



The Aftermath: Kenyan Farmer Innovators' Perspectives on the EAFIF

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1. Introduction

Over time, Kenya has established itself as a country with great dependence and progress in various agricultural activities. However, like many nations, agricultural endeavors in Kenya are subject to diverse challenges that call for constant improvements in policies, products and services by the concerned stakeholders. Promotion of innovation processes and products of innovation play a pivotal role in the betterment of agriculture and in its contribution towards the country's realization of the UN Millennium Development Goals of poverty reduction and creation of employment that cannot be overemphasized. It is with this knowledge in mind and the need to promote various local innovations that ProInnova-Kenya (PK) together with its members organized the Eastern African Farmer Innovation Fair (EAFIF) which was held on the 28th and 29th of May 2013 at KARI-NARL Kabete Grounds. This two-day fair was specifically designed to showcase the achievement of individuals and groups of smallholder farmers – men and women from Ethiopia, Kenya, Tanzania and Uganda – in improving their farming and livelihoods. This illuminated the importance of local innovation in agricultural development, as it recognized and celebrated the creativity of smallholder farmers. It also created a viable platform for interaction by various agricultural stakeholders and facilitated social learning on an array of agriculture-related issues. The fair equally provided an opportunity for the participants of the international workshop on Agricultural Innovation Systems in Africa (AISA) to meet and interact with the farmer innovators.

THE 16 KENYAN INNOVATORS THAT EXHIBITED AT THE EAFIF		
NAME OF INNOVATOR	TITLE OF INNOVATION	REGION
MARTIN KYENGO	A HOMEMADE WINDMILL CONNECTED TO A SOLAR POWER BATTERY	MACHAKOS COUNTY (KALAMA DIVISION)
SIMON MUSILA	GROWING OF FINGER MILLET THROUGH SEEDLINGS	MACHAKOS COUNTY (KALAMA DIVISION)
DANIEL KIVYUVI	EFFICIENT TECHNIQUES OF REDUCING EVAPORATION OF HARVESTED RUN-OFF WATER IN ASALS	MACHAKOS COUNTY (KALAMA DIVISION)
MICHAEL MAKUTHU	ANTIAFLATOXIN AND GRAIN PRESERVATION APPARATUS	KITUI COUNTY
CHRISTINE KILONZI	SEX PREDETERMINATION OF CHICKS	KITUI COUNTY (ITHUMBI DIVISION)
ELIJAH NGAHU MWATHI	GREENHOUSEPRO MOBILE APP	NAIROBI COUNTY (KASARANI ESTATE)
DE JAKES OLWENDO	HYBRID BEEHIVE	KISUMU COUNTY (NYANDO DISTRICT)
JOE OUKO (NYANDAGO FARMERS GROUP)	LOFODA GOAT MEAL	KISUMU COUNTY (PAP-ONDITI VILLAGE)
MUSUNGU HENRY (KALA KALA SELF-HELP GROUP)	THE "ACHAK" DAIRY MEAL	BUSIA COUNTY (BUJUMBA, BUTULA DISTRICT)
PAUL KISIANGANI NYONGESA (GALAXY UNITED YOUTH GROUP)	MICRO-ALGAE SPIRULINA PRODUCTION FOR IMPROVED RURAL LIVELIHOODS AMONG SMALLHOLDER FARMERS	KAKAMEGA COUNTY (SHIMALAVANDU MARKET AREA)
RONALD NYANGAKA	INNOVATIVE FIREPLACE INCUBATOR	KISII COUNTY (KIBORO LOCATION)
GERALD KIBUGI	GREENHOUSEDIY (GREENHOUSE DO IT YOURSELF)	KAJIADO COUNTY (NGONG AREA)
MICHAEL KIBUE	MARKET ACCESS CENTRE FOR REDUCTION OF TRANSACTION COSTS	KAJIADO COUNTY (KISERIAN)
JACK RWARE	JACK 2 FARMER-BRED AVOCADO	EMBU COUNTY (KIGARI VILLAGE)
RAHAB GITHUMBI	MIXED REARING OF TURKEYS AND INDIGENOUS CHICKENS	LAIKIPIA COUNTY (SIPILI LOCATION)
NELSON MUNGALA	THE SOLIDARITY FUND FOR DEVELOPMENT (SOFDEV) MICROFINANCE SCHEME	MACHAKOS COUNTY (MWALA)

Six months after the fair, the majority of the 16 exhibiting Kenyan innovators have made great progress in their innovations based on the lessons, experiences and interactions at the EAFIF. As part of its periodic monitoring and evaluation exercises, PK sought to do an aftermath assessment of the fair with the focus being the 16 innovators. Below is a summary of the findings.

