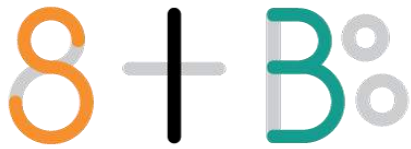


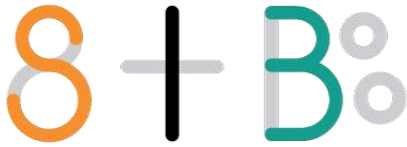
## ENHANCING FOOD SECURITY AND BUSINESS OPPORTUNITIES THROUGH FOOD WASTE AND LOSS REDUCTION IN A CHANGING CLIMATE





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This year's AgriProFocus Network Day showcased innovative and business climate smart solutions in the agriculture sector in Kenya. Sustainable Inclusive Business Kenya (SIB Kenya), AgriProfocus Kenya and Society of Crop Agribusiness Advisors of Kenya (SoCAA) facilitated the session on food waste.



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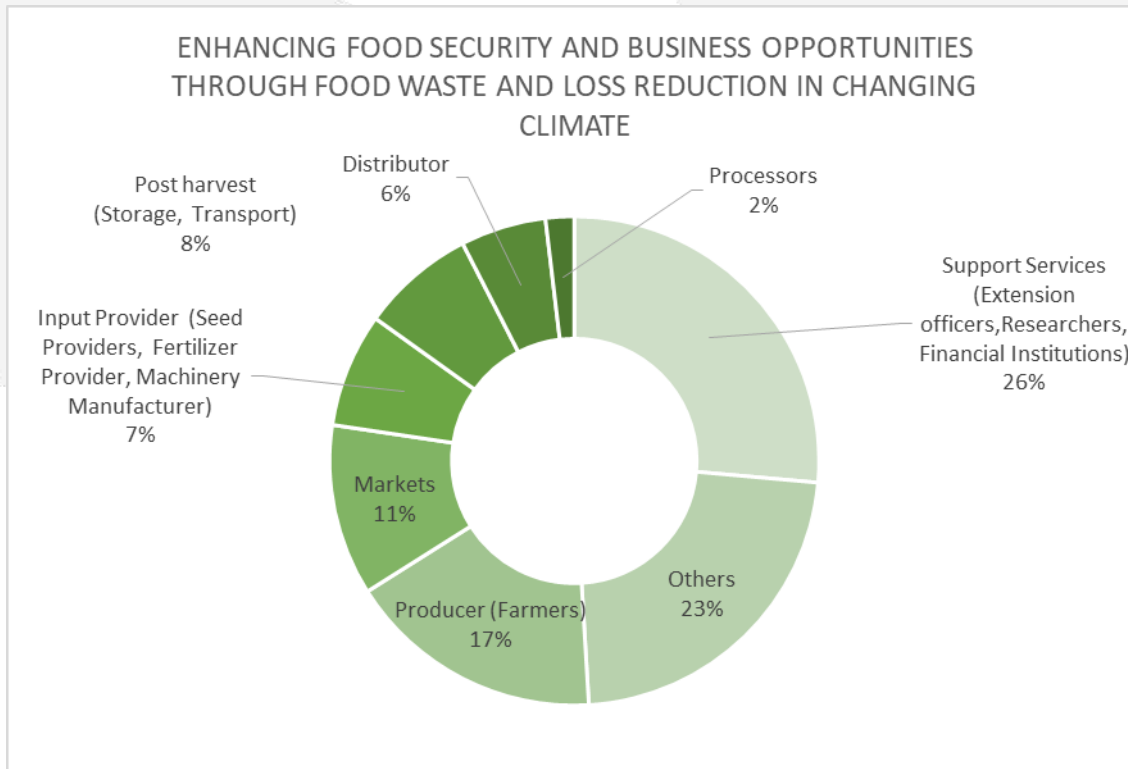
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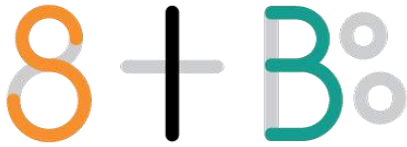
## INTRODUCTION

The workshop, was designed to highlight the key drivers/causes of postharvest losses in food supply chains, identify challenges and opportunities for climate smart agriculture and identify the responsible person to initiate action on the way forward.

