

AQUACULTURE WEB VIEWER

Authors: Casillas, A; Pinar, A.; Briones, P; Palao, J; Soriano, A.
Tragsatec- Fisheries and Maritime Affairs Unit, Calle Julián Camarillo 6 B - 28037 Madrid

1 Introduction

Multiannual strategic Plan for Spanish aquaculture 2014-2020, set as a priority the "Improvement of spatial planning and selection of new sites". In order to implement this strategy, TRAGSATEC was commissioned by General Secretariat of Fisheries to develop a GIS-based decision support tool for the spatial planning of aquaculture.

2 Objectives

- To organize and standardize, in the same format, basic information on aquaculture, and inform about wide diversity of aquaculture production methods in Spain.
- To give visibility to aquaculture activity and enhance its integration into planning and management instruments such as maritime spatial planning, public domain, water, land use and natural protected areas management or rural development.
- To situate Spanish aquaculture into other European knowledge management systems and information exchange networks.



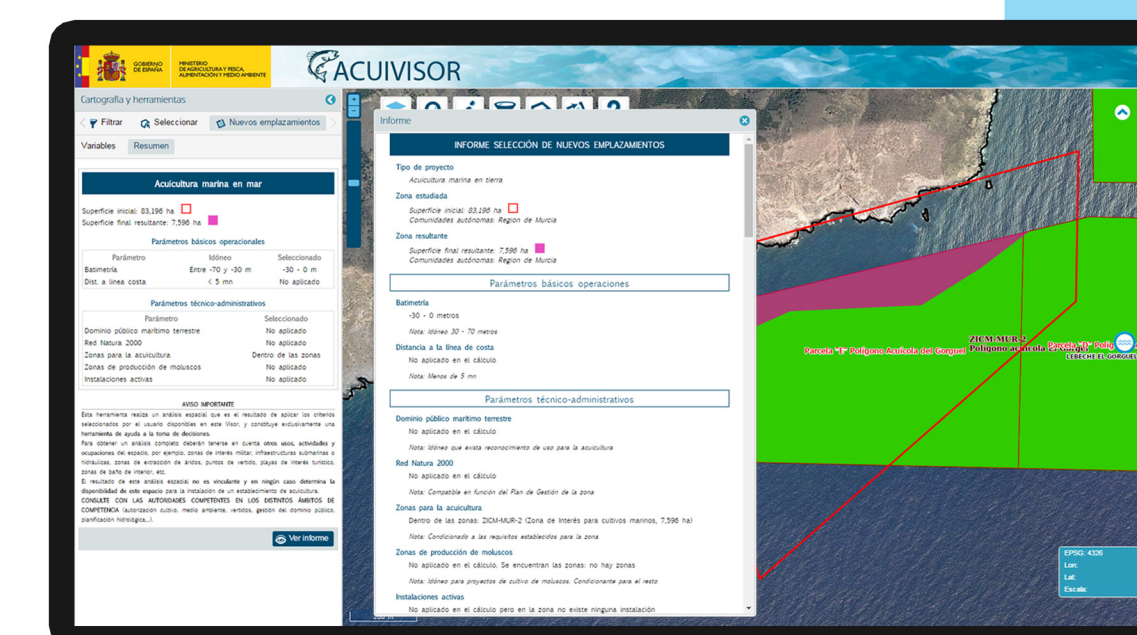
3 Material and methods

This viewer has been fully developed using open source software. Java J2EE has been used to Back-end development, and Javascript, HTML 5 y CSS to Front-end development. Some of the Javascript libraries used are OpenLayers 3, ExtJS 6 y GeoExt 3.

The application has been constructed using thematic cartography of aquaculture, elaborated by autonomous regions, and general cartography provided by external services.

The tool allows the user to work with 30 GIS data layers: 3 specific aquaculture layers, 15 layers that describe environment and others uses and occupation of spaces, and 6 reference data layers.

