

## **The use of sea water in the conservation of natural Resources via Sustainable Phyto-Pump System (SPPS)**

The growth halophytes (mangrove) of a changes the microclimate, providing shelter and food for invertebrate animals and leaving dead organic matter that contributes to the soil and supplies energy to microbial decomposers. By changing their surroundings, pioneer plants inadvertently provide new conditions that allow the invasion and survival of a wider range of other plants, so a community of deferent species develops over the course of time. The development of an ecosystem in this way is called succession.

Sustainable Phyto-Pump System (SPPS) to change desert conditions from drought and water scarcity and high salinity and temperature, or in other words, change from environmental stress to conditions suitable for the growth of agricultural plants via transport of sea water inside the desert by pipe to circular basin lined layer of HDPE to prevent leakage of sea water to underground water and Mangrove put around the circular basin and other halophytes through three circles (first track) the mangrove act as pump humidity inside the desert and change the microclimate in desert leads to increase rain water and humidity by more than 50%. The second track halophytes fodder (*Bassia indica* and *Atriplex Nummularia*) and the Third track : The cultivation of fruit trees tolerant to salinity and drought, including many types by dew harvest. Therefore, the objectives of this study aimed to the building community in the desert on a sustainable base through Bio Circuits system will Lead to ease the burden on the existing natural resources.

**Key words :** *phyto-pump , desert, change desert conditions, mangrove , halophytes fdder, Bio Circuits system*