Spearheaded by AgriProFocus, SOCCA, SIBKenya, and SNV, it brought together players across the agriculture value chain, including; Input Providers, Producers, Post-harvest players, Distributors, Markets, Support services players, Government and Researchers. These attendees brought a wealth of knowledge in Certification, Research, Post-harvest handling, Manufacturing, Marketing solutions, Business development support and actual farming.



As the chart shows, this presented the perfect mix for the kind of workshop as the value chain was represented in its entirety.



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### **FOOD LOSS AND WASTE REDUCTION: THE ROLE OF RELIABLE DATA**

Dr. Jane Ambuko a Lecturer at the University of Nairobi's Department of Plant Science and Crop Protection focused on the importance of collecting clear data on related to the Agriculture value chain to aid in proper decision making on Food Security. She referenced the current data on Food loss and Food Waste by the Food and Agriculture Organisation which claims that a third of all the food produced is lost. This data may be outdated, she said as it is from the year 2013.

Dr. Jane raised questions pertinent to the relevance, reliability and specificity of the data. Is food loss data correct, real and timely? Businesses and other stakeholders have to collaborate with scientists to make data unquestionably relevant. Only when data is usable, then it can be used for impact action.

### **THE ROLE OF PUBLIC PRIVATE PARTNERSHIP IN REDUCING FOOD LOSSES**

Rikki Agila highlighted the importance of Public Private Partnerships to help enhance Food Security and Reduce Food loss. He highlighted opportunities to partner across the value chain from farming, distribution, value addition, storage and markets.

Particularly, he mentioned two areas where food loss gets to its pick; storage and distribution. The Public Sector, mainly counties have an opportunity to partner with the Private Sector to created effective and efficient distribution channels for food and also modern and safe storage facilities. The Private Sector could also contribute within the Public Sector especially through policy formulation that encourages PPPs to thrive.

### **REDUCING POSTHARVEST LOSSES THROUGH GOOD STORAGE FACILITIES**

Bernard Ndolo of SNV delved into the how good storage facilities can help in reducing post-harvest losses. He particularly mentioned how an SNV potato storage project, is transforming the lives of smallholder farmers in Meru. 'Food loss occurs at various stages in the value chain, 20% lost due to poor distribution channels, 14% lost due to poor harvesting methods, 14% lost at grading and storage' he said.

These numbers show where efforts should be rallied to reduce food loss. Storage facilities are expensive to set hence such facilities should be provided for to farmers or co-owned through farmer initiatives and the governments. Ineffective and inefficient storage facilities: Affects profits; Cause food loss and Lead to farmer and market exploitation



## REDUCING POSTHARVEST LOSSES THROUGH GOOD STORAGE FACILITIES

Karin Boomsma, the Coordinator of SIBKenya reiterated that enhancing Food Security and through waste and loss reduction in a changing climate, can be made possible through Sustainable and Inclusive Practices. Sustainable agriculture requires players in the value chain to be conscious of;

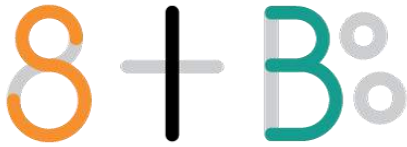
- The Environment i.e. Quality of farm inputs, seeds, fertilizers, herbicides used, means of transport etc.
- The People i.e. Is the food produced fit for human consumption, paying minimum wage to those in the value chain?
- The Planet. How are we using the factor of production Land, in food production? Do we sell close to where we produce instead of transporting food across the world? Do we consume most if not all of what we produce to avoid putting pressure on earth's resources?



