



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

Dear colleagues and friends of *icipe*,

It is with great joy that we welcome Dr Segenet Kelemu as the new DG of *icipe*. At the same time we thank Prof. Christian Borgemeister for leading *icipe* successfully for 8 years and note that in that time he has ensured a stable financial base for *icipe*, and as a consequence, made it possible for *icipe* to expand its research in Africa. The expanded research portfolio together with *icipe*'s different initiatives in the advancement of scientific capacity in Africa, will ensure that *icipe* is in an excellent position to deliver relevant outcomes in the coming years and have impact where it really matters – in improving food security and the health of people in Africa.

In this newsletter you will also learn that *icipe* has recently been awarded two grants by the European Union to implement two research programmes: the management of pollinator bee diseases and pests for food security in Africa; and sustainable peri-urban milk value chain development in Somaliland. To further advance scientific capacity, *icipe* and University of Somalia have signed a MoU to facilitate and coordinate cooperation in capacity building. Further, there are highlights of new research findings and reports on *icipe*'s participation in different institutional events.

Lastly, we are confident that *icipe* will continue to prosper under the leadership and management of Dr Kelemu and further evolve in the coming years.

Dr David Lymer, Chairman, SGI

IN THIS ISSUE

- Ethiopian Scientist, Dr Segenet Kelemu, appointed 4th Director General of *icipe*
- Outgoing *icipe* Director General, Prof. Christian Borgemeister discusses the Centre's accomplishments during his tenure as its chief executive officer
- *icipe* awarded two Grants by The European Union to implement "The management of pollinator bee diseases and pests for food security in Africa" as well "Sustainable peri-urban milk value chain development in Somaliland"
- *icipe* awarded a "special mention certificate" in the EXCOP 2013 Meeting
- *icipe* and University of Somalia sign MoU to facilitate and coordinate cooperation in capacity building
- *icipe* participates in the 6th Africa Agriculture Science Week and FARA General Assembly in Accra, Ghana
- Kenya's Ministry of Higher Education, Science and Technology convenes the 2nd National Science, Technology and Innovation week
- *icipe*-led study selected by PLoS among most influential on "The Ecological Impacts of Climate Change"
- *icipe* researcher featured on GEF's Film "Mission: Planet Detox"

Ethiopian Scientist, Dr Segenet Kelemu, appointed 4th Director General of *icipe*



Dr Segenet Kelemu, incoming Director General of *icipe*

Dr Segenet Kelemu, an Ethiopian scientist, has been appointed the new Director General of *icipe*, taking over from Prof. Christian Borgemeister, who has been at the helm of the Centre for the past 8 years. Dr Kelemu becomes the fourth chief executive officer, and the first woman to head *icipe*.

Founded in 1970 by renowned Kenyan scientist, Prof. Thomas Risley Odhiambo, *icipe* conducts research and assists resource-limited rural and urban communities in Africa to implement strategies that are environmentally safe, affordable and accessible, for the control of crop pests and disease vectors, and the exploitation of useful insects.

Announcing Dr Kelemu's appointment, *icipe* Governing Council Chairman, Prof. John Pickett, said: "We are extremely confident that Dr Kelemu will ably advance the Centre's overall mission of improving food security and the health of people in Africa. She has immense experience in agricultural research, in capacity building and in managing research for development. Indeed, over the past two decades, her own research and that of teams under her leadership has contributed to addressing a variety of key agricultural constraints in Africa, Asia, Latin America and North America."

Contd. next page >>



<< From page 1

Prior to her appointment, Dr Kelemu was the Vice President for Programmes at the Alliance for a Green Revolution in Africa (AGRA). She joined AGRA from the International Livestock Research Institute (ILRI), where she served as Director of the Biosciences Eastern and Central Africa (BecA). Previously, Dr Kelemu was a Senior Scientist, and later the Leader of Crop and Agroecosystem Health Management, at the International Centre for Tropical Agriculture (CIAT) in Cali, Colombia. She has also worked as a researcher at Cornell University, and at Montana and Kansas State universities, in the USA.

