Tools for Assessment and Planning of Aquaculture Sustainability

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DELIVERABLE 8.5

Hands-on manual for Aquaculture Sustainability Tools

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History of changes:

Ver	Date	Changes	Author
0.1	26/10/2019	Initial draft	RS
0.2	27/11/2019	Second draft	LF
0.3	12/12/2019	Final draft	All

SUMMARY

This document is the report for Deliverable 8.5 the Hands-on manual for the Aquaculture Toolbox developed in the EU H2020 TAPAS (Tools for Assessment and Planning of Aquaculture Sustainability) project. The toolbox has been developed with a focus on the end-user experience and it should be intuitive and easy to use, and so not need detailed instruction. As a result, the Hands-on manual, or user guide as it is now known, is relatively simple and introduces the user the different components and how different stakeholders can use the toolbox.

The user guide is available in either print or electronic format. For convenience in this report, images of each page are included to show the design and content.

THE AQUACULTURE TOOLBOX: A USER GUIDE

Welcome to the Aquaculture Toolbox! In the Toolbox, you will find guidance and tools to support the planning and licensing of aquaculture in Europe.

The Toolbox was created for license applicants (those in the aquaculture industry) and decision-making authorities, including regulators, to improve the licensing process. The guidance and tools that you will find in the Toolbox provide advice and support that will assist better planning of aquaculture in Europe, from the perspective of both the practitioner and the regulator. Individual jurisdictions can use the information to establish a more streamlined and transparent approach to aquaculture licensing.

The Toolbox has been flexibly designed to allow users to either travel through the licensing process from start to finish, or to access the stages of the licensing process that are most relevant to their needs. This means that users can get the most out of the Toolbox whatever their needs — whether they are looking for something specific, or to review their approach throughout the licensing process.

This manual contains guidance on the use of the Aquaculture Toolbox. Contact details are provided if you wish to seek further support.

NAVIGATING THE AQUACULTURE TOOLBOX

THE LICENSING PROCESS

1	2	3	4	5	6	7	8
Location	Licences	Pre-application	Application	EIA	Consultation	Decision	Compliance

The Licensing Process used in the Toolbox has been established following a review of existing practice and identification of bottlenecks. Users can access the Licensing Process from the Licensing Process tab in the toolbar at the top of the page or from the home page of the toolbox. Users can navigate through recommendations and guidance for each step of the process, from selecting a location to aid compliance once a license has been granted. It is also possible to select the individual stages that are most relevant to their needs. User-specific information is colour-coded according to whom the advice is relevant to.

FOR LICENSE APPLICANTS

Text against a blue background indicates information that is relevant for potential applicants, whether that is aquaculture producers or consultants acting on their behalf.

FOR DECISION MAKING AUTHORITIES

Text against a grey background indicates information that is relevant for decision-making authorities such as planning committees and regulatory bodies.

In the toolbar menu at the top of the page, users will also find modelling tools, guidance tools and case studies. The contents of these pages are embedded in each of the relevant licensing process pages, but if users wish to view the full suite of each, they can be accessed through these links. On each page, the relevant tools and case studies can be filtered by stage of the licensing process and type of aquaculture. The 'maps' tab allows users to filter tools and case studies by geographic area.

| AQUACULTURE | LICENSING PROCESS | MODELLING TOOLS | GUIDANCE TOOLS | CASE STUDIES | MAPS | CONTACT | HELP | Q |

MODELLING TOOLS

| AQUACULTURE | LICENSING PROCESS | **MODELLING TOOLS** | GUIDANCE TOOLS | CASE STUDIES | MAPS | CONTACT | HELP | 🔍 |

Modelling tools are accessible through the menu at the top of the page, as well as being embedded in some stages of the Licensing Process. The search box can be used to identify tools that are relevant for a particular part of the Licensing Process, spatial scale and type of aquaculture.

SEARCH | Reset filters

Licensing process	Spatial scale	Type of aquaculture
☑ Location ☑ Pre-application	☑ Farm level ☑ Coastal or catchment	☑ Shellfish ☑ Freshwater cages
☑ Application ☑ EIA ☑ Compliance	☑ National ☑ International	☑ Ponds ☑ Marine cages ☑ IMTA

Insert text here   🔍 Search button

Aquaculture Integrated Model (AIM)

3-D coupled hydrodynamic / biogeochemical model

More information and link

EIA, Location, Application, Pre-application, Compliance, Farm level, Coastal or catchment, Marine cages

BROM/2DBP

Bottom RedOx Biogeochemical model coupled with 2-dimensional Benthic-Pelagic transport model

More information and link

Location, Pre-application, Farm level, Marine cages

CAPOT

Spreadsheet-based model that rapidly estimates the amount and location of solid wastes from fish farms settling to the seafloor sediments.