Karin Boomsma chatting with delegates during the workshop.



Delegates following the session.



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## FINANCE

Agriculture employs 65% of Africa's population and makes up 32% of its GDP. However, less than 1% of bank lending in Africa goes to agriculture. In absence of accurate and cost-effective methods for assessing small-scale agricultural lending risk, financial institutions choose not to lend to smallholder farmers, thereby contributing to the \$450 billion global agriculture financing gap.<sup>1</sup>

### Challenges/opportunities

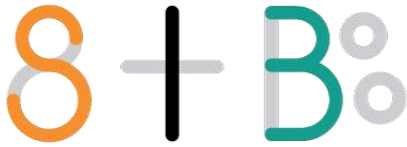
This workshop, attended by 53 people representing the whole value chain identified the capital intensity of storage facilities as one of the biggest challenges in Finance. This squarely ties with the challenge of Access to Finance. It is therefore clear that the Agriculture Value Chain, writhes from inaccessibility of finances. There exists opportunity for financial institutions such as banks and insurance companies to design financial products for the Agriculture sector especially for the Bottom of the Pyramid Value Chain players.

Other discussed challenges /opportunities include:

- The scale of production is too small and does not meet the sense of economies of scale. As an opportunity, farmers can engage in collective activity which is more efficient and financially attractive.
- It was highlighted that getting funds in Kenya is a challenge as banks are not receptive to agricultural risks. Instead of NGOs and other donors destabilizing the market with donations, they can encourage trade by de-risking through the banks as opposed to direct donation.
- Farmers are risk averse. The farmers are more receptive to less 'risky' farming activities because they lack knowledge on climate smart agriculture. There is a window for awareness creation to increase adoption of sustainable agricultural practices and products.
- Public Private Partnerships will go a long way in ensuring accessibility, capacity, policy and incentives synergize to create a functional financial system benefitting the agribusiness value chain.
- Value addition has the ability to create employment, absorb excess labor from agriculture, enable rural economy growth and tremendously reduce food loss: increasing the consistency of cash flow. This is a climate smart agribusiness practice that can influence/attract financial institutions.
- The youth are poorly represented in farming, the risk of the business phasing out generationally makes it unattractive to lenders. It is important to communicate

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<sup>1</sup> <https://farmdrive.co.ke/>



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agribusiness as it is, a business. The youth are attracted to business more than they are to cultural practices.

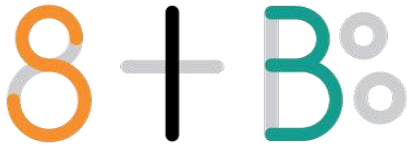
There is need of mind-set change in the financing of agribusiness. Here are a few insights;

***!! AGRICULTURE NEEDS TO CHANGE TO AGRIBUSINESS ON ALL LEVELS.*** Farming at small holder from level and at association level should be run as businesses to increase credibility, change investor perspective and employ sustainable inclusive business practices in order to conserve resources and keep in business in the long term.

*Financial institutions have the opportunity to redefine their rationale of investment. Do they have to finance based on physical collateral? There is a possibility that the history of the farmer, relevant data and the sustainability of the business can be used as a criteria for financial support.*

*This is a need for creation awareness. Businesses in the value chain have an opportunity to create awareness (build capacity) of the farmer to apply climate smart agriculture practices and products, which will boost investor confidence. Communication across the value chain is key to achieve this.*





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## CAPACITY

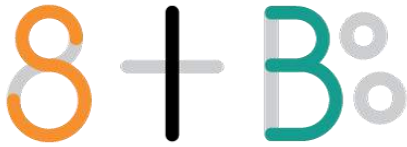
The Agriculture Value Chain according to this workshop is incapacitated despite Kenya being an agricultural society. There lacks proper infrastructure to access farms and markets alike. The food supply chain is also not fully developed to reduce food loss and waste. 28.3% (majority) of the attendees feel that governments both National and County should invest heavily in infrastructure especially Water, Roads and Electricity. Public Private Partnerships can thrive in this space bringing about infrastructural solutions in the sector especially in storage (silos).

