



User Guidelines



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GLOSSARY

| | |
|------------------|--|
| Active | The term used when referring to the status of a diagnosis to indicate that samples have been actively taken and analysed. |
| Admin 1 | First-order administrative division; an abbreviation that refers to first level administrative units in a country e.g. region, province, state, governorate, division etc. |
| Admin 2 | Second-order administrative division; an abbreviation that refers to second level administrative units in a country e.g. district |
| AIDigest: | Avian Influenza Digest- a global initiative on sharing all influenza data to promote transparency and responsible sharing. |
| CAHO | Community Animal Health & Outreach. |
| CVO | Chief Veterinary Officer |
| EMPRES | Emergency Prevention System for transboundary animal diseases |
| EMPRES-i | Emergency Prevention System Global Animal Disease Information System |
| Event | A confirmed, suspected or denied disease outbreak |
| FAO | Food and Agriculture Organization of the United Nations |
| Kids3g | Key Indicator Data System, an open-source mapping tool. |
| GIS | Geographical Information System |
| GPHIN | Global Public Health Intelligence Network- an Internet-based "early warning" system that gathers preliminary reports of public health significance. |
| OIE | World Organization for Animal Health- an intergovernmental organisation responsible for improving animal health worldwide. |
| Outbreak | Disease occurrence confirmed or suspected. |
| Passive | The term used when referring to the status of a diagnosis to indicate a disease that has been observed and reported. |
| PDS | Participatory Disease Surveillance |
| ProMED | Program for Monitoring Emerging Diseases- a global electronic reporting system for outbreaks of emerging infectious diseases. |
| TAD | Transboundary Animal Disease |
| UCDAVIS | The University of California Davis University- a public research university in which the Division of Infectious and Immunologic Diseases of the University provides up-to-date information on disease outbreaks. |
| WHO | World Health Organization. |

INTRODUCTION

What is EMPRES-i?

EMPRES-i is a global information system designed to facilitate sharing and analysis of country, regional and global disease information. This platform promotes monitoring early warning and response to transboundary animal diseases (TADs) including emergent zoonoses, and supports their progressive control and eradication.

EMPRES-i aims to consolidate disease events worldwide using information that EMPRES receives from different official and unofficial sources: country or regional project reports, field mission reports, partner Non-Governmental Organizations (NGOs), cooperating institutions, government Ministries of Agriculture and Health, FAO in-country representations or other United Nations parties, public domains, the media and web-based health surveillance systems. For verification purposes, EMPRES-i uses not just official, but also unofficial sources of information (such as in-country assistance projects and personal contacts with NGOs and other institutions). This allows maintaining a good level of awareness on TADs and zoonoses. This information is used to generate and disseminate early warning messages, but it is also fed into the EMPRES-i and disposed (when confirmed or denied) in a structured and digested format to the public.

How does EMPRES-i work?

EMPRES-i provides updated information on global animal disease distribution and current threats at national, regional and global level. It also provides access to publications, manuals and other resources, such as contact details of chief veterinary officers and laboratories (national and reference laboratories). Users can access various functions including mapping and graphing tools and search and analysis tools for new or historic outbreaks.

Who can use EMPRES-i?

EMPRES-i is open to the public. This platform is designed to who is interested in timely global, regional and national animal disease information and analysis.

CHAPTER ONE: DASHBOARD

1.1 Understanding the EMPRES-i Dashboard



- 1. Language Selection:** the EMPRES-i website is currently available in English, French and Spanish.
- 2. My EMPRES-i:** private modifiable area of the public website.
- 3. RSS Feeds:** Real time disease outbreak information from external sources
- 4. User manual :** This tab allows you to download a user manual that explains the various uses of the EMPRES-i website
- 5. EMPRES-i Map Component:** GIS mapping tool to search and identify disease events and their geographical location.
- 6. Latest events:** Real time disease outbreak information available in EMPRES-i.
- 7. Library:** Provides access to FAO technical publications such as bulletins, journals and reports
- 8. Laboratories:** Allows you to search laboratories performing diagnosis of animal disease.
- 9. Directory:** Allows you to search contacts within the system.
- 10. Disease events:** A key feature of the EMPRES-i platform which allows users to map and track disease outbreaks.
- 11. Filters:** Under the **Disease events** menu, there are filtering tools for specific diseases (e.g. Avian Influenza, Foot- and- Mouth disease).

The EMPRES-i homepage provides an interactive platform for accessing up-to-date disease outbreak information. The main feature of the homepage- the **EMPRES-i Map Component**

1.2 My EMPRES-i

My EMPRES-i area works as a private modifiable area of the public website. Once registered, each user can customize their page with specific geographical and disease preferences to suit their needs.

Click on the **My EMPRES-i** menu tab to log in to your personal area within the public website. Please insert your user name and password then click OK.



If you are not yet registered, click on the  button which opens a page where you can create an account.


Personal data: Insert your personal information here.

Disease events: This tab allows you to set your desired disease filters, period filters, and geographical Preferences.

Newsletter: This tab allows you to subscribe to various newsletters and bulletins.

Directory-CVOs: This tab allows you to personalize your search for the CVO according to the country of your interest.

Laboratories: This tab allows you to personalize your search for the laboratories according to the country of your interest.

Click on the  button to store your settings for your next visit.

