



Letter from the Chair of the Sponsoring Group of *icipe* (SGI)

Dear colleagues and friends of *icipe*,

We are very pleased to inform that effective 2nd November 2013, Dr Segenet Kelemu, an Ethiopian scientist, became the fourth chief executive officer, and the first woman to head *icipe*. Under her leadership, Dr Kelemu is keen to advance the Centre's overall mission of improving food security and the health of people in Africa.

icipe considers the regular external and internal monitoring and evaluation of its performance an important activity to regulate both quality and relevance as well as ensure compliance to its mandate and mission. The recent report on *icipe*'s External Programme and Management Review (2008 – 2012) is now publicly available <http://www.icipe.org/index.php/external-review/788.html> and among the recommendations was the need for *icipe* organisational change. Presently, the Centre is undergoing an assessment by the Swedish International Development Cooperation Agency (Sida) to determine how effective *icipe*'s historical perspective and unique evolution as an African institution and its institutional commitment in pursuing a development agenda for the benefit of Africa's poor has been in driving and sustaining its research agenda. This review is part of Sida's evaluation for continued support to *icipe* during the period 2014 – 2018.

Our development partners continue to support *icipe* to fulfil its mandate and contribute to agricultural research and capacity building. In this issue we inform you of the Centre's decision to go "green" and minimise its carbon footprint. It also covers the Centre's efforts to upgrade its laboratory infrastructure to gain Organisation for Economic Co-operation and Development - Good Laboratory Practice (OECD-GLP) accreditation status. We update you with news on *icipe* scientists who have received international recognition for their research output. *icipe* has expanded its linkages with strategic partners and particularly in the area of economic and development policy analysis to build and to promote the capacity of local researchers in developing countries through partnering with the Partnership for Economic Policy (PEP) organisation. The Centre continuously presents in national and international fora to showcase its research and development activities and participation in the 2nd Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) General Assembly and Scientific Conference in Bujumbura, Burundi was an excellent opportunity for this. In addition, I am delighted to share with you news about exciting and cutting-edge science from *icipe* and more.

Finally, I would like to take this opportunity to mention that I have taken over the Sponsoring Group of *icipe* (SGI) Chair mantle from my colleague Dr David Lymer, whom I thank very much for the admirable guidance and leadership. I am excited to be the Chair of this informal group, among others because of all the commitment of *icipe* and its important mandate in and for Africa.

Dr Gity Behravan, Chair, SGI

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R&D FUNDING

The International Centre of Insect Physiology and Ecology (icipe) 'going-green' with Support from Swiss Agency for Development Cooperation (SDC)

Simple changes in our everyday lives can help slow climate change — including reducing our energy consumption, choosing to travel sustainably, and being conscious of what we purchase. *icipe* with the major support of Swiss Francs five million one hundred and fifty-five thousand (CHF 5.155 million) from the SDC has made a conscious decision to go “green” and minimise the Centre’s carbon footprint. The implementation of the initiative that begins in 2014 would first reduce the Centre’s energy consumption and then rely heavily on solar energy for electrical needs. It would also allow *icipe* to harvest, reuse and recycle water used on its two main campuses— at its headquarters in Nairobi and Mbita Station on the shores of Lake Victoria.

In addition to the environmental benefits *icipe* would reap, there are also long-term operational and financial benefits that would accrue from the greening of the Centre. This strategy will also dovetail in the Government of Kenya’s objectives on renewable energy. Since January 2010, a revised feed-in tariff policy aims to encourage private investment in electricity generation from renewable energy. Unfortunately, the policy implementation is still a challenge. Nonetheless, in 2012, several high profile projects have been initiated in Kenya, namely the British Government Aid to Kenya on Green Energy Initiatives and the new United Nations Environment Programme (UNEP) building at the UN complex in Nairobi.

The ‘going-green’ project will be implemented through a period of three (3) years and will entail reduction of energy consumption by means of intelligent energy saving measures such as sustainable



Front view of the R&D complex on the icipe Duduville campus in Nairobi, Kenya

energy supply and reduction of diesel fuel dependency by using solar photovoltaic systems and solar thermal systems; and reduction of clean water consumption by using rain water.

The greening of the Centre represents a great opportunity to reduce *icipe*’s carbon footprint and get partway to carbon neutrality and reduce climate impact.

