

Profiles of the G&D-Rockefeller Fellowship Winners “Enhancing the Careers of East African Women Scientists”

A Three-Year Program supported by The Rockefeller Foundation and implemented by the Gender and Diversity Program (G&D) of the Consultative Group on International Agricultural Research (CGIAR)

Round 1: July 2005–June 2007



The first eleven fellows on the program are:

Front row, left to right: Annet Namayanja, Josephine Songa, Jane Ininda, Mary Onyango, Kallunde Sibuga and Jenipher Bisikwa.

Back row, left to right: Christine Onyango, Wariara Kariuki, Virginia Gichuru and Rose Mongi.

Inset: Miriam Kinyua

1. Annet Namayanja



“I love bean breeding . . . and I now consider it my duty to inspire others into the field.”

Position : Bean Breeder
Institution : National Agricultural Research Organization (NARO)
Country : Uganda
MSc : Crop Science, Makerere University, Uganda - 2004
Mentored by : Dr. Regina Kapinga
Vitamin A for Africa (VITAA) Project Coordinator and Agronomist, International Potato Center (CIP), Uganda.

Ms Namayanja is currently participating in strengthening disease resistance in popular bean cultivars. Her work specifically focuses on: (i) angular leafspot disease, a widespread problem occurring in Uganda; and (ii) bean root-rot disease, which is a major problem in Southwestern Uganda, where beans are an important food and cash crop, especially in generating income for women. Ms Namayanja is also involved in multi-location participatory trials on-station and in farmers' fields to evaluate and select bush and climbing bean genotypes for consumption at home and for the market. Two superior genotypes (RWR 1946 and RWR 2075) have already been identified for release in late 2005. They are resistant to root-rot and thrive in poor soils.

Ms Namayanja co-ordinates the multiplication and dissemination of improved bean seeds and farmer sensitization and training across four districts in Uganda (Mubende, Sironko, Kabale and Luweero). All these activities are currently supported by The Rockefeller Foundation. In addition, Ms Namayanja leads a regional project on 'Improvement of Red Mottled Bean Genotypes for the East and Central Africa Region'; collaborates in an ASARECA-funded biotechnology regional initiative on 'Application of Molecular marker-assisted selection to improve resistance to bean common mosaic necrotic virus'; and collaborates in a university FORUM-funded project on 'Introgression of resistance to anthracnose using molecular markers'.

“Many students steer clear of breeding because they imagine it is very difficult. But I love bean breeding!” Ms Namayanja enthuses. “I was inspired by Dr Phinehas Tukamahabwa and Prof Kimani to venture into breeding. I am glad I did and I now consider it my duty to inspire others into the field. Breeding is like raising a family and you will *always* get results. It's so exciting to look at the results and see the traits of the 'parents' in the 'children!'”

“Last year I was selected to represent the Beans Research Programme in a one week proposal writing workshop organised for a Nutri-Bean project, which was a new partnership in Bean Research between Africa and Belgium. In this meeting, a number of people ranging from scientists, seed company representatives, farmers and local area opinion leaders were invited to participate. For the Belgian team, it was their first time in Africa and they were much impressed by each one of us and I remember them saying they feel that we were a very strong team. Fortunately the outcome from that workshop is that our proposal was accepted for funding. I feel I should emphasize this, because in this workshop, I remember I contributed with a clear thinking of how to be more visible and indeed I feel I achieved that. Much as even the other colleagues also contributed.”

And what does Ms Namayanja feel is in store for her from the fellowship program? “Just from the mentoring orientation workshop alone, I have learnt that I need to be more assertive and, for my community work, I have learnt to value the differences in people, balancing all the values that they have. I will maximize on my strengths while also working on my weaknesses,” she concludes.

2. Christine Onyango



“I would like to work with people at their level of need and do some good for my country. Poverty is dehumanizing and it hurts to see it. I would like to make a difference.”

