

# Promoting Integrated Maize Management Technologies for Enhanced Productivity

Strengthening the capability of farmers to adapt integrated management technologies for increased corn productivity is key to enhancing the crop's production efficiency.

Maize, the American Indian word for corn, literally means “that which sustains life”. It is the 3<sup>rd</sup> most important cereal in the world, after wheat and rice; and it is the most important in SSA, adapting to a variety of agro-ecologies. It is a crop par excellence and the most versatile of all cereals, providing nutrients for humans and livestock; serves as raw materials in industrial production of starch, oil, protein, alcoholic beverages, food sweeteners, in pharmaceuticals, as well as biofuel. The crop has the highest average yield per hectare amongst cereals. However, while the average yield of maize in developed countries can reach up to 8.6 tons per hectare, production per hectare in West and Central Africa is still 1.3 tons per hectare. This has been largely as a result of low adoption and adaptation of integrated technology management systems for the crop.

This project seeks to improve the maize productivity trend in West and Central Africa by directly addressing issues on the adaptation and adoption of proven integrated management technologies. Technical activities of the project are being implemented in farmers' fields with the aim of demonstrating to the farmer the operational mechanisms of integrated systems. By so doing the capacity of farmers to use these technologies is strengthened through this action research.



Maize holds the key to food security in West & Central Africa.  
Photo: CSIR-CRI, Ghana

## Main Beneficiaries

Maize producers are benefiting from new techniques in integrated management systems. Improved varieties of maize are also being made available to farmers. The private sector marketers and processors of maize products are benefiting from an enhanced and steady maize supply chain. Scientists of the national systems are acquiring new techniques in improving productivity of maize.

## Main Regional Benefits

Improved integrated techniques in maize production will be out-scaled to countries of West and Central Africa.

## Partners

This CAADP-compliant project is funded by DFID and is being coordinated by CORAF/WECARD. It is being implemented by the following: Institut Tchadien de Recherche Agronomique pour le développement (ITRAD), Chad; Institute of Agricultural Research for Development (IRAD), Cameroon; University of Maiduguri; IITA; Farmers' organizations, the private sector, and regional NGOs.

Components	Outputs	Outcomes	Impact
<p><b>1</b></p> <p><b>Biotic &amp; Abiotic Factors</b></p>	<ul style="list-style-type: none"> <li>Improved integrated <i>Striga</i> control techniques proposed</li> <li>Improved soil water stress management techniques proposed</li> </ul>	<p><b>Outcome 1</b></p> <p>Reduced <i>Striga</i> infestation in maize farms</p> <p><b>Outcome 2</b></p> <p>Reduced incidence of secondary disease vectors in maize farms</p> <p><b>Outcome 3</b></p> <p>Improved maize crop water use efficiency</p>	<p><b>Improved productivity of maize farmers in Cameroon, Chad and Nigeria.</b></p> <p><b>Improved income and enhanced wellbeing of maize producers in Cameroon, Chad and Nigeria.</b></p>
<p><b>2</b></p> <p><b>Technology Adaptation</b></p>	<ul style="list-style-type: none"> <li>Best maize-leguminous crops rotation mixes identified for each soil type</li> <li>Improved nitrogen-fixing varieties of soybean and cowpea identified</li> <li>Improved fertilizer ratios for different soils proposed</li> </ul>	<p><b>Outcome 4</b></p> <p>Enhanced and sustainable farm soils' fertility</p> <p><b>Outcome 5</b></p> <p>Increased production and affordability of maize</p>	
<p><b>3</b></p> <p><b>Food &amp; Nutrition</b></p>	<ul style="list-style-type: none"> <li>Improved varieties of maize for high quality biomass for livestock feed proposed</li> <li>Varieties of high quality protein maize (QPM) proposed for human nutrition</li> </ul>	<p><b>Outcome 6</b></p> <p>Improved availability of high quality fodder and feed for livestock</p> <p><b>Outcome 7</b></p> <p>Improved availability of high quality protein maize</p>	
<p><b>4</b></p> <p><b>Capacity Strengthening</b></p>	<ul style="list-style-type: none"> <li>Capacity training needs of producers identified.</li> <li>Capacity of farmers to produce and distribute improved seeds strengthened</li> <li>Appropriate and tailor-made farmer advisory manual on integrated systems developed</li> <li>Capacity of participating institutions to use appropriate data generating and data processing hard- and soft-wares strengthened</li> </ul>	<p><b>Outcome 8</b></p> <p>Tools and best practices in the use of integrated systems assimilated by maize producers</p> <p><b>Outcome 9</b></p> <p>Knowledge of producers in seed production and distribution enhanced</p> <p><b>Outcome 10</b></p> <p>Capacity of participating institutions to generate, analyze and appropriately use research information enhanced</p>	

**For more information**

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