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Climate Smart Agriculture (CSA)

The Food and Agriculture Organization (FAO) of the United Nations in 2010 at The Hague Conference on Agriculture, Food Security and Climate Change defined Climate Smart Agriculture as agriculture that would have three components:

- Sustainably increasing agricultural productivity and incomes
- Adapting and building resilience to climate Change
- Reducing and/or recovering greenhouse gases emissions where applicable

Climate Smart Agriculture (CSA) is an approach to developing the technical, policy and investment conditions to achieve sustainable agricultural development for food security under climate change (FAO, 2013).

Climate Smart Agriculture (CSA) has various approaches including:

- Building a case for CSA, which means you undertake an assessment of the situation of Agriculture and food security to look into the need for a program on Climate Smart Agriculture.
- Improved technologies and approaches for sustainable farm management. Looking into technologies that could improve the efficiency and capacity of farm production.
- Creating an enabling framework for climate smart technologies through creation of a robust policy and legislative framework.

CSA is concerned with all efforts geared towards sustainably and efficiently transforming agricultural practices to respond to the threats posed by climate change (FAO & CGIAR, Knowledge on Climate Smart Agriculture).

Globally it is predicted that food production will need to increase by a minimum of 50-70% by 2050 as the population is expected to increase from 7.4billion in 2016 to 9.6billion by 2050. This therefore means if the production of



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food is not increased food security is going to be an issue of great concern in the coming years.

Agriculture is the largest sector worldwide and 70% of the Africa's population relies on agriculture. Kenya is no different as the country's economy is largely controlled by agriculture (WEF, 2016). The agricultural sector in Kenya is by far its most prominent, important and dominant sector. The sector accounts for over 25% of the country's GDP, 20% of employment, 75% of the labor force, and over 50% of revenue from exports (Deloitte, 2016).

With the continued effects of climate change there is need for Kenya to transition to climate responsive agriculture. Climate Smart Agriculture is one of the options and, cannot be ignored as one of the ways of adapting to the effects of climate change. In 2017 Kenya through the ministry of Agriculture launched the Kenya Climate Smart Agriculture strategy of 2017 to 2026. The strategy outlined the various programs and projects that the government would embark on in line with CSA. The overall objective of this strategy is to build resilience and minimize emissions from agricultural farming systems for enhanced food and nutritional security and improved livelihoods. The specific objectives of the strategy will be:

- i. To enhance adaptive capacity and resilience of farmers, pastoralists and her-folk to the adverse impacts of climate change.
- ii. To develop mechanisms that minimize greenhouse gas emissions from agricultural production systems.
- iii. To improve coordination and collaboration among institutions and stakeholders in climate smart agriculture.
- iv. To address cross-cutting issues that adversely impact or enhance CSA.



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The CSA strategy will be based on six principles: multidimensional, considering short, medium and long term; County and context specific; intergovernmental and participatory; Sustainable Agriculture; Good governance and Environmental management. As part of a global campaign to ensure food security various development partners have also developed projects in line with global food security goals. One such initiative is a program by USAID called Feed the Future. Feed the future targets various countries with Kenya included. Feed the Future is designed to offer practical solutions towards food security which includes offering climate smart agricultural solutions and also taking part in the review and development of agricultural policy.

At the beginning of February through the support of USAID, feed the future Project through Climate Focus held a policy dialogue on climate smart agriculture. The policy dialogue targeted different players in the sector which included the financial sector, the entrepreneurs and policy makers. The policy dialogue focused on the barriers to the thriving of Climate Smart Agriculture. The three main areas that the dialogue focused on were aggregation models, standardization and fiscal policy.

The aggregation models looked into access to markets as one of the challenges faced by farmers and thus being an hindrance to climate smart agriculture development. One of the roles that the aggregators have played is as a middle ground between the financial institutions and the farmers. The aggregators act as guarantors and they assure the financing institutions on the bankability of the farmers and thus the ability to pay debt. Aggregators main role is to act as a bridge to ensure and provide ready market for farmers which is what each farmer needs to grow and develop a business case.



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Standardization is also one of the challenges faced by the agriculture sector in Kenya. It is essential to have products and service standardization to ensure the quality. Standards become essential for the access to markets. Standards development has not had a focus on CSA thus making it a challenge to even have a definition of CSA is in regards to products developed.

On the fiscal incentives the focus was on looking at the available financial models and fiscal incentives that can be offered by both the market and the government in the promotion of climate smart agriculture. For example, is the government able to offer tax incentives to those whose production is geared towards food security.

The objective of the dialogue was to bring various players in the value chain to one table to discuss the bottle necks under Climate Smart Agriculture. The outcome of the discussion was largely around the creation of synergies and a working relationship amongst the players. It was clear that the aggregators were necessary in the supply chain especially in the access to finance for the farmers. Despite the challenges that were pointed out facing the various aggregation models they are a necessary evil to be the bridge between the financial institutions and the farmers. What is important is the regulation of the aggregators to ensure the farmers do not find themselves dealing with aggregators that are not reliable. Several cases of aggregators defrauding farmers have been reported and thus this are some of the issues that need to be addressed. On the standardization there is need for creation of awareness on existing standards and also the development of standards where they are not. This calls for the coordination of the government that's the Kenya Bureau of Standards (KEBS) and the market (farmers) to create necessary standards for the CSA sector. The CSA sector will thrive through intervention by the



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government to encourage production. This means the government introducing incentives that would encourage production.

Climate Smart Agriculture is a new concept that needs the support of all players in the value chain to thrive. Food security is the agenda at the Centre of the Climate Smart Agriculture agenda. To address food security technology has to be embraced.

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