

Special Plan for the Upper Guadiana (SPUG)

Location

Country: Spain

Scale: local

Region: Castilla la Mancha - Guadiana Catchment

Compensated /improved ecosystem services

- Water supply

Management

The largely uncontrolled use of groundwater resources in Spain has resulted in the overexploitation of aquifers, environmental degradation and loss of associated valuable wetlands and aquatic ecosystems.

The River Basin Authority (RBA) has prepared a Special Plan for the Upper Guadiana (SPUG) which was approved by the Spanish parliament through the Royal Decree 13/2008 of the 11th of January of 2008. The SPUG includes different types of measures, such as:

- Purchasing water rights from the irrigators,
- Social restructuring plans that includes the legalization of illegal wells and the closing-up of unlicensed bores,
- Reforestation plans, and
- Support of extensive rain fed farming.

Under the PES scheme, payments for reforestation of agricultural lands are foreseen which shall provide funding:

- in the phase of reforestation/planting,
- to maintain the planted forest,
- to compensate lost income.

The payments for the reforestation/plantation of trees in the first year is subject to the fulfilment of technical, sanitary and density (minimal woodland by hectare) requirements for the different tree species. The financial support to cover the maintenance costs consists of an annual support calculated per hectare of agricultural land that has been reforested. These payments are granted up to a maximum period of 5 years. The compensation payments are made on an annual basis for a maximum period of 20 years. Both, payments for maintenance and compensation can only be made after the correct execution of the reforestation has been certified.

Reforestation process three possible ways have to be distinguished:

- Reforestation executed by the RBA - the reforestation and maintenance of forest will be undertaken by the RBA itself. The land owner only receives the compensation payments. This has the advantage that the correct execution of the plantation and maintenance works as well as the correct use of the financial resources is ensured, and less control is needed.
- Reforestation executed by the private land owners - in this case, the plantation of trees and their maintenance will be undertaken by the private land owner with support from the RBA. In addition, the land owner receives the compensatory payments for a maximum of 20 years. This has the advantage that the RBA is less occupied with planning and implementation work. However, it also means a greater danger of misuse of the financial support and a need for more control of the land owners' activities.

- Acquisition of the areas on behalf of the RBA - finally, the RBA can also directly buy the land in order to carry out the reforestation and maintenance works. This has the advantage that future land use changes are rather unlikely, since the major investment for the acquisition of land provides an incentive for the maintenance of the reforestation for life.

Stakeholders

Sellers or service providers:

- Forest and land owners

Buyers of services:

- River Basin Authority

Timeline

Establishment year: 2008

Time horizon: long term

Status of PES: active

Availability of economic data

The total budget for the implementation of the reforestation activities from 2008-2027 is estimated to be € 1.185.000.000.64. The implementation of the SPUG and the reforestation programme is still going, it is too early to judge the effectiveness and efficiency of this PES scheme.

References / Source of information

C. Van Ham, G. Jansse, and M. Gaworska. 2009. Final report study on the Economic value of groundwater and biodiversity in European forests. 90 p.
http://ec.europa.eu/environment/forests/pdf/grounwater_report.pdf