



FANRPAN

Policy Brief



Mkoba Irrigation Scheme
(Picture taken by: Andre van Rooyen)

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Climate Smart Agriculture: More Than Technologies Are Needed to Move Smallholder Farmers Toward Resilient and Sustainable Livelihoods

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Climate Smart Agriculture (CSA) is defined as agricultural practices that sustainably increase productivity and system resilience while reducing greenhouse gas emissions¹. CSA helps ensure that climate change adaptation and mitigation are directly incorporated into agricultural development planning and investment strategies. Our perspective on CSA is sustainable agriculture, based upon integrated management of water, land and ecosystems at landscape scale.

CSA is being widely promoted as the future of African agriculture and as a viable answer to climate change. Because agriculture remains key to development in Africa, CSA has the potential to increase productivity and resilience while reducing the vulnerability of hundreds of millions of smallholder farmers. CSA can benefit smallholder farmers directly by increasing efficiency of precious inputs such as labour, seeds and fertilizers, increasing food security, and opportunities for income generation. By protecting ecosystems and landscapes, CSA helps protect natural resources for future generations.

Yet, CSA technologies and approaches alone will not increase resilience or improve livelihoods of significant numbers of small holders who survive within complex systems. Decades and hundreds of millions of dollars invested in research, development and technology transfer have not transformed African smallholders. Evidence shows that top down command and control systems for technology diffusion do not generate sustainable change.

The climate related challenges facing small holder farmers in Africa are complex and require new and different types of partnerships and opportunities to

CSA is a necessary approach for coping with climate change

bring together people with multiple perspectives, roles and responsibilities. These actors then require the capacity to engage, represent their own interests and negotiate for mutually beneficial outcomes. CSA is a viable way forward for smallholder farmers, but will not reach its potential without significant investment in the enabling environment including engagement, partnerships and appropriate consideration of gender issues.



CSA aims at the triple win of food security, mitigation against avoidable climate change and adaptation to changing conditions

Engagement, Partnerships and Gender

Technology focused development has improved livelihoods for millions of poor smallholder farmers over the last half century, in various parts of the world. However, that approach has real limits when remaining 'audiences' cannot modify their own environments to match research station conditions. For those audiences to become actors, technologies must be accompanied—or preceded by—a different model of diffusion.

Innovation platforms, dialogue, and participatory research are all approaches that increase the interaction between different actors in a given arena, the key being that more, different, or new sources of information are included in diagnostic and decision making processes. Engagement in this context is seen as the opportunity for interaction, discussion, negotiation, or exploration between individuals or groups with mutual interests. Multi-stakeholder platforms (MSPs), dialogues, innovation platforms and other forums can all be considered engagement platforms.

No single organisation or sector can alone address the important issues of global climate change, agriculture and food security. There is need for strategic partnerships that bring together farmers, policy-makers and researchers (across disciplines), the private sector and civil society to identify and address the most important interactions, synergies and trade-offs between climate change and agriculture².

In Sub-Saharan Africa, women play a critical role in the agriculture sector making up almost 50 % of the smallholder rainfed farmer demographic and producing between 70-80% of the domestic food supply in most societies³. Despite this significant role, women still face numerous challenges related to land ownership, access and control of social and economic resources. In addition women also face barriers to membership in rural organizations and cooperatives, agricultural inputs and technology such as improved seedlings, training and extension, and marketing services⁴. Given that women in rural communities experience greater challenges than men in securing their livelihoods, which are largely dependent on agriculture, it is important that interventions such as CSA are gender appropriate and focus on women.

Engagement

The survival, success and sustainability of smallholder farmers depend upon a wide range of factors in dynamic natural and socio-economic systems. Farmers engage with plants, animals, soil, water, and trees;

with pastures and crops; with implements and inputs; with the weather; and researchers, technical experts and decision makers. Yet in terms of assistance and support, smallholder farmers tend to receive independent technologies or techniques—in isolation from other critical information and assets such as information, capital, market access, or the capacity to calculate and negotiate a fair deal.

Engagement is increasingly recognized as the missing link between science and development. In the case of CSA, new evidence (as models, maps and scenarios for example) is emerging daily to predict how climate change is likely to impact earth's ecosystems. However, less clear is how to prepare earth's inhabitants to cope with these changes and prevent further degradation of our natural resources. The entire CSA community—researchers, policy makers, investors, implementing partners, and rural populations themselves—must engage in processes of diagnosing specific needs in specific places and generating the best possible responses to those needs.

Engagement is no panacea however and win-win outcomes are not always possible; climate change creates winners and losers. Engagement can be a means to more transparent and inclusive decision making, which helps stakeholders identify and assess trade-offs. Engagement in and around CSA should be seen as a series of opportunities to identify and address barriers to participation by smallholder farmers—who can least afford to lose again.

Partnerships

In 1992, the Rio Earth Summit started a partnership movement which matured ten years later, at the 2002 World Summit for Sustainable Development, where more than 220 partnership initiatives were launched⁵. Partnerships range from information sharing to detailed interdependent actions where two or more parties have specific responsibilities at the same time, being accountable to others⁶. The term partnership can also describe many different kinds of relationships and activities, from the giving of grants, sponsorships and contracts to joint project management and arrangements based on mutual need. What is common is the notion of connectedness between two or more parties working towards a common goal⁷.