Position : Senior Lecturer
Institution : Jomo Kenyatta University of Agriculture and Technology
Country : Kenya
MSc : Food Technology (Cassava utilization), University of Nairobi, Kenya- 1992
PhD : Food Science and Post-Harvest Technology, Jomo Kenyatta University of Agriculture and Technology, Kenya - 2000
Mentored by : Dr. Caroline Thoruwa-Langat
Crop Scientist and Director of the Linkages Program, Kenyatta University, Kenya.

Dr Onyango is involved in a participatory and collaborative project with the Ministry of Agriculture on ‘Community-based improved utilization of pearl millet and sorghum varieties grown in arid and semi-arid parts of Eastern Province of Kenya’. This project seeks to add value and enhance traditional crops as an alternative to maize to diversify the food base and improve the socio-economic status of rural farmers in Kenya’s drylands.

“People need much more than knowledge and skills. I would like to work with people at their level of need and do some good for my country. Poverty is dehumanizing and it hurts to see it,” laments Dr Onyango.

“I aspire make a difference by improving my own skills and talents as a leader and as a mother. I hope to learn how to write compelling proposals and also negotiation and managerial skills to help me navigate my career path, formulate favorable contracts and manage projects and resources. The gung ho approach does not work. I am putting to the test team building It was hard at the beginning, but the good grounding received in the leadership training has helped me a lot: to give positive feedback, to participate and engage fully as a team member, to reach a negotiated compromise among others. This is because not only am I aware of myself, but realizing that we all have different personalities helps me to understand some behaviors, which I would previously not have tolerated.”

3. Jane Ininda



“ . . . I will mentor others. I have a greater awareness of who I am and also of who I can be.”

Position : Principal Research Officer/Head, Plant Genetics and Physiology, KARI-Muguga
Institution : Kenya Agricultural Research Institute (KARI)
Country : Kenya
MSc : Plant Breeding, University of Nairobi, Kenya -1989
PhD : Plant Breeding—Statistics, Iowa State University, USA - 1996
Mentored by : Dr Agnes Mwang'ombe
Plant Pathologist and Principal of the College of Agriculture and Veterinary Sciences,
University of Nairobi Kenya.

Dr Ininda's focuses on improving maize, a very critical food crop in Kenya. Improved varieties can triple the yields. But beyond greater yields and disease-resistance, due attention must be paid to consumer acceptance as well as availability of high-quality seed through partnerships with seed companies.

Dr Ininda's research addresses major foliar diseases (maize streak disease, gray leaf spot and turicum leaf blight). Thus far, nine varieties of improved maize have been availed to farmers in Central and Western Kenya. In 2005, her program produced 40 tons of KH 500-21A, a disease-tolerant hybrid for maize streak virus-prone areas. Dr Ininda is now working on recombining the twenty most elite lines so as to develop disease-resistant hybrids.

“Through the fellowship, I hope to strengthen my network and become more efficient. I have done a lot of research and I also work a lot with students and collaborative programs. I hope to enhance my communication skills for better collaboration, to better articulate my work and to mentor others. I have a greater awareness of who I am and who I can be,” says Dr Ininda.

She adds, “Effective communication is crucial for collaboration. Our work involves joint projects in which we collaborate with CIMMYT,* seed companies in the private sector, universities, government ministries and agencies and non-governmental bodies. The leadership and negotiation courses have taught me to practice what I have learnt..... People want me to attend meetings, chair sessions etc. I presented my laboratory and field work to Melinda Gates in March this year, while Annet (Namayanja) presented hers on beans in Uganda. Just the other day, the Gates Foundation called me from California for a telephone interview and said they used the information I gave them to further develop their support to African agriculture.”

**CIMMYT: Centro Internacional de Mejoramiento de Maíz y Trigo is a CGIAR Center headquartered in Mexico which works on improving maize and wheat*

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March 17, 2006

Dr. Jane Ininda
KARI
PO Box 30148-00100
Nairobi
KENYA

Dear Dr. Ininda,

Thank you for hosting my visit to the Muguga field station on March 5th. I appreciated the chance to tour your field site and learn more about your innovative work to breed new varieties of maize.

