

**ASSURING FOOD AND NUTRITION SECURITY IN AFRICA BY 2020:  
Prioritizing Action, Strengthening Actors, and Facilitating Partnerships**  
April 1–3, 2004, Kampala, Uganda

**SUMMARY NOTE**

**Parallel Session:**     **Priorities for Action: Perspectives from Northern Africa**

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**Title:**                 **Agricultural Development and Food Security in North Africa: Constraints and Opportunities**

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The countries of North Africa (Mauritania, Morocco, Algeria, Tunisia, Libya, and Egypt), like the rest of Africa, face severe food deficits leading to food insecurity, and their production system is highly fragile because all of them have large areas under desert conditions.

Agriculture in North Africa takes place within a diversified environment, of which a substantial proportion is classified as “less-favored,” i.e. where agriculture production is significantly constrained by factors such as moisture stress due to low and highly variable rainfall, extremes of temperature, short cropping season, shallow soils, soil nutrient depletion, steep slopes, lack of infrastructure, inadequate policy support and others. In view of the prevailing shortage of arable land and water resources, sustainable increases in agricultural production will have necessarily to come from increases in productivity per unit area, in particular through a significant improvement in water-use-efficiency at the farm level. Significant investments in agricultural research, technology transfer, and extension are required to enable the North Africa region to meet the challenge.

Over the past two decades, the world has gone through dramatic changes that have set the path for economic globalization, leading to significant political, social, and economic implications throughout the planet. Moreover, the economic and institutional reforms stemming from structural adjustment programs have shaped a whole new environment characterized by the global, and often abrupt, opening of markets. In the wake of such fundamental changes, agricultural development must be seen as the strategic asset for overall economic growth and poverty alleviation in North Africa.

Sustainable food security is a fundamental objective of all countries in North Africa and is linked to grain production. Yet, for cereals, in most countries the consumption-production gap has widened. The region is net importer of cereals and world’s largest durum wheat importer (50 percent of the world market). The per capita production of wheat and particularly durum wheat has been declining in most countries during the past 30 years: Algeria (41 kilograms) and Morocco (53 kilograms). The same trend is observed for food legumes for which the region has turned, from being an exporter, to a net importer in the 1990s.

ICARDA has a program for North Africa with a regional office in Tunisia to serve the research and training needs of Algeria, Libya, Mauritania, Morocco, and Tunisia. Another regional program, with office based in Cairo, serves the needs of Egypt, Sudan, Ethiopia, and Eritrea. These regional programs carry out special projects and conduct research and training according to the needs of each country.

**Key Constraints to Agricultural Development and Food Security**

The region is facing a number of converging trends that threaten the future of livelihoods of the poorest sector of the society. Among the most important are:

1. **Global climate change and persistent drought:** North Africa is predicted to become warmer and drier with reduced crop productivity compared to other regions; cereal production is projected to decrease by 10 percent.
2. **Water scarcity and inefficient water use:** North Africa (with West Asia) is already one of the most water-scarce regions, and this is predicted to worsen markedly over the next 25 years. The limited water resources continue to be mined causing depletion of water tables and the salinization of good agricultural lands.

3. **Limited land resources and continued desertification:** Arable land constitutes only 5 percent of the total land area in North Africa. Moreover, over 45 percent of the area dedicated to agriculture and rangeland is experiencing some form of degradation.
4. **Persisting rural poverty:** Poverty is a major threat, especially in the rural areas where 60–70 percent of the poor are concentrated.
5. **Insufficient investment in science and technology in agricultural research:** As a result of the limited investment in agricultural research, insufficient and, at times, inadequate production and protection technologies are available for transfer to the farmers, including improved cultivars of various commodity crops. The proportion of national agricultural gross domestic product (AGDP) allocated to national expenditures (NE) invested in agricultural research is only a fraction of what has been recommended (1–2 percent) for the developing countries.
6. **Inadequate policy environment:** Technology alone will have limited impact if not supported by an enabling policy. Therefore, science and technology should be backed by policy research to provide options to the policy-makers to establish appropriate national policies for a positive impact at the farmers' level.

### **Future Prospects**

In an era of increasingly open markets and constant communication/information revolutions, the fate of the agricultural sector in the region will undoubtedly depend on its capacity to “grow in place,” that is, by adopting a regional research/development approach that would create the right conditions and incentives to significantly improve agricultural productivity while preserving the environment. The priorities of agricultural/rural development in the region should focus on: (i) fostering broad-based rural economic growth, (ii) improving social well being, managing and mitigating risk, and reducing vulnerability, and (iii) enhancing sustainability of natural resource management. The aim should be to devise and implement strategies that would ensure reasonable complementarity between the goals of growth, equity, and preservation. Such options should include:

- Technology and management options for high potential areas,
- Technology and management options for less-favored areas,
- People-centered development,
- Investing in science and technology, and
- Building regional and international partnerships

### **Looking Ahead**

Sustainable development in North Africa would depend on commitment, capacity, and good governance of the key actors involved. A focus on improving the well-being of rural people, and reducing rural poverty in the widest possible sense, will mean improved quality of life, not just increased average income of rural populations. Investing in agricultural research will always pay off. At the same time governments must invest in education, health, clean water and rural infrastructure. Policies should provide incentives for sustainable natural resource management, such as secure property rights for smallholders. Above all, poor people must participate in making decisions and implementing programs that affect them. Finally, policy research is required from the household to national levels to help farmers cope with global changes and challenges.

*Note: This note has not been edited. The views expressed in this summary note are those of the author and are not necessarily endorsed by or representative of IFPRI or of the cosponsoring or supporting organizations.*