### Other issues arising from the discussion:

- Economies of scale. Scaling up through farmer consolidation increases capacity and therefore efficiency. These farmer groups however, have to be comprised of like-minded farmers in order to achieve a buy in.
- Technical capacity on the ground lacks. It is important that businesses, empower their producers with practical knowledge and find relevant ways to update them on new technologies. Mobile training technology and county level trainings were recommended.
- The curriculum at university level have to be updated to produce technically empowered experts into the market. Businesses therefore have the opportunity to collaborate with training institutions and universities for this purpose.
- Tailor-made, market-driven public private partnerships on certain capacity areas are needed. Supportive infrastructure is for instance capital intensive and requires comprehensive synergy.

### Insight:

*Rethinking partnerships: Partnerships do not have to be financial benefitting, they can have other causes in mind such as increasing capacity, creating markets, knowledge or access. The partners need to have one clear vision. They also need to be transparent in their agenda and communication needs to be intentionally fulfilling to all parties in order for the impact to be realized.*



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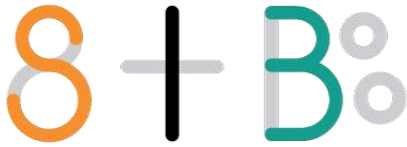
## RULES AND REGULATIONS

This seemed to attract different of almost conflicting opinions from the attendees. For instance, some raised there being too many laws while some said some laws were inexistent or there lacked enforcement. Generally, most agreed that the laws are there, for example on food quality but enforcement is an issue. The number of policies that require farmers and other value chain actors to acquire certificates and licenses to export or sell some produce are inhibitive.

Considering the nature of the challenges in this case, the solutions lie with Government agencies, Ministry of Agriculture and other relevant institutions to ensure that laws and regulations are followed. Enforcement is key in the creation of an even play field for all actors in the value chain.

### Other issues:

- There needs to be clearly developed standards and certifications. It is financially tasking and time consuming for farmers to comply with different standards, just for markets' sake yet some are very unclear.
- Consumer organizations are implored to strongly identify and execute their role in the market to ensure transparency and ethical behavior among producers and processors. This will encourage good business practices in the value chain.
- There needs to be dialogue and bottom-up approach to policy formulation and implementation. Businesses highlighted that some enforcement is tough and unrealistic, they are implored however to actively participate in the policy process.
- There lacks policies regarding management of food loss and the safeguarding of domestic markets. It is imperative that businesses, led by their associations collaborate with the government to formulate policies in these business issues.

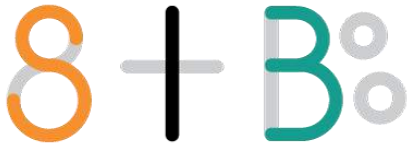


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## INFORMATION

There was an agreement that information is out in the open in massive volumes. This information, however is fragmented into many different components by many users and producers. Researchers, businesses, academia, non-profits, individuals and the government have different reasons for their research. The greatest need is to consolidate this data into an accessible channel, and organizing it to be use by all relevant parties, including financial institutions.

- There is need for market driven research. Every crop, value chain, area needs specific research in order to work. Partners should cease to generalize on facts based on one crop/area as the entire system. The county government, through extension officers should take the lead on taking market driven data.
- ICT can be used to solve the most imminent challenge: access to information. With IT, it only requires transparency and the willingness to collaborate.
- Information needs to be well packaged to be usable. Current research is packaged scientifically or mostly, only to the use of the researching party. It is important for every party to consider the general ability of their data to be used by others. This can be controlled by using standardization tools.