2. Key lessons and experiences at the fair

In detailing his experiences, Jack Rware said he was immeasurably grateful for having attended the fair. “Through the radio and TV advertisements and airing of my Jack 2 avocados, several people called me from Nairobi, Embu, Eldoret, Kirinyaga and Nakuru making inquiries about the grafting process of the avocados. Many others overwhelmingly made orders for the Jack 2 seedlings, which I have been able to supply and some I will be supplying during this rainy season. It was a great surprise and honor for me to get seedling orders from revered people like Dr. Bell Okello, Chairman of PK, and many other scientists and researchers from places like KARI.” In addition, the innovator recalled that, through the interactions at the fair, he was able to learn about making a plastic greenhouse from one of the Ugandan exhibitors; he then used it after grafting the Jack 2 seedlings. This easy-to-make and cheap greenhouse technology ensured over 90% growth of the seedlings, which was a great improvement compared to the open-air seedling nurseries he previously used. In relation to the Jack 2 avocados, some enquiries from South Africa have been made and Dr. Lusike from KARI is taking the lead to ensure the farmers’ process is protected.

“To me, the social learning ensued by the exchange of ideas, information and interactions with the Ethiopians, Ugandans and Tanzanians was my most noteworthy experience. Despite a few challenges in preparing for the Fair and difficulty in communicating directly with the innovators from these East African countries due to the difference in languages, I was still able to learn several things from all the innovators as well as the different stakeholders who graced the Fair,” stated Christine Kilonzi, the innovator in sex determination of local eggs.

Experiences & lessons at a glance!

Experiences

- ✚ A great learning experience and opportunity through the diverse interactions among various stakeholders
- ✚ Helped in better marketing of the exhibited products and services

Lessons

- ✚ Learned about cheaper, newer and efficient agricultural technologies
- ✚ Need for more documentation and patenting
- ✚ Need for more support (especially funds) to outscale / upscale the innovations
- ✚ Need for more learning through forums like the fair

Michael Makuthu confirmed this viewpoint, stating: “I was impressed by the way diverse organizations, researchers, scientists, farmers and other agribusiness stakeholders came together in one forum to support various innovations while seeking to find long-lasting solutions to the agricultural challenges we have been facing. The interaction between farmers and these professionals created an enabling environment for the intensification of various activities in the bid to facilitate agricultural research and development.” These sentiments were echoed by many other Kenyan innovators we talked to—with major emphasis being on the need to organize more fairs of this kind, at least once a year, to encourage more innovations in order to help solve the many pertinent agriculture-related problems that face Kenya and the world at large.

Nelson Mung’ala, an expert in local financial services and one of the innovators exhibiting at the fair, stated that his key lesson was on the important correlation between innovations and funds to support the same, as well as the inescapable need for farmers to learn more about how to convert their innovative products and services into sustainable and profitable moneymaking schemes that can transform their not-so-good living conditions. “I noticed that several innovators and farmers had innovations and ideas with great moneymaking potential yet did not know how to do so. Whereas the promotion of innovations through funding is important, and very commendable of the stakeholders involved in such; I would recommend that more learning forums like the EAFIF are organized. This way, a wholesome learning process is ensured on all vital aspects and opportunities such as funding, marketing, use of better technology, and good farming practices—all which interdependently contribute towards the ultimate success of the innovations,” added Nelson.

“It was important to learn that there are several interesting and beneficial agricultural innovations across East Africa. However, in spite of this, I noticed that very little documentation had been done by us (farmers) and the relevant organizations/institutions. This realization impressed on me the idea of encouraging myself and other innovators and farmer organizations to document and disseminate the information they have on various innovations. This will facilitate more learning and as proof of originality of ideas when registering the innovations or even for patenting purposes,” observed Paul Kisiangani Nyongesa, the innovator in micro-algae *Spirulina* production for improved rural livelihoods.

Progress made since the fair

“The environmental conservation and water-catchment innovation exhibited by a Tanzanian innovator proved very useful when I implemented it in the region around River Nyando, where I live. I have been able to incorporate tree planting along the riverbanks and hope this will help control soil erosion,” said Dejakes Olwendo. “The number of hybrid beehives I supply has also increased based on the increased exposure of my innovation at the fair. I have also received many visitors especially from the universities like JKUAT; unfortunately, I cannot follow this up as I was not able to get their contacts. This is more or less the same case for Henry Musungu of Kala Kala Self-Help Group who, together with his group members, has been able to increasingly supply the *Achak* dairy block to many farmers in Western Province and even some parts of Nyanza Province such as Siaya. Even more importantly, members of the Kala Kala Self-Help Group have already started collecting the *Achak* seeds for domestication purposes, based on the seasonality of the plant.

According to Rahab Githumbi, the knowledge she gained from the fair on the preparation of local poultry feeds and medicines has ensured that her innovation of mixed rearing of chicken and turkey is much more successful and cost-effective than it was before. The balanced diet feeds and medicines have also ensured great health for the poultry.

Besides the increased sales, Paul Kisiangani of the Galaxy United Youth Group said that his group has been invited to several field days in the Western Region to teach people about the *Spirulina* and its benefits. This has, in effect, resulted in many people adopting the *Spirulina* cultivation. The high demand for information and the need for documentation is, in fact, the reason Paul recently developed a booklet on *Spirulina* production technology and product range and their application, especially in crop production and livestock feeding.

