

Annotated agenda

Tuesday, 27 January 2009

09:00-17:15	Regional Aquaculture Information System "RAIS"
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1. General overview and development status of RAIS

Presentation of national data uploaded by RECOFI member countries.

Agenda objective: Brief participants on the status of the data stored in the system since the last meeting held in Kuwait in November 2007. RAIS National Coordinators will be requested to report technical problems they have encountered during data entry. The agenda item will also raise the issue on data/news updating and entry frequency. The WGA Focal Points and/or the RAIS National Coordinators are requested to report on the status of data collection and entry. The Secretariat will report on the preparation of the National Aquaculture Sector Overviews (NASO) for the region.

2. Role of the RAIS Regional Centre

The role of the RAIS Regional Centre include: i) Regular maintenance of the information system; ii) Interaction between Regional Centre and National Centres; iii) Establishment of partnership with other regional aquaculture information system; and iv) Collection and submission of news items of interest to the regional aquaculture community.

Agenda objective: To clearly inform the RAIS Regional Centre staff and the RAIS National Coordinators of the supporting role and tasks to be performed by the different parties in managing the regional information system.

3. Presentation and adoption of the RAIS User Manual

Presentation of the RAIS User Manual to the RAIS National Coordinators and WGA Focal Points.

Agenda objective: To present the new RAIS User Manual prepared by the Secretariat and to receive feedback prior to its finalization and translation into Arabic.

4. Establishment of a common communication strategy to promote RAIS

These include: i) Regional/national communication strategies; ii) Preparation of a flyer for the promotion of the system; and iii) RAIS National Coordinators' role and interaction with the Regional Centre.

Agenda objective: to discuss with the National Coordinators the main issues related to widening and improving the effectiveness of the RAIS network and promoting RAIS at national, regional and international levels.

5. Any other matter

These include: i) new developments (e.g. mailing lists and newsletter); and ii) how to stimulate advertisement on the RAIS Web site by external users/clients.

Agenda objective: to discuss with the country participants potential and future areas of development within the information system.

6. Activities for the next biennium

The workshop participants will be invited to identify and prioritize activities to further develop and strengthen RAIS which will be included in the next biennium work plan of the WGA.

Agenda objective: to identify and prioritize activities for inclusion in the programme of work for the next (2009–2011) to be submitted to the Commission in May 2009 and determine budget requirements.

Wednesday, 28 January 2009

09:00–17:15	Fourth RECOFI-WGA Meeting
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1. Recommendations of the Fourth Commission session and WGA activities implemented

The Secretariat will present the work carried out by the WGA during the last intersessional period in relation to the approved work plan (NB: RAIS activities will be covered the previous day).

Agenda objective: issues related to the implementation of the WGA work plan and difficulties encountered will be raised and discussed under this agenda item.

2. Presentation and prioritization of cage culture development follow-up activities

The key activities discussed and follow-up actions identified by the participants attending the cage culture development workshop will be presented as project concept notes for discussion and prioritization.

Agenda objective: One or more key follow-up activities will be identified for inclusion in the next RECOFI-WGA biennium work plan.

3. Aquaculture legal and policy framework project proposal

The RECOFI-WGA Focal Points will be invited to report whether their country has contributed the budget share for the implementation of the aquaculture legal and policy framework project proposal.

Agenda objective: to report to the Commission at its fifth session (May 2009) and provide actions on how to progress with this long standing activity.

4. WGA work plan preparation for next biennium (2009–2011)

The RECOFI-WGA Focal Points will require identifying and prioritizing activities for inclusion in the next biennium work plan. The work plan may include activities as follow-up to the two workshops on Aquatic Animal Health and on Sustainable Marine Cage Aquaculture Development as well as other issues of emerging importance for the region to be presented and discussed by the WGA Focal Points.

Agenda objective: to finalize the next WGA work plan for the 2009–2011 intersessional period.

5. WGA Chairperson

The WGA Focal Points will be invited to present candidates for the next WGA Chairperson and proceed with the election. Confirmation of the WGA Focal Points and Alternate Focal Points.

Agenda objective: Nomination of WGA Chairperson for the next intersessional period.