Dr Kelemu has received many international accolades, including CIAT's Outstanding Senior Scientist Award, for her numerous contributions to the Centre and its mission, and the prestigious Friendship Award granted by the People's Republic of China, for outstanding contributions to China's economic and social development. In 2011, Dr Kelemu, jointly with *icipe* scientist Prof. Zeyaur Khan, was awarded the TWAS Prize for Agricultural Sciences, by TWAS, The World Academy of Sciences.

She is actively engaged within the global scientific community, having published widely in refereed publications and throughout her professional service, as an editor of peer reviewed journals and a member of a variety of international committees focusing on research for development.

More information: <http://www.icipe.org/index.php/news/738-ethiopian-scientist-appointed-4th-director-general-of-icipe.html>



From left: Prof. Christian Borgemeister, outgoing *icipe* Director General, Dr Segenet Kelemu, incoming *icipe* Director General, Mr. Donald Kaniaru, *icipe* Board member and Mr. Roger Finan, *icipe* Director of Finance and Administration.

Outgoing *icipe* Director General, Prof. Christian Borgemeister discusses the Centre's accomplishments during his tenure as its chief executive officer



Prof. Christian Borgemeister, outgoing *icipe* Director General

What do you consider to be *icipe*'s biggest achievement during your tenure as Director General?

In the past eight years, *icipe* has obtained more funding, and therefore better stability as an organisation. The Centre's finances have tripled, from \$ 9.5 million in 2005 to a projected \$ 30 million at the end of 2013. This has enabled us to greatly increase *icipe*'s R&D and capacity building activities across Africa.

How has this success been achieved?

Primarily, we have built on the foundation laid by my two predecessors, Prof. Thomas Risely Odhiambo, the founding director of *icipe*, and my immediate predecessor Dr Hans Herren.

The accomplishments in the past eight years are also largely as a result of *icipe*'s uniqueness, which is based on three factors. First, *icipe* is an independent African-based, African-owned organisation with an African identity. There are not many institutions that have those characteristics.

Second, *icipe*'s research cuts across agriculture and health, and also incorporates the environment. This thematic mix is particularly unique, as most often R&D organisations focus on one single theme.

The third factor is *icipe*'s track record, which is based on a number of key assets. The Centre has always had a dual mission of conducting fundamental scientific research while providing practical solutions that make a real change in the lives of people in Africa, primarily the rural and urban poor. As a result, the Centre is able to gain support from the more development oriented organisations as well as those more focused on science.

Moreover, *icipe* has maintained the idea of partnerships with institutions in Africa and beyond as one of its key strategies. Closely linked to this, is the incorporation of an interdisciplinary approach to research. As an

Contd. next page >>



<< From previous page

example, in 2011, *icipe* re-established a socio-economic unit, which now provides a platform for systematic impact assessments, learning and knowledge sharing for all the Centre's projects.

Lastly, *icipe* has built a solid reputation among funders in regard to its financial management.

How has *icipe* contributed to the advancement of scientific capacity in Africa?

Capacity building is indeed one of the most important aspects of *icipe*'s activities, and a goal that the Centre has continued to advance from a number of perspectives in the past eight years.

The flagship of *icipe*'s capacity building activities is the training of young academics, primarily through the African Regional Postgraduate Programme in Insect Science (ARPPIS) and the Dissertation Research Internship Programme (DRIP). By 2012, a total of 350 PhD students had been trained by *icipe* and their University partners.

