Actionable Guidelines for the Implementation of Climate Smart Agriculture in South Africa

In the agriculture sector, Climate Smart Agriculture (CSA) is widely promoted as the best approach for addressing the effects of climate change. It is defined as agriculture that sustainably increases productivity, resilience (adaptation), reduces/removes greenhouse gases (mitigation), and enhances the achievement of national food security and development goals. There is a considerable body of knowledge on CSA in South Africa. There has been a lack of practical guidelines for its implementation. To address this need, actionable CSA guidelines for use in the rollout of CSA in South Africa have been developed to support the country’s transition to an all-inclusive green economy. They are described under three thematic areas, namely (i) CSA practices, (ii) CSA value chains, and (iii) CSA enabling environments. The CSA practices include soil and water management, crop production, urban agriculture, and rangeland management. The value chains include agro-processing and agriculture marketing. The CSA enabling environment includes CSA knowledge dissemination; climate information services (CIS); weather-indexed insurance (WII); gender and social inclusion; and policies. This abbreviated summary of the guidelines focuses on the enabling environment, which seems to be the most limiting factor in the roll out of CSA in South Africa.

The contribution of the CSA guidelines to the widespread adoption of CSA will, ultimately depend on the creation and implementation of appropriate policies and an enabling environment. Good CSA policies will facilitate the removal of impediments that act as disincentives for adopting CSA while ensuring the reallocation of resources to programmes that provide incentives for the adoption of CSA. A good example is the lack of a coherent or functional mechanisation policy or programme that supports CSA in SA. A strategic mechanisation policy or programme that will divert resources from conventional farming mechanisation initiatives to CSA mechanisation support could do much to advance the rolling out of CSA in SA. Climate Information Services (CIS) are critical for effective risk management and achievement of CSA objectives. Provision of CIS will improve farmers’ capacity to manage risk. Although South Africa generates substantial amounts of climatic information and services, it is done with limited interaction between providers and users. Experiences from various developing countries, however, illustrate successful examples of dissemination of CIS through participatory processes and communication methods. Provision of CIS in South Africa can, therefore, be improved by utilisation of participatory generation and dissemination of CIS.
The ability of smallholder farmers to bounce back and make investments after experiencing a weather related shock can be improved by availability of appropriate agricultural insurance. Insurance products currently available in South Africa are not suitable for smallholder farmers due to high cost. Weather index based insurance (WII) is not yet available, though the South African Insurance Association (SAIA) has previously proposed models for launching it, and they are currently conducting further research on it. It is recommended that the government and private insurance providers in South Africa take advantage of public sector insurance initiatives to launch and finance WII. Such initiatives include the G7 Initiative on Climate Risk Insurance (“InsuResilience”); African Risk Capacity (ARC); Climate Risk and Early Warning Systems (CREW); and, the Global Index Insurance Facility (GIIF).

The successful implementation of the identified CSA practices and technologies depends, among other things, on the dissemination of the CSA knowledge. So far CSA/CA in South Africa, has been taken up by large-scale commercial farmers at a rapid pace, when compared to small-scale farmers where the uptake has been slow and sometimes halting. Large-scale commercial farmers have shown their ability to adopt and adapt CSA/CA spontaneously, which could be attributed to support received from industry bodies and government. There is, however, little evidence of spontaneous uptake of CSA/CA among small-scale farmers except where there is sustained support, in particular from NGO partners. One key advantage that large-scale farmers have over small-scale farmers when considering whether or not to take up CSA, is the capacity and inclination to experiment, learn and adapt. Assisting small-scale farmers to do the same might be a strategic option. This can be effected using the Farmer Field School approach and could take the form of the CA Farmer Innovation Programme (FIP) being promoted by GrainSA for smallholder farmers. The CA FIP for smallholders is recommended as a model on the basis of which a core of government extension officers could be empowered to promote CSA/CA. These trained extension officers could then be used to rollout CSA/CA among smallholder farmers perhaps commencing with a selected number of pilot projects in a number of provinces.

In addressing gender action, CSA has much to offer women farmers but based on the evidence from other African countries, much depends on the circumstances of particular women farmers, as well as the specific elements of the CSA/CA package that they are trying to adopt. In order to encourage CSA uptake by women the implications of the technology for women’s financial and time resources ought to be taken into account. For the most part, the South African context is favourable, in that women farmers generally receive extension support on a par with men farmers, are equally likely to own livestock, and are well represented in the best practice initiatives described in the guidelines report.

In conclusion, the development of practical CSA guidelines for South Africa has paved the way for the rollout of CSA in the country. However, a successful rollout will be dependent upon a conducive enabling environment. The government needs to finalize its CSA policy that should include, among other things, provision for cross-sectoral coordination of CSA initiatives, an effective CSA promotion and mainstreaming strategy, a coherent CSA mechanization policy, and availability of enabling resources such as: (i) CSA funding sources, (ii) climate information services, (iii) appropriate agricultural insurance, and (iv) agricultural marketing infrastructure. Additionally, the policy should promote the elimination of perverse incentives that hinder CSA implementation. Formal recognition of urban agriculture and a policy to guide its support and development in a climate smart way is also needed.

6DAFF (Department of Agriculture, Forestry and Fisheries (2017) Presentation to Portfolio Committee on Agriculture, Forestry and Fisheries: conditional grants and equitable share plans and progress. [https://pmg.org.za](https://pmg.org.za).