Online course on the use of geographic information system in the establishment of allocated zones for aquaculture

MODULE 1 – Spatial information and representation

Agenda

Monday 23 November

Introduction and course overview

- Presentation of the course
- Marine spatial planning framework
- Marine spatial planning in the Mediterranean and the Black Sea
- The Blue-Cloud project for aquaculture cage detection
- Allocated zones for aquaculture: concept, implementation phases and parameters
- Geographic Information system (GIS): definition, basic concepts, software and application
- Hands-on session: recognizing different types of layers

Tuesday 24 November

Part1: Learning how to use QGIS (open source) – QGIS interface

- Database preparation
- Data entry and visualisation
- Basic tools and plugins
- Managing layer
- Attribute selection and consultation
- Adding basemaps
- Hands-on session: (1) Creating a layer from a table with X and Y coordinates; (2) Creating a layer from another layer

Thursday 26 November

Part 2: Learning how to use QGIS (open source) – Coordinate reference system (CRS)

- Using geographic coordinate systems
- Using projected coordinate systems
- Projecting and transforming data
- Hands-on session: changing the CRS of a vector layer

Part 3: Generating spatial information

- Editing an attribute table
- Processing vector data. Distance and area measurement
- Digitizing process
- Hands-on session: (1) editing an attribute table; (2) using the digitizing process to trace objects from remote sensing data

Monday 30 November

Part 4: Creating maps

- Layout and item properties
- Graphic elements
- Graphic output creation
- Hands-on session: generating a map with QGIS

Wednesday 2 December

Part 5: Use of Copernicus Marine Environment Monitoring Services (CMEMS)

- Downloading and accessing free satellite data
- How to visualize satellite data with QGIS
- Hands-on session: extracting satellite data

Final evaluation and recommendations