



The impact of climate change on coastal area

The coastal zones are the most vulnerable area to indirect and direct effects of climatic change. The indirect effects are related to the growing demography along them as well as to anthropogenic activities. Indeed, the population exodus from inside land is highly increased as consequence of hard climatic condition (high temperature level and very low rainfall) and the lake of access to water mainly in summer period. The direct effects are related to the change of climatic parameters, mainly the rainfall and the temperature, as well as to the sea level high fluctuation. It is evident that the indirect effects will result in a high pressure on groundwater resources both in terms of quantity and quality. Indeed, the urban water needs, and the crop consumptions are increased not only by the temperature increase and the rainfall decrease but also by the high demand in food and water to satisfy a population in constant increase. The direct effects are related to the scarcity of rainfall, the increase of water evaporation and of the sea level. The rainfall and water evaporation increase will reduce the groundwater recharge and increase the water irrigation requirement. The sea level increase will destroyed the alnds along the shoreline and will accelerate the sea water intrusion in the land; an inversion of hydraulic gradient may occur as result of the groundwater level decrease, due to the reduction of the recharge and to the increase of pumped rates.

The above topics will be discussed in the 2nd session of the Webinar series on the subject of "Climate Change in Agriculture" organized by the CLICHA consortium during this pandemic period.

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Zoom platform+Live streaming: <u>facebook.com/Clicha.erasmusplus</u>

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