis*

Seventy percent of the people rely on agriculture…we have information and technologies that allow them to have crops that have resistance to pest and diseases…but they cannot achieve that goal if technological solutions are not available to address those problems. Those technological solutions come from a science building like this. It is in the science building that we understand the problem affecting crop production and productivity; that we identify precisely what the pests and diseases are; that we test the prototype solutions before we take them back to the farmers' field. So there's a clear linkage and a big role that a science building like this could play in poverty reduction because it generates technological solutions to address farmers' problems. – *Victor Manyong, IITA R4D Director, Eastern Africa Hub*

It's a terrific example of what can be done in the region and it's a laboratory and office facility that is really comparable with anything in Europe. It's really very important that we have these laboratories and facilities throughout Africa because the work of IITA stems from core effort in Ibadan, Nigeria. It must be represented on the ground in the regions where they have different pest problems, different climatic conditions, and different crops indeed. This can handle this region very well and I think the facility is really so commendable but I hope a lot of people will take note of what has been done and the advances that it will bring.– *BoT member John Pickett*

The science building is very significant. It is an important project in eastern Africa. This is the first center of its kind which is devoted to science and technology, and which aims to improve agriculture. This center will be looking at problems or issues in agriculture so it is going to fight hunger and poverty. – *Florence Wambugu, Founder, Director and the Chief Executive Officer of Africa Harvest Biotech Foundation International*

New Science Building: symbol of IITA's commitment to sub Saharan Africa's development

The IITA Science Building is an environmentally friendly building with state-of-the-art, energy-efficient construction, appliances, and renewable energy sources, such as solar water heating, solar power, and natural lighting. It will reduce its energy use by 65-70% with efficient air handling control.

The new Science Building symbolizes IITA's commitment to continue waging war against hunger and poverty and is part of its efforts to boost agriculture through capacity development and improve the livelihoods of small-holder farmers in East Africa.

Building features

The science block is a rectangular two-storey building with an open central atrium, naturally cooled by air intake through underground pipes from external ponds.

It is concrete-framed with external double (cavity) walls providing insulation. Low energy glass and light partitions form offices. There is controlled A/C and ventilation inside workrooms. The roof is of insulated concrete. A large glass skylight brings natural light into the atrium. The floor is a combination of porcelain tiles, vinyl, and bamboo.

To enhance safety and security, the building has a sprinkler fire system. Swipe cards provide access to restricted areas.

Rainwater harvesting is an environmental input from the roof area. Mixed with waste water solution using filters, the rainwater is used for garden watering and other outdoor purposes. The driveways and parking areas have cement block-paved roads and landscaped gardens.

Energy efficiency

The building has double-glazed, low energy windows to reduce heat admission. Insulation in the external walls create a cool box effect and a metal trellis around the building shades the external facades. The internal use of high thermal material and concrete walls serve to keep the rooms cool and reduce the use of indoor electronic air-conditioning. Energy usage is made more efficient by the installation of A/C detection and control units for each room. Water is heated with solar power. Lighting is from light-emitting diodes (LED) which consume less energy and last longer than ordinary fluorescent tubes.

The installation of solar power leads to a lower demand from the public supply and provides the energy for security lights, water pumps, night security system, server, IT and other usages.

Facilities

The total area of the building is 2310 m^2: ground floor 1210 m^2; first floor 1100 m^2. There are two main staircases and an electric lift for the convenience of the physically challenged and for other uses.

Ground floor

The ground floor is considered the production level. It has five laboratories, two cold rooms, four offices, and three storage facilities. The five laboratories have bench space that can accommodate up to 70 researchers.

Other rooms provide space for technicians and students and for media preparation, a laminar flow, in vitro culture, autoclave, freezer, and dryers.

First floor

The first floor is dedicated to academic research and has 32 offices, two meeting /coffee rooms, two storage facilities, and one server room. The two meeting rooms can accommodate from 15 to 25 people.

The state-of-the-art building boasts of an energy efficient structure and facilities that could accommodate about 70 researchers, explains Mohammed Arman, Project Manager, Tanzania Science Facility.