Currently, *icipe* employs around 60 scientists, half of whom are African nationals, working alongside peers from Asia, Europe and North America. The Centre's scientists publish more than 100 peer-reviewed scientific articles per year, which demonstrates their own, and in effect Africa's, contribution to global scientific knowledge.

icipe also trains farmers as well as technical and extension workers to strengthen their capacity in applying the Centre's technologies and to provide them with the knowledge and information, so as to empower them to define solutions for challenges related to food and health.

icipe has also significantly contributed towards strengthening Africa's scientific infrastructure. For instance, the Martin Lüscher Emerging Infectious Diseases (EID) Laboratory, which was launched in November 2011 at *icipe*'s headquarters in Kasarani, Nairobi, provides a specialised platform to undertake studies that will improve risk detection, early warning and response capabilities, to outbreaks of vector-borne infectious diseases in Kenya, and Africa in general.

Where to next?

I will be taking on a new role as the Director of the Ecology and Natural Resources Management Department at the Centre for Development Research (ZEF – www.zef.de) of the University of Bonn, Germany. Founded in 1995, ZEF's research aims at finding solutions to development-related issues. I will be leading the implementation of a similar vision as at *icipe*, that of research and development within an interdisciplinary and international context.

More information: <http://www.icipe.org/index.php/news/740-farewell-interview-with-icipe-outgoing-director-general-prof-christian-borgemeister.html>

R&D FUNDING

icipe awarded two Grants by The European Union to implement "The management of pollinator bee diseases and pests for food security in Africa" as well "Sustainable peri-urban milk value chain development in Somaliland"

Bee health management in Africa: The joint € 12.3 *icipe* and African Union's Inter-African Bureau for Animal Resources (AU-IBAR) initiative was launched in June 2013. The regional initiative aims at establishing an African reference laboratory and 4 satellite stations in Senegal, Burkina Faso, Cameroon and Ethiopia for the management of diseases and pests of bees for food security. It involves strategic partnership and networking in bee health and pollination services in Africa, with the said 4 satellite stations and a central reference laboratory at *icipe*'s HQs in Nairobi. Strong partnerships have been established with farmers' federations, regional economic commissions (RECs) and sub-regional organisations (SROs); institutional capacity of target institutions and organisations will be reinforced; and research linked to honey value chain/pollination services established. The purpose of the bee health programme is to improve bee products and pollination services through control of bee diseases and pests, and enhanced markets access. In recent years, the serious decline of honeybee populations, commonly referred to as the colony collapse disorder (CCD), has alarmed governments, conservationists and the private sector for its serious impact on biodiversity and forest cover, nutritional aspects, agricultural practices and incomes, especially for the poorest population. Yet the impact and potential effects of the CCD in Africa are poorly understood. "This project will substantially contribute to the sustainable conservation of honeybees for the benefit of millions of rural resource-poor farmers on the continent.", says Team Leader Suresh Raina.

For more information: **EU – *icipe* Bee health signing ceremony Press Release:** http://eeas.europa.eu/delegations/kenya/documents/press_corner/20130610_1.pdf



The outgoing *icipe* Director General, Prof. Christian Borgemeister and HE Ambassador Lodewijk Briët, EU Head of Delegation to Kenya during the signing of a financial agreement for bee health management in Africa

On-line media article: ***icipe* – EU sign KSh 1.4b deal to boost bee farming:** http://www.standardmedia.co.ke/?articleID=2000085747&story_title=international-centre-of-insect-physiology-and-ecology-european-union-sign-sh-1-4b-deal-to-boost-bee-farming&pageNo=1

Milk value chain development in Somaliland: A € 4.4 million milk value chain programme developed by *icipe* together with FAO and the Sheik Technical Veterinary School and Reference Centre (STVS) in Hargeisa was recently approved by the EU – Somalia Delegation. The initiative aims at enhancing the performance of the milk value chain, with an aim to promoting resilience and reduced food insecurity in Somaliland.



RECOGNITION

icipe awarded a "special mention certificate" in the EXCOP 2013 Meeting

As the Regional Centre for Africa for the Stockholm Convention on Persistent Organic Pollutants (POPs) (which is hosted by UNEP), *icipe* participated in the ordinary and extraordinary meetings of the Conferences of the Parties to the Basel, Rotterdam and Stockholm conventions from 28 April to 10 May, 2013 in Geneva, Switzerland.

