SAFI

Support to Aquaculture and the Fishery Industry

Grant Agreement No. 607155

D7.2 - EO And Model Data Catalogue

Publishable Summary

Due date of delivery:	M24 (30/09/2015)
Actual submission date:	18/12/2015
Version of the document:	v1.0
Lead contractor for this deliverable:	ACRI-ST
Dissemination level for the deliverable:	RE

REVISION RECORDS

Issue	Date	Updates	Authors
v0.9	15/09/2015	Update and complements from D7.1 Addition of the Validation Chapter	Philippe Bryère, Chloé Vincent (ACRI-ST) Marta Rufino (IPMA) Jesus Morales, Carlos Jimenez (IFAPA)
v1.0	18/12/2015	Revision and complements by the consortium	

TABLE OF SIGNATURES

This document has been approved by:

Date	Name, Title, Beneficiary	Signature
18/12/2015	Antoine Mangin, SAFI Coordinator, ACRI-ST	
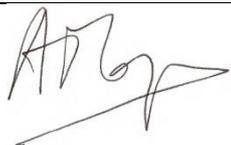
Period covered by the project: 01/10/2013 – 30/09/2016   (36 months)

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 SMEs network at different expertise levels (and EO awareness) required by the service in order to build a consistent and marketable offer.

In fine, the project will 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 (e.g. 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 7, Deliverable 7.2 ("EO And Model Data Catalogue 2") presents the synthesis list of the Earth Observation and model data exploited for the setup of higher level indicators and for near-real time operation of SAFI services. In addition, this document provides information on the quality of the datasets proposed through validation on pilot sites (Gulf of Cadiz).

After a short introduction to the document, this report reminds the general strategy of the project regarding the indicators setup, the various pilot sites and the validation methodology (chapter 3). For each case study, partners involved in the setup of the corresponding indicators have made requests for Earth Observation and model data, and statistics. The data provision requests received and processed by WP7 are also presented.

The next chapter presents all the datasets identified in SAFI, at first through a general overview of the parameters, and then through a detailed characterisation including the justification of the choice of such parameters for SAFI analysis.

Then, the last section provides information about the validation of the sea surface temperature (SST), chlorophyll-a and wave height products exploited in this project. SST and waves heights products are found of very good accuracy, and GSM and OC5 products give rather good estimations of chlorophyll-a concentrations when used for the appropriate water categories.

This final version of the report is published after numerous iterations with project partners. The products identified and proposed have been exploited successfully to derive the first version of the indicators or the project. The document thus presents a consolidated list of sources for each useful parameter exploited in the project. More than 500Go and 2 Million files were generated and made available for SAFI partners' analysis and to feed the end-users online platform developed by SAFI (http://safiservices.ucc.ie).

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