Initiative to Address Pest Problems in African Indigenous Vegetables underway at icipe with funding from the German Federal Ministry for Economic Cooperation and Development (BMZ)

icipe has partnered with AVRDC - The World Vegetable Center to address biotic constraints in the production of African indigenous vegetables with a grant of euros one million two hundred (€1.2 million) from BMZ through The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) mainly operating on behalf of BMZ. The collaboration is a collective effort that plans to develop and implement, in cooperation with international and national partners, sustainable and environmentally friendly integrated pest management approaches for major arthropod and nematode pests of 3 African indigenous vegetables (AIVs) – amaranth, leafy cowpea and nightshades. These AIVs are among the most important vegetables produced and traded in rural, peri-urban and urban markets for underprivileged groups (e.g. women, victims of HIV/AIDS etc.) for income generation and improvement in food and nutritional security.

However, despite the increasing importance and demand for AIVs, the yield and quality of the crops remain far below their potential largely due to numerous abiotic and biotic constraints. The most important biotic constraints include arthropod pests (webworm, amaranth weevils, leaf beetles, pod borers, aphids, mites etc.) and root-knot nematodes.



AVRDC’s Headquarters in Shanhua, Tainan, Taiwan

It is expected that with the introduction of sustainable integrated pest management strategies, reliance on chemical pesticides will be reduced, and the major biotic constraints that limit the productivity and decrease the quality of indigenous vegetables will be overcome.



R&D FUNDING

Organisation for Economic Co-operation and Development (OECD) - Good Laboratory Practice (GLP) Accreditation Efforts at icipe Boosted by The Swedish International Development Cooperation Agency (Sida)

The Centre's chemistry laboratories are unique and often referred to as **the** reference laboratory in sub-Saharan Africa as they are equipped for analytical and organic chemistry research. As a pan-African organisation, *icipe* receives various samples for analysis and requests for training at all levels across the continent (postgraduate, internship and advanced training for professionals, both from public and private institutions).

To better meet these increasing demands, the Centre has embarked on OECD-GLP accreditation with generous support of Swedish Krona ten million (SEK 10 million) from the Sida. Presently, OECD-GLP accreditation on the continent is limited to only South Africa. As the Food and Agriculture Organization of the United Nations (FAO) Reference Centre for vectors and vector-borne animal diseases and a UNEP Stockholm Convention Regional Centre, there is an urgent

need for *icipe* to meet this compliance and to be at par with similar Centres around the world. With the funding from Sida, the Centre has embarked on upgrading its analytical infrastructure to allow for the provision of services, including analysis of pesticide residues and toxins, and air, water, soil and food contaminants.

The primary objective of the OECD Principles of GLP is to ensure the generation of high quality and reliable test data related to the safety of industrial chemical substances and preparations in the framework of harmonising testing procedures for the Mutual Acceptance of Data (MAD). It is envisaged that this upgrade will constitute a tremendous opportunity for *icipe*, and its partners and collaborators across Africa, as the Centre would become the first such accredited institution outside the Republic of South Africa.

icipe Bee health Project funded by the European Union (EU) Gaining International Recognition

An article (http://www.icipe.org/images/stories/icipe/news_and_events/2013/Bee-article-in-news-paper.pdf) published by the *International New York Times* (26 October 2013) unreservedly recognises the *icipe*/ African Union - Interafrican Bureau for Animal Resources (AU-IBAR) EU funded Bee Health project as a critical component of the global effort to protect bee colonies. Titled 'Bee Survival in Europe', the article observes that the funding of the African bee health project, whose aim is to enhance food security and protect biodiversity in Africa, is in line with other efforts being instituted by the EU to mitigate the threats that affect bee populations.

