



From one marsh to another, changing swamps - Exercise of reflexivity within the water and territories system: wetland renaturation / restoration

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In relation to the “Plan National en faveur des Zones Humides”, the project aims to provide food for thought, from the interdisciplinary articulation, for the development, organizational arrangements and the level of water governance.

The methods that will permit to better understand how work studied ecosystems and to measure the anthropogenic and natural part of the functioning of these territories. The methods will be based on a landscape approach and facilitated by the techniques used in landscape ecology making wide use of the techniques from geomatic (GIS, digital photogrammetry, satellite remote sensing...). Additional studies from data collected in the field will also be made in particular to improve our understanding of hydrology, water quality... .

The two sites selected by this proposal covers two wetlands of national and international interests. Both are located in natural regional parks (NRP): Alpilles and Camargue, the NRP of Camargue is furthermore included in the “Man and Biosphere Reserve” of the Rhone delta. The first concerns the “Vallée des marais des Baux”, the second, the “Salins de Giraud”. The complexity of natural and human issues make such territories privileged study sites. Located both in the west of the “Bouches du Rhône” department, these territories have very different human and physical characteristics.

We develop in this presentation only the first, the “Vallée des marais des Baux”. Under the initiative of several private owners, voluntary marshes restoration experiments are conducted. This area covering about 1300 hectares was originally swamp. Since the Romans, many attempts have succeeded in drying up the area but it's not until 1950-1960 that the technical development allowed to realize so - exception of small areas of relict marsh - implementing development centred on agriculture. Following to major floods in 2003, the sector is defined (Rhône river master plan) as an flood expansion area. Moreover, there is some decline of agriculture in this valley and a challenge for this activity (cereals, beef, fodder production, olive ...) against the maintenance of the drainage system (pump stations, dykes etc..). The relict marsh is privately owned, quite unaccessible and often unknown by the public and the fifty years of agricultural conversion into polders have partially helped oversight the original nature of the ancient “marais des Baux”.

The purpose of this work will be, through an interdisciplinary approach to propose evolution scenarios but also, and especially in the concern of governance that will protect Wetlands without forgetting the human and economic issues. These scenarios will have to be done in a sake of sustainable development in which both, actors and nature, will win.

This project aims to bring new knowledge for better governance of territories and water-related uses with a view to preserve wetlands. The construction of prospective models will take into account the assumptions of future scenarios for social water resource demand. The response of ecosystems and territories with this request will determine its relevance in this environmentally acceptable approach for the maintenance, improvement or renaturation of "natural environments" and especially wetlands.

This project is financed by French Environment Ministry program “Eaux et Territoires” .