



SAFI

Support to Aquaculture and the Fishery Industry

Grant Agreement No. 607155

D10.1 - Report On Indicators For Fishery And Aquaculture

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REVISION RECORDS

Issue	Date	Updates	Authors
v0.9	25/03/2015	Creation	IPMA: Marta Rufino, Miguel Gaspar and Miguel Santos; IFAPA : Oscar Moreno, Raquel Duque; ACRI-ST: Philippe Bryère, Chloé Vincent and Antoine Mangin.
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This document has been approved by:

Date	Name, Title, Beneficiary	Signature
31/03/2015	Antoine Mangin, SAFI Coordinator, ACRI-ST	

Period covered by the project: 01/10/2013 – 30/09/2016 (36 months)
Type of funding scheme: Collaborative Project - small or medium-scale focused research project
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1 PUBLISHABLE SUMMARY OF THE DOCUMENT

1.1 PROJECT SUMMARY

The objective of SAFI project (SAFI standing for “Support to Aquaculture and Fishery Industry”) is to exploit Earth Observation (EO) resources to support fishery and aquaculture industries in marine coastal regions.

The service, based on additive value brought by a network of SMEs, is adapted to each category of targeted users. By making the best use of emerging EO products, the project aims at developing services to assist aquaculture deployment (optimization of cages location with respect to environmental and ecological context) and environmental monitoring during operations as well as supporting fishery by providing indicators of recruitments, abundances, and shell/fish locations (and its variability due to climate change). In this perspective, SAFI fosters the use of the latest generation of satellite sensors and in particular those on-board the future ESA Sentinel missions (Sentinel 2 and 3).

The capacity of exportation and acceptance of the developed services will be then evaluated on several pilot sites in Europe (Spain, Portugal, Ireland, France) and demonstrated in Morocco.

Finally, SAFI also allows the set-up of a network of SMEs at different levels of expertise (and EO awareness) required by the service in order to build a consistent and marketable offer.

The project will finally lead to the development, deployment and evaluation of an integrated decision-support tool based on a web-GIS, broadcasting SAFI indicators to the various user concerned (industrials, public administrations in charge of fishery or aquaculture planning, EO service providers, great public) that will be fed by a service of EO high level data processing.

1.2 DELIVERABLE SUMMARY

Coming under the heading of work package 10, the deliverable D10.1 (“Report On Indicators For Fishery And Aquaculture”) is the first version of the synthetic description of the indicators planned to be developed in each case study of SAFI project.

First, the report briefly presents the case studies planned in the frame of SAFI: assessment of the recruitment, the stock abundance, the maturation and the potential habitat of small pelagic fishes, as well as support to optimal site location for aquaculture farms and near-real time monitoring of the environment.

Then, the approaches to develop the indicators of relevance to each case study are described. This preliminary description will evolve with the finalisation of the indicators, during the second half of the project. For each case study, the source and characteristics of the field data available (biological and/or environmental) are described. A description of the environmental data exploited from Earth observation and model sources is also presented in this section. Finally, the methods and approaches to setup and calculate the indicators are explained, with the respective discussion.

The current document includes the preliminary calculation of the indicators for each case study, being restricted to the areas of the indicators set up. It is then expected to evolve and be updated to include the final version of the indicators with its optimization and the application of those in the internal validation within Europe sites. The final deliverable document (D10.2) will be issued by September 2015 (M24). For the characterisation of the input data needed for the setup and operation of indicators, the final version of the Indicators document will rely and refer to the data description presented in the deliverable D7.2 (the final version of the Earth Observation and Model data Catalogue, due for the same date) and the *in situ* data Catalogue (D9.1) due by end June 2015. It will also include the algorithms and validation analysis for each indicator.

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