Having the opportunity to meet with you and hear about your experiences working in Kenya was valuable in shaping my understanding of the challenges facing agricultural development in Africa. I am grateful to have had the opportunity to meet you.

Sincerely,



Melinda French Gates



4. Jenipher Bisikwa



“When you look at hunger and poverty, it overwhelms and overshadows you. But how do you eat an elephant? A bite at a time. I believe in having an impact. I see hunger and poverty and I’m aware that I cannot solve the problem alone, but I can contribute to solving the problem.”

Position : Lecturer, Department of Crop Science
Institution : Makerere University
Country : Uganda
MSc : Agronomy and Weed Science, University of Minnesota, USA – 2001
PhD : Applied Plant Sciences specializing in Agronomy and Agroecology, University of Minnesota, USA - 2004
Mentored by : Dr. Margaret Mangheni
Senior Lecturer in Agricultural Extension, Faculty of Agriculture, Makerere University, Uganda.

Dr Bisikwa’s research majors on generating ecologically sound weed management strategies to ensure food crops thrive. Her current focus is on striga, a weed which hampers cereal production. Dr Bisikwa is developing an integrated approach on weeds, taking on board options such as crop rotation; sturdier food crops; and fertilizers and manure. For her PhD, she studied the European buckthorn, an exotic invasive species.

Dr Bisikwa is fresh from her PhD studies and intends to publish more of her research. In her own words: “I’m at the beginning of the race and I’m going to go all the way. The mentoring workshop has stirred the power within me to excel. It is a program that helps you examine yourself as a person, and not just a professional. I am much more aware of who I am and who I can be: everything is possible if you believe in yourself.”

She continues, “I am aware that I cannot change the whole world. I grew up on a farm and my country has an agrarian economy. When you look at hunger and poverty, it overwhelms and overshadows you. But how do you eat an elephant? A bite at a time. I believe in having an impact. I see hunger and poverty and I’m aware that I cannot solve the problem alone, but I can contribute to solving the problem. This program will help me sift and refine my long-term and short-term goals. I will strive to improve my research by defining and refining my research goals to do more applied research that is of direct relevance to farmers. But I will also write proposals for collaboration on regional research since we face similar problems and challenges. People skills are vital for collaborations.”

And this is what her junior mentee has to say about Dr. Bisikwa: “My mentor is tirelessly helping me out to reach my dream career. She has made me gain an understanding and an insight into this career. She has provided me with reading materials, trained and assessed me during various presentations for communication skills. She has also arranged for a course on scientific writing which I have already done, and we still have lots more to work on together.”

5. Josephine Songa



“... I now aspire to move into leadership and guide others. I would like to make a contribution to food security in my country..”

Position : Principal Research Scientist
Institution : Kenya Agricultural Research Institute (KARI)
Country : Kenya
MSc : Agricultural Entomology, University of Manitoba, Canada – 1994
PhD : Agricultural Entomology, Kenyatta University, Kenya - 1999
Mentored by : Dr. Esther Mwangi
Entomologist and Task Manager, Biodiversity Enabling Activities, United Nations Environment Programme - GEF, Kenya.

Dr Songa works on several collaborative projects. For the joint KARI-CIMMYT Insect Resistant Maize (IRMA) Africa project, she rears stem-borers for screening studies and evaluates the resistance of maize in field sites, as well as the environmental impacts of *Bacillus thuringiensis* (Bt) maize. Dr Songa is also the coordinator of a Danish-funded capacity-building project on the environmental impacts of transgenic crops in Eastern Africa. In addition, Dr Songa coordinates a joint project with the International Center for Insect Physiology and Ecology (ICIPE) on classical biological control of stem-borers by introducing predators of the exotic stem-borer, *Chilo partellus*.

