



### **Action A.3: Restoration plan of the Epanomi Lagoon functions and the technical specifications to implement restoration**

The aim of the restoration plan is to define the objectives and the measures for the restoration of Epanomi lagoon taking into account:

- RAMSAR restoration guidelines of COP8,
- Principles of integrated Coastal Zone Management
- Habitats Directive 92/43/EEC
- Water Framework Directive (2000/60/EC) and
- DPSIR framework of environmental analysis by European Environment Agency (EEA).

More specifically, the restoration plan aims at:

- Determination the most appropriate and effective restoration solution, that will provide the appropriate conditions for habitat diversity and conservation of bird population
- Identification of measures to restore wetland functions.

The study area is defined by the watershed limits of Epanomi lagoon, which total area is 830,38 ha.

The aim of action A.3 is the development of a restoration plan of Epanomi lagoon and the description of the technical specifications of the restoration works that will be proposed. For this purpose, initially a description of the study area was made regarding its climatic conditions, geology and hydrology and its current situation. According to the evaluation of the current situation which included pressure analysis, water sampling and water quality analysis, an update of habitat types, avifauna records, a functional assessment of wetland ecosystems and the topographic mapping of the study area, the objectives of the restoration plan were determined.

These objectives concern the preservation-creation of habitat diversity and preservation-improvement of food web support function, the improvement of wetlands' water quality and the improvement of storage capacity and hydroperiod. To achieve the restoration objectives some measures-actions are proposed aiming at the recovery of degraded wetland functions per Zone of Specific Functional Interest, as derived from the functional assessment. Specifically, the proposed measures-actions, after determining the wetland self-sustainable idio-type and the development of alternative restoration scenarios are the following:

- ❖ Restoration works concerning the control of non-point pollution and the creation of habitat types.
  - Creating a buffer zone, 9,5m wide.



- ❖ Restoration works concerning the hydroperiod form and the hydraulic characteristic improvement.
  - Creation of two fresh water ponds of about 2000m<sup>2</sup> each.
  - Creation of Ditches
  - Sluice installation for controlling the water entry to the lagoon
  - Hydraulic characteristic improvement of the existing ditches for improved water flow
  - Embankments configuration for water confining in the region where the function of the rest of the works would not be affected.
  
- ❖ Works for creating avifauna habitats
  - Creation of nesting sites, with total area 1700m<sup>2</sup>
  - Configuration of periodically flood areas.
  
- ❖ Information and awareness actions.
  
- ❖ Removal of solid wastes.

In conclusion, according to the estimation of current status and the functional evaluation, degraded wetland functions were assessed. In order to enhance the degraded wetland functions, restoration actions and measures were proposed, which include restoration works concerning the control of non-point pollution and the creation of habitat types, restoration works concerning the hydroperiod form and the hydraulic characteristic improvement, works for creating avifauna habitats, information and awareness actions and removal of solid wastes.