BEE SURVIVAL IN EUROPE

Authorities wisely move to ban pesticides while scientists investigate the mass

The European Commission has taken the strongest action yet in global efforts to protect bee colonies. In May, the commission enacted a two-year moratorium on some uses of some pesticides known as neonicotinoids, which remain in the tissues of plants as they grow and in the pollen harvested by bees. The moratorium is scheduled to take effect on Dec. 1. Pesticide manufacturers should not be allowed to derail it. Alarmed at declining bee populations over the past 15 years or so, particularly in Western Europe, the commission in 2012 allocated resources to 17 member states to look into

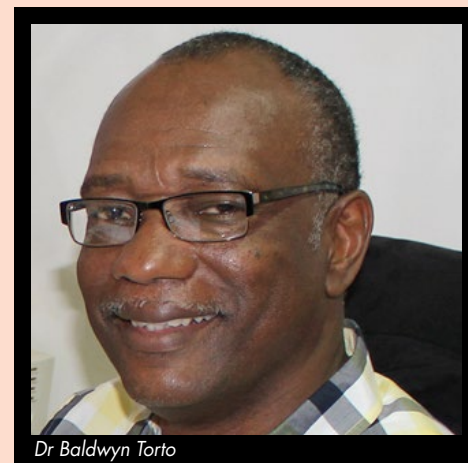
RECOGNITION

Two icipe Scientists appointed African Academy of Sciences (AAS) Fellows

In November 2013, *icipe*'s Director General, Dr Segenet Kelemu, and Dr Baldwyn Torto, Head of Behavioural and Chemical Ecology Department were appointed Fellows of the AAS, the continent's premier honorific society, whose primary aim is to honour internationally renowned African scientists. This now brings the number of *icipe* scientists in the AAS Fellowship to a total of four, including previously elected Fellows, the immediate former Director General of *icipe*, Prof. Christian Borgemeister, and Prof. Zeyaur Khan, the Centre's leader of the push-pull programme.



Dr Segenet Kelemu



Dr Baldwyn Torto



RECOGNITION

Former *icipe* Director General, Dr Hans R. Herren wins the Right Livelihood Award



Dr Hans R. Herren, 2nd Director General of *icipe* and one of the world's leading experts on sustainable agriculture, received the Right Livelihood Award, which honours "outstanding vision and work on behalf of the planet and its people". The jury of the Award, which is also known as the alternative Nobel Prize, said the decision to award Dr Herren is based on "his expertise and pioneering work in promoting safe, secure and sustainable global food supply".

As the Chief Executive Officer of *icipe* from 1994 to 2005, Dr Herren conceptualised *icipe*'s 4Hs paradigm, which places emphasis on a holistic and integrated approach across human, animal, plant and environmental health, as the framework for the Centre's research and training programmes, towards facilitating sustainable development for

farmers and rural communities in general.

Receiving the Award, Dr Herren stated: "I see this recognition as an important endorsement of my vision of a world which can provide all 9 billion people expected to live on our planet in 2050 with sufficient healthy food. This has to happen without overstepping planetary boundaries. This will only be possible if we invest in smallholder structures with sustainable and efficient ecological cultivation methods and move away from the paradigm of industrial agriculture, which overuses natural resources and destroys biodiversity."

More information: <http://www.icipe.org/index.php/news/752-former-icipe-director-general-dr-hans-r-herren-wins-the-right-livelihood-award.html>

Celebrating Dr Segenet Kelemu on Ada Lovelace Day

icipe's then incoming Director General, Dr Segenet Kelemu, was among the scientists celebrated globally on Ada Lovelace Day. Commemorated every 15 October, the purpose of this occasion is to raise the profiles of women scientists by sharing their inspirational stories, in order to create new role models for girls and women in

male-dominated fields. Dr Kelemu's remarkable story was highlighted by UK-based *Green Ink*, one of the world leaders in communicating science for sustainable development in natural resources and related fields (<http://www.greenink.co.uk/blog/celebrating-dr-segenet-kelemu-ada-lovelace-day>).

icipe's Zeyaur Khan elected a Third World Academy of Sciences (TWAS) Fellow

At the 24th General Meeting of the TWAS held in Buenos Aires, Argentina on 1st October 2013, the members attending elected Prof. Zeyaur Khan as a Fellow of TWAS, The World Academy of Sciences for the advancement of science in developing countries. This award was in recognition of Prof. Khan's outstanding contribution to science and its promotion in the developing world.

