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Effects of the climate change in the hydrologic cycle

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Among the different effects resulting from the Climate Change around the world related to the water cycle those that account more are the drought and the flooding. Also the water supply sources is expected to diminished or polluted, wetlands tend to disappear and aquatic environments degrade, population is expected to be displaced because of the increase in sea level in deltaic zones and a lowering in health standards related to water diseases due to extreme meteorological phenomena and new climatic conditions.
That the climate has changed in México is a fact and its features are the increase in seasonal temperature (winter and summer) as well as a reduction in summer precipitation in central and northern Mexico coupled to an increase in winter in the northwestern regions. More frequent severe storms in different Mexican regions (southeastern and central Mexico) and in urban areas like Mexico City and the gradual reduction in the water flowing in rivers are also evidence of this change. The National Water Commission has developed studies using maximum and minimum temperature and daily precipitation analysis from a new data base called Maya v1 which accounts for a regular network that covers the entire country. Also coastal aquifer studies, hurricane strikes incidence and identification of specific areas in water basins with major vulnerability (closely related to urban and rural settlements invading floodplains and water courses) are underway. Some studies and actions that need to be developed and taken are indicated and an example of coordinated work is shown. In addition a set of adaptation measures to take according to the regional situation is described. Such measures should focus on the present situation as well as for the future and need to be studied and foreseen now.
If such measures are quickly taken in those vulnerable areas the costs they represent will be less compared with the costs of the damages due to the presence of the hydrometeorological phenomena.