6. Any other matter

7. Date and place of the fifth meeting

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List of documents

RECOFI:WGA/IV/2009/1	Provisional annotated agenda
RECOFI:WGA/IV/2009/2	Draft user manual of the Regional Aquaculture Information System (RAIS)
RECOFI:WGA/IV/2009/3	Draft communication strategy of the Regional Aquaculture Information System (RAIS)
RECOFI:WGA/IV/2009/4	Draft promotional flyer of the Regional Aquaculture Information System (RAIS)
RECOFI:WGA/IV/2009/Inf.1	List of documents
RECOFI:WGA/IV/2009/Inf.2	Report of the Fourth Session of the Regional Commission for Fisheries, Jeddah, Kingdom of Saudi Arabia, 7–9 May 2007
RECOFI:WGA/IV/2009/Inf.3	Report of the Second Meeting of the Working Group on Aquaculture, Muscat, Sultanate of Oman, 29–30 November 2005
RECOFI:WGA/IV/2009/Inf.4	Report of the Regional Workshop on Aquatic Animal Health, Jeddah, Kingdom of Saudi Arabia, 6–10 May 2008

Regional Aquaculture Information System Draft User Manual



Summary

The Regional Aquaculture Information System (RAIS) is a Web site based on open source Typo3 software (a Content Management System). It has been established by the Food and Agriculture Organization (FAO) under the *aegis* of the Regional Commission for Fisheries (RECOFI) to facilitate the exchange of aquaculture information in the Gulf area among regional experts and stakeholders, and to promote and develop a sustainable aquaculture industry. This simple user manual is addressed to all RAIS authorized users who wish to gain a better understanding on how the system works and to exploit all its functionalities.

Author	RECOFI Secretariat (Responsible Officer: Mr Valerio Crespi)
Version	1.0
Project	Regional Aquaculture Information System (RAIS)
Distribution	RECOFI-WGA Focal Points, RAIS National and Regional Coordinators
Object	RAIS User Manual
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1. OVERVIEW AND LOGIN

The RAIS has been designed applying the most up-to-date information technology and database management in accordance with international Information Technology (IT) standards: i.e. the Open Source Content Management System TYPO3.¹ The system is user-friendly and allows rapid data entry from the administrators and easy retrieval by end-users. The use of specific tools such as the “white page” directories also allow the easy development of additional Web pages created upon request to provide preliminary outlooks on the major emerging regional aquaculture issues.

The first step in order to add new records in the RAIS consists in the login of authorized users (Figure 1).

- Step 1 - Click on the following address: <http://www.raisaquaculture.net/>
- Step 2 - Enter your username in the username box
- Step 3 - Type your password
- Step 4 - Click on the *Login* button

To logout, just click on the *Logout* button.



Figure 1. Login box

2. HOW TO ADD NEW RECORDS

Nine main databases have been currently developed to store data and information. They are available on the left hand side of the RAIS home page (Figure 2).



Figure 2. The current nine RAIS databases

¹ TYPO3 is a **free Open Source Content Management System** for enterprise purposes on the Web and in intranets. It offers full flexibility and extendability while featuring an accomplished set of ready-made interfaces, functions and modules (See www.typo3.org for more technical information).

The **Annual aquaculture statistics** database provides national aquaculture statistics by year: total production volume, in tonnes and value in USD, grouped under cultured species (common name and scientific name), farming system (intensive, semi-intensive, extensive, and integrated aquaculture), system of culture (cage, pond, longlines, etc.) and areas (marine, brackishwater, and freshwater). To add a new record, an authorized user should click on the selected item (Aquaculture statistics) and subsequently a new sub-item called “Add new record” will appear. By clicking on this sub-item the user is lead to an online submission form (Figure 3) which should be duly completed providing the following data: *year* of reported statistics; name of the cultured *species* (select one species from the scroll-down menu); *farming system* (select one farming system from the scroll-down menu); *system of culture* (select one system of culture from the scroll-down menu); production in *tonnes* and *value* in USD. Additional pertinent information can be added in the *other information* box, if needed. This box provides basic formatting tools. Finally, the name of the *country* is required. Once the user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit record for aquaculture statistics