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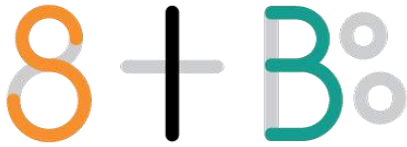
### Summary of findings

It was clear that the Agriculture Value Chain, writhes from inaccessibility of finances. There exists opportunity for financial institutions such as banks and insurance companies to design financial products for the Agriculture sector especially for the Bottom of the Pyramid Value Chain players.

Under Capacity, there is incapacitation in storage, distribution and access to markets. The value chain is not developed enough to minimize food loss. Governments, both National and County should invest heavily in infrastructure especially Water, Roads and Electricity. Public Private Partnerships can thrive in this space bringing about infrastructural solutions in the sector especially in storage (silos).

Rules and Regulations exist, for instance, food quality laws, but enforcement is an issue. The number of policies that require farmers and other value chain actors to acquire certificates and licenses to export or sell some produce are inhibitive. Considering the nature of the challenges in this case, the solutions lie with Government agencies, Ministry of Agriculture and other relevant institutions to ensure that laws and regulations are followed.

There was an agreement that information is out in the open in massive volumes. This information needs to be organized and to be made available. There is a lot of research going on, markets have the opportunity to collaborate and create value out of it.



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## Conclusion

Actors in the sector do well, but this needs to be connected effort and be a business approach. If all the effort by individual organizations can be combined, data issues would be solved, financing will flow, capacity will increase and agribusiness would scale up, be consistent and impact across the value chain will be bigger and long term.

SIBKenya is keen on the following way forwards:

1. Create leaders on key positions e.g. Supermarkets adopting new quality standards and having checks could lead to impose new standards upon all suppliers. At the same time the supermarket would be a transparent retailer to trust. This would help to raise awareness among the consumers. Other key players in between suppliers and buyers could be powerful leaders.

**There are other Needs forward:**

2. Quality standards

To ease the process of compliance and make good practice a 'must' do, the government needs to come up with a set of quality standards that is a base for all businesses. Other standards are voluntary, especially for the local market, many businesses get away with bad practices.

3. Consumer awareness

If consumer are aware of good and bad practices, they will make enlightened choices. Consumer awareness will therefore push businesses to good practice.

4. Leaders to start the change

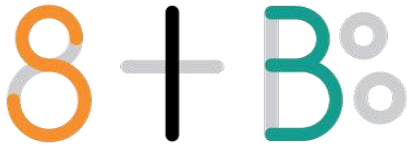
Business leaders, value chain and influencers thereof can start the process of change and have a ripple effect to other parties. The sector is interconnected, therefore if one starts, and demands the same for the connected parties, there will be a ripple effect.

Ways forward:

5. Linkage systems: whereby all actors in chain are connected and all issues are managed. E.g. Equator Chilies through eProd solutions have tailor-made a connective solution across the value chain, from seedling to processing. It is possible to create such supporting systems eg

Yeilder is a platform on which all the information from knowledge providers to farmers and producers can be collected together under one single umbrella. The NGOs, research centers and universities can reach farmers better. YIELDER makes it is easier and cheaper to reach out to





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more farmers and producers because the tailor made information stream reaches the right people at the right moment.

6. Create examples on various levels. E.g. a quality market. Businesses need to get inspired to start by proof of business cases.
7. Consumer awareness by using new technology tools like home testers, online solutions, QR scanning etc... Option to do a Hackathon - IT brainstorm for consumer awareness.

### Good Practice examples

#### Fresh n Easy

Fresh & Easy is a subset of Mara Farming group of Companies focusing on this local need to produce package and make available a Fresh array of vegetables and fruits tailored to suit each individual client's preference. Being an export farming business, Mara farming processes good 'rejected' fruits and vegetables into healthy soups and juices for local consumption, cutting on food wastage.

#### Azuri Fruits

Azuri commercially distributes nutritious, naturally dried products from its own processing facility and those sourced from farmers. Azuri develops products that are geared towards healthy eating choices for everyone and minimizes food waste by value addition.