

FORMULATING POLICY BRIEF TO ENHANCE COHERENCE OF INTERNATIONAL CLIMATE-SMART AGRICULTURE POLICIES

INTRODUCTION

This policy brief summarizes ways of enhancing international Climate-Smart Agriculture (CSA), aiming to develop policies to prioritize international CSA practices and interventions. According to FAO, the number of hungry people worldwide remains unacceptably high (over 800 million), and this number is envisioned to increase, which will persist unless improvements are made in the aspect of accessibility, availability and usability of food. In addressing this challenge, economic growth, poverty alleviation, rural employment and development must be put into consideration. Also, the agricultural systems is predicted to face increased competition for increasingly limited natural resources, such as land and water, while helping to preserve biodiversity and restore fragile ecosystems. As such, farmers will have to play their role in mitigating climate change while also adapting to higher average temperatures and more frequent extreme weather events threatening food security. Climate change has emerged as one of the most challenging environmental issues of the 21st century, by posing risk to fresh water supply, food production and economic development. The basic staple foods comes from tropical region and are mostly grown by smallholder's farmers. Since farmers are on the frontline of climate change working with them to build climate resilience is critically important for climate change. Agriculture plays a major role in ensuring food security, even at that, a decrease in productivity growth is observed in some countries and regions.

WHAT CAN BE DONE?

The concept of “**CLIMATE SMART AGRICULTURE-FARMERS INTERNATIONAL NETWORK**” (CSA-FIN)

This concept is formulated for a strong, competitive, productive and sustainable global agricultural system, which requires a significant shift away from short-term and palliative policies that may stand in the way of market openness and trade. This will help to re-evaluate policies that pose obstacles to sustainable productivity growth; these include market price support and payments based on output. CSA-FIN will be used as a tool to introduce and implement climate smart agriculture to farmers

HOW IT CAN BE DONE.

- ✓ Set-up a multi-stakeholder mechanism to enhance coordination and learning which will address constraints in Information & Knowledge flows. Create institutional capacity to improve dissemination of climate smart information and coordination over large areas and numbers of farmers
- ✓ Use of deliverables such as ICT infrastructure, extension workers, radio, SMS to enhance efficiency and effectiveness of the extension delivery system
- ✓ Create and/or rebuild international and national extension services team which can include NGO's
- ✓ Raise awareness and build capacity to manage and use information and knowledge

RECOMMENDATIONS: Considering three areas of CSA;

LAND USE

- ✓ Facilitate recognition & entitlement of land ownership using formal means to assist collateralization
- ✓ facilitate Conservative Agriculture (CA) by using minimal mechanical soil disturbance (i.e. no tillage and direct seeding); maintaining the carbon-rich organic matter covering and feeding the soil (e.g. straw and/or other crop residues including cover crops); and practicing crop rotation including trees which could include nitrogen-fixing legumes. Conservation Agriculture will help contribute to adaptation of farmers to climate change by reducing crop vulnerability.
- ✓ Facilitate the use of trees and shrubs in agricultural crop and/or animal production and land management systems, to tackle the triple challenge of securing food security, mitigation and reducing the vulnerability and increasing the adaptability of agricultural systems to climate change. This is important as Trees and shrubs can diminish the effects of extreme weather events, such as heavy rains, droughts and wind storms, thus preventing erosion, stabilizing soils, raising infiltration rates and halting land degradation.
- ✓ Facilitate employments in the rural region to curb migration of rural to urban regions, thus preventing encroachment of the city into surrounding natural ecosystems and agricultural lands

ACCESS TO INFORMATION TECHNOLOGY

- ✓ Facilitate availability, accessibility and use of information and knowledge amongst stakeholders in the sector through the implementation of an ICT Framework
- ✓ Follow knowledge generated under programs and Projects for systematic screening, messaging and dissemination by developing a multi-stakeholder Data centre and Knowledge system with a focus on weather, input costs and crop prices
- ✓ Facilitate a new design towards agricultural research for extension services
- ✓ Facilitate demand-driven extension services, which could involve the use of qualified NGO and Private sector

PRODUCTION MANAGEMENT

- ✓ Facilitate management approaches such as enforcing the selection of suitable stock, decreasing the use of fish meal and fish oil feeds, increasing feeding efficiency, thus reducing carbon footprint in aquaculture systems
- ✓ Facilitate integration of aquaculture within broader farming landscapes to provide further opportunities
- ✓ Facilitate application of science and advanced technology in livestock production in feeding and nutrition, genetics and reproduction, animal health control and animal husbandry.
- ✓ Facilitate efficient treatment of manure and/or substituting them for inorganic fertilizers, thus lowering emissions
- ✓ Facilitate use of cropping patterns, planting dates and farm management techniques, by encouraging diversification by farmers in production systems, thus reducing the effect of irregular rainfall, drier spells in the wet season (damaging young plants), drought and floods on production yields.