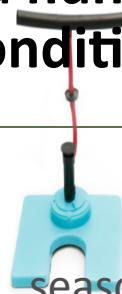




The Buried Diffuser for drought and hunger mitigation within climate change conditions

➔ Anticipated Irrigation

Instead of irrigation during the hot or the dry season, the irrigation using Buried Diffusers is done during the autumn and winter or during the rainy season. The amount of water of the “Anticipated Irrigation” should cover the total need of the crop during the hot or dry season (spring and summer). This water amount is stored in the deep soil layers and will be used by the deep or sub surface roots systems of the crops.



➔ Water Injection and Storage

The water injection using Buried Diffusers in the deep soil layers is useful especially for trees crops. The injected water comes from: dams, rivers, and springs. The amount of the injected water could cover the need of the trees for several years (2 to 3 years) when the soil below 50 cm is thick (1 meter or more) and contains minimum 10% clay. This injected water is conserved (stored) in the deep soil layers (50 cm below the soil surface) and used later by the deep root systems of the trees during a short or a long drought period: six months till 3 years. During the drought, the trees produce normally using the injected and stored water.



February 2013 – Olive tree suffering from drought : 75% of leaves are completely dried



April 2013 – Re greening of the same Olive tree 2 months after receiving 2250 liters.

Drought mitigation using buried diffuser on olive trees - Nouvelle Matmata Arid region in The south of Tunisia

