Editor’s Note

It is a telling truth that the strength of any organisation depends on the level to which members are empowered and facilitated to come together, share experiences, contribute resources and knowledge at their disposal and make collective decisions on the operations of their organisation. At this earliest time, KeFAAS stakeholders realize and appreciate the need to identify, build, grow and maintain sustainable practices and engagements to enable the Forum realize its objectives. Building and maintaining partnerships with relevant local, regional and international organisations is an added advantage for building an organisation that will meet its objectives. Above all an organisation’s strength and sustainability lies in the time that members allocate to the activities of the organisation. In the past, some Agricultural Extension and Advisory Services (AEAS) models and organisations in the country that have relied solely on government or donor support have failed to realise their objectives when the support is exhausted or reduced.

At this formative stage of KeFAAS, the Board and Secretariat are recruiting members’ through various interactive methods like face to face sensitisations; information materials like brochures, posters and social media platforms. Over the last four months, the Forum has managed to recruit 12 corporate and 26 individual members. To further strengthen its partnerships, KeFAAS has created linkages with various AEAS providers and participated in their programmes and activities. Among the organisations that have positively interacted with KeFAAS include, GIZ, FAO-Kenya, DLEC (Developing Local Extension Capacity) and MOALF. Further, the Forum has partnered with GIZ to host a national extension stakeholders’ conference. The conference will bring all registered and potential members together to share their AEAS experiences and success stories. This will upscale and out scale KeFAAS activities and engagements as the Forum prepares to roll out programmes through its members.
The Forum for Agricultural Advisory Services-Kenya (KeFAAS) has initiated capacity building of members on use of social network tools to enable them communicate and interact on-line. Among the tools is the capacity development for utilizing the AFAAS Virtual Social Network Platform (VSNP) for managing national virtual marketplaces for information and services. The tool is adapted from the Africa Forum for Agricultural Advisory Services (AFAAS) virtual platform which is a hub for quality agricultural extension and advisory services information and resources collected from all over the world.

Agricultural extension and advisory services are relevant to the transformation processes, especially for millions of smallholder farmers, who remain the bedrock of the agricultural and food supply chains in developing countries. However, extension and advisory services alone cannot lift the millions of farmers out of poverty unless there is the right mix of policies, technologies, and market opportunities. This must be complimented by all stakeholders who have the knowledge and skills, trust the system, information and knowledge sources; and are willing and able to make the necessary investments. Extension agents also need to continuously develop new capacities and keep abreast of technological developments.

Kenya farmers engage in different value chains and therefore require accurate and timely information to increase productivity. To meet this challenge, KeFAAS is sensitizing members on the need to use the Virtual Social Network Platform (VSNP). The tool is a mobile based network for agricultural extension and advisory services stakeholders to share experiences, solve problems and pursue new project and business opportunities. The tool also gives Country Forum members’ opportunities to interact and share with other regional, continental and global Fora experiences, information, resources and challenges.

The VSNP trainings attracted AEAS actors from various organizations. These included national and county governments departments, public benefit organisations (PBOs), agricultural training institutions (universities and colleges); the media and research institutions. The three trainings attracted over 60 participants and KeFAAS plan to roll out the trainings to different regions in the country. The participants appreciated the training and felt that this was a one stop shop for professional knowledge development and an interactive world of blended communities with a common goal.

The platform creates an electronic and interactive bridge where extension agents, farmers and other stakeholders interact to enhance agricultural productivity, profitability and improve competitiveness of the sector. The use of the platform will maximize the use of information and communication technology leading to enhanced agricultural productivity and improved livelihoods.
Increasing Opportunities for Women Farmers

By Bob Aston, Arid Lands Information Network (ALIN)

Women play an important role in food production and in achieving greater food security. However, few women have access to land tenure, extension services, finance, education, market, and control of family funds.

In Meru County, Sokopepe through its Farm Records Management Information System (FARMIS) is helping women farmers pull down the barriers that they face. The social enterprise is supporting the agriculture in Kenya by offering market information and farm records management services through information and communication technologies (ICTs).

