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Assessing and Responding to the Risks of Global and Societal Changes in the MENA Region

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Interactions and feedbacks between rapidly increasing multiple pressures on water, energy and food security drive social-ecological systems at multiple scales towards critical thresholds in countries of the Eastern Mediterranean, the Middle East and North Africa (MENA Region). The MENA Region is expected to experience significantly above-global-mean changes in climatic conditions and has been designated as one of the global "climate change hot spots" (Giorgi, F., 2006).

The MENA region is also characterized by one of the highest rates of population growth on Earth, having seen a 3.7-fold increase in population between 1950 to 2000. The region is expected to continue to see a roughly doubling of its population until 2050 (Population Reference Bureau, 2001). Significant gender inequalities and an extremely high rate of youth unemployment are repercussions of such developments that exacerbate the societal pressures and tensions in the region.

In addition, the events of the "Arab Spring", have resulted in major political, economic and societal transitions and have frequently been accompanied by significant armed struggles within and between countries of the MENA Region. These developments and the still ongoing conflicts in parts of the region render this region to one of the global "political, societal and humanitarian hot-spots".

Responding to these challenges requires integrated science and a close relationship between policy makers and stakeholders, a need that Future Earth (www.futureearth.org) has been designed to respond to. In order to address the requirements of nation states and local communities, Future Earth has adopted a regional governance structure. This has resulted in the establishment of the Future Earth MENA Regional Center at the Cyprus Institute (FEMRC) in Nicosia, Cyprus, as one of five Regional Centers worldwide.

One of the major challenges in establishing a regional Future-Earth-related research agenda lies in a comprehensive assessments of the combined risks posed by the MENA region being considered a climatic and a societal "hot spot", as described above. These risks will have to be effectively communicated to stakeholders and the research community in order to outline, specify and implement research towards efficacious mitigation and adaption strategies aimed to minimize adverse effects of challenges posed by global and societal changes in the MENA region. The paper will describe the current state of advancing such a process and will introduce a first draft of a "Future Earth Research Strategy for the MENA Region", as formulated by the FEMRC and its Regional Advisory Committee.