*Year

*Species

--- select ---

Farming system

--- select ---

System of culture

--- select ---

Environment

--- select ---

*Tonnes

*Value USD x 1000

Other information

B

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ABC

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*Country

--- select ---

* Mandatory field

Submit

Figure 3. Annual aquaculture statistics

The directory on **Aquaculture experts** includes a list of regional experts by country with their respective address, field of expertise and curriculum vitae, when available. Authorized users must click on the selected item (Aquaculture experts) and a new sub-item called “*Add new record*” will appear. By clicking on this sub-item it will lead users to an online submission form (Figure 4) that should be duly completed by providing the following data: gender; *first name* and *family name* of the expert (first letter always capital letter); *nationality*; *country*; *company/affiliation*; *working postal address*; *city*; business *telephone number* and *mobile* (specifying the international country dialling code, e.g. +973-number); *fax* (same as previous); valid *email* address; *qualification level* (select one item from the scroll-down menu); *expertise* (choose one or more than one item in the scroll-down menu); *curriculum file* (upload the CV of the expert as a .pdf or .doc file); *current position* (provide a few lines describing the current position/job/main activities of the expert; *photo file* (include a passport photo of the expert, if available and desired). Once a user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit aquaculture expert

*Salutation

Mr

First name

*Family name

*Nationality

*Country

--- select ---

Company / Affiliation

*Work address

*City

*Telephone 1

Telephone 2

Fax

*Email 1

Email 2

*Qualification level

--- select ---

Personal Web site

*Expertise 1

--- select ---

Expertise 2

--- select ---

Expertise 3

--- select ---

Expertise 4

--- select ---

Curriculum file (max 500kb)

Browse...

Current position

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Photo file (max 500kb)

Browse...

* Mandatory field

Submit

Figure 4. Aquaculture experts

The directory on **Production centres** provides a list of producer companies (from the public and private sector) in each country with the name, address, cultured species, technology and type of products farmed. Authorized users should click on the selected item (Production centres) and a new sub-item called “Add new record” will appear. By clicking on this sub-item it will lead the users to an online submission form (Figure 5) which should be duly completed. Authorized users must provide the following data: complete name of the *company*; the *acronym*, if it exists; company *type* (select one field in the scroll-down menu); *postal address*; *country*; provide at least one *telephone number* (specifying the international country dialling code, e.g. +973-number); *fax*; valid *email* address; *first name* and *family name* of the designated person to be contacted; *type of product* (select one item from the scroll-down menu); *species* (select one species from the scroll-down menu); *number of fish* (in case the company produces fish, provide the estimated number of fish produced). Once the user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit production centre

*Company

Acronym

Type

--- select ---

*Mailing address

City

*Country

--- select ---

*Telephone 1

Telephone 2

Fax

*Email 1

Email 2

First name

Family name

*Type of product

Broodstocks

Egg + Juveniles

Eggs

Juveniles

Live feed

[hold down ctrl key for multiple select]

*Species

Banana prawn [Penaeus merguensis]

Banana prawn [Penaeus semisulcatus]

Barbus [Barbus xanthopterus]

Bighead carp [Hypophthalmichthys nobilis]

Black-lip pearl oyster [Pinctada margaritifera]

[hold down ctrl key for multiple select]

Number of fish

Other information

B

I

U

ABC

* Mandatory field

Submit

Figure 5. Production centres

The directory on **Suppliers** or producers of aquaculture equipment contains a list of supplier companies (from the public and private sector) in each country with the name, address and speciality of supplier (e.g. feeding equipment, cages, nets, chemical analysis). Authorized users must click on the selected item (Suppliers) and a new sub-item called “*Add new record*” will be generated. By clicking on this sub-item it will lead the users to an online submission form (Figure 6) which should be duly completed. Add the complete name of the *company*; the *acronym*, if it exists; *postal address*; name of the *city*; *country*; provide at least one *telephone number* (specifying the international country dialling code, e.g. +973-number); *fax*; valid *email* address; *first name* and *family name* of the designated person to be contacted; type of product (select one product or more than one from the scroll-down menus). At least one *type of product* must be selected. Once the user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit supplier

