



SAIRLA

**SUSTAINABLE AGRICULTURAL INTENSIFICATION  
RESEARCH AND LEARNING IN AFRICA PROGRAMME**

**GHANA NATIONAL LEARNING ALLIANCE**



# POLICY BRIEF

**“Sustainable Agricultural Intensification (SAI):  
Policy Implications for Agriculture  
Modernisation in Ghana”**

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## Summary

This policy brief captures the key highlights and policy recommendations that emerged from a policy symposium organized by the Ghana National Learning Alliance (NLA) on 24th March 2017 at CSIR-STEPRI. The policy discourse contained in this brief, responds to the clarion call to shift from conventional agricultural practices to Sustainable Agricultural Intensification (SAI) given the major environmental, economic and social challenges bedevilling Ghana's agriculture sector. After debating on the numerous policies, programmes and projects relating to SAI in Ghana, stakeholders agreed to the fact that their effectiveness needs to be assessed. Ghana is doing well in policy formulation but the indications are not too good with respect to implementation and evaluation. The need to develop innovative platforms for dissemination on SAI, create more awareness and also research into issues relating to SAI in fisheries and livestock came up strongly in the policy discourse. Considering the fact that Agriculture needs to feed into services and industry, stakeholders agreed that closing the productivity gaps in crops, livestock and fisheries sustainably is critical. This demands that SAI practices pay attention to not just the technology but also the social issues. Public and private sector investments must promote such SAI practices to enhance agricultural productivity.

## Background

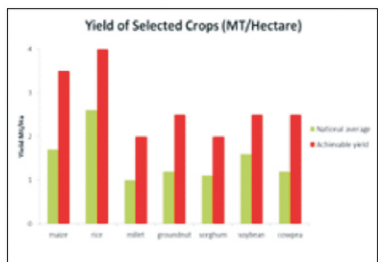
The Sustainable Agricultural Intensification Research and Learning in Africa (SAIRLA) programme, running from 2015 to 2020, has commissioned research projects and is facilitating multi-scale learning to understand the different ways of achieving Sustainable Agricultural Intensification (SAI) and their developmental implications. The programme is functioning through two processes: a competitive research and facilitation of a SAIRLA Learning Alliance between research organisations and other stakeholders. Countries participating in SAIRLA include Burkina Faso, Ethiopia, Ghana, Malawi, Tanzania and Zambia. In line with this, a National Learning Alliance (NLA) has been established in Ghana with the vision of enhancing the wellbeing of smallholder agricultural value chain actors, particularly women and youth through effective policies and investments in sustainable agricultural development. One of the strategic actions taken towards the achievement of this vision is to facilitate social learning among relevant stakeholders along the sustainable agricultural intensification value chain through organization of series of policy symposia. This policy brief captures the key highlights and policy recommendations that emerged from a policy symposium organized by the Ghana NLA on 24th March 2017 at CSIR-STEPRI. Participants included policy practitioners, media, researchers, private sector players and farmer organisations.

To meet the huge challenge of food and nutrition needs of the growing Ghanaian population and to provide adequate raw materials to feed industry, the need for paradigm shift from conventional agricultural practices to sustainable agricultural

intensification has become critical. Different approaches and methods for increasing productivity also need to be assessed in terms of how far they can reduce environmental impacts, biodiversity loss, social conflicts, improve soil fertility and reduce the impact of

climate change among others. These are the constraining factors in enhancing agricultural productivity as illustrated in Figure 1.

**Figure 1 Yield Gaps of Major Food Staples in Ghana (2014-2015)**



- Poor soil fertility
- Variety of insect pests, diseases, and weeds
- Moisture scarcity is responsible for up to 60% of yield losses (Tadele 2017)
- Inadequate extension

## The Problem

### The Interconnectedness: Sustainable Intensification, Climate Smart Agriculture and Modernization of Agriculture

Sustainable Agricultural Intensification (SAI) could be defined as producing more output from the same inputs particularly land while reducing the negative environmental impacts and at the same time increasing contributions to natural capital (Pretty and Bharucha, 2014). From the policy discourse SAI requires a systems approach to exploring the interconnections between

farming (Crops, livestock and fisheries) and our environment as well as the social aspects in the agricultural value chain (Norton 2016). Urbanization, new market opportunities, industrialization, and increasing population density are driving forces that call for SAI as a better option. Sustainable Agricultural Intensification (SAI) enhances resource utilization by farmers, value addition, and consumption efficiency as well as social aspects such as gender and equity. As indicated in Figure 2, SAI has three interconnected key components including (i) increase production per unit input, (ii) preservation of social and ecosystem services, and (iii) resilience to climate change.