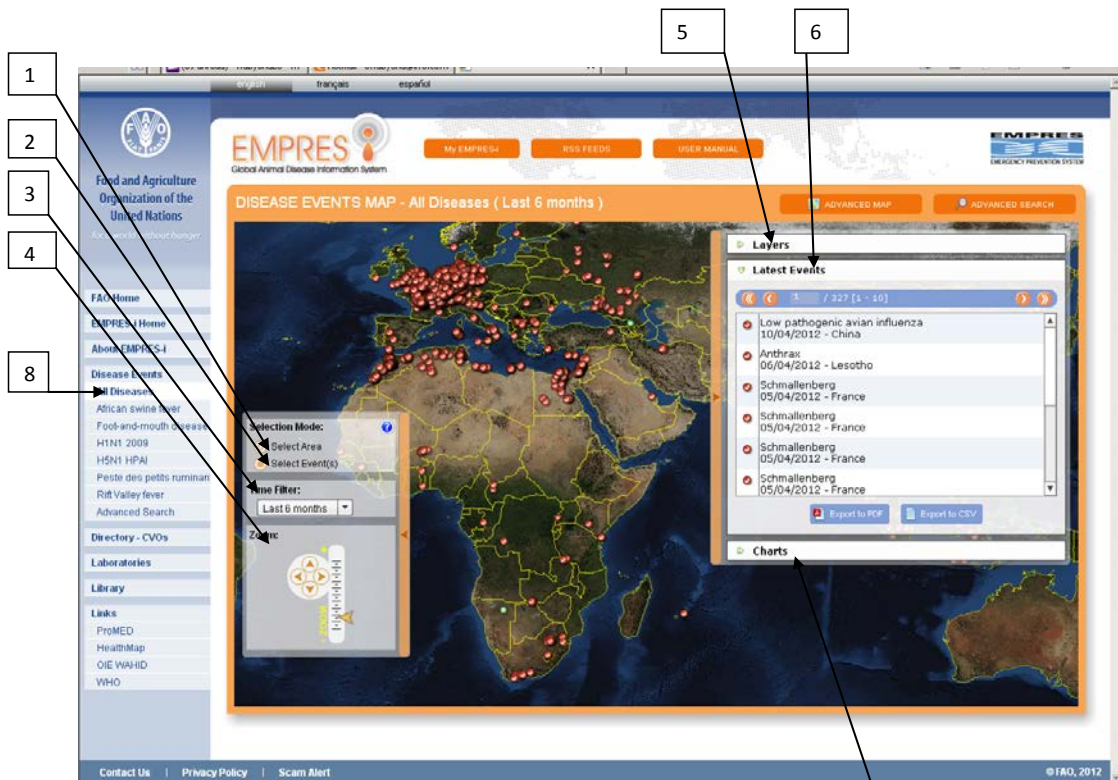
Click on the  button to close the pop up box and return to the EMPRES-i public dashboard.

CHAPTER TWO: DISEASE EVENTS TRACKING

2.1 Disease Events Map

The Disease Events Map is a fundamental part of the EMPRES-i system as filters can be applied here which will modify the other two components (i.e. the Outbreaks List and the Outbreaks Chart). Click on **Disease events** in the side bar to get to the following screen:

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1. **Select Area**- Allows you to select a specific area on the map.
2. **Select event(s)**-Allows you to select a specific disease event on the map
3. **Time filter** – Allows you to display only disease events that have occurred in a specified period
4. **Zoom controls**- Allow you to zoom in and out of the map.
5. **Layers**- Allows you to add additional information to the map.
6. **Latest events**- Provides a list of the most recent outbreaks.
7. **Charts**- Provides outbreak data in graphical form.
8. **Sidebar Filters**- Allow for quick filters to be applied to the map.

2.1.1 Select Area

To select a specific area of study, check the **Select Area** box. Then, using your mouse, draw a box on the map over the area you wish to see in more detail. Simultaneously, a list of outbreaks

will appear on the map showing all of the disease events in the highlighted area. To view these outbreaks in more detail, click on the map marker icon in the left hand column of the list.

2.1.2 Zooming (in and out)

There are two ways to see an area more closely:

- Double click on the area which you wish to zoom in on;
- Click, hold and drag the zoom slider tool between the two icons. Sliding right zooms in and sliding left zooms out.

2.1.3 Time filter

To change the time period of outbreaks in view on the map, click on the drop-down arrow to the right of the **Period** field. This will give you time filtering options. As a default, the map is set to a six month time period. If you check **All** in the **Period** field, the time filter will include all outbreaks available in EMPRES-I since 2004.

2.1.4 Navigation controls

Pan Map Mode

To move around the map, you can use pan map mode navigation which allows you to drag the map around the panel. To do this, click and hold down any part of the map and, at the same time, use your mouse to slide the map around in the window to view the required location.

*Please note that Pan Map Mode will not work while the **Select Area** box is checked*.

In the bottom left corner of the Disease Tracking Map you will see that there is an automatic Longitude and Latitude measure which changes as you move your cursor around the map.

2.2 Map Markers

The red map markers represent confirmed disease outbreaks and the green markers represent the denied outbreaks as shown here:



2.3 Setting Filters

Filters can be applied to the map to facilitate search and analysis of specific outbreaks

2.3.1 Filters on the Sidebar

Some simple filters are available on the Disease Tracking Map. These can be found under the **Disease Events** tab on the sidebar. Click on this tab and the following options are provided: All diseases, African swine fever, Foot-and- Mouth disease, H1N1 2009, H5N1 HPAI, peste des

petits ruminants and Rift Valley Fever.

To filter by one of these common diseases, click on the specific disease and the **Disease Tracking Map** and **Outbreaks List** will change accordingly to show only outbreaks relative to the chosen disease.

2.3.2 Filters in My EMPRES-i

By signing into the public website, it is also possible to store selected filters for subsequent visits to the EMPRES-i website (please see the settings section of 1.2 [My EMPRES-i](#) above).

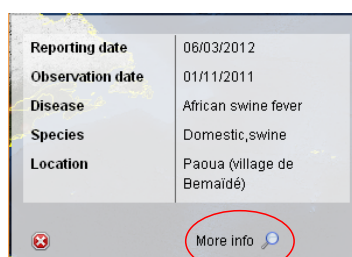
2.4. Viewing outbreak details

2.4.1 Viewing individual outbreak details

To view individual outbreak information on the map, double click on the map marker of the specific outbreak:



A pop up box will appear providing information on reporting date, observation date, disease, species and location. Here is an example of a pop up box for outbreak details:



Click on the  button and a secondary pop up window will appear with a full data set for the identified outbreak. Here is an example of the complete data set for a specific outbreak:

Disease Event's Details

| General Information | | | | |
|---------------------|----------------|------------------|--|--|
| Disease Event ID | Reporting date | Observation date | | |
| 158251 | 04/02/2011 | 04/02/2011 | | |


| Location | | | | |
|----------|--------------------------------|------------|-------------|-----------------|
| Region | Admin 1 (Country) | Locality | Lat/Long | Coords quality |
| Asia | Eastern Province (Saudi Ara... | MyLocality | 20.1 / 50.1 | Centroid Admin2 |

| Disease | | | |
|-----------|-----------------------------------|------------|--------|
| Status | Disease | Serotype/s | Source |
| Confirmed | Highly pathogenic avian influenza | 5N1, H2N2 | Media |

| Species Affected | | | | | | | |
|------------------|----------|---------|---------|-------|--------|-----------|-------------|
| An.Type | An.Class | Species | At Risk | Cases | Deaths | Destroyed | Slaughtered |
| Domestic | Mammal | badger | 100 | 10 | 9 | 12 | 8 |

| Laboratory | | | | | |
|-----------------------------------|---------|---------------------------------|----------|-------------|----------------------|
| Disease tested | Species | Test | Result | Result Date | Reference Laboratory |
| Highly pathogenic avian influenza | | agar-gel immunodiffusion (AGID) | Positive | 04/02/2011 | |

CLOSE


Click on  to close the pop up panel and go back to the Disease Tracking Map.

****Please note that while pop up boxes are open the Disease Tracking Map below is frozen. To return to the functioning map, close all open pop up boxes**.**

If you click in an area with a high number of disease outbreaks, a list box of individual outbreaks within that buffer zone will appear. This list box allows you to refine the search and identify the specific outbreak of interest.

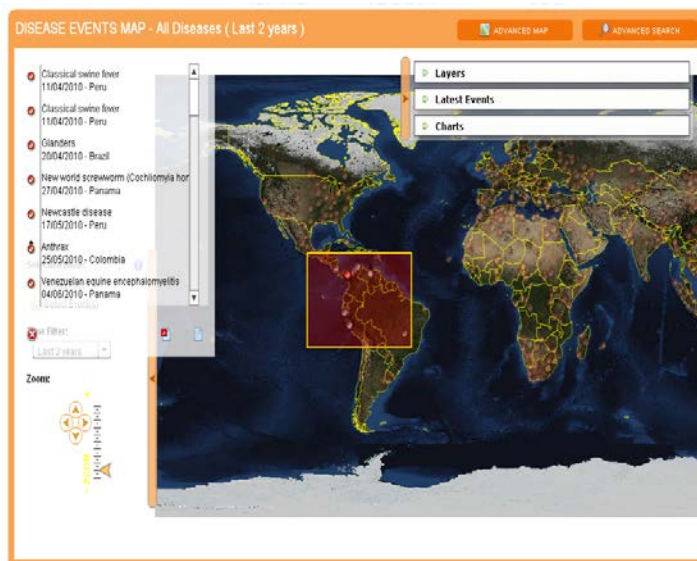
To view the complete data set for any singular outbreak in the list, click on the map marker icon in the left hand column of the list box and the disease details will be displayed in full as above.

2.4.2 Viewing individual outbreak information from the Outbreaks List

To view more information on an individual outbreak in the list, click on the  or equivalent icon in the left hand column of **Outbreaks List** box. This will provide a comprehensive set of data for the outbreak in question.

2.4.3 Viewing numerous outbreak details

To view numerous outbreak details, check the **Select Area** box on the top of the map. Drag a rectangle with your mouse over the area of interest. A pop up list of matching outbreaks will appear as shown here:



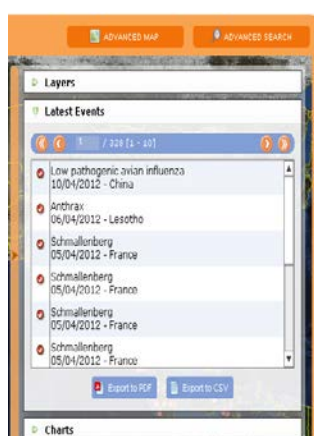
To view the complete data set any of these individual outbreaks, click on the map marker icon to the left of the list box. The same process as for 2.4.2 [Viewing individual outbreak information from the Outbreaks List](#) above.

CHAPTER THREE: OUTBREAKS LIST

3.1 Latest events

To the right of the Disease Event Map, you can find the **Latest events list**. This list provides details of the 50 most recent animal disease outbreaks reported at worldwide level and inserted into EMPRES-i.

Note: if you have selected a specific disease of interest under My EMPRES-i, once you login, the latest events list will display only the latest outbreaks reported in EMPRES-i for this specific disease.




To move through the list, scroll down the arrow bar or use the orange markers at the top to move through the list:

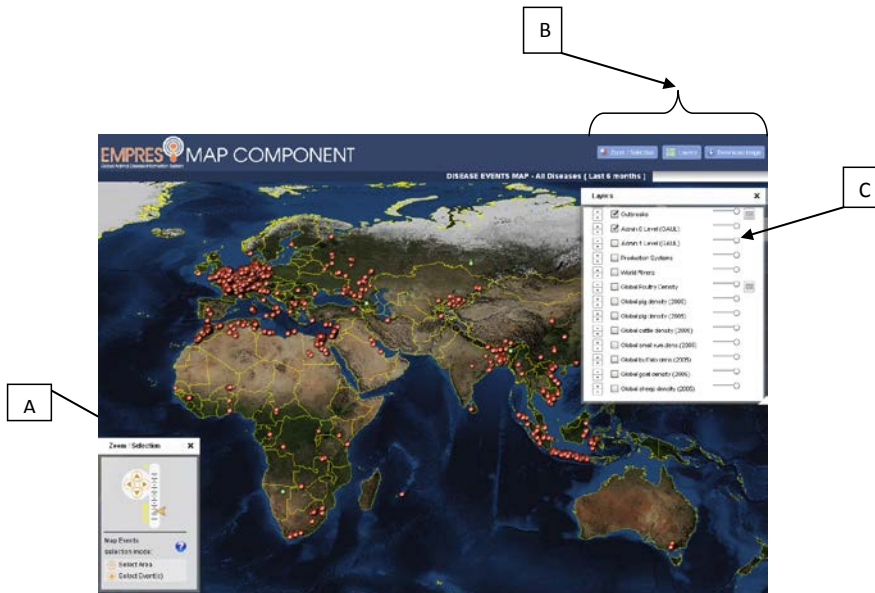


The set of cases currently in view is displayed in brackets. To scroll through the pages one at a time, click on the single arrows. To move directly to the first or last records, click on the double arrows with bookends.