*Company

Acronym

*Mailing address

*City

*Country

--- select ---

*Telephone 1

Telephone 2

Fax

*Email 1

Email 2

First name

Family name

*Type of product 1

--- select ---

Type of product 2

--- select ---

Type of product 3

--- select ---

Other information

B

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U

ABC

* Mandatory field

Submit

Figure 6. Suppliers

The directory on **Research institutions** contains a list of existing research institutions in the Region and sorted by country. Name, specialization, main research activities and address are provided. Authorized users must click on the selected item (Research institutions) and subsequently a new sub-item called “Add new record” will be generated. By clicking on this sub-item the user is lead to an online submission form that should be duly completed (Figure 7). Insert the complete name of the *research institution*; the *acronym*, if it exists; *postal address*; name of the *city*; *country*; provide at least one *telephone number* (specifying the international country dialling code, e.g. +973-number); *fax*; valid *email* address; URL address of the *Web site*, if exists; main *fields of research* (one or more can be selected). Other information on the research institution can be added in the appropriate box, if needed. Once a user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit research institution

***Institution name**

Acronym

***Mailing address**

***City**

***Country**

--- select ---
▼

***Telephone 1**

Telephone 2

Fax

Email 1

Email 2

Web site

***Research fields**

Other information

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* Mandatory field

Submit

Figure 7. Research institutions

The **Research and development programme** directory provides information on past and ongoing research and development projects dealing with aquaculture in the Region. Authorized users must click on the selected item (Research and development programme) in order to generate a new sub-item called “Add new record”. By clicking on this sub-item leads the user to an online submission form which has to be duly completed (Figure 8). For each project a half page summary should be provided including: project *title*; *participating institutions*; *objectives*; *expected outputs* (if the research is ongoing) or *main results* achieved (if the research project has terminated). Moreover, start and end dates should be provided along with the name of the project’s coordinator, his/her email address and country. A blank box (*Comments*) allows user to add comments or additional information, if required. Once a user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit Research & Development Programme

*Project title

*Participating institutions

Brief description

B *I* U ABC ↺ ↻ ↵ ☰ ☷

Objectives

B *I* U ABC ↺ ↻ ↵ ☰ ☷

Expected outputs or main results

B *I* U ABC ↺ ↻ ↵ ☰ ☷

Start date

End date

Coordinator

Email

*Country

--- select ---

Comments

B *I* U ABC ↺ ↻ ↵ ☰ ☷

* Mandatory field

Submit

Figure 8. Research and development programme

News & Events directory. Through an online submission form authorized users have the possibility to submit information relevant to the RECOFI area for inclusion in the RAIS Web site, particularly aquaculture-related news items and events of interest to the Region. The users need to complete the specific form shown in the figure below (Figure 9). The following information is requested: *title* of the news item or event (title should be self-explanatory); *description* (provide a brief description/summary of the news item/event); *country*; *file* (by clicking on the *browse* button user can upload an electronic file (.pdf; .doc; .html) or the links related to the specific news item or event (*related URL*). In the case of an event, users are requested to add the dates of the event (*event from* and *event to*), the venue of the event (*where*) and the name of the organizer (*organizer*). Once a user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Add News & Event

*Title

*Description

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*Country
 ▼

file

Related URL

*Event from
 📅 ▼

Event to
 📅 ▼

Where

Organizer

* Mandatory field

Figure 9. News & Events

A **Photo library** has been developed for storing and searching high quality and relevant photos of regional aquaculture. Authorized users have to click on the selected item (Photo library) and a new sub-item called “Add new record” will be generated. Clicking this sub-item leads the user to an online submission form that should be duly completed (Figure 10). For each photo the following metadata should be provided: upload the *photo* (JPG file; size not exceeding 2 MB) by clicking on the *browse* button; insert a *title* of the photo; brief *description* of the image; *author’s* name; *location*, where the photo was taken; *year*; *country*; *category* (choose one of the ten categories listed in the scroll-down menu). Once a user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit photo

*Photo (max size 2mb)

*Title

Description

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*Author

*Location

*Year

*Country

--- select ---

▼

Categories

Cultured species
Hatchery
Ongrowing
Harvesting
Handling and processing

▲

☰

▼

[hold down ctrl key for multiple select]

* Mandatory field

Figure 10. Photo library

A **Virtual library** has been implemented for storing and searching relevant and updated documents in electronic format (.pdf; .doc; .html) on regional aquaculture. Authorized users have to click on the selected item (Virtual library) and a new sub-item called “*Add new record*” will be generated. Clicking this sub-item leads the user to an online submission form (Figure 11) that should be duly completed providing the following information: *year* of publication; upload the electronic copy of the *document* (.pdf, .doc or .html format) by clicking on the *browse* button; *title* of the document; brief *description* or abstract including name of the author/s; *country* where the document has been produced. Once a user has completed the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.