The innovation is helping women farmers move from subsistence to commercial farming and make right farming decisions for increased production and productivity.

Launched in April 2014, the social enterprise is addressing the lack of accurate production, marketing and operational data in agriculture and limited access to finance and other services to farmers as well as low food production.

The amazing system aided in tracking their records as they went about other household duties. Three women based in Kariene Ward in Imenti Central, Meru County, Kenya shared their views on how Sokopepe is boosting farming.

Mrs. Peninah Kinanu remarked how she is enabled to venture into horticulture farming. On her one-acre piece of land, she cultivates tomatoes and cabbages and now finds it easier to tell whether she is making a profit or loss at the end of each season.

“Sokopepe has built my confidence as a farmer. I can now take care of my family from the increased farm incomes,” She commended.

Agnes Mwaki who has cultivated onions, kales, and beetroot almost gave up farming before a Sokopepe Production Information Agent (PIA) enlightened her on FARMIS benefits. PIA visits her farm once a week to check on the progress as well as assist her to fill the farm book. Ms Mwaki can now measure investment and projected income from each crop.

According to Food and Agriculture Organization of the United Nations (FAO), providing female farmers access to the same resources as men could reduce the number of hungry people in the world by 100-150 million.

On her part, Lucy Karimi said that embracing record keeping through FARMIS enabled her to determine profitable crops and enterprises that were “eating” into her profits.

Last season she planted tomatoes of which she has already harvested 1,000 kgs. She is selling the tomatoes to her neighbours and other traders.

She said that the extension service provided by PIAs has enabled her to learn about pests and disease control. She is now able to control white flies and aphids in her one-acre farm leading to increased quality yields.

Sokopepe has increased women participation in crops selection, adoption of agricultural innovations and good management practices, as families are increasingly using the record keeping data to know which crops are more profitable.

The social enterprise is working with more than 6,000 women farmers in Meru County through training in record keeping, best agricultural practices, market information and linkages, conservation agriculture as well as promoting cultivation of high-value crops among women.
A home garden, also known as kitchen or backyard garden is a plot around the homestead where different crops are grown throughout the year, mainly for household consumption. In addition small livestock such as poultry, fish and rabbits are kept to provide cheap source of animal protein. Home gardens improve the ability of households to meet interrelated concerns of food security, nutrition, health and economic security. The garden should be near the homestead, small in size where different crops are cultivated and small livestock reared throughout the year. The production is primarily for home consumption and household members manage the garden.

Advantages of Home Gardens

- They supply diverse nutritious food all year round.
- They can be a source of clean seedlings and an area to try new crops and farming techniques. They can also be a source of manure collected from small livestock.
- They contribute to conservation of environment through safe recycling and management of household wastes.
- The fruit trees provide fodder to livestock shade, control dust and erosion and provide fuel from pruning.
- An avenue to introduce household members’ particularly young children to farming.
- Some crops and livestock add aesthetic value to the homestead.
- Generate income from the sale of surplus produce and value added products.

Disadvantages

- Stench from livestock kept in the home garden.
- Competes for space with recreation facilities.

Factors to Consider in Establishing a Home Garden

- Family size and food requirements as these guides on the size of home garden to be established and the types of crops to be grown.
- Size of kitchen garden versus the whole farm.
- Source of planting materials; To be purchased or to establish own nursery.
- Availability and type of fertilizer to use; Organic or inorganic.
- Source of water and method of irrigation; In case kitchen waste water is to be used, knowledge on how to make it safe for irrigation is required.
- Security; Proximity to the home enhances security of the garden while fencing the garden prevents destruction of crops by livestock.

Pests and Diseases Control

The use of pesticides is the most effective method of pest and disease control. However, indigenous technologies can also be used to control pests and diseases.

Examples include;

- Sprinkle ash over and on the undersides of leaves and at the base of a plant.
- Soapy water poured or sprayed over sucking insects also can be effective.
- Slugs and other pests can be trapped in a half-buried bottle containing a little beer.
- Plants such as marigold, lantana, garlic, onion, pepper (chilli), lemon grass, and basil repel insects and can be planted as companions to food crops.
- Intercropping with garlic helps to control soil-borne diseases because its roots release fungicidal chemicals into the soil.
- Practice crop rotation.

