REPUBLIC OF GHANA

Developing Long Term Low Emissions and Climate Resilient Agricultural Development Pathways for Ghana: The right data at the right time

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United Nations Climate Change

Long-term strategies: A requirement of the Paris Agreement

Article 4.19 as read with Article 2.1(c), Article 4.1 and 4.4 of the Paris Agreement and decision 1/CP.21 paragraph 35, invites countries to formulate and communicate to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat their respective **"Mid-century long-term low GHG emissions climate resilient development strategies (Economy-wide LTS) by 2020"**. Such a long-term strategy will set out a visionary agenda – providing political certainty for bold, concrete actions while helping to inform near- and long-term investments that spur sustainable economic and social transformation. A country's LTS has a great potential to guide it on a path to a climate resilient development pathway. This also contributes to the collective global response of limiting warming to 1.5 – 2 °C by the end of the century through low-carbon green growth in critical sectors. The COP26 through its Glasgow Climate Pact recognized the importance of developing and aligning NDCs with the long term low emissions and climate resilient development strategies (LTS) and reaching net zero emissions by around mid-century.

AGNES African Group of Negotiators Experts Support

Food and Agriculture Organization of the United Nations

AICCRA Accelerating Impacts of CGIAR Climate Research for Africa

Good data are key to good long-term strategy

Ghana embarked on a journey of developing its Agriculture Sector Low Term Low Emissions and Climate Resilient Development Pathways ***(Agriculture LTS)*** aimed at facilitating the country's transformation to a green economy by prioritising adaptation and mitigation actions that increase agricultural productivity and build climate resilience of the agricultural and food systems while reducing greenhouse gas (GHG) emissions intensity in the agriculture sector. The development of the ***Agriculture LTS*** that shows when emissions will be peaking is a proactive step in setting the country on a trajectory that transform her agriculture sector in a way that increases agricultural productivity and builds climate resilience while reducing emissions intensity in the sector. The ***Agriculture LTS*** provides the enabling framework for local and national stakeholders to identify development strategies and actions suitable for growth in a changing climate.

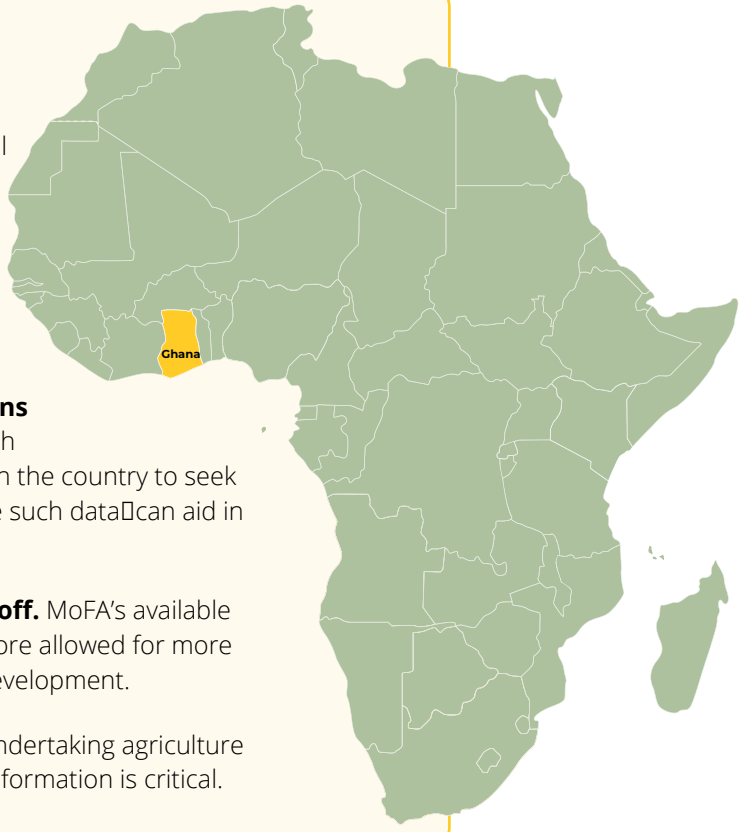
The analysis contained in the ***Agriculture LTS*** was made possible by a wealth of data maintained by Ghana's Ministry of Food and Agriculture (MoFA) and other agencies. A team of experts downscaled regional climate models (RCMs), used historical weather data from the Ghana Meteorological Agency and ran crop models using the Decision Support System for Agrotechnology Transfer (DSSAT) program. MoFA provided crops and livestock data (collected annually by the Statistics Directorate within MoFA) that were available for a 30-year period (1990-2020). Information such as growth periods, soil moisture and variety names ensured that the DSSAT program returned accurate results.

The success of the ***Agriculture LTS*** preparation and its soundness was a result of available data shared between agencies. Within MoFA, different offices coordinated and provided necessary information. More broadly, the Ghana Meteorological Agency and the Ghana Space Science and Technology Institute supported data collection and analysis. There were some challenges faced, including a lack of meta-data that required a time-consuming process of going back to the source of the data to gather key information needed for its use.

Ghana's lessons for other countries

Ghana's investment in agricultural data collection over several decades has resulted in evidence-informed policies and strategies.

For those countries who do not currently have that level of evidence available, three lessons emerge:



1. **Data may be available from agencies and institutions outside one's own ministry.** Forging collaborations with appropriate university departments and other agencies in the country to seek out relevant sources of data–and the willingness to share such data can aid in good policy formulation.
2. **Investments in good statistical data collection pay off.** MoFA's available information on sowing dates, fertilizer application and more allowed for more accurate crop modelling and therefore better strategy development.
3. **Involvement of the National Statistical Bureau** in undertaking agriculture census and in collecting the relevant agriculture sector information is critical.

About AICCRA

Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture. It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank.
Explore our work at **aiccra.cgiar.org**.