

PRESENTATION

M. El Raey

Panel 2
A Survey Report on the Meeting
on
Arab Climate Resilience Initiative
Second Regional Consultation Meeting
“Climate Change Impacts in the Arab Region:
Sea level Rise, Coastal Erosion and Human
Development”

VULNERABILITIES DUE TO SEA LEVEL RISE

- ⦿ Direct and indirect impacts of inundation, salt water intrusion, increasing rates of erosion, changing circulation pattern, and increasing frequency of extreme events
- ⦿ Higher order impacts on water resources, agriculture, tourism, health and migration
- ⦿ Necessary adaptation through strategic plans for proactive planning, monitoring, upgrading resilience and creating job opportunities in safe areas

DISCUSSION

The discussion emphasized the following point:

1. The responsibility of the developing countries for developing climate change is well recognized by all nations. However, it should be noted that the responsibility of action for disaster reduction is placed under each country by Hyogo framework of action.
2. There are a variety of incoherent activities in progress and a strong capacity is being built at different countries of the region and we have to build on that and encourage it.
3. It is well realized that excessive urban activities on the coasts as well as oil and gas exploitation may give rise to land subsidence. This has been explored on the Nile Delta region using tide gauges and radar interferometry. Identification and assessment of land subsidence localities in the coastal zones of the Arab region are very important parameters to be monitored.

CONCLUSIONS:

1. Climatic changes are unequivocal; sea level rise has been detected and is being monitored in many places around the world by tide gauges. It is also being monitored by satellites
2. The Arab region is the most vulnerable region among, especially that it posses huge coastal areas and it already suffers from water shortage, droughts, extreme events and shortage of access to technology
3. The Arab climate resilience Initiative is timely needed for adaptation of the low resilience communities to potential impacts and risks of climate change with particular emphasis on sea level rise
4. Most Arab states has realized the seriousness of the impacts of sea level rise and their need for coordination, integration and exchange of experience
5. Risks associated with land subsidence due to excessive urbanization and oil and gas extraction in the coastal zone have to be closely monitored and assessed.
6. Research activities such as salt tolerant plants, drought tolerant plants and heat tolerant plants should be emphasized.

RECOMMENDATIONS:

1. Building up a common strategy for adaptation to sea level rise among Arab states that involves upgrading of community resilience is a long term process and should take first priority.
2. The need for building up indigenous capacity in various lines of monitoring, building databases (regional and national), analyzing and interpretation cannot be overlooked. Tools such as remote sensing, GIS and time series analysis and signal processing should be emphasized.
3. Upgrading institutional structure, monitoring changes, building databases and regional models are necessary tools. Monitoring should include installation of tide gauges, soil salinity monitors, and interferometric radar imagery analysis of urbanization in the coastal zone.
4. Research and technology that involves energy alternatives, salt and drought tolerant plants, desalination and conservation must be encouraged.
5. Large scale national projects involving reducing densities of vulnerable areas such as the Egyptian Nile delta should be explored and prioritized.
6. Upgrading infrastructure and awareness programs especially in low resilience communities should be of utmost priority.