Replanting

Observe crop rotation as diverse crops require different nutrients from the soil and to control pests and diseases build up in the soil. Have a pre-planned replanting schedule. Immediately a crop is harvested prepare that area and plant another crop.
Tell me and I forget. Teach me and I remember. Involve me and I learn.” This famous quote is true in DIG’s practical approach of training in the Farm Business School (FBS). Involvement includes all the senses possible; hearing, seeing, and feeling, touching, smelling, taste... Also, involvement in most cases means experiential learning which indeed means, involve me, I’ll understand.

It is in this spirit that DIG through the follow up program of Farmer Business School (FBS) has successfully mentored farmers in entrepreneurial and management skills after directly involving and training community groups on how to choose lucrative crop enterprises suitable for the small farm sizes, increase yields, and market farm produce in the local markets.

In her mid-thirties, Zipporah Atieno Omondi is making a fortune from her farming of cilantro in Sakwa area of Migori County – Western Kenya. Having successfully completed her second training in the Farm Business School by DIG, the energetic lady looks forward to a better livelihood. Gladly, she incorporates all the organic farming techniques she learnt from her training in Mobile Farmer Field School (MFFS) her first training with DIG.

The mother of three says, “If somebody has done it, it can be done. Never accept the idea that you can’t make a decent, healthy living from a small farm. I have been planting cilantro for sale for the last three months, I started after DIG took us for an exchange visit to a lady called Sabina who was also trained by DIG and plants cilantro all year round for income. During the visit I was keen and saw how Sabina uses the sustainable agriculture techniques to grow cilantro and in her farm records what she makes from cilantro. The sale of cilantro elevates me most, I make Ksh. 2000 ( $ 20) every week from cilantro, I did not make such money before, in fact I was involved in some work where I made Ksh. 3000 ( $ 30) per month, now I make double this from cilantro. I use the money to expand my farm and, meet my family needs and save Ksh 300 in my savings group.

Zipporah also keeps local chicken and from their droppings she gets manure to use in the section she plants cilantro. The farm business school training also entails a market research during which the trainees go to the market to analyze and make connections with retailers in the market. During the market analysis training she made contact with one business woman who comes to buy cilantro from her home every Monday before the market day in Awendo. “The farm Business training has made my life worth living I have improved my farm management skills, I have become an entrepreneur, a better decision maker, food producer and book keeper. The Farm Business School enables farmers to change their attitudes and enhance their skills needed for farm commercialization. This is purely through their learning by doing approach – involve me and I learn.” Says Zipporah.

Zipporah harvests a cilantro from a section of her garden for a trader.
Pest or vital link?

*By Bob Muchina is the chair KeFAAS*

The piece of grilled steak that ends up on a plate in Saudi Arabia has travelled thousands of kilometres from the small town of Mandera in northern Kenya. The livestock farmer in that town will have sold it in the market square to a trader. Before nightfall, the cow will be in the herd of an informal wholesaler on the outskirts of Mandera. In the morning, the herd will be loaded on a long truck by a visiting livestock dealer from Nairobi, nearly a thousand kilometres away. Here, buyers from Halal will truck the herd to the abattoir. Two days later, an exporter will roll the packaged carcasses to Mombasa where an importer from Saudi Arabia will be waiting to ship the cargo of meat to Riyadh. In Saudi Arabia, a distributor will be waiting to supply to the retailer that will sell to the housewife.

The gist of the story is that the steak has passed through farmer, trader, informal wholesaler, livestock dealer, Halal, exporter, importer, distributor and retailer before it lands on the table. Eight phenomenal entrepreneurs, each with a set of rules designed to skim a profit from the link in the chain. The process of cementing the chain is severely efficient. Each link is independent of the other in terms of operations and pricing and yet each is dependent on the other in terms of rules of engagement touching on condition of the goods at delivery.