For more information - <http://www.push-pull.net/decades-of-dedication.shtml>



Prof. Zeyaur Khan



STRATEGIC PARTNERSHIPS

icipe formalises collaboration with the Partnership for Economic Policy

In September 2013, *icipe* formalised its collaboration and hosting of the Partnership for Economic Policy (PEP), a non-profit international organisation supporting evidence-based economic policy analysis, engagement and capacity development in Africa and other developing regions. This partnership will facilitate collaboration to advance agriculture sector performance, rural incomes and food security through better and pro-poor technologies and policy and institutional innovations. The two institutions will cooperate in the conduct and promotion of mutual scientific research and development, and capacity and institutional building in areas of agriculture, nutrition, health, gender, livelihood assets, population and livelihood security, natural resources and sustainable development. PEP operates as an international network of institutions, researchers and experts in

economic and development policy analysis to build and to promote the capacity of local researchers in developing countries.



pep
partnership for
economic
policy

icipe and Send A Cow (SAC) enter into Partnership

In an effort to promote scientific research that is geared towards alleviating poverty among the subsistence farming rural community through transfer of technology to improve farming techniques, *icipe* and Send a Cow (SAC), an International Charity based in UK signed an MoU in September 2013. In particular, the two organisations mutually agreed to work together to disseminate appropriate research developed by *icipe* to farmers within SAC's African programmes; review the effectiveness of farmers' practical application of this research and impact on their livelihoods; collaborate on improving research effectiveness when applied practically in an everyday farming environment; and jointly explore concepts for other research projects for *icipe* research that would have benefit for SAC farmers.

icipe signs Memorandum of Understanding with Gollis University to facilitate Capacity Building

Gollis University (GU) and *icipe* signed a Memorandum of Understanding on 29th November 2013. Gollis University, an institute of higher education in Hargeisa, the capital of the northwestern Somaliland region of Somalia, is committed to excellence in education in addition to fostering an environment that enables students to assume roles of responsibility and leadership. This cooperation will serve a rapidly growing population of younger generations and learners in Somaliland who desire to complete their degrees through innovative and relevant programmes designed to address the needs of a developing country. The two institutions have mutually agreed to collaborate in scientific research, cultural and knowledge exchange, capacity and institutional development.



Saeed Ahmed Hassan Ibrahim, President of Gollis University, Hargeisa, Somaliland and Segenet Kelemu *icipe* Director General, after signing an MOU to facilitate capacity building between the two institutions. Roger Finan, *icipe*'s Director of Finance and Administration and Mario Margiotta, Head of the Capacity Building and Institutional Development Programme were also at the ceremony



CONFERENCES

icipe Hosts Official Launch and Inaugural Meetings of the Bee Health Programme



icipe's Outgoing Director General Christian Borgemeister and Incoming Director General Segenet Kelemu (seated in the middle) join participants in a group photo during the official launch and steering committee meetings of the EU-funded Bee Health Programme

In September 2013, *icipe* hosted the official launch and inaugural meetings of the Steering Committee of the European Union-funded Bee Health Programme. The programme aims to develop the link between participatory bee health management and beekeeping technology, ecosystem services, market access and procedures for national bee health policy and legislation, in line with the European Union's thematic priority area on food security. Held at the *icipe* Duduville Campus, Kasarani, Nairobi, the meeting brought together over 40 participants from Kenya, Burkina Faso, Cameroon, Ethiopia, Liberia, Madagascar, China, Norway, Sweden, Germany and The Netherlands.

To enhance food security and increase wealth for beekeepers/farmers in Africa, the programme will establish a central reference laboratory at *icipe* in Kenya and four satellite stations, one each in Cameroon, Ethiopia, Burkina Faso and Liberia, to generate new knowledge as recommended by the World Organisation for Animal Health (OIE) regarding bee diseases and pests and their control, for African Farmers' Federations and beekeepers. These groups are the most vulnerable to the climate change and environmental pollution affecting bee biodiversity, pollination services and honey productivity.

icipe participates in the 2nd Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) General Assembly and Scientific Conference in Bujumbura, Burundi



Segenet Kelemu, *icipe*'s Director General (second right) seated with other panelists at the 2nd ASARECA General Assembly and Scientific Conference in Bujumbura, Burundi



Speaking to visitors inside the *icipe* booth are Director General, Segenet Kelemu, Jimmy Pittchar and Baldwyn Torto

The 2nd ASARECA General Assembly and Scientific Conference themed "**Transforming Agriculture for Economic Growth in Eastern and Central Africa**" took place in Bujumbura, Burundi from 8th – 14th December 2013. The event attracted over 450 participants including several Ministers of Agriculture and representatives from the eleven (11) ASARECA participating countries, Sub-regional organisations (SROs), International Agricultural Research Centres (IARCs), NGOs, national programmes, universities and the private sector. The weeklong Conference included an exhibition arena that hosted various national,

international, and private sector organisations. *icipe* exhibited its research and development products and also gave a presentation.

icipe's Director General, Dr Segenet Kelemu gave a presentation entitled "**Contribution of *icipe* in agricultural transformation**". The presentation highlighted the Centre's research and innovations and received great interest from the audience. Quite a number of the ASARECA delegates visited the *icipe* booth, among them, the Ministers of Agriculture from Rwanda, Eritrea, and South Sudan, and all were impressed with the Centre's research and innovation products.



