

## International Conference on Adaptation to Climate Change and Food Security in WANA, Kuwait, 13-16 November 2011

Under the patronage of His Highness Sheikh Sabah Al-Ahmad Al-Sabah- The Prince of the State of Kuwait, the International Conference on Adaptation to Climate Change and Food Security in WANA region and AARINENA 12th General Conference were officially opened on the 13th of November by H.E. Mr. Ahmad Al-Mulaifi, Minister of Education and Higher Education of Kuwait. The International Conference was held at the Kuwait Institute for Scientific Research (KISR) in Kuwait City, Kuwait, during 13th -16th of November, 2011. It was jointly sponsored by the AARINENA, World Meteorological Organization (WMO), the Food Agriculture Organization (FAO), the International Center for Agricultural Research in the Dry Areas (ICARDA), the Global Conference on Agricultural Research (GFAR), the Ohio State University (OSU), the Kuwait Institute for Scientific Research (KISR), State of Kuwait

Meteorological Department (SKMD), and the European Union (EU). The Conference was attended by around 80 participants from 18 countries and 9 international and regional organizations and institutions.

At the Conference **Kuwait Declaration** was announced. The participants expressed their deep concern at the implication of climate change for food security and the sustainability of productive systems in the region. The participants welcomed the initiative taken by the organizers in addressing these important issues and thanked His Highness Sheikh Sabah Al-Ahmed Al-Jaber Al-Sabah, The Amir of the Kuwait for his patronage of the Conference and the Kuwait Institute of Scientific Research for hosting the Conference and for providing all the necessary facilities.

Agriculture is the primary source of livelihoods and revenue for the majority of the population in many

countries in the WANA region and over 70% of the poor in WANA live in rural areas. Cereal yields in the WANA region are currently half the world average and all countries in the region are net importers of food. Over 70% of the land area is rangelands and traditional livestock provide the major support for livelihoods. Increasing human population in the region is placing greater pressure on natural resources and expansion of cultivated land is leading to a decrease in pasturelands and forests leading to land degradation and desertification which are being exacerbated due to increased livestock population. WANA is one of the most water scarce regions in the world with 1100 m<sup>3</sup>/capita water availability which is 12% of the global average and water overuse or misuse is exacerbating environmental degradation.

Climate change as multi-dimensional impacts on agro-ecosystems in West Asia and North Africa including increases in temperature, declines in renewable fresh water availability, sea level rise, salinity, increased frequency and intensity of extreme events (droughts and floods), and shifting of cropping zones and biomes. Vulnerability to climate change is exacerbated by widespread poverty, particularly in the rural areas where 34% of the population lives below the poverty line. Climate change projections show a 2-3 °C rise in much of region by 2050 and a reduction of precipitation by 10-20%, although with variable local changes.

Climate change will affect the four dimensions of food security: availability, accessibility, food utilization, food system stability. Crop productivity is projected to decrease over the WANA region due to reduced precipitation and increased frequency and intensity of droughts. Climate change directly affects the quality and quantity of the forage that can be produced in a given ecoregion and an overall productivity decline in livestock nomadic system is expected due to erratic rainfall and decline in the moisture regime. Climate change is projected to have adverse impacts on ecosystem functions and services due to disruptions in life-support processes.

The Conference identified several key recommendations, knowledge gaps, and opportunities for policy makers, researchers and extension systems, and NGOs to implement programs designed to minimize short-and long-term vulnerability of the WANA region to climate change.

Principle recommendations are to:

- Integrate science, practices and policy by mainstreaming adaptation into existing projects and programs, initiate and strengthen cooperation academic and research institutions, international organizations, and NGOs; and enhance coordination among relevant ministries and institutions at the local, national and regional levels to better understand how farmers, fishermen, foresters and herders, are coping with climate change
- Enhance capacity building activities in the region and strengthen the climate, crop, livestock and fishery data collection capability, analysis and modeling through increased public and private investment in climate change adaptation; enhance capacity to access other available financial resources and develop social safety nets so that poor people could be given access to development programmes and insurance.
- Simulate multi-disciplinary research on climate change and food security and develop innovative strategies that contribute to socio-economic sustainability of the production systems in fragile environments through promotion of effective risk management and risk reduction strategies.
- Strengthen regional cooperation and exchange of successful experiences among countries through the creation of a Network for Climate Change and Food Security in WANA;
- Develop innovative financial mechanisms to scale up technical and financial support for the adaptation efforts of the WANA countries;
- Examine alternative scenarios for the future food security in the region, implications of climate change impacts and the positive and negative implications of potential policy choices in this area, and
- Communicate and engage wider society in understanding the implications of climate change with communities becoming part of the adaptation solutions themselves.
- The participants urge development partners and the private sector to fund the implementation of programs that reflect the recommendations outlined above that deal with the mitigation and adaptation to climate change while advancing food security in West Asia and North Africa.