
Water, Food and Agricultural Challenges in the GCC

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I would like to extend my thanks to the Emirates Center for Strategic Studies and Research for organizing this conference, and for raising such important topics relevant to the lives of citizens in all of the countries in the Arabian Gulf region.

The agricultural sector is undergoing significant development in the member states of the FAO Sub-regional Office for the Gulf Cooperation Council States and Yemen (SNG). Besides being an important economic activity, agriculture is a way of life which people depend upon to provide a living. The agricultural sector accounts for around three percent of total GDP in the GCC countries, and 19 percent of the population work in related economic activities in this sector. In general, agriculture plays a pivotal role in economic development and in achieving social stability and security.

By increasing production and added value, developing marketing and manufacturing, and providing employment opportunities, agriculture also helps in achieving food security and family and social stability, combating poverty and unemployment, curbing migration to urban areas, and preventing a number of social, economic and security problems.

Food security faces huge challenges, as the world's population is expected to rise from 7 to 9 billion by 2050. Furthermore, prices in emerging economies will force poorer sections of society to spend 50% of their income on food, and global demand for food will increase significantly. Satisfying this demand would require a 70 percent increase in overall food production, while production in the developing countries

would need to almost double. Investments in the agricultural sector, however, are not increasing at the same rate. The share of agriculture in official development assistance declined from 19 percent in 1980 to three percent in 2006, and currently amounts to around five percent; furthermore, developing countries are allocating only about five percent of their national budgets to agriculture. Meanwhile, more than 100 million tons of grain are used in biofuel production, encouraged by generous financial support which amounts to around US\$ 13 billion annually, provided by developed countries for biofuel-related agriculture. If we add to this the impacts of droughts, floods and hurricanes and speculation in the futures markets over agricultural products, we believe that the current food security situation portends an impending disaster, to which the famine that hit the Horn of Africa in 2011 is merely a prelude.

At the regional level, the Arabian Gulf faces many challenges to its food and water security, the most prominent of these is a result of the severe lack of water resources, arable land and pastures. Other challenges are climatic, environmental, economic, social, technical or institutional. The past few years have also seen numerous regional and global challenges, resulting in falling food security and a slowdown in the pace of development in the agricultural sector. The most notable of these are the global financial crisis and high food price volatility in the world market, in addition to the many problems affecting capital markets and imports, the expectation of severe climatic changes – which are beginning to negatively affect global food security – in addition to the obligations placed on those countries in the region that have joined the World Trade Organization (WTO).

The Arabian Gulf region suffers from a substantial food gap, as all the countries of the region are net food importers. The increase in the region's population, rising income levels, and harsh weather conditions that prevent the increase of local food production, have resulted in a vast increase in the region's food imports, from a total value of US\$ 6.5 billion in 1990 to US\$ 28 billion in 2008. Over the past few decades, there have been major changes in the Gulf populations' food consumption patterns and behavior. It is necessary to evaluate these trends, and to determine their social, economic, and health-related consequences.

As for the situation regarding water resources in the region, it is widely accepted that this represents the most important and significant challenge not only for agricultural development, but also for economic and social development. Rain falls intermittently at an average of 50–100 mm annually in most GCC states, except in the highlands of Saudi Arabia, Oman and Yemen, where the average annual precipitation can exceed 250 mm. The GCC is one of the most water-stressed regions in the world, and average per capita renewable groundwater resources in the region stand at less than 100 cubic meters compared to the world average of more than 6,400 cubic meters per capita.

As a result of the excessive use of non-renewable groundwater over the past few decades, remaining water resources are irregular, only to be found at great depths, and very expensive to extract. Groundwater exploitation has also led to increased salinity of water resources, thanks to seawater incursion in coastal aquifers. In recent decades some water desalination projects have been completed, however, the costs are still high, rendering them economically unviable for use in agriculture.

This brief analysis provides an overview of the main food and water security challenges facing both the Gulf region and the world. The priorities of the SNG in this regard were set during a workshop held on October 27, 2011 in Abu Dhabi, during which the Office proposed a framework to address the key issues facing agricultural development and food and water security in the region. Areas of priority and action were identified, reflecting the needs of SNG's member states and the global strategy developed by the FAO. The SNG's framework of priorities is based on ensuring the sustainable management of natural resources, whilst also achieving food and water security in the region.

Food security – from a comprehensive and sustainable perspective which incorporates elements such as food availability, accessibility, stability, safety and healthiness, as well as ensuring that food meets the nutritional needs of citizens and is subject to internationally recognized criteria and standards – can be achieved through the coordinated implementation of strategies, policies, programs and projects with a long-term perspective to address the potential challenges facing food and water

security. The SNG's programs and activities include providing technical support in several areas, particularly in the areas.

First, by enhancing the capacity of member states in area of food security in terms of improved productivity, providing safe and adequate food supplies, locating reserves of strategic commodities, stabilizing food supplies and prices, rationalizing consumption and improving the quality and safety of food.

Second, by enhancing the capacity of member states in the field of water security by analyzing the supply and demand for water, assessing the economic, social and environmental impacts of irrigated agriculture, assisting in establishing policies and programs designed to adopt and manage modern irrigation systems and water saving techniques, as well as applying mechanisms to recover the costs of water services to stimulate and enhance water supply.

The Food and Agriculture Organization of the United Nations, represented by the FAO Sub-regional Office for the Gulf Cooperation Council States and Yemen (SNG) is ready to provide all the technical support needed by the member states to achieve water and food security to support sustainable agricultural and rural development.