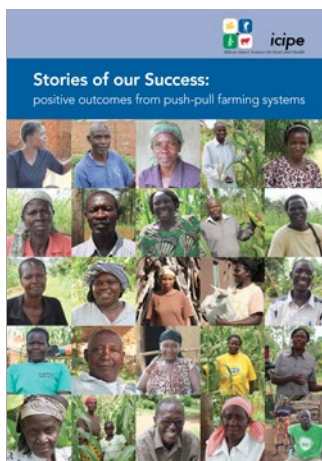
RESEARCH FINDINGS

“Stories of our Success: positive outcomes from push-pull farming systems” published

A report titled **Stories of our Success: positive outcomes from push-pull farming systems**, which chronicles the partnership between the Centre, farmers, national and international research institutes, donors, government agricultural officials, community-based organisations, non-governmental organisations and the private sector, towards improving agricultural sustainability, food security and overall livelihoods in East Africa, has been published by *icipe*. More information: <http://www.push-pull.net/stories-of-our-success.shtml>

Push-pull (www.push-pull.net) is a technology that addresses the main constraints of cereal production in sub-Saharan Africa, which are stem borers, the parasitic *Striga* weed and soil fertility. To date, the technology has been adopted by about 68,000 farmers in Kenya, Ethiopia, Tanzania and Uganda.

In the recently published Report, farmers share their experiences with



push-pull, revealing the direct results of the technology, which include substantial cereal yield increases, additional significant benefit for dairy farming, and its overall impact on household incomes.

The Report also discusses the specific ways in which push-pull has contributed to the Millennium Development Goals (MDGs), in particular MDG 1: eradicating extreme poverty and hunger, and more broadly MDGs 2, 3 and 7, which respectively focus on universal primary education, promoting gender equality and ensuring environmental sustainability.

Further, **Stories of our Success: positive outcomes from push-pull farming systems**, looks ahead and beyond the MDGs, which are due to expire in 2015.

The Report shares experiences and important lessons from push-pull, which could be useful in the development and implementation of a set of Sustainable Development Goals (SDGs), envisioned globally as the post-2015 approach development pathway.

Contribution to Critical Manual for Honeybee Research by *icipe* Scientists



icipe scientists, Baldwyn Torto and Ayuka Fombong are among bee specialists who have contributed to the COLOSS BEEBOOK, a unique and innovative practical manual that will, for the first time, provide standardised methodologies for researchers studying the honeybee, *Apis mellifera*. COLOSS, which stands for **Colony Losses**, is a global network of bee research scientists working together to share information on the decline of bees and how to reverse the situation.

The COLOSS BEEBOOK manual has been published online in the *Journal of Apicultural Research* and is available at: <http://www.ibra.org.uk/articles/The-COLOSS-BEEBOOK>, and as a hard copy book for use at the laboratory bench, available at: http://ibrastore.org.uk/index.php?main_page=advanced_search_result&search_in_description=1&keyword=beebook.

The COLOSS BEEBOOK compiles standard methods in all fields of research on the honeybee, and will become the definitive, yet evolving, research manual. The book chapter by Torto and Fombong, which is co-authored with colleagues from the USA, Italy, and Israel, provides guidelines on standard methods for chemical ecology research on the honeybee.

Report on *icipe*'s External Programme and Management Review published

The report on *icipe*'s External Programme and Management Review (2008 – 2012) is now publicly available. The reviewers highly commended the Centre for creating a superb portfolio of innovative research and development which they considered to be of high to highest quality, a fact supported by the large number of peer-reviewed articles published through the review period. The reviewers observed that *icipe* has performed excellently, typified by a strong involvement with national, public and private partners. Access the full report: <http://www.icipe.org/index.php/external-review/788.html>