More information

Location, Compliance, Farm level, Marine cages

By clicking on 'more information' for each model, users can access a description of the model, including its suggested users, format, cost, data requirements, time requirements, and required resources and knowledge/skills. The relevant downloads and/or links are provided for users to access the model or contact the relevant organisation.

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GUIDANCE TOOLS

Guidance tools and documents are accessible through the menu at the top of the page, as well as being embedded in some stages of the Licensing Process. The search box can be used to identify those that are relevant for a particular part of the Licensing Process, spatial scale and type of aquaculture.

Guidance tools provide users with external reports and other external documents, including from the Food and Agriculture Organisation (FAO) and the European Union (EU). Each guidance tool is available as a downloadable PDF document and can be accessed by clicking on the blue PDF button.
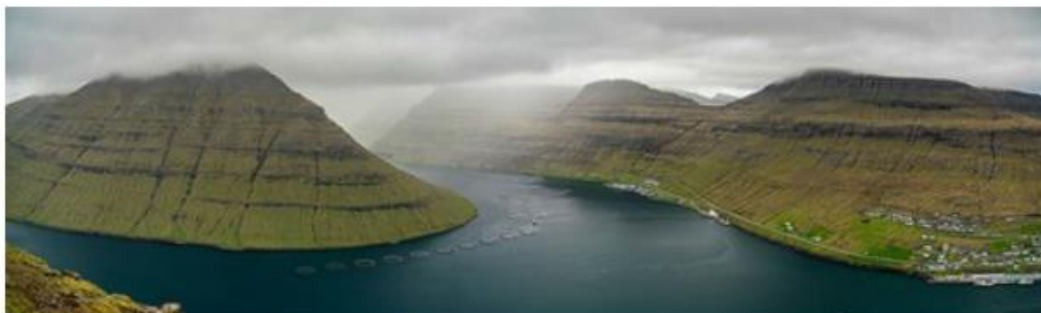
CASE STUDIES OF THE TOOLS IN ACTION

To read case studies of the tools provided in the Aquaculture Toolbox applied in practical scenarios, click on the 'Case Studies' tab in the menu at the top of the page. Here, users can access reports of where, how and why the tools have been used to demonstrate applicability to aquaculture planning, licensing and management. As with the Modelling and Guidance Tools, the case studies can be filtered.

Characterization of environmental gradient in marine fish farming

Marine cages, Farm level, Coastal or catchment, EIA, Compliance

Planning and management of Mediterranean fish farming

Pre-application, EIA, Compliance, Farm level, Marine cages

Predicting environmental concentrations of antifoulants released from fish farms

Marine cages, Farm level, EIA, Compliance

The case studies provide users with case studies for different types of aquaculture throughout Europe. They contain broad overviews of the context in which the tools and approaches were used, how they were used, the results of the study and its broader applicability. A SWOT analysis is included, which briefly outlines the strengths and weaknesses, as well of opportunities and restrictions of its use.

THE AQUACULTURE TOOLBOX

Aquaculture contributes to food and nutrition security amid the challenge of a growing population. To continue to do so sustainably, key challenges must be addressed. These include appropriate site selection, operating within the carrying capacity of the environment and ensuring that water quality is maintained at a high standard. Planners and industry both play a role in ensuring the long-term sustainability of the industry in Europe.

The Aquaculture Toolbox can help regulatory authorities establish a more streamlined and cost-efficient approach to licencing and provide potential applicants information on the tools and approaches available to support planning and management of a farm.

The Aquaculture Toolbox was developed as part of the European Union Horizon 2020 Tools for Assessment and Planning (TAPAS project) which investigated the bottlenecks to aquaculture licensing and suggested improved approaches to support more transparent and efficient licensing, supported by cost-effective management tools. The toolbox is a key outcome from the project.

TOOLBOX AQUACULTURE

www.toolbox-tapas.s1.umbraco.io
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