Stockholm Convention on POPs currently regulates 23 toxic substances that are persistent, travel long distances, bio-accumulate in organisms and are toxic. Thirteen (13) of these are pesticides, an important reason why *icipe* became a Stockholm Convention Regional Centre in 2011.

A Regional Fair, termed 'Synergies through regional delivery', was also held from 1 – 3 May 2013 to exhibit the work of the Regional Centres located in Africa, Asia and the Pacific, Western Europe, Latin America and the Caribbean, and Central and Eastern Europe. *icipe*'s booth was awarded a "special mention certificate" in recognition of its set-up and design.



icipe's stand at the EXCOP meeting in Geneva, Switzerland. *icipe* is the Regional Centre for Africa for the Stockholm Convention on Persistent Organic Pollutants (POPs)

STRATEGIC PARTNERSHIPS

icipe and University of Somalia sign MoU to facilitate and coordinate cooperation in capacity building

30th April 2013 – *icipe* and the University of Somalia (UNISO), a non-profit private educational institution in Somalia, providing innovative undergraduate and graduate education, signed a Memorandum of Understanding to provide a framework within which academic activities will be implemented involving exchange of faculty, scientists and/or students from UNISO and *icipe*.



UNISO Vice-Chancellor Prof. Mohammed Yusuf (right) signing the MoU to facilitate mutual academic activities with *icipe*. In the centre is outgoing *icipe* Director General, Prof. Christian Borgemeister and on the left is Mario Margiotta, coordinator of the Capacity Building and Institutional Development Programme at *icipe*.



Prof. Christian Borgemeister, Prof. Mohammed Yusuf and Mario Margiotta



INSTITUTIONAL EVENTS

icipe participates in the 6th Africa Agriculture Science Week and FARA General Assembly in Accra, Ghana



icipe scientists interacting with visitors at the icipe stand during the Africa Agriculture Week (AASW) in Accra

Through side-events, exhibitions and plenary sessions the Week focused on the theme of **"Africa Feeding Africa through Agricultural Science and Innovation"** and examined the sub-themes of education and human resource development, innovations to improve productivity and resilience, moving from competition to collaboration, and innovative financing and investment in agriculture.

Under sub-theme 1 – Education and human resource development and sub-theme 2 – Innovations to improve productivity and resilience, *icipe's* side-events entitled **"Building capacity for insect science development in Africa"** and **"Science innovation for better livelihoods"**, respectively, were well attended and attracted media attention (See "Push meets pull in agricultural innovation" <http://aasw6.wordpress.com/2013/07/19/push-meets-pull-in-agricultural-innovation/>; "Kill the killer fly" <http://aasw6.wordpress.com/2013/07/18/kill-the-killer-fly/>; "A plate of worms, please!" <http://aasw6.wordpress.com/2013/07/17/a-plate-of-worms-please/>; and "When push comes to shove in pest management" <http://aasw6.wordpress.com/2013/07/17/when-push-comes-to-shove-in-pest-management/>.)

icipe was among the 1300 delegates from a varied background, including ministers, parliamentarians, researchers, farmers, extension practitioners, and civil society partners (with strong presence of the CGIAR and development partners) who attended the 2nd Forum for Agricultural Research in Africa (FARA) General Assembly and the 6th Africa Agriculture Science Week, hosted in collaboration with the Government of Ghana on 15 – 20 July 2013.

Kenya's Ministry of Higher Education, Science and Technology convenes the 2nd National Science, Technology and Innovation week

icipe participated and showcased its R&D initiatives during the 2nd National Science, Technology and Innovation (ST&I) Week, organised by the Ministry of Higher Education, Science and Technology (MOHEST) and the National Council for Science and Technology (NCST) from 13 – 17 May 2013. The Conference was convened as a platform to publicise Kenya's achievements and breakthroughs in ST&I, create awareness and promote science, technology and innovation and its accomplishments, and to enhance the communal understanding on the benefits and consequences of scientific inventions and innovations. *icipe* was invited to give a keynote address and participate in the week-long exhibition.

icipe's talk entitled **"Insect Science Matters for Innovation and Development"** delved into the role *icipe* plays in insect science to safeguard the livestock and horticulture industries, human and environmental health sector, and in capacity building.