Dr Songa is also the Component Manager of a project for developing improved maize varieties to control the larger grain borer (a pest that plagues maize in storage) through genetic engineering. She supervises two PhD and three MSc students working on the project.

“I have been in this career for 20 years and I now aspire to move into leadership and guide others. I would like to make a contribution to food security in my country through further work on Bt maize,” Dr Songa remarks.

She explains that this transgenic maize naturally produces a bacterium found in soil which effectively kills the larger grain borer in just three days. And while Bt maize is preferable to chemical pesticides, there are still gaps in its comprehensive ecological impact. Dr Songa is working to fill this gap.

And here is her impact story: “This program has helped me to be more strategic, delegate more, even at a personal level with my teenage boys, to have less tunnel vision, in short: the sky is the limit! Due to the skills acquired during this fellowship I was appointed to be the KARI Crop protection Coordinator. I have also been recently appointed to be the KARI representative in the Board of Management of the Pesticide Control products Board (PCPB), a board that regulates the approval of all pest control products in Kenya.

Additionally, I have been recently selected (on a competitive basis) to offer expert advice on priority areas of funding by some high level funding agency in Kenya with respect to specific areas of research and development in Agriculture in Kenya. I believe that my participation in this fellowship has benefited my institution”

6. Kallunde Sibuga



“Poverty alleviation calls for a concerted effort with a regional scope as the minimum: no single sector can do it alone.”

Position : Professor
Institution : Sokoine University of Agriculture
Country : Tanzania
MSc : Crop Science, University of Guelph, Canada – 1978
PhD : Agronomy/Weed Science, University of Nairobi, Kenya -1986
Mentored by : Dr. Richard Jones
Assistant Director for Eastern and Southern Africa, International Crops Research Institute for the Semi Arid Tropics (ICRISAT), Kenya.

Dr Sibuga is the leader of Tanzania’s team in a collaborative project, ending in 2005, on ‘Using plant flavanoids as heritable traits to increase symbiotic nitrogen fixation, yield and pest resistance of indigenous African legumes’. The project identifies promising legume genotypes for combating the striga weed and agronomic practices that reduce striga infestation and increase both nitrogen fixation and yields. The project also evaluates technologies for transfer and adoption and trains young African scientists in legume research. The participatory on-farm study focuses on bambara groundnut (*Vigna subterranean*) and cowpeas (*Vigna sinensis*). The project also works with three MSc. students who each focus on weed science, socio-economics and agronomy.

“The mentoring workshop has made me re-examine myself and place myself against the people I work with. I now understand interpersonal dynamics better - different people and their different styles - and I understand why certain things happen they way they do,” says Dr Sibuga

Looking into the future, she remarks, “I am looking forward to expanding my network for knowledge-sharing, new ideas and funding opportunities. I would also like to develop a proposal for collaborative research on agriculture and crop production in relation to poverty alleviation. It would be a comprehensive project going the full circle to include post-harvest issues.”

Dr Sibuga sums up, “Poverty alleviation calls for a concerted effort with a regional scope as the minimum: no single sector can do it alone. Eventually, I would like to establish an organization to work with disadvantaged groups on development issues. As a result of this fellowship I was appointed by my Head of Department to Chair a Departmental Committee on curriculum review which has given me an opportunity to use my leadership skills to lead my team and carry out the activity. I’m now looked upon as somebody who can provide advice to students and other colleagues on strategies for professional development.”

7. Mary Onyango



“I would like to see more research in African indigenous foods . . . My purpose in life is to serve and help communities. We must translate our research findings into development.”

Position : Associate Professor
Institution : Maseno University
Country : Kenya
MSc : Agronomy, University of Nairobi, Kenya – 1988
PhD : Horticulture Crop Physiology, University of London, UK - 1995
Mentored by : Dr. Mabel Imbuga
Deputy Vice Chancellor of Academic Affairs,
Jomo Kenyatta University of Agriculture and Technology, Kenya.