Progress at a glance

- ✚ Improved sales of products and services, thus better revenue due to the increased marketing at the fair
- ✚ Implemented improved knowledge on farming thus bettered farming produce
- ✚ Commenced documentation of innovations
- ✚ Increased networking with like-minded individuals
- ✚ Commenced new field tests and product/service upgrades
- ✚ Formation of the Kenya Farmer Innovators Association (KEFIA) and organization of the first farmer-led agricultural show in Machakos; KEFIA planning another show in Nyando

Having noticed the potential of their innovations at the EAFIF, the Growth Hub has been able to contact several innovators such as Joe Ouko and Elijah Ngahu to offer advice, lobby for support and link them up with like-minded individuals and organizations who can promote or support their innovations. They have both written proposals to Growth Hub and passed the initial rounds of interviewing, but due to lack of a commercialization component, they missed funding opportunities in the final round.

In addition, several product/service upgrades and field tests have also been carried out since the fair by the Kenyan exhibitors with innovators such as Simon Masila, Daniel Kivyuvi, Martin Kyengo and Ronald Nyangaka, who have made great progress in their respective innovations.

It is also worth noting that, on the last night of the fair, the Kenyan innovators sat together and formed an association known as the Kenya Farmer Innovators Association (KEFIA). Joe Ouko is the chair and Simon Masila is the secretary. KEFIA was formed to assist in: providing a viable forum where the innovators can share knowledge and learn from each other, i.e through exhibitions and collective marketing of products and services to markets which recognise local creativity; and mobilizing resources and funds especially at county level. The Machakos team has already organized a localised farmer innovation fair where over 300 farmers participated; Joe Ouko attended the fair and was the presiding judge. This was the very first agricultural show that was held close to the community and therefore accessible. Often, conventional agricultural shows are held in Machakos town which, due to distance and transportation cost, are not accessible to the farmers in this region. This particular localized agricultural show was held in Kiatuni Market, Machakos County, on 27th August 2013 and was organized by KEFIA, PK's Local Steering Committee in Machakos and farmers in the Lower Eastern Region.

The Nyango team is equally planning to organize their own fair before the end of the year. According to Joe Ouko, the chairman of KEFIA: "Much more can be expected from us in the near future. Nonetheless, there is still a long way for us to go and we appeal for support from all the relevant quarters, especially in regards to resource input, funds, research and marketing of our innovations."

Discussions with some key people in top management in KARI revealed that the management is of the opinion that, during the next year biannual conference, some space can be set aside to have PK bring in local innovations to allow more interaction with the scientists. However, to avoid being overshadowed, Kenyan farmer innovation fairs should also be organized as stand-alone events yearly.

3. Challenges and recommendations

Below is a tabulated summary of the challenges and recommendations voiced by the innovators:

Challenges	Recommendations
i. Lack of funds and resources for expansion/ outscaling/ upscaling, processing, marketing, distributing and documenting the innovations	i. Requesting for more funds and resource support and donations from individuals and organizations
ii. Limited market and manpower for marketing in some regions	ii. Assistance in marketing and spread of information
iii. Lack of knowledge on how to register / patent original ideas, processes or innovations	iii. Sensitization and teaching the innovators on the process of registering or patenting of ideas / innovations
iv. Lack of capacity-building / awareness-creation forums	iv. More forums such as the EAFIF & exchange visits to be organized
v. Seasonality of some ingredients used in the innovations, for example, the <i>Achak</i> plant is seasonal and there is need for bulking for use in the seasons when the plant cannot grow	v. Need for support in the domestication of ingredient plants; an example would be collecting the required seeds, then planting them in bulk for future use
vi. Limited backstopping and support from other stakeholders such as research scientists and the government	vi. More involvement of the stakeholders in areas like research, offering professional advice, documentation and field visits
vii. Limited market / field tests for some innovations	vii. Need for support by researchers and testers on the innovations

4. Conclusion

From the above articulations, it is clear that – despite some challenges – the innovators have been able to make commendable progress over the past six months. However, for full efficacy in their activities, there are still many studies, tests and funding that needs to be done. In addition, there is a need for befitting policies in the public and private sector to be put in place. A good number of the innovators have made preliminary outreach to the new county governments in Kenya in order to support their endeavors and great results can be expected soon. For instance, in Embu, Jack Rware has already received offers from various universities, through the County government, that intend to conduct further research on the Jack 2 avocado. An increased involvement of women in male-dominated arenas such as the Market Access Centre System initiated by Michael

Kibue is also very praiseworthy. There has also been increased lobbying by institutions such as KARI where researchers such as Dr. Lusike Wasilwa are working with some innovators in patenting their innovations. All these, combined with the formation of KEFIA as an entity for channeling the concerns of the innovators, are laudable initiatives. Nonetheless, more voices are needed in order to send a resounding message to all the relevant stakeholders in production, processing, distribution or even consumption of the innovative products/services. This way, there will be an assurance of progression and completion of the crucial activities that have already commenced.

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