Figure 2 Key Components of SAI

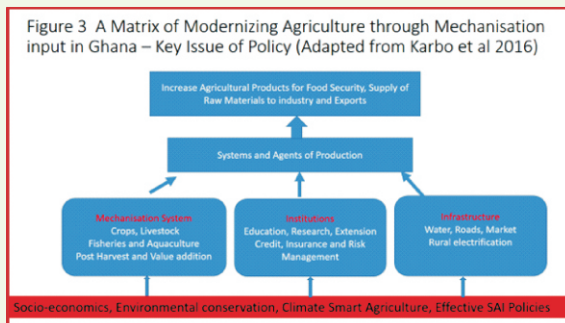


SAI contributes to SDGs (Responsibility of ending poverty, eliminating hunger, good health and wellbeing, gender equality, responsible consumption and production, and climate action by the year 2030).

One cannot discuss SAI without reference to Climate Smart Agriculture (CSA) and its roles

in Agricultural Modernisation (Figure 3). Examples of SAI and CSA practices include mulching, agroforestry, Inter-cropping, organic farming, cover cropping, water management and water harvesting, weather forecasting, improved crop varieties/drought and disease tolerance crop varieties and bio-fortification of maize, rice and sweet potato. Others are improved livestock breeding and feeding practices as well improved technologies for fishing (Karbo et al 2016).

Reports by Pretty et al (2013) and others indicate that farmers have been able to increase food outputs through sustainable intensification. On the average, in SAI projects covering about 12.8 million ha in across Africa, yields of crops slightly more than doubled. This is estimated to



result in an increase in aggregate food production of 5.79 million tonnes per year, equivalent to 557kg per farming household. Sustainable agricultural intensification and modernisation involve prudent mechanization, irrigation, Greenhouses, technologies for sustainable management of land and the environment. These should be supported by private sector investment, agro-processing and agricultural information and knowledge. Research reveals that transition towards more sustainable agriculture requires a new knowledge base and new processes of learning (Sumanea et al 2017).

## Enabling policy environments for SAI

In addition to the right technologies (seeds and breeds and their agronomic and agro-ecological management) as well as social infrastructure, ideal policy environments would be supportive of sustainable intensification. There are quite a number of SAI related policies in Ghana outlined as follows:

- FASDEP II (2009 – 2015) & METASIP II aligned to CAADP and GSGDA;
- Ghana Irrigation Policy, Strategies and Regulatory Measures (2011);
- Ghana Strategic Investment Framework (GSIF) for Sustainable Land Management (SLM 2009 - 2015);
- National Climate Change Policy; National Climate-Smart Agriculture and Food Security Action Plan (2016 – 2020);
- National Biodiversity Strategy and Action Plan (2002);
- Sustainable Consumption and Production (SCP) for Ghana (2011-2016)
- Gender and Agricultural Development Strategy (II) (2015);
- Plants and Fertilizer Act (2010); Fertilizer Regulations (2012); Fertilizer Subsidy Program Guidelines;
- National Seed Plan (2015), Livestock Development Policies and Strategies; and
- Fisheries and Aquaculture Development Plan (2011-2016)

Analysis of the above policies point to the fact that Ghana is doing well with policy formulation but the same cannot be said about policy implementation, monitoring and review processes. Distilling these SAI related policies, the following questions need to be addressed:

- Are SAI solutions supposed to be only technology-focused? How about social aspects (gender, youth, conflicts over resources)?
- Agricultural modernisation: Are we doing it in a sustainable way?
- Are women and the youth having adequate policy representation and the financial support to access SAI technologies?
- Are we investing in the right ways?
- How well are the policies programmes/projects coordinated?

## Policy Recommendations

The following recommendations were made by SAI Stakeholders during the policy discourse which was driven by the above-mentioned questions:

- SAI solutions should not be only technology-focused but also take into consideration the social aspects such as gender, cultural limitations and conflicts over resources;
- Agricultural modernization should be a sustainable process from the commodity value-chain perspective as done for the cocoa sector;
- National commitments in agricultural investments and infrastructural development are critical in the agricultural modernization process. This should not just be the responsibility of donors and development partners;
- There is the need for effective smallholder representation, particularly women and the youth, in stakeholder consultations. These should be representatives who will give feedback and voice to their constituents at the policy front;
- Policy support for women and the youth to access credit for utilization of SAI technologies is critical;
- Policies are not well coordinated and disseminated to the local level. This can be reversed through innovative dissemination channels that targets actors at the local level such the traditional authorities, farmers, traders and input dealers;
- Policies should be demand driven and this can be achieved through regular stakeholder consultations; and
- There is urgent need for policy evaluation and impact analysis of the various SAI related projects being implemented.

It is the expectation of the Ghana National Learning Alliance that these policy recommendations made by SAI stakeholders will be widely disseminated and most importantly feed into the policy cycle in Ghana's effort to modernize the agriculture sector sustainably.

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