Dr Onyango has a passion for indigenous African vegetables and founded the African Indigenous Vegetables (AIVs) Research Group in 1996.

Over 60% of the rural communities in Western Kenya are very poor resulting in malnutrition and poor health. Yet the underutilized and little-known AIVs are rich in vital nutrients and micro-nutrients, with medicinal uses and other agronomic properties superior to exotic vegetables. AIVs are good for the family table and for generating income. Priority AIV species include cowpeas, vegetable amaranth, spiderplant, African nightshade, jute mallow and African kale. Dr Onyango supervises six Master’s students working on germplasm collection, characterization, seed bulking and conservation, taxonomy, physiology and agronomy, and on market and baseline surveys. In her work, she collaborates with several national and international research institutes, including the CGIAR’s eco-regional Africa Highlands Initiative and the International Plant Genetic Resources Institute (IPGRI). The project supplies affordable quality seed for six priority AVIs. The outreach program works with 75 farmers, majority of whom are women farmers or women’s groups.

She says, “I hope to move up from assistant professor to a full professor with administrative responsibilities. I aspire to be a university chancellor so I can influence research teaching and policy.” On her principal passion, Dr Onyango adds, “I have a particular interest in African foods. We continue to suffer food insecurity yet our own hardy crops have been neglected. I would like to see more research in African indigenous foods and it is gratifying to see more and more national and international initiatives on indigenous foods. I lead some of these initiatives.”

Looking back, Dr Onyango reflects, “I had to switch from African vegetables to study onions for my PhD for several reasons: this was 1992—local vegetables were not considered important at the time. The university also had no one competent in the field to supervise the study and I had to fit into running projects. Still, the skills I learnt were transferable and I am still using them today.”

Dr Onyango concludes, “My purpose in life is to serve and help communities. We must translate our research findings into development.”

And this is what her junior mentee has to say: “Joining the program was the best thing that happened to me. To begin with it was a great honor when Professor Mary Onyango decided to be my mentor. I now know I have someone I can rely on for not only guidance but also moral support as I develop my career. One of my goals is increased visibility. (Alerted) through the updates from G&D I submitted an abstract and was accepted for presentation of my paper at a conference in India. This will be my first major conference and a way forward to increase my visibility tremendously.”

8. Miriam Kinyua



“It is a plain fact that the young woman scientist continues to face a scary and tormenting situation in deciding whether she should pursue her career or resign herself to serving as a lesser mortal than her male counterpart, so that she can maintain her family. I believe it should not be so. I believe that with the right balance, she can succeed in both.”

Position : Chief Plant Breeder and Center Director, Njoro
Institution : Kenya Agricultural Research Institute (KARI)
Country : Kenya
MSc : Plant Breeding, University of Nairobi – 1991
PhD : Plant Breeding, University of Nairobi - 1998
Mentored by : Dr. Margaret Hutchinson
Senior Lecturer, University of Nairobi – College of Agriculture and Veterinary Sciences, Kenya.

A researcher in plant breeding, Dr Kinyua works specifically on wheat varieties through conventional breeding; mutation to improve cassava, banana, wheat and sesame; biotechnology to characterize wheat, cassava and sesame; and wheat and banana tissue culture. Her work on testing cassava varieties in the Central Rift Valley region is funded by The Rockefeller Foundation.

“I aim to produce drought-tolerant and disease-resistant wheat varieties, develop cassava mutants resistant to cassava mosaic disease and to provide farmers with clean and disease-free bananas and cassava. I would like to see farmers reaping more from farming through appropriate choices in crop varieties and management. My desire is to contribute to agricultural development, first in Kenya, but also globally—to produce results that the world can embrace as tangible, effective and efficient agricultural methods!” says Dr Kinyua.