4 Contents

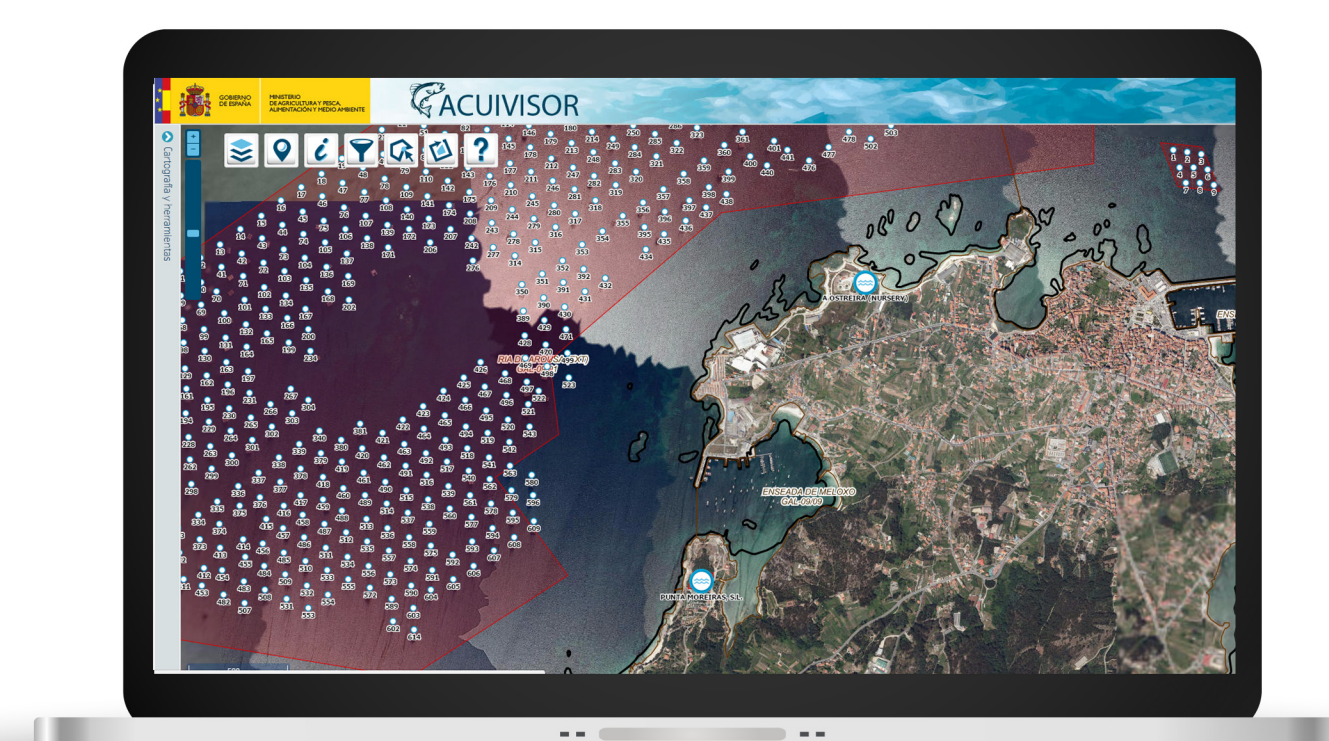


User can display the following information:

- 4.054**  marine aquaculture facilities (rafts, cages, bottom culture, long-line,...)
- 226**  freshwater aquaculture facilities
- 210**  mollusc farming areas declared in Spain in accordance with Regulation (EC) N° 854/2004.
- 268**  aquaculture zones (196 located on the sea and 72 on land). This zones are considered as a first approach to the future spatial planning of aquaculture, in the framework of the maritime spatial planning Directive 2014/89/EU.

5 Conclusions

The development of this tool represents another step in Spain's commitment to sustainable development of aquaculture, through the implementation of the Multiannual Strategic Plan. ACUIVISOR is an extremely useful tool for the spatial planning of aquaculture in the context of maritime spatial planning.



Aquaculture

Hydrological planning and water management

Management of the public domain

Maritime spatial planning

Management of natural áreas

Spatial planning and rural development

Target groups

Public administrations
Consider aquaculture in their proceedings
Improve the activity of aquaculture sector

Aquaculture managers
Spatial analysis to assist in management and planning
Overview of the aquaculture in all regions

New promoters
Technical assistance for site selection
To provide information about procedures and competent authorities

Aquaculture producers
To increase the visibility of their activity
To improve communication with the industry

Other users
Researchers
The media
Mapping managers



Link to ACUIVISOR website

<http://www.mapama.gob.es/es/pesca/temas/acuicultura/visor-de-instalaciones/default.aspx>

ACKNOWLEDGMENTS:

Ministry of Agriculture, Fisheries, Food and Environment of Spain and especially, to the General Directorate for the Fisheries Resources and Aquaculture.