The moral of the story is that everyone is a winner regardless of the margin of gain. In fact, even though the farmer in Mandera is the person who bears the first risk, he has gained by having money to pay for his child’s school. It is the price that the livestock farmer must accept that is unacceptable, hence the hostility that everyone wants to mete out at the broker. The subsequent middlemen bear greater risks; weather, infections, accidents and death of the herd, theft, corrupt police and delays. And yet, there are hardly other entrepreneurs that attract such mirth, even hatred than those who sustain monetary value in the chain; the real oil in the cogs of enterprise, than the so-called brokers.

If the rules of middlemen operations are obscure, at least the motive is clear: to press for a profit from the farm gate to the table of the consumer. One middleman importing beef from Kenya to Saudi Arabia makes upwards of 400 per cent of what he pays the last middleman. In arithmetic terms if the farmer in Mandera sold the cow at Kshs 20,000 the distributor in Saudi Arabia pays the equivalent of nearly Kshs 200,000 for the carcass.

During the 1970s through the 1980s, Kenya experienced real farmer empowerment through the emergence of the co-operative movement, before corrupt cartels comprising co-op managers, government officials and peddlers of interests conspired to run these down. The broker was perhaps the more rational player because he was created by the World Bank-advocated liberalization. A free market economy meant competitive units and demanding markets. As a go-between, the broker was necessary to identify areas of common congruence.
Still greed and deception bedevils the spirit of entrepreneurship that drives market interventionists. This can best be demonstrated by graphical analysis of our beef export dilemma.

To what extent are the relationships in the chain symbiotic or exploitative?

As illustrated, each middleman inputs into the process in significantly different ways and levels. For the middleman who has to ferry the animals from Mandera to the dealer in Nairobi, there is a huge input in transportation, licenses, insurance and overheads derived from corrupt officials manning road blocks, veterinary officers who have to enforce quarantine, private security and holding grounds in the city. Compared with the importer who only has to pay for cargo transportation in relatively secure high seas, the in-country middlemen bear the brunt of the chain.

Brokers by whatever other name are a necessary evil in the market chains for agriculture. There is, however a clear rationale for regulatory legislation of rules of conduct ranging from base farm gate prices, packaging weights and other measurements as well as penalties for misconduct. Above all, government action should be directed at mobilizing farmers into economically viable and manageable co-op units with a caveat that management staff must be recruited competitively. After all, it is the publicly acclaimed commitment to a free market that created the broker in the first place.

Brokers arrive at farm gates with convincing tales of market dynamics but in the end, they are viewed as common thieves despite the risks they take along agricultural value chains
Agriculture is envisioned to be a key driver towards the realization of 10 percent economic growth annually as envisioned in the Kenya Vision 2030 and development ‘United Nations Sustainable Development Goal Two (SDG) 2’ with respect to ending hunger, achieving food security and improved nutrition and promoting sustainable agriculture.

KeFAAS through AFAAS is pompously bearing fruits to farmers through direct sub-grants to stakeholders that are geared towards promoting member innovations. Land-Info mobile app is an invention of African Technology Policy Studies Network (ATPS) which is a trans-disciplinary network of researchers, policymakers, private sector actors and the civil society that promote the generation, dissemination, use and mastery of Science, Technology and Innovation (STI) for African development, environmental sustainability and global inclusion. As a Pan-African Organization, with its secretariat in Nairobi, Kenya, the ATPS works with national, regional and global institutions to undertake STI policy research and research capacity development to build the needed infrastructures, policies, and capabilities for STI knowledge generation, dissemination and use for sustainable development in Africa.

The (ATPS) received a seed grant from the African Forum for Agricultural Advisory Service (AFAAS) to support training and sensitization workshops for extension agents (EAs) and contact farmers on the use of the innovative mobile application Land-Info in Meru County, Kenya.

The Land-Info mobile app is a mobile phone-based application that is connected to cloud-based analytics and cloud storage that allows users to access, share, use and interpret global knowledge and information relevant to the unique potential of each piece of land. The Land-Info mobile app allows individuals and organizations to use smart mobile phones to determine the potential of any given piece of land in supporting crop and pasture production under the prevailing climatic conditions. This is based on accurate soil and climatic information provided by the Land-Info mobile app based on global and local knowledge which enables users identify the suitability of any given piece of land for any particular crop in order to obtain maximum productivity under the prevailing climate.