On science as a profession, Dr Kinyua remarks, “My goal is to help young scientists see that agricultural science is fun, and though challenging, it is very rewarding to those who persist in the profession. I’d like to teach them to face the technical and administrative challenges, and still remain above the storm.”

In Dr Kinyua’s view, women in science face multiple challenges: “I’m in contact with many young women scientists and I painfully watch most of them struggle with conflicting social and professional issues. I’d like to assist them to effectively manage their role as mother, sister, wife—and still contribute competitively to science.”

She adds, “It is a plain fact that the young woman scientist continues to face a scary and tormenting situation in deciding whether she should pursue her career or resign herself to serving as a lesser mortal than her male counterpart, so that she can maintain her family. I believe it should not be so. I believe that with the right balance, she can succeed in both.”

Dr. Kinyua concludes, “The G &D program has impacted on my life and I feel the giant in me is awakened. My team should also acknowledge the program because they are benefiting immensely. At the international wheat conference in Argentina (which I attended for the first time in its over 30 years history), I was able to contend with 3 wheat giants: Australia, Russia and India to get to host the next international wheat conference (in Kenya). It surprised even me and all others. It was as a result of the (negotiation) style I had learnt.”

9. Rose Mongi



“Smallholder farmers are my main concern . . . One of my interests is to work on so-called ‘small’ crops which are generally neglected in the international scenario.”

Position : Wheat Breeder
Institution : Uyole Agricultural Research Institute
Country : Tanzania
MSc : Plant Science, University of Idaho, USA -1996
Mentored by : Dr. Susan Nchimbi Msolla
Associate Professor in Genetics and Plant Breeding, Sokoine University of Agriculture, Tanzania.

Ms Mongi’s work involves developing, evaluating and disseminating environmentally sound technologies to wheat farmers in Tanzania. She develops improved wheat varieties using the conventional method of crossing ‘parents’ with desired traits, then selecting high-yielding genotypes that are also resistant to diseases found in Tanzania. Her research sites are both on-station and on-field across different locations to ensure that the program takes on board the preferences of farmers and consumers, and that it also generates unbiased and reliable data on yields directly to farmers.

Ms Mongi’s institute collaborates with CIMMYT-Mexico in wheat breeding. CIMMYT (Centro Internacional de Mejoramiento de Maíz y Trigo) is a CGIAR Center headquartered in Mexico which works on improving maize and wheat.

In 2004, her program released a high-yielding wheat variety to farmers, with a potential of five tons per hectare. In addition, Ms Mongi collaborates in a project on seed management in the Central and Southern Highlands of Tanzania entitled ‘Local indigenous Knowledge Systems’ (LinKS-FAO).

“The mentoring program has opened up my mind. I now know that I am responsible for developing my own career. I’m in the driver’s seat and I need to be more assertive if I am to realize my goals. I am now using facilitation skills and actually I facilitated a meeting at our institute for the first time right after the leadership course and it all went well. Currently I am leading a team of scientists in writing a proposal. In that team, I am using the skills I learned and it is working well,” says Ms Mongi.

And her future plans? “I hope to do effective research that will help smallholder farmers who are my main concern--their hunger and their suffering. I would also like to expand my work beyond conventional breeding to also include biotechnology for faster results. Finally, I hope to work on indigenous crops too. The LinKS-FAO project revealed gaps for improving yields. One of my interests is to work on so-called ‘small’ crops which are generally neglected in the international scenario.”

10. Virginia Gichuru



“I previously thought that science was just me, my lab and my work . . . My dream is to make an impact on science in Africa by encouraging other women and girls to do the same.”

Country : Uganda
Position : PhD Candidate
Institution : Makerere University, Uganda
MSc : Biotechnology, Makerere University, Uganda – 2004
PhD : Currently pursuing PhD in Molecular Plant Pathology, Makerere University, Uganda
Mentored by : Dr Fina Opio
Director of Research- Plant Pathology, National Agricultural Research Organization, Uganda.