Insert new/edit document

*Year

*Document

*Title

Description

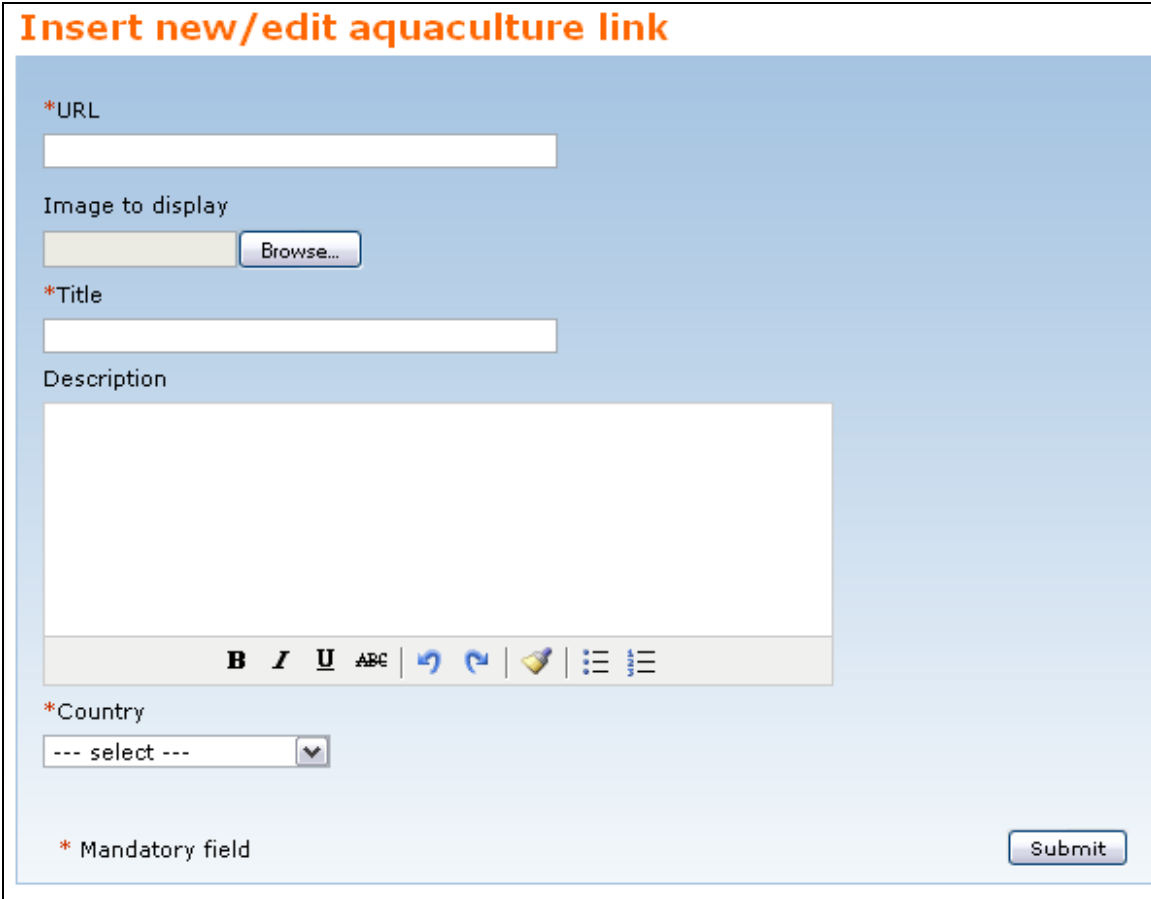
B *I* U ABC | ↶ ↷ | 📁 | ☰ ☷

*Country
 ▼

* Mandatory field

Figure 11. Virtual library

The **Aquaculture links** directory provides useful national, regional and international links dealing with aquaculture. Authorized users have to click on the selected item (*Aquaculture links*) and a new sub-item called “*Add new record*” will be generated. Clicking this sub-item leads the user to an online submission form (Figure 12) that should be duly completed by providing the *URL* (internet address of the Web site); *image*, in other words the icon or banner of the home page to display (when available); complete *title* of the Web site; brief *description* of the Web site contents; *country* where the Web site is hosted. Once a user has filled in the submission form, the new record can be immediately posted on the internet by clicking the *submit* button placed at the bottom right corner of the form.



