

Climate Change and Security in the Middle East: New Discourse for Sustainability

*Prof. Odeh Al-Jayyousi, International Consultant & Professor, Jordan University;
Former Vice President- Royal Scientific Society (RSS)
& former Regional Director-IUCN (2004-2011)
E-mail: odjayousi@gmail.com
Amman, Jordan*

The Middle East is a region where security and conflict are characteristics of this part of the world. Although this region witnessed the birth of early hydraulic civilizations, the key reason for their demise are simply factors related to inability to maintain infrastructures, over-exploitation of soil, social injustice, and poor governance. The key question is to what extent policy makers in the region realize the urgency for a regional collective action to address security issues related to good governance of natural resources and the value of eco-system services (or natural solutions) to cope with climate change risks.

With new challenges of climate change along with resource constraints in water, energy, and food, the Arab World is facing a crucial security challenge of coping with compound challenges of human and environmental security. There is evidence that the drought frequency of the region, particularly in Algeria, Morocco, Syrian Arab Republic and Tunisia, has increased substantially during the last 20-40 years. In Morocco, for instance, the drought cycle changed from an average of 1 year of drought in every 5 year period before 1990 to 1 year of drought for each 2 year period in recent years.

The water-food nexus is a critical security element due to the fact that the agricultural water demand accounts for over 70 percent of total water demand. In case of Iraq, Oman, Syria, and Yemen, it even exceeds 90 percent of total water demand. Besides, the region imports 40 to 50 percent of their total cereal consumption, and this rate even reaches up to 70 percent in case of Iraq and Yemen, despite the significant size of their agricultural sectors.¹

The climate change is likely to affect food security due to fluctuations in the global cereal market during the past few years, and the instability of supplies evident from the recent grain export ban of Russia in August 2010 proved problematic for the region since Egypt and the Syrian Arab Republic imported approximately half of their total wheat imports in 2008 and 2009² from Russia. In 2008, for example, the Syrian government decided that it could no longer afford to devote scarce water resources to cotton destined for export and instead decided to scale back cotton production to solely meet domestic demand. Hence, a shift of the food-sufficiency to food security is imperative in a globalized market of virtual water.

¹ ESCWA, "Food Security and Conflict in the ESCWA Region", June 2010

²Wall Street Journal, 2010. <http://online.wsj.com/news/articles/SB10001424052748703748904575410740617512592>

Climate change may also hinder the negotiation of future water peace agreements on shared waters. A shrinking quantity of water to allocate between parties (whether as a result of reduced supply or increased demand or climate change) will almost inevitably complicate relations between countries, making it increasingly hard to negotiate new peace agreements.

Another concern is that agricultural yields may fall as a result of reduced and unpredictable rainfall and more frequent droughts. According to the UN FAO a temperature increase of 3 to 4 degrees could cause crop yields to drop by 25 to 35 percent.³ Food security is already a core political concern of many countries in the region. The pending and unsettling issues related to sharing the waters of the rivers of Jordan, Yarmouk, Euphrates, and Nile are cases in point.

According to a paper prepared for the 2008 Euro-Med conference in 2008, "Climate change poses indeed the risk of further depressing the agricultural sector's economic performance through accelerated desertification, yield reductions and increased volatility (especially in cereals), of threatening rural jobs, increasing the fiscal burden of government intervention in support of the sector, and thwarting efforts to improve access to foreign markets for high value crops."⁴

The risk of climate change can be a driver for forging a regional position that addresses both human-environmental security as the global and rich-oil countries have to deal with the consequences of the influx of Syrian refugees on neighbouring countries to Syria, i.e, Jordan, Lebanon and Turkey.

The social contract, regional institutions and governance model developed in the EU model (based on a community of coal and steel) is worth to consider as a "security imperative" in the Middle East to overcome the potential challenges of climate change and its impact on water-energy-food. The fact that regional management programs exist and persist, in spite of nationalist rivalries, shows the imperative need for environmental cooperation. Regional water conflict resolution, if resolved in a win-win situation, eliminates distorted investment patterns, since the immense military expenditures can be tapped for more productive use as articulated in green economy and ecological restoration. In sum, integrated water management, eco-regions and regionalism, can offer new horizons for a new "security deal" in an era of climate change and economic and political volatility. Policy makers need to realize that there is a cost for inaction and urgency for collective action to face climate change is a necessary condition for a sustainable human civilization.

³ **Euro-Med.** 2008. *Integrating the Climate Change Dimension into water resources management in the Mediterranean* presented by Morocco, Spain and Greece with the contribution of the MED EUWI Secretariat, in view of the Euro-Mediterranean Ministerial Conference on water, 29 October 2008,

⁴ Euro-Med, 2008