



**UNITED NATIONS
ECONOMIC COMMISSION FOR AFRICA**

**Ministerial Roundtable on the Green Revolution in Africa
“Delivering on the African Green Revolution in a Perspective of Regional**

1. Why an African Green Revolution

The **Green Revolution (GR)** is a term used to describe the transformation of agriculture in many developing nations that led to significant increases in agricultural production between the 1940s and 1960s. This transformation occurred as the result of programmes of agricultural research, extension, and infrastructural development.

The Green Revolution (GR) of the 1960s, which brought increases in food production, rural incomes, and rural economy transformation in Latin America and Asia, largely missed Africa. It did not take hold in Africa not only because of inappropriate agricultural policies, but also because it was not designed for the continent's diverse agro-ecological zones, farming systems and socio-cultural contexts. Therefore, the need for African countries and their global partners to promote a new Green Revolution in Africa so as to help the continent comes up to the MDGs of halving hunger and poverty is more urgent than ever.

The original GR model incorporated new varieties, fertilizer and irrigation and led to widespread improvement in crop yields. For many, the challenge is simply to consolidate and extend that revolution. But there are a number of factors that suggest that such a strategy will not be sufficient. These include the variable performance of these technologies, a changing economic and policy environment, and the significant diversification of the livelihoods strategies of African rural people. Also, the early GR was limited by second-generation problems, such as salinization, soil fertility imbalances, and pest build-ups. While these problems can be addressed by further technological innovations, they also point to environmental concerns that impose additional constraints on technological development.

Therefore, the African Green Revolution (AGR) must not only contribute to more efficient food production, but also address concerns of environmental protection and be compatible with policies that support diverse livelihoods in African rural areas. Thus, the possibilities and challenges of the "new" Africa Green Revolution are more complex than what a simple technical change in agriculture narrative would indicate. What African's governments need is to trigger an overdue transformation of their agricultural sector and rural economy.

2. Under-capitalization and poor performance of African agriculture

Because of the lack of consistency in degree and direction of priorities, African agriculture is today one of the most undercapitalized in the world:

- Only 6 per cent of the arable land in Africa is irrigated, compared to 40 per cent in Asia.
- Only 22 kg of fertilizer per hectare of arable land in Africa (8 kg/ha in SSA), i.e. less than 15 per cent (and 7 per cent) of the level in Asia and Latin America.
- The number of tractors per 1000 ha of arable land is 3 times greater in Asia and 8 times greater in Latin America than Africa.
- Road density is more than 2.5 times higher in Latin America and 6 times higher in Asia than in Africa.

- Access to energy and telecommunications is very poor in rural Africa.
- Institutions of agricultural

Owing to the extreme fragmentation of African agricultural and food systems, there are significant asymmetries in perceptions of market and investment opportunities by the private agro-industry and agribusiness community as one moves from the national to the sub-regional and regional perspectives. From an economic standpoint and within the framework of an increasingly global economy, this landscape is simply not optimal enough to provide for the levels of economies of scale (at all stages of commodity chains), economies of vertical coordination (among the different stages of commodity chains) and economies of complementary diversification and specialization (among countries and sub-regional aro-upngl) a

In such zones, the creation of the right policy, institutional and legal frameworks for the development and management of land and water resources and the provision of the necessary supportive public infrastructure and services, and the establishment of African trans-national agribusiness companies would grant further incentives and security for private investment.

- ***Sub-Regional Centres of Excellence for Technology Development and Transfer***

Africa is offered great opportunities to harness both conventional green revolution as well as emerging gene revolution technologies to make significant headways to sustainable agricultural development and food security. This will require strengthening African research capabilities. Sub-regional Centres of Excellence for higher agricultural education and research for technology generation/adaptation could be created along the lines of agro-ecological zones and strategic food commodities.

- ***Resource Mobilization for Public Investment in Agriculture***

Achieving an African Green Revolution will require more investment efforts in agriculture by African governments and private sector as well as development partners. More urgently, African governments need to implement their commitment of allocating at least 10 per cent of national budgetary resources to agriculture by 2008 and to create the enabling policy and institutional environments for greater private-sector investment in agriculture.