The *icipe* exhibition booth was very popular with farmers and scholars who wanted to know more about the Centre's research and capacity building activities. The tsetse repellent collar and commercial insects and bioprospecting products on display also attracted many participants to the stand.



James Ligare talks to a visitor at the exhibition booth about the plant-based mosquito repellent products and Naturub®, used for alleviating flu, cold, chest congestion, aches and pains, insect bites and muscular pain. The popular Eco Honey (background), labelled and packed at *icipe*, was also on display



RESEARCH FINDINGS

icipe-led study selected by PLoS among most influential on "The Ecological Impacts of Climate Change"

An article by scientists from icipe, in collaboration with colleagues from the UK and USA, has been selected as one of the 16 most influential and prescient, published so far by PLoS ONE or PLoS Biology on the subject of "The Ecological Impacts of Climate Change".

Titled 'Some Like It Hot: The Influence and Implications of Climate Change on Coffee Berry Borer (*Hypothenemus hampei*) and Coffee Production in East Africa', the publication has now been curated under a new PLoS Collection, formally launched on Monday, 5th August, and now available at <http://www.ploscollections.org/>

In the publication, the icipe-led team observes that just two years after predicting the likely impacts of climate change on coffee and the coffee berry borer (*Hypothenemus hampei*), what they considered a worst case scenario is already occurring.

icipe PI and main author of the study Dr Juliana Jaramillo explains: "In 2009, we found that climate change would make coffee production more difficult and unpredictable, resulting in alternating periods of over- and underproduction. In particular, our studies estimated serious consequences in areas where the high quality *Coffea arabica* is produced. Our model forecasted that a 1–2°C increase could lead to an increased number of generations, dispersion and damage by the coffee berry borer. We also observed that a rise in temperature of 2°C and above could lead to shifts in altitudinal and latitudinal distribution of the pest." <http://www.icipe.org/index.php/news/739-icipe-led-study-selected-by-plos-among-most-influential-on-qthe-ecological-impacts-of-climate-changeq.html>



Coffee berries

icipe researcher featured on GEF's Film "Mission: Planet Detox"

On 8 May, 2013 at the extraordinary conference of parties (EX-COP) meeting, in Geneva, the Global Environment Facility (GEF) premiered a documentary film entitled *Mission: Planet Detox*, now available freely around the world, focusing on GEF-funded projects that address toxic chemical pollution on three continents – Africa, Asia and South America. An audience of several hundred delegates, observers and guests watched the GEF film during the Meeting. The documentary depicts the amazing people working hard to rid the planet of the chemicals that threaten human health and the environment. It captures the images and voices of the beneficiaries and project teams involved in some of the 300 projects GEF has funded all over the world.

The film has an important section on integrated vector management (IVM) activities undertaken by icipe that was narrated by icipe scientist Dr Clifford Mutero. He showcased a GEF / UNEP / WHO-AFRO project in the rice irrigation scheme in Mwea, Kenya where more than 3000 families live adjacent to the rice paddies. They are submerged for at least six months of the year, providing an ideal habitat for mosquitoes, resulting in recurring malaria outbreaks. Conventional control efforts have been unsuccessful. In the past, DDT worked well to kill the vectors but because of the risks DDT poses to human health and the environment, as well as widespread DDT resistance in mosquito populations, icipe is



icipe scientist Clifford Mutero explains how growing dryland crops minimises the time that paddies need to be wet after harvesting the rice crop

advocating and implementing IVM as it provides long-term, cost-effective and healthier solutions.

For more information: <http://www.icipe.org/index.php/news/720-icipe-researcher-featured-on-gefs-planet-detox.html> and <http://www.thegef.org/gef/greenline/april13/kenya-1.html>