This list of disease can be exported under a format report (PDF) or data available an Excel file.



3.2 Advanced map component


The  button leads you to the EMPRES-i map component in which you can select what to display:



A: The “zoom/selection” panel on the bottom left of the screen allows you to Zoom in/out , and to select your area of interest.

C: The “Layers”panel on the right hand side of the map gives a range of aspects that can be visualized even simultaneously for example “outbreaks” can be viewed at the same time as the global goat, sheep, pig or poultry populations (see section 3.7 for details).

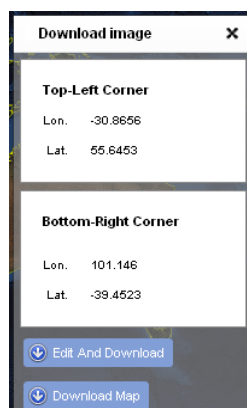
B: From the top right hand corner, you can choose whether or not the “Zoom/Selection” and “Layers” panels are displayed using the  Zoom / Selection and  Layers buttons respectively.

Clicking on the button  Download image changes the screen in such a way that you can highlight your area of interest by dragging over it the red highlight.

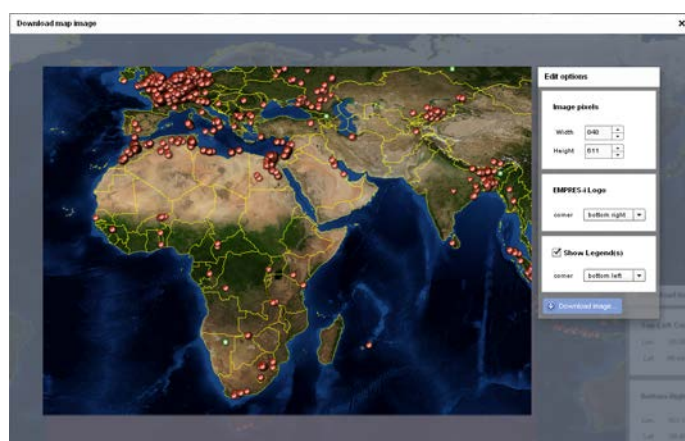


You can then either;

- i. directly download the map by clicking the “download map” button on the bottom right of the screen (under the “download image” panel)



- ii. Or you may choose the “Edit and Download” option which allows you to adjust the map resolution and the position of the EMPRES-i logo and the legend using the “Edit options” panel on the right.



3.3 Advanced Search

To carry out a more advanced search, click on the  **ADVANCED SEARCH** button under the **Outbreaks List**. This brings up a comprehensive search page:

1. **Observation Date Filter:** Use this filter to narrow your search according to when a disease event was observed.
2. **Reporting Date Filter:** Use this filter to narrow your search according to when a disease event was reported.
3. **Case Info Filter:** Use this filter when you already have some specific case information.
4. **Diseases List:** Use this filter to narrow down your search according to disease, check the relevant boxes or alternatively enter the disease in the free text box provided.
5. **Administrative units:** Use this filter to narrow your search due to location.
6. **Animals Affected filter:** Use this filter to narrow your search based on animal type.

3.4 Searching for Disease Outbreaks

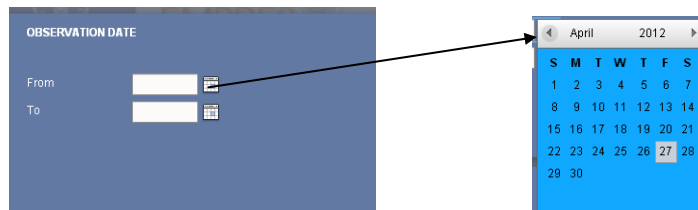
To **search for disease outbreaks**, all search criteria must be entered into the query page. If any item on any of the filters is already checked but you do not wish to include it in your search, simply uncheck the box.

To create a list of results for your search, click on **FIND** at the bottom of the query page. To restart your search click on **CLEAR** and all previously entered information will be removed from the query page. Please note some panels have their own **Clear** button so it is not always necessary to clear the whole page if you to just wish to change one filter.

To exit the search page click on **CLOSE** and you will be taken back to the EMPRES-i dashboard.

Observation Date

To narrow your search by time, enter Observation Dates into the parameters shown. Either enter the dates directly into the fields (date/month/year) or use the calendar tool provided, shown here:



Reporting Date

To narrow your search by time, enter Reporting Dates into the parameters shown. Either enter the dates directly into the fields (date/month/year) or use the calendar tool provided (as shown above).

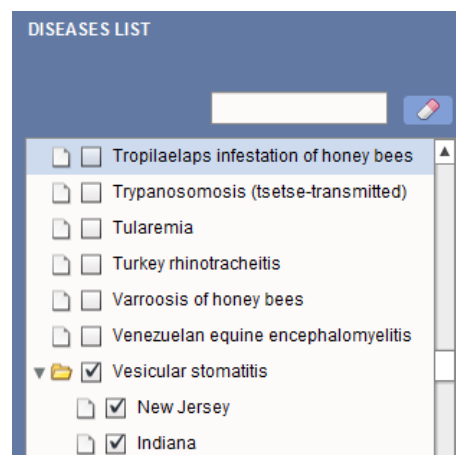
Case Info

If you have the Outbreak ID for the specific outbreak, enter it here. Please note that if you wish to search for specific ID numbers, it is best to leave all other filters empty.

In the Disease Event field, click on the drop down arrow to choose Confirmed, Denied, or Tentative. If you leave this field blank, all outbreaks will be considered in your search.