Ms Gichuru is researching on bean root rot, a burning problem in Southwestern Uganda occasioning seasonal crop failures. Her work focuses on *Pythium spp*, the fungal pathogens most frequently associated with severe outbreaks of root rot in Eastern and Central Africa. Ms Gichuru holds an MSc in Biotechnology and is currently a PhD candidate studying molecular plant pathology. Her MSc was supported by The Rockefeller Foundation.

“I always felt the need to be mentored, but I didn’t know where to find it until now. I feel that this program will help me identify and surface my hidden leadership skills. It will empower me to stand up to be counted for what I believe in and to be more assertive in laying my ideas on the table,” says Ms Gichuru.

And she is changing course. “I previously thought that science was just me, my lab and my work. I now realize that I must recognize, interact and share with people around me, because I need people skills, both as a PhD student and as a scientist. “

Ms Gichuru has a clear plan for her future: “I am already looking forward to mentoring others in turn: I would like to be instrumental in opening up horizons and pathways for others. My dream is to make an impact on science in Africa by encouraging women and girls to do the same. I have started informal mentoring in which I try to encourage as many people as I can and to inspire confidence in them. I am also working on my people skills where I take interest in people’s lives not only in their work or research activities”

“Before this fellowship, I was doing my PhD but my motivation was waning. Now I have a clearer vision of where I want to go after this. Secondly, I have learnt important skills such as facilitation, team building, feedback and handling conflicts as well as negotiation skills, which will be a great asset for me as I move into the world of work. Thirdly, I have realized the importance of networking –making contacts, talking to people by first introducing myself and having one or two lines to say about myself that will interest the other person to want to continue with the conversation,” she reports about impact of this program on her career and life.

11. Wariara Kariuki



“Floriculture too has much to contribute to environmental conservation and food security for smallholder farmers as well.”

Position : Senior Lecturer in Horticulture
Institution : Jomo Kenyatta University of Agriculture and Technology (JKUAT)
Country : Kenya
MSc : Agronomy, University of Nairobi, Kenya – 1992
PhD : Horticulture, Jomo Kenyatta University of Agriculture and Technology, Kenya - 2002
Mentored by : Dr. Helga Recke, Consultant for Women in Science, CGIAR Gender & Diversity Program, Kenya.

Dr Kariuki’s work centers on evaluating indigenous plants for floriculture. Kenya is a global leader in floriculture. Dr Kariuki’s team is collecting samples of two herbaceous plants from Central Kenya: *Impatiens sp*, from the slopes of Mt Kenya, and *Ornithogalum* from Thika. Domesticating these plants for both small- and large-scale farmers will diversify Kenya’s floricultural products; safeguard biodiversity; and broaden the gene pool, an essential for sound plant breeding.

Dr Kariuki’s team is also exploring *Vanilla planifolia* for small-scale farmers. Vanilla can be intercropped with both food and cash crops like bananas and coffee. A kilogram of vanilla beans fetches up to US\$500.

Dr Kariuki faces the challenge of being among the pioneers breaking new ground in a sector commonly considered the sole preserve of large-scale farmers. She observes, “Floriculture too has much to contribute to environmental conservation and food security for smallholder farmers as well. But attracting funding for this non-traditional approach and sector has been a huge challenge. I hope to hone my proposal-writing skills and also to get some guidance on project implementation. I would also like to work more actively on research that puts me more directly in touch with farmers and their realities. This will have the double advantage of enriching my classroom teaching, while also providing a reality check for my research.”

And what has the fellowship program done for her? “The mentoring program has been a turning point for me as it came at a time when I was feeling very low, frustrated, not appreciated, and not moving. I was even considering stopping to teach, although I love teaching. Then the fellowship came along and did wonders for me. One of the highlights was the leadership course, helping me to appreciate myself, raising my self esteem. As a result of using my new skills I am now a Senate member of Jomo Kenyatta University of Agriculture and Technology!” she proudly reports.