The screenshot shows a web form titled "Insert new/edit aquaculture link" in orange text. The form has a light blue background and contains the following fields and elements:

- *URL**: A text input field.
- Image to display**: A text input field followed by a "Browse..." button.
- *Title**: A text input field.
- Description**: A large text area with a rich text editor toolbar below it. The toolbar includes buttons for Bold (B), Italic (I), Underline (U), Text Color (ABC), Undo, Redo, Bulleted List, and Numbered List.
- *Country**: A dropdown menu with the text "--- select ---" and a downward arrow.
- * Mandatory field**: A note at the bottom left.
- Submit**: A button at the bottom right.

Figure 12. Selected links

3. HOW TO MODIFY/DELETE A RECORD

Only authorized users have the right to edit/modify and/or delete the “uploaded” records. Once logged in, users should click on one of the nine databases on the vertical banner located on the right side of the RAIS home page. The user will then perform a search, by using available filters, of the record he/she wishes to modify or delete. A table with the results will be generated and in the last column of the aforementioned table two action (formatting) tools, represented by a *pencil* (to modify) and a *bin* (to delete), will appear. Clicking on the pencil’s icon will lead the user to the filled online submission form that can be modified and re-submitted. By clicking on the bin’s icon the record will be completely erased. Once the record has been modified click on the *submit* button to post it back online.

Country	Bahrain		
Expertise	--- All ---	search	reset
Name	Expertise	Telephone	Email
Adly Al-Ansari	Hatchery and reproduction	+973 17840499	adly10@yahoo.com
Hussain Alhindi	Farm management	+973 17840499	hjs_100@hotmail.com
Abdulredha Shams	Other	+973 17840499	ajshams@batelco.com.b

Action tools




Figure 13. Action (formatting) tools

4. HOW TO PERFORM A SEARCH

All records and metadata stored into the system can be easily searched and retrieved by using the filters available or through the RAIS search engine by typing a single word. The criteria to perform such a search in each directory are listed below.

In the *Annual aquaculture statistics* database users can perform a search: by **layout**, aggregated list or flat list; by **country** (use the scroll-down menu to select the desired country); by **year** (or range of years); and by cultured species **common name** and **scientific name** (Figure 14).

Figure 14. Annual aquaculture statistics

In the *Aquaculture experts* database the search criteria are the following: by **country** (use scroll-down menu to select the desired country) and/or by **field of expertise** (use the scroll-down menu to select area of expertise) (Figure 15).

Figure 15. Aquaculture experts

Production centres can be searched by **region** (*All*) or by **country** (use the scroll-down menu to select the desired country) and/or by **type of product** (use the scroll-down menu to select aquaculture products) (Figure 16).

Figure 16. Production centres

Criteria to be used in the directory of *Suppliers* are the following: by **region** (*All*) or by **country** (use the scroll-down menu to select the desired country) and/or by **type of product** (use the scroll-down menu to select product and service) (Figure 17).

Figure 17. Suppliers

Research institutions can be searched by **region** (*All*) or by **country** (use the scroll-down menu to select the desired country) (Figure 18).

The screenshot shows a search interface for 'Research institutions'. It features a 'Country' dropdown menu with a scroll-down arrow. The menu is open, displaying a list of countries: Bahrain, Iran, Kuwait, Oman, Qatar, and United Arab Emirates. Above the list is the text '--- All ---'. To the right of the dropdown are two buttons: 'search' and 'reset'.

Figure 18. Research institutions

Research and development programme can be search by **region** (*All*) or by **country** (use the scroll-down menu to select the desired country) (Figure 19).

The screenshot shows a search interface for 'Research and Development programme'. It features a 'Country' dropdown menu with a scroll-down arrow. The menu is open, displaying a list of countries: Bahrain, Iran, Kuwait, Oman, Qatar, and United Arab Emirates. Above the list is the text '--- All ---'. To the right of the dropdown are two buttons: 'search' and 'reset'.

