

Ministry of Water and Irrigation


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Nile Delta Parallel Session


Climate change and coastal protection of the Nile Delta, Egypt

By

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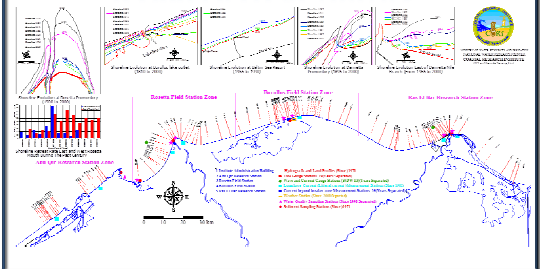


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Western Sector (Northern west Coast)
Central Sector (River Nile Delta)
Eastern Sector (North East Coast)

COASTAL RESEARCH INSTITUTE (CORI) FIELD ACTIVITIES



Diagrams showing cross-sections of the coast and maps of field activities along the Nile Delta coast.

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INSTITUTE CAPABILITIES

Physical Model Flume

Some of Field and Lab. Measurements Equipments - Coastal Research Institute (CoRI)

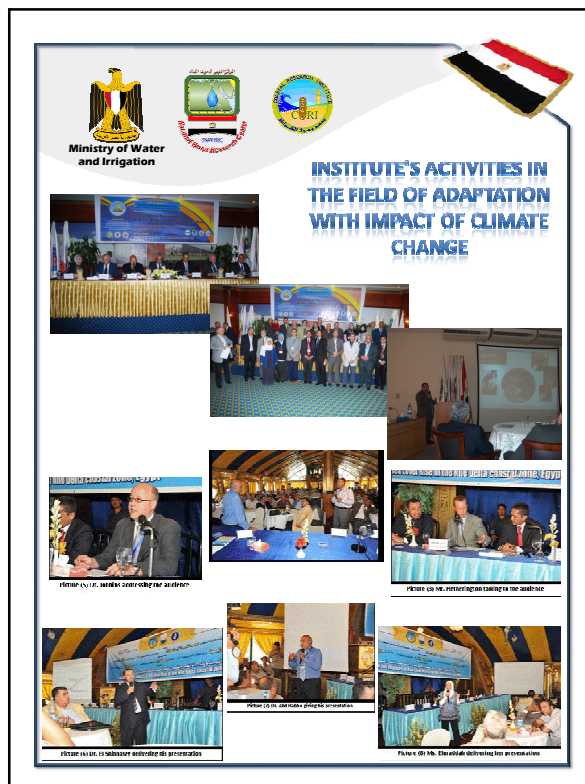
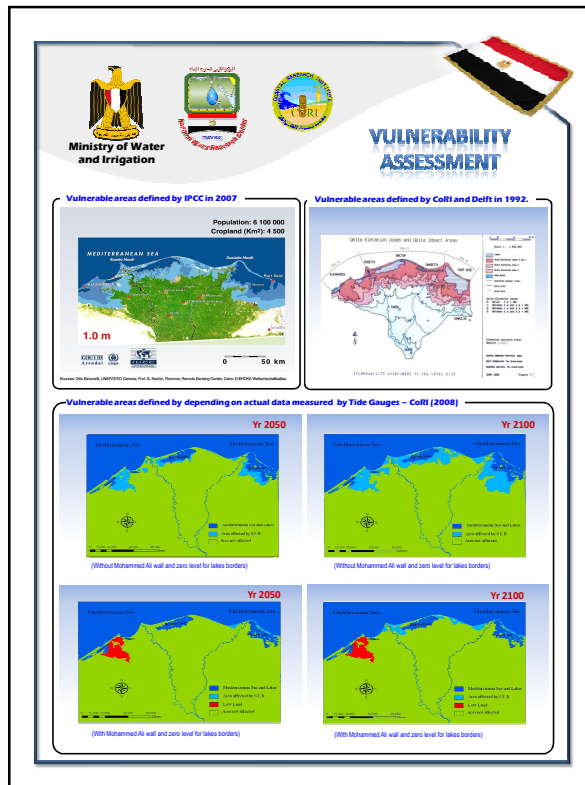
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SHORELINE MANAGEMENT

Erosion / accretion patterns in the Delta

Nile Delta Sand Dunes

PROTECTION WORKS






Needs

Soft Needs

- Formulation of a master plan for the Egyptian coasts, in particular the Nile Delta (ND) coasts.
- Demonstration of low cost technologies for coastal protection,
- Development of DEMs for the ND coastal zones
- Research on adaptation framework for CC impacts considering the socio-economic aspects, participatory approach as well as build with the nature approach
- Vulnerability assessment of the existing natural and manmade system and proposing adaptation framework to protect such systems,
- Numerical models
- Legal and institutional reform

Hard Needs

Monitoring and observation systems for currents, waves, wind, tide, soil salinity, saltwater intrusion,..etc.



Conclusions

Over the last 4 decades, Egypt controlled and protected its coastline, defined the accretion and erosion systems, assessed the vulnerable areas at Nile Delta coastal zones to SLR impacts, and built its capacity to manage ND shoreline.

As the climate changes would be the driving force for future developments in the coastal zones, adaptation framework to CC impacts within ICZM plans are needed badly for Egypt coastal zones as well as monitoring and observation systems.