# AgriOcean Dspace : FAO and UNESCO-IOC/IODE combine efforts in their support of Open Access

AgriOcean Dspace is a joint initiative of the United Nations agencies of FAO and UNESCO-IOC/IODE to provide a customized version of DSpace using high standards for metadata, thesauri and other controlled vocabularies in oceanography, marine science, food, agriculture, development, fisheries, forestry, natural resources and other related sciences.

## The best of both worlds

The communities supported by FAO and UNESCO-IOC/IODE are synergistic and the standards on metadata and controlled vocabularies are similar for both. Collaborating offers the fortunate opportunity to integrate in a common repository tool the best of both worlds.

Regarding UNESCO-IOC/IODE this comes from the Hasselt University Library in Belgium which produced in 2004 for IODE a customized version of DSpace called OceanDocs (latest version used is 1.5) and adapted it to the standards of the Oceanographic community. FAO, instead, customized DSpace in 2007 in collaboration with the Indian Statistical Institute as a tool for AGRIS centres using the AGRIS Application Profile (AP). All these developments are going to be integrated in AgriOcean Dspace using Dspace version 1.7.

## Tasks

FAO and UNESCO-IOC/IODE provide the customization of Dspace in order to produce high quality metadata and to use thesauri. Dublin Core and AGRIS AP are the metadata used to assure that AgriOcean Dspace is OAI compliant and thus interoperable, that its data can be exchanged. High quality metadata have a beneficial influence not only on the visibility and interoperability of the records hold by a repository, but also on the accessibility. Still only through the use of controlled vocabularies a repository can reach the highest state of accessibility which is reached when a system search results in a exhaustive search result. Authority control for AGROVOC, the multilingual agricultural thesaurus, developed by FAO and the Commission of the European Communities in the early 80s, and ASFA will be integrated. In a later stadium Kasetsart University (Thailand) will add a thesaurus plug-in using web services for both thesauri.

Finally the Hasselt University Library responsible for integrating all mentioned developments in AgriOcean Dspace, will create an Windows-based installer which will be available in April 2011. This is essential for the targeted communities, consisting mostly of smaller institutes in developing countries.

To exchange information and assist the institutions involved in AgriOcean Dspace with issues that come up while installing and/or using AgriOcean Dspace a community is created on the Agricultural Information Management Standards (AIMS) website (http://aims.fao.org/community/group/agriocean-dspace ).

## Benefits

The benefits of customizing DSpace in terms of using high quality metadata and using thesauri like AGROVOC are huge. AgriOcean Dspace will make scientific publications in the fields of marine, agriculture and related sciences easy and freely accessible and facilitate publishing of research findings by scientists. More specifically it will enhance the internal scientific communication and help involved institutional repositories with setting up OAI-compliant repositories. AgriOcean Dspace will contribute to opening up a world of knowledge and hopes to

help to bring forth development in the fields of oceanography, marine science, food, agriculture, development, fisheries, forestry, natural resources and related sciences.

# AgriOcean DSpace

# FAO and UNESCO-IOC/IODE Combine Efforts in their Support of Open Access

## The Communities

**AGRIS** (International System for Agricultural Science and Technology) is a global public domain Database with 2.6 million structured bibliographical records on agricultural science and technology.
**Aim**: Promote free access to information on agriculture and related subjects.
**Background**: FAO set up AGRIS in the 70s to create a worldwide cooperation for sharing access to agricultural information.
**Community**: 150 institutes. 65 countries.

**OceanDocs** is a customization of DSpace. Hasselt University (Belgium) developed it for the International Oceanographic Data and Information Exchange (IODE) of IOC of UNESCO.
**Aim**: Promote free access to information on marine science and oceanography.
**Background**: It initially started as an African project called OdinPubAfrica. Its aim was to create a platform to make publications available worldwide.
**Community**: 50 institutes (31 from Africa and Latin America.)

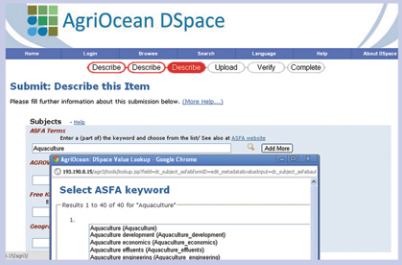
## The Tool

**AgriOcean DSpace** Is a customization of DSpace 1.7, an open source, digital repository software. It is a joint initiative of the United Nations agencies of FAO and UNESCO-IOC/IODE.
**Features**: High standards for metadata; controlled vocabularies; type-based; different level approach; easy to install version (for communities with limited IT support).
**Aims**: Promote open access to scientific information on oceanography, agriculture and related sciences; enhance the internal scientific communication; increase the impact of scientific information on research developments.
**Background**: FAO and IODE supported both communities with similar needs: high quality metadata and controlled vocabularies. Both were working on a customization of DSpace. Collaborating offered the fortunate opportunity to integrate in a common tool the best of both worlds.
**Communities**: The OceanDocs and AGRIS communities.

## The Standards

**Metadata standards**
AgriOcean DSpace focuses on:
Dublin Core (DC)
Metadata Object Description Schema (MODS)
Agris AP, value added service
**Semantics**
The new Dspace 1.7 authority functionality is used to control:
- Aquatic Sciences and Fisheries Abstracts (ASFA)
- AGROVOC: multilingual agricultural vocabulary
- Journal titles






## Submission Module

Lay-out possibilities:
- Switching between type of documents
- Grouping of fields
- Definition of field size
- Different fields in a row
- Language option for a field

**Objective**: To give institutions the possibility to customize the AgriOcean DSpace submission module to the needs of their own collection.

## Type of Documents

Type-based submission module:
- Journal contribution (Article-Review-Editorial-Letter-Meeting-Abstract-Note-Other)
- Book section
- Book
- Proceedings paper
- Conference contribution (Paper-Poster-Presentation-Other)
- Research report
- Working paper
- Thesis
- Other (Preprint)

**Objective**: A submission template for each common type of document.

## Metadata Export

The introduction of refined metadata is only relevant, if it is possible to expose it through the OAI-protocol. AgriOcean Dspace focuses on DC – MODS – Agris AP.
Translations are realized using the crosswalks of Dspace which are enhanced to define language and authority attributes (stocked under the language and authority columns of the metadatavalue table)

**Objective**: To make literature available in open standards (OAI – metadata)

## Broader Community

VOA3R AP, Virtual Open Access Agriculture & Aquaculture Repository. The VOA3R platform aims at re-using existing and mature metadata and semantics technology to deploy an advanced, community-focused integrated service for the retrieval of relevant open content and data. AgriOcean DSpace will provide meta-data and collaborate in the development of tools.

**Objective**: Share scientific research related to oceanography, agriculture and related sciences.

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