Diseases List

To filter your search by disease, check the appropriate boxes from the **Diseases List** panel. A side-pointing arrow indicates that they are serotypes (sub-types) of the disease. To view the serotypes, click on the arrow and a specific list will appear. Select all diseases that you wish to appear in your search:



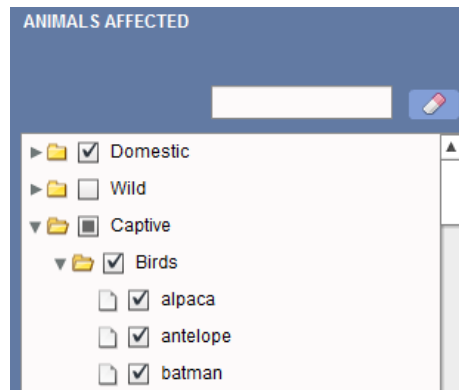
Administrative Units

This filter allows you to tailor your search according to locality. Choose the continent of interest and click on its side-pointing arrow to view a list of countries. Select the side-pointing arrow of a country to view a list of Admin 1 regions. And finally, click on the side-pointing arrow of the Admin 1 to view the list of Admin 2 (when available) of the selected Admin 1. Check all the localities that you want to include in your search.


Animals Affected

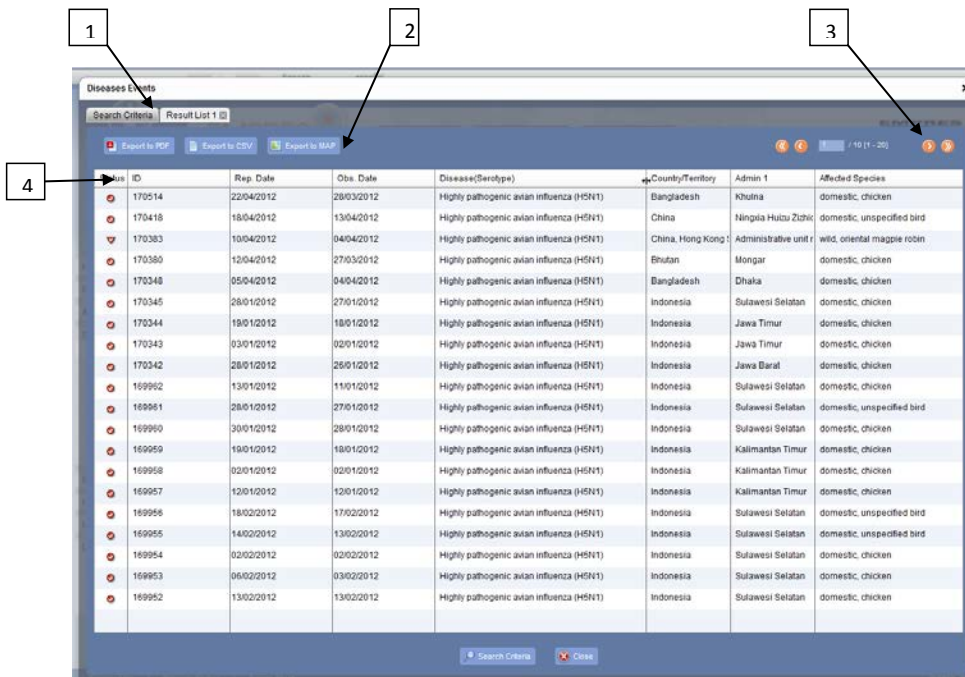
To insert criteria for species affected, select from the main categories (domestic, wild, captive) by clicking on the appropriate box. Once again, a side-pointing arrow indicates that there are

sub-categories and clicking on this will unveil a list of species in the chosen category. Click on all of the species you wish to include in your search. For a more specific search, click on the side arrow of a sub-category (e.g. birds) and a further list will open up:




3.5 Results list

Once you have entered your search criteria, click  and you will be taken to a **Results List** page. Please note that the Results List page is opened in a new tab and it is possible to return to the Search Criteria page and alter the criteria. Any new searches will be opened in subsequent tabs (Results list 2, Results list 3 etc.) to enable ease of use and comparison. Here is an example of a Results List generated from entering search criteria.



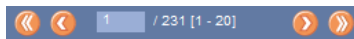
| ID | Rep. Date | Obs. Date | Disease(Serotype) | Country/Territory | Admin 1 | Affected Species |
|--------|------------|------------|--|-------------------|---------------------|-----------------------------|
| 170514 | 22/04/2012 | 28/03/2012 | Highly pathogenic avian influenza (H5N1) | Bangladesh | Khulna | domestic, chicken |
| 170418 | 18/04/2012 | 13/04/2012 | Highly pathogenic avian influenza (H5N1) | China | Ningxia Hui Zhu | domestic, unspecified bird |
| 170383 | 10/04/2012 | 04/04/2012 | Highly pathogenic avian influenza (H5N1) | China, Hong Kong | Administrative unit | wild, oriental magpie robin |
| 170380 | 12/04/2012 | 27/03/2012 | Highly pathogenic avian influenza (H5N1) | Bhutan | Mongar | domestic, chicken |
| 170348 | 05/04/2012 | 04/04/2012 | Highly pathogenic avian influenza (H5N1) | Bangladesh | Dhaka | domestic, chicken |
| 170345 | 28/01/2012 | 27/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, chicken |
| 170344 | 18/01/2012 | 18/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Jawa Timur | domestic, chicken |
| 170343 | 03/01/2012 | 02/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Jawa Timur | domestic, chicken |
| 170342 | 28/01/2012 | 25/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Jawa Barat | domestic, chicken |
| 169962 | 13/01/2012 | 11/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, chicken |
| 169961 | 28/01/2012 | 27/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, unspecified bird |
| 169960 | 30/01/2012 | 28/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, chicken |
| 169959 | 18/01/2012 | 18/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Kalimantan Timur | domestic, chicken |
| 169958 | 02/01/2012 | 02/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Kalimantan Timur | domestic, chicken |
| 169957 | 12/01/2012 | 12/01/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Kalimantan Timur | domestic, chicken |
| 169956 | 18/02/2012 | 17/02/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, unspecified bird |
| 169955 | 14/02/2012 | 13/02/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, unspecified bird |
| 169954 | 02/02/2012 | 02/02/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, chicken |
| 169953 | 06/02/2012 | 03/02/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, chicken |
| 169952 | 13/02/2012 | 13/02/2012 | Highly pathogenic avian influenza (H5N1) | Indonesia | Sulawesi Selatan | domestic, chicken |