Figure 19. Research and Development programme

News and events can be easily searched by **country** (use the scroll-down menu to select the desired country) or the full list of news and events in chronological order (Figure 20).

The screenshot shows the 'News & Events' search results page. At the top right, there is a 'filter list by:' dropdown menu with a scroll-down arrow, currently set to '--- All ---'. Below this is the section header 'News & Events' in orange. The main content area displays a list of five news items, each with a date, a title, and a brief description. The items are:

- 29 Oct 08 6th Iran Fisheries Expo, Kish Island, Iran**: The 6th International Fisheries, Aquaculture & Seafood Exhibition to be held in Kish Island, Iran, 25- 28 Nov, 2008. Visit the Expo homepage for further info.
- 25 Sep 08 A Boost to Depleted Natural Fish Stocks in the Kingdom of Bahrain**
- 23 Sep 08 to 01 Jan 70 International conference on Monitoring and Modelling of Marine Pollution**: International conference on Monitoring and Modelling of Marine Pollution, 1- 3 Dec. 2008, Kish Island, Iran
- 23 Sep 08 "1st International Congress on Aquatic Animal Health Management and Diseases"**: "1st International Congress on Aquatic Animal Health Management and Diseases" will be held by Veterinary Council, I. R. Iran, as Organizer, with collaboration of Contemporary Conference Organizers as co-organizer and...
- 17 Sep 08 New publication: the FAO Glossary of Aquaculture**: The FAO Glossary of Aquaculture is now available in hard copy. Already published online at <http://www.fao.org/fi/glossary/aquaculture> since April 2006, FAO decided to produce print and CD-ROM versions in order to...

 At the bottom of the page, it says 'Displaying results 1 to 5 out of 20'. Below that is a pagination bar with links: 'Page 1', 'Page 2', 'Page 3', 'Page 4', and 'Next >'.

Figure 20. News and Events

In the *Photo library*, high quality photos can be easily found by selecting one of the ten photo **categories** or by **country** (use the scroll-down menu to select the desired country) (Figure 21).

Filter by category	Filter by country
All	All
Hatchery(28)	United Arab Emirates(8)
Cultured species(12)	Bahrain(7)
Harvesting(4)	Iran(56)
Nursery(6)	Kuwait(11)
Ongrowing(33)	Oman(9)
Others(11)	Qatar(4)
Equipment(2)	Saudi Arabia(7)
Market and trade(4)	
Meetings and events(1)	
Handling and processing(2)	

Figure 21. Photo library

In the *Virtual library*, relevant and updated documents (.pdf; .doc; .html) on regional aquaculture can be searched and retrieved by using the list of documents and/or by **country** (use the scroll-down menu to select the desired country) (Figure 22).

filter list by: <input type="button" value="--- All ---"/>	
Virtual Library	
A Virtual library has been implemented for storing and searching relevant and updated documents (.pdf; .doc; .html) on regional aquaculture.	
2006	The effect of bacillus spp. bacteria used as probiotics on digestive enzyme activity The effect of bacillus spp. bacteria used as probiotics on digestive enzyme activity
2006	Prevalance of white spot virus syndrom in the cultured shrimp P. indicus Prevalance of white spot virus syndrom in the cultured shrimp

Figure 22. Virtual library

In the *Links* page useful national and international suggested links dealing with aquaculture are provided. A search can be performed by using the list of links and/or by **country** (use the scroll-down menu to select the desired country) (Figure 23).

filter list by: <input type="button" value="--- All ---"/>	
Aquaculture Links	
A Aquaculture Links page has been developed to provide useful national, regional and international suggested links dealing with aquaculture.	
	Iranian Agriculture News Agency Iranian Agriculture News Agency (in farsi language)
	Ministry of Jihad Agriculture Official home page of Ministry of Jihad Agriculture. The ministry is responsible of all agriculture activities (including of fisheries and aquaculture) in Iran.

Figure 23. Aquaculture links

Detailed data on the *RAIS National Centres* can be found by clicking on the item called RAIS National Centres in the right vertical banner of the page.

Item *Contact us* contains updated names and addresses of the RAIS National Coordinators, RAIS Regional Centre staff, RECOFI-Working Group on Aquaculture Focal Points and the RECOFI Secretariat.