There is a growing interest and demand for the app in Kenya where over 82% of users in Kisumu, Samburu, and Baringo Counties have already confirmed the usefulness of the app in supporting their farm decision-making and boosting crop production. Farmers, pastoralists, rangeland managers, extension agents and rural development planners can use the Land-Info mobile App to:-

- Generate accurate, robust, timely information and knowledge of land potential.
- Support effective decision-making on agricultural development and land management strategies.
- Store, integrate and share relevant knowledge and information about land and climate.
- Determine land potential at a specific location based on local and global knowledge and information.
- Connect producers with each other.
- Directly support land management decisions by farmers, ranchers and pastoralists.
- Improve cooperation among extension agents and communities.
- Connect people living in areas of similar land types and similar land potential so that sustainable land management practices are shared.

It is the high time that Kenyans embraced such opportunities which are suitable for tackling weather patterns. It is vital to increase the resilience of agricultural systems by anticipating and tackling challenges. Success will help secure livelihoods, increase food security, and reduce the emissions intensity of agriculture.
Machakos Farmer Reaping from Poultry Enterprise

Pauline Mundia and Anthony Musili – Biovision Africa Trust

Esther, a farmer in Machakos County can confirm that it makes business sense to engage in poultry farming. Supported with agricultural extension information, she has gained 2 years experience and grown her project that started with only 20 birds to an income generating enterprise, selling chicks to her community and earning an income that has enabled her improve her livelihood.

Esther Philip is a farmer from Mutituni market in Machakos County who is reaping the benefits of indigenous poultry farming. She started her chicken project in 2014 with 20 hens. The project was successful and she multiplied her flock five-fold, to 100 birds by Dec 2014. She says, “I was able to earn KSh. 48,000/= (selling 80 birds at Ksh.600/=) and this enabled me pay school fees for my children and meet most of my other family needs ”.

For Esther, the training did not end there for she sought more advice. She was advised on how to keep the chicken house and feeding equipment clean on daily basis. Her chicken house also lacked perches which she did not consider important. She was issued with The Organic Farmer magazine (TOF) for reference.

Esther followed the officer’s advice and she produced healthy chicken at the same time increasing egg production from 5 to between 10 and 15 eggs daily from her 20 hens. In December 2015, she sold her flock of 100 birds and bought an incubator with capacity to hatch 60 eggs. She sources eggs for hatching from her project as well as from reputable neighbours. This has enabled her become a source of chicks for other farmers in the neighbourhood and beyond.

Demand for local chicken is on the rise as consumers become knowledgeable about some of the drawbacks of GMOs

After that she managed her remaining hens well and hatched 50 chicks. But things did not go on well and all the chicks died. She nearly gave up, but fortunately she met Anthony Musili, an extension officer with Biovision Africa Trust, who had been invited to train Nimutui Self Help Group, of which she is a member. The group members were taken through simple chicken management from housing to pest and disease management.

“Eggs need to be stored in a dark and dry container. You can always check for freshness by floating the egg in water. Fresh eggs will sink to the bottom of a bowl of water, whereas older eggs will float.”
Agriculture is a key contributor to greenhouse gases that causes climate change. Key activities that contribute to emissions include; land preparation leading to 25% of carbon dioxide produced, excessive use of nitrogenous fertilizer contributes nitrous oxides while livestock production accounts for about 18% of the emissions.

Agriculture is at risk due to high temperatures that reduce productivity of crops while encouraging proliferation of pests and diseases. Changing precipitation patterns and intensity is the cause of short term crop failures and long term productivity decline. Here are some climate change effects and recommended approaches that enhance resilient farming.

**Biological effects on yields:** Direct effects of rising temperatures and changing rainfall patterns are impacting negatively on yields of most of the crops with rain fed wheat being majorly affected. Reports indicate mixed effects on maize with indication of slight decline or increase. High temperatures increase water demand by crops therefore increasing water stress that results to crop failure.

**Per capita calorie consumption and child malnutrition:** A decline in cereals consumption will automatically result in reduced calories intake with a significant decline of 10% resulting in child malnutrition.