1. **Search Criteria:** Clicking on the Search Criteria tab allows the user to modify the criteria without having to move away from the Results page.
2. **Tools:** The buttons along the top of the Results page allow the user to analyse and work with the data. These tools are explained in detail below.
3. **Page Numbering and Records Displayed:** The page number currently in view and the number of pages are shown between the arrows at the top of the **Results** page.
4. The headings in the **Results** table above refer to the following information (from left to right): **Status, Reporting Date, Observation Date, Disease, Serotype, Admin 1, Country/Territory** and **Affected Species**.

To view an individual case in more detail, click on the  or equivalent icon in the **Status** column and this will open a new panel with specific detailed information about the case in question (see [2.4 Viewing outbreak details](#) above).

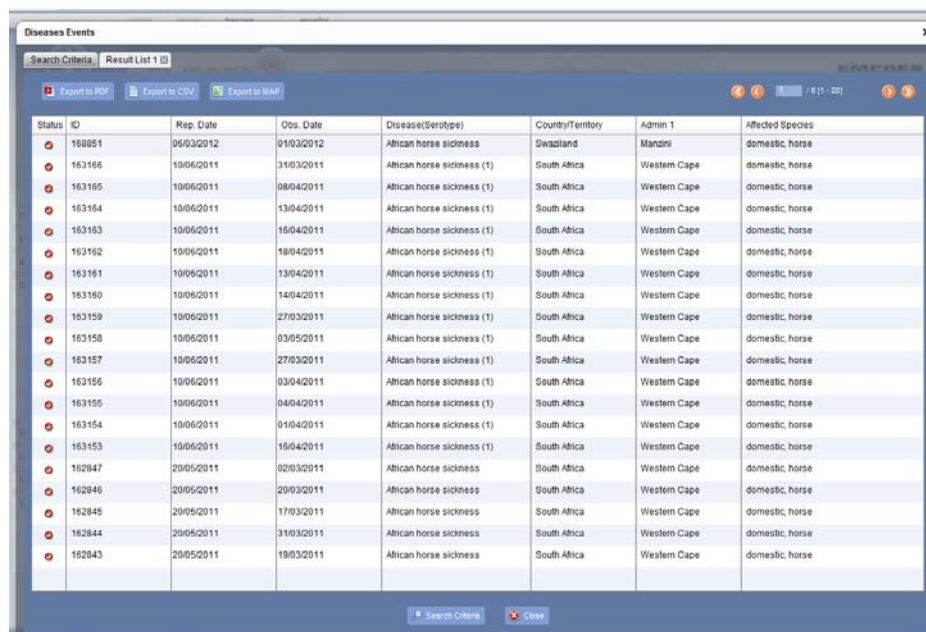
Page Numbering and Records Displayed

The **Results List** will be paginated and the page number currently in view and the number of pages are shown between the arrows at the top of the **Results** page. In brackets, the set of cases currently in view is displayed. To scroll through the pages one at a time, click on the single arrows. To move directly to the first or last records, click on the arrows with bookends:



Search Criteria


The **Search Criteria** tab at the top and the bottom of the page takes you back to the query page where you can change/add search criteria without losing the current results list.



The screenshot shows the 'Diseases Events' window in the EMPRES-i application. It features a search bar at the top with 'Search Criteria' and 'Result List 1 (0)' buttons. Below the search bar are three export buttons: 'Export to PDF', 'Export to CSV', and 'Export to MAP'. The main area contains a table with the following columns: Status, ID, Rep. Date, Obs. Date, Disease(Serotype), Country/Territory, Admin 1, and Affected Species. The table lists 20 records of African horse sickness (AHS) events, all occurring in South Africa and Western Cape, between 2005 and 2012. The affected species are listed as 'domestic, horse'.

| Status | ID | Rep. Date | Obs. Date | Disease(Serotype) | Country/Territory | Admin 1 | Affected Species |
|--------|--------|------------|------------|----------------------------|-------------------|--------------|------------------|
| | 168851 | 06/03/2012 | 01/03/2012 | African horse sickness | Swaziland | Manzini | domestic, horse |
| | 163166 | 10/06/2011 | 31/03/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163165 | 10/06/2011 | 08/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163164 | 10/06/2011 | 13/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163163 | 10/06/2011 | 16/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163162 | 10/06/2011 | 18/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163161 | 10/06/2011 | 13/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163160 | 10/06/2011 | 14/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163159 | 10/06/2011 | 27/03/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163158 | 10/06/2011 | 03/05/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163157 | 10/06/2011 | 27/03/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163156 | 10/06/2011 | 03/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163155 | 10/06/2011 | 04/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163154 | 10/06/2011 | 01/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 163153 | 10/06/2011 | 16/04/2011 | African horse sickness (1) | South Africa | Western Cape | domestic, horse |
| | 162847 | 20/05/2011 | 02/03/2011 | African horse sickness | South Africa | Western Cape | domestic, horse |
| | 162846 | 20/05/2011 | 20/03/2011 | African horse sickness | South Africa | Western Cape | domestic, horse |
| | 162845 | 20/05/2011 | 17/03/2011 | African horse sickness | South Africa | Western Cape | domestic, horse |
| | 162844 | 20/05/2011 | 31/03/2011 | African horse sickness | South Africa | Western Cape | domestic, horse |
| | 162843 | 20/05/2011 | 19/03/2011 | African horse sickness | South Africa | Western Cape | domestic, horse |

Export to PDF

The  **Export to PDF** button converts the information in the Outbreaks List into a PDF file which is automatically downloaded. The information in the PDF file is clearly displayed in the form of a table and entitled EMPRES-i Disease Events Report, shown here:




Empres-i Disease Events Report

11/06/2011


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| ID | Diagnosis Status | Region/Country/Locality Admin1 | Observ. Date Reporting | Disease Species Affected | Virus | Cases | At Risk | Death | Destroye | Slaughtered | Vaccinate |
|--------|------------------|--|------------------------|-----------------------------------|----------|-------|---------|-------|----------|-------------|-----------|
| 158311 | Confirmed | Bungeni/Borne Lado (Lat: 41.880526, Long: 12.497469) Geocoords: Quality: Centroid Admin2 | 17/05/2011 | Foot and mouth disease | | | | | | | |
| 158309 | Confirmed | Asu/Agumy/Agumy Bakalanhan (Lat: 37.02115, Long: 71.10454) Geocoords: Quality: Centroid Admin2 | 01/03/2011 | Anthrax | | | | | | | |
| 158306 | Confirmed | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 02/02/2011 | Highly pathogenic avian influenza | HN1, HN2 | 10 | 100 | 9 | 12 | 8 | |
| 158305 | Confirmed | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 02/02/2011 | Highly pathogenic avian influenza | HN1, HN2 | 10 | 100 | 9 | 12 | 8 | |
| 158292 | Confirmed | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 16/02/2011 | Highly pathogenic avian influenza | HN1, HN2 | 20 | 200 | 18 | 24 | 16 | |
| 158291 | Confirmed | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 16/02/2011 | Highly pathogenic avian influenza | HN1, HN2 | 20 | 200 | 18 | 24 | 16 | |
| 158290 | Denied | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 16/02/2011 | Highly pathogenic avian influenza | HN1, HN2 | 20 | 200 | 18 | 24 | 16 | |
| 158288 | Confirmed | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 16/02/2011 | Highly pathogenic avian influenza | HN1 | 20 | 200 | 18 | 24 | 16 | |
| 158287 | Confirmed | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 16/02/2011 | Highly pathogenic avian influenza | HN1, HN2 | 10 | 100 | 9 | 12 | 8 | |
| 158285 | Confirmed | Asu/Agumy/Agumy Asu (Lat: 34.766667, Long: 137.353333) Geocoords: Quality: Centroid Admin2 | 16/02/2011 | Highly pathogenic avian influenza | HN1, HN2 | 10 | 100 | 9 | 12 | 8 | |

Export to CSV

The  **Export to CSV** button will export the filtered list of outbreaks to a spreadsheet (CSV format). When you click on this button a pop-up panel appears asking you which columns of data you would like to appear in the csv spreadsheet.

Export to Map

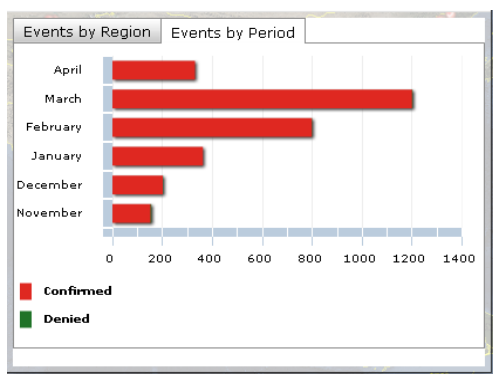
The  **Export to MAP** button plots your results onto the EMPRES-i map component previously

described in section 3.2.



3.6 Charts

Click on the **Charts** menu and the following panel will appear:



The disease events chart provides outbreak information in graphical form. Any modifications on the map will update the charts accordingly.

By period: The By period chart is displayed as a bar graph (as above). The y-axis of the graph expresses the time scale and the x-axis represents the number of cases. Scrolling over the bars in the graph will provide a small summary box with identifies specific case details.

By region: The By region chart is displayed as a pie chart. The chart is labelled with the number

of disease events in each region (or section of the chart). The legend to the left of the chart defines the colour coding. Scrolling over the chart will provide a small summary box which identifies specific case details.

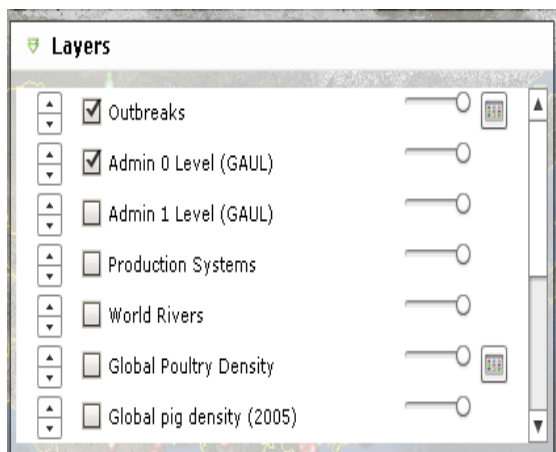
3.7 Layers

Click on the **Layers** menu to add extra data to the map. The layers provide additional information regarding poultry density, river systems, administrative territories etc., and allow the user to see disease events in a broader context.

By default, the only layers on the map are the Disease Events and the Base Layer which provides definition of countries and territories.

3.8 Adding Layers to the Map

To **add a layer**, click on the **Layers** menu underneath the Outbreaks List to the right of the map. A list of layers will appear as shown here:



Check the box next to the desired overlay and you will see that information is added to the map accordingly. Similarly, to remove overlays, simply uncheck the boxes next to the unwanted overlays.

3.9 Layers List

The layers list provides you with the following options:

World livestock population (2005): Displays the livestock population per country.

World human demographics (2008): Displays the human population total per country.

Global sheep density (2005): Displays the density of sheep per square kilometre.

Global goat density (2005): Displays the density of goats per square kilometre.

Global buffalo density (2005): Displays the density of buffalos per square kilometre.

Global small ruminant density (2005): Displays the density of small ruminants per square kilometre.

Global cattle density (2005): Displays the density of cattle per square kilometre.

Global pig density (2005): Displays the density of pigs per square kilometre.

