



**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
Integration”**

Statement

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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 education, research and extension are poorly staffed, under equipped and funded.

Because of this severe under-capitalization depicted above, the rural landscape in Africa is still marked by smallholder subsistence farms, low technology and weak knowledge-based agricultural production systems.

The combined effects of these features include stagnating or declining agricultural productivity, weak backward and forward linkages between agriculture and other sectors, loss of competitiveness in world markets, increased food insecurity and natural resource and environmental degradation.

Worse, despite the continuous surge of commercial food imports, standing now at some US\$ 25 billion annually, and the recourse to nearly US\$ 2 billion in food aid annually, about one-third of total population in sub-Saharan Africa suffer from hunger, and the continent's share of global agricultural exports has fallen sharply from 15 per cent in the mid-1960s to 5 per cent in 2000.

3. Opportunities and challenges for the African Green Revolution

The above sobering picture notwithstanding, the challenges of structural transformation and sustainable development of agriculture in Africa must be decisively tackled in the face of strong and emerging opportunities. These include the changing political, and economic environment due to improved governance at the national level, and the opportunities for new markets that offers the globalization process, the gene revolution (biotechnology), and the developments in information and communication technology (ICT).

However, there are also some major challenges that African countries are facing in their efforts to promote an African green revolution these are:

- Difficulty of Market access under WTO rules;
- Agricultural support policies and export subsidies of developed countries;
- The impact of climate change; and
- Insufficient financial resources and human and institutional capacities.

4. The Need for strengthening regional integration

The African food and agricultural economic landscape is fragmented among the 53 countries and more than a dozen overlapping sub-regional groupings. Past agricultural policies have not meaningfully transcended the national and sub-regional perspectives to embrace a full continental scope.

From a regional perspective there are two major issues that need to be addressed to trigger an African green revolution these are: a) the extreme fragmentation of the food and agricultural systems and market, and b) the double disconnection of farmers from both input and product markets.

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 groupings) that would allow the realization of full competitiveness gains and intra-regional trade potential for Africa's agriculture.

It may be also reasonably argued that market development and linking farmers to the market are key pre-conditions to the structural transformation of agriculture in Africa. For farmers to take the risk of investing in productivity-increasing technologies not only should the related information and inputs be accessible and affordable for them, but also and equally important, should reliable and accessible markets exist for any surplus output resulting from technology-based productivity gains. Hence, connecting the farmers to well developed and functioning markets, backward for input delivery and forward for product outlets, is a crucial element for fostering the new African Green Revolution.

5. A Four-point Integrative Approach to Promoting a Green Revolution in Africa

- *Coordinated strategic commodity value chain development, with emphasis on agribusiness development*

A successful agricultural transformation process implies that farmers are increasingly connected to markets through the agro-industrial and agribusiness sectors. This is necessary to respond effectively to farmers' demand for agricultural inputs, on the one hand, and to meeting the effective demand and preferences of increasingly urbanized consumers through processing, conditioning, transporting and delivering food and agricultural products, on the other hand. In this sense, agro-industrial and agribusiness development and green revolution must go hand in hand in the transformation process. This points to the crucial importance of what one may call the agriculture-industry-trade nexus in addressing the agricultural transformation challenge in Africa.

- *Integrated regional space for investment and trade in agriculture, integration going beyond national and sub-regional levels*

Developing vertically coordinated regional food chains for strategic commodities would require building public private partnerships to create an environment that is conducive to ensuring both profitability and security of private investment.

More explicitly, the creation of such an environment could proceed from the opening of Free Sub-Regional/Regional Investment Zones. For example, major river basin initiatives such as those of the Niger and Nile rivers could lend themselves to a strategy of free regional investment zones for the development of vertically-coordinated chains of production, processing and marketing of strategic food and agricultural commodities.

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.