**Costs of adaptation:** The changes resulting in climate change can be reversed with Kes 7.1 billion investments for wetter areas and Kes 7.3 billion investments for drier areas annually. Sub-Saharan Africa accounts for 40% of these investment needs.

**What can be done to achieve resilient farming?**

- Kenya has developed appropriate climate change policies that obligate the national and county governments to mainstream climate change responses into development planning, decision-making and implementation of activities. Some of these includes the climate change act 2016 and National Climate Change Action Plan (NCCAP 2013 -2017).
- Kenya needs to investment more in agricultural productivity by allocating 10% of the national budget as per the Maputo declaration and affirmed by Malabo declaration of 2014.
- Research and extension need to be revamped to step up innovations in agriculture and to ensure new technologies and innovations from the national research institutions are adapted by communities.
- Data collection, analysis and feedback dissemination need to be upgraded using modern technologies that can collect reliable data that can inform decision making.
- There is need to understand the changing consumer needs which are inclined to sustainable agricultural systems.
- Communities have over time developed indigenous coping strategies which have worked. It is important for everyone to consider their innovations and integrate them accordingly as new technologies and techniques that are being developed.
- The new terminologies of climate smart agriculture encompassing many practices such as conservation agriculture, sustainable land management practices and integrated pest management practices offers varied solutions for different agro-ecological zones.
Have your say........

The Editor invites readers and stakeholders to feedback on the content in this newsletter. Comments should not exceed 50 words. The editor reserves the right to edit or to reject such content without recourse to the contributor.

“This is a great and inspiring newsletter. I pray that other CFs take this bold step so that we start reaping from CFs.”

Regards,

Max Olupot — African Forum for Agricultural Advisory Services (AFAAS)

“Thank you so much for sharing such informative materials

Let put agricultural advisory services back to the pedestal where it should be for a robust agricultural extension and advisory services.

Let us tell a friend to tell a friend.”

Violet Nyando - Kenya National Farmers Federation (KENAFF)

“I would like to congratulate you and your team for the big step forward you made by developing and disseminating THE AGLINK NEWSLETTER.”

Emmanuel Atenga - African Forum For Agricultural Advisory Services (AFAAS)

Are you in Rural Advisory Services or Extension Services?

If yes, register as a stakeholder/member today!

Visit www.kefaas.org or contact Silvia through 0720991074

Email kefaas2015 or info@kefaas.org
AgLINK is the official newsletter of the Kenya Forum for Agricultural Advisory Services. In pursuant of the organization’s Strategic Plan and in cognizance of the objective of mass communication within and outside the KeFAAS mandate, the editorial board of AgLINK establishes the following editorial policy:

**GENERAL**

AgLINK shall ONLY carry content that satisfies the following tenets:

1. Be exclusively devoted to agriculture and related sciences and practices thereon.
2. Observe, adhere and preserve the editorial principles of objectivity, fairness and correctness.
3. Be apolitical.
4. Publish regularly at intervals of 3 months; 4 issues a year
5. Maintain openness and freedom from the influences of particular member or section of membership.
6. Pursue unbridled integrity in the choice of articles and in the cost of publishing the newsletter.

**Overall Content Consideration**

**Themes:** It should be based on KeFAAS overall thematic areas of focus that include Agriculture, Climate change and Environment, Market information and much more.

**Diversity:** The editors will be alert to the need for articles from diverse agricultural practices and themes from the largest possible environment in the arid/semiarid, arable and fishing communities.

**PARTICULAR**

1. AgLINK shall comprise 8 general editorial segments as follows:
2. An editorial
3. Articles and photography/illustrations on agricultural trends and emerging innovations
4. Agricultural and ICT technologies
5. Success Stories in Agriculture and related sciences
6. Member News & Reviews
7. Reader Feedback Forum
8. Addresses

**In the next issue:**

- Impacts of global warming
- Role of radio in extension
- ICT innovation for agriculture
- Organic farming coming of age
- Agribusiness Success Story
- Farmer organisations— Which way forward
- Winners of content competition