Innovative partnerships working toward the shared goal of effective change on the ground are needed to implement emerging climate-smart agriculture technologies.

Typically these partnerships would involve diverse sets of actors with diverse goals, agendas and interests and so there is need to facilitate actions between concerned parties across different sectors. Successful cross-institutional interactions will depend on clearly defined and assigned responsibilities. According to the 2011 Global Science Conference on Climate-Smart Agriculture, CSA should take advantage of existing institutional arrangements, policies and incentives that enable and empower farmers to adopt climate-smart practices as well as recognize the importance of improved coordination for collective decision making and action⁸.

Multiple strategic partnerships at different levels, from community to national to regional to international will be essential to make CSA work. These partnerships need to be accountable and foster co-learning between and across institutions and disciplines⁹. Since 2009, this global CSA partnership has raised awareness of the role of agriculture in climate change mitigation and adaptation by giving it greater visibility in discussions on agriculture in the United Nations Framework Convention on Climate Change (UNFCCC).

Agriculture Day¹⁰ is organised by a unique global partnership that includes development partners (World Bank, International Fund for Agricultural Development), international research institutions (CGIAR Research Program on Climate Change, Agriculture and Food Security), farmer organisations (World Farmers Organization), regional policy networks (FANRPAN), United Nations agencies (Food and Agriculture Organisation) and media partners (AlertNet and Farming First). Since 2009, this global CSA partnership has raised awareness on the role of agriculture in climate change mitigation and adaptation by giving it greater visibility to the discussions on agriculture in UNFCCC.

CSA interventions should be grounded on a sound understanding of the different opportunities, capacities and complexities that individual institutions bring to the table. Based on these insights, participatory processes can be used to formulate practical ways in which partnerships and collaborations between individual institutions can lead to mutually beneficial synergies that can increase food security, improve livelihoods and foster environmental integrity.

Gender

Gender – the rules, customs and practices by which biological differences are translated into social difference between men and women — shape the different ways in which women and men participate in and benefit from rural development interventions¹¹. Therefore, interventions such as CSA must be gender-responsive in order to bring about sustainable and resilient rural livelihoods, while not further disadvantaging any group.

For CSA initiatives to be gender responsive and go beyond rhetoric several key dimensions need to be considered in the conceptualisation, design and implementation of CSA programmes and projects. CSA initiatives need to practice meaningful gender inclusion and equity, by addressing issues of women’s improved access to resources and engagement opportunities in development processes. Further, fundamental changes and interrogation of the institutional structures and processes through which CSA activities are implemented need to take place. By doing so, the implementers of CSA approaches will better understand their role in addressing existing gender inequalities. CSA initiatives should ensure there are comprehensive plans for incorporating gender into development projects. This planning requires allocation of resources, in the form of finances, and skilled technical human resources to develop plans and activities to equip CSA implementers with the skills to successfully include gender.

Gender inclusion in development initiatives and understanding gender does not come naturally to all development professionals, whether male or female.



Therefore, CSA initiatives should invest in capacitating programme staff through training and peer assisted reflection to mainstream gender into programme/project activities. Building on the foundation laid by capacity development, CSA programmes should establish mechanisms for monitoring progress made around gender in program implementation. A common understanding and general awareness of how to apply technical approaches for gender inclusion can only enhance the impact and sustainability of CSA initiatives.

Significant efforts should be made to ensure that both men and women's voices and needs are taken into account in CSA projects from the outset. Further, institutions mainstreaming gender into CSA initiatives should be supported by development partners through strong political will and commitment to address gender inequalities if CSA is to achieve resilient and sustainable livelihoods.

CSA has great potential to help smallholder farmers achieve food security while adapting to changing conditions and militating against further climate change. The strategic relationship between partnerships, engagement and gender needs to be better understood and fostered, *in situ*, to help ensure that CSA reaches its

potential. Partnerships serve as a dynamic bank of expertise, skills and power necessary to make positive sustainable changes in knowledge, attitudes and behaviour. Facilitated engagement should serve as the trigger that gets partnerships into problem solving mode—as needs arise. Gender issues are rife in African smallholder agriculture and remain a critical barrier to achieving food security and poverty reduction—this particular form of inequity limits growth of the entire population.

Recommendations:

- Invest in building the capacity of smallholder farmers to engage in innovative partnerships—that help increase their ability to self-organize for mutual benefits.
- Understand and address the specific gender related challenges (land tenure, access to information and services) that hinder women's full engagement in CSA.
- Build upon successful initiatives and partnerships to further promote CSA rather than starting brand new relationships.

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About FANRPAN

The Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) is an autonomous regional stakeholder driven policy research, analysis and implementation network that was formally established by Ministers of Agriculture from Eastern and Southern Africa in 1997. FANRPAN was borne out of the need for comprehensive policies and strategies required to resuscitate agriculture. FANRPAN is mandated to work in all African countries and currently has activities in 16 countries namely Angola, Botswana, Democratic Republic of Congo, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

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