Admin 1 regions: Displays a country's first level administrative units

Gaul Dark Borders: Displays dark grey subtle national borders

Gaul Light Borders: Displays bright yellow national borders

Country (Gaul 2005): Displays national borders

Managing the layers list

Use the arrows to the left of the layers to rearrange the list. Layers are applied on the map in the order they appear in the list, from top to bottom. To move layers up, click on the arrow pointing up and vice versa.

Density sliders

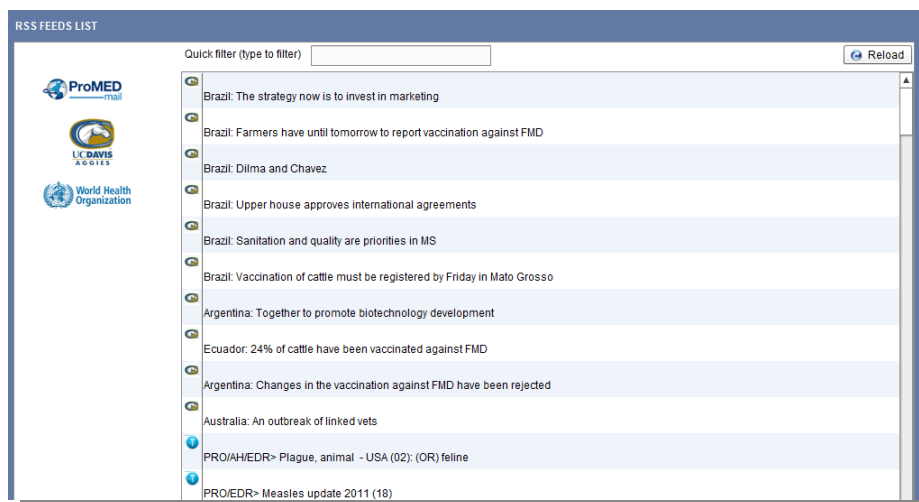
The density sliders to the right of the layers list allow you to adjust the density of each layer. For a better contrast between layers, use the density sliders to adjust the density of each layer. For example, to see the density of buffalo in each Admin 1 region, select the **Global buffalo density** and **Admin 1** layers. Then, decrease the density of the Global buffalo density by moving the slider to the left.

CHAPTER FOUR: RSS (Rich Site Summary) FEEDS


The **RSS Feeds** panel displays real-time information on disease outbreaks from external data sources. This panel is updated every five minutes and is a useful source of data on reported outbreak.


The **Global News** button takes you to a page providing information about any recent developments regarding global disease tracking.

Click on **RSS Feeds** menu tab and a larger pop-up panel appears:



To filter by external source, enter the specific data provider into the **Quick filter** box at the top of the **RSS Feeds** list.

To exit this panel and return to the main dashboard, click on the  **CLOSE** button at the bottom of the RSS Feeds list.

Click on the  **Reload** button to refresh the page and check for possible updated feeds.

Data sources

The semi-automated disease data is provided by various collaborators. These data sources include:



ProMED: Program for Monitoring Emerging Diseases- a global electronic reporting system for outbreaks of emerging infectious diseases:
<http://www.promedmail.org/pls/apex/f?p=2400:1000>.



UCDAVIS: The University of California Davis University- a public research university in which the Division of Infectious and Immunologic Diseases of the University provides up-to-date information on disease outbreaks:
<http://www.ucdmc.ucdavis.edu/internalmedicine/infectious/>.



World Health Organization: The authority for coordinating health issues within the United Nations: <http://www.who.int/about/en/>.

CHAPTER FIVE: DIRECTORY

The directory provides contact information for expert personnel across the world including Chief Veterinary Officers, National Authorities, Laboratory Contacts etc. To use the directory, either click on **Directory** in the sidebar or click on the **Directory** panel at the bottom middle of the EMPRES-i homepage. It is possible to search for personnel under various filters e.g. region, country, language etc.

5.1 Searching the directory

To **search the directory**, enter all of the search criteria into the Directory Query page as shown below:



DIRECTORY - CHIEF VETERINARY OFFICERS (CVOS)

| | | | | | |
|---------|----------------------|------------------|----------------------|------------------|----------------------|
| Region | <input type="text"/> | Last name | <input type="text"/> | Language | <input type="text"/> |
| Country | <input type="text"/> | Institution | <input type="text"/> | Free Text Search | <input type="text"/> |
| City | <input type="text"/> | Institution Type | <input type="text"/> | | |

Region: Choose the region you wish to search from the drop-down list provided.

Country: Choose the country you wish to search from the drop-down list provided.

City: Choose from the drop-down list if applicable.


Last Name: Enter the name of the contact, if known.

Institution: If you wish to search for a contact within a particular institution, enter it here.

Language: If you wish to search by language, select from the drop-down list provided. **Free**


Text Search: Insert any key names, categories etc. into this box in order to perform a quick search.

Click  to generate a list of contacts which meet your search criteria.

Click  to clear all the fields and begin a new search.

5.2 Contact Results

The results of your search will be displayed under the search criteria page. For each contact, you are provided with **Country, Last Name, First Name, Position, Institution, Address, Phone/Fax**.

View: To view a specific contact in more detail, click on the  icon in the left column. A pop-up window will appear where you can see all of the details of a specific contact.

CHAPTER SIX: LABORATORIES

The **Laboratories** module provides contact information for laboratories and reference centres across the world. To use the Laboratories tool, either click on **Laboratories** in the sidebar or click on the **Laboratories** panel at the bottom right of the EMPRES-i homepage. It is possible to search for laboratories under various filters e.g. location, disease, category etc.

6.1 Searching for Laboratories

To **search for laboratories**, enter all search criteria into the **Laboratories** query page:

Region : Choose the region you wish to search from the drop-down list provided.

Country: Choose the country you wish to search from the drop-down list provided.

Regional Network: Select a regional network from the drop-down list, if applicable.


Disease: If you wish to filter your search by disease, select from the drop-down list provided.


Theme: Select a general area of expertise from the drop-down list provided.

FAO Reference centres/ OIE Reference Laboratories: Check the corresponding box if you wish your search to include FAO Reference centres or OIE Reference Laboratories .

Laboratory Name: Enter the name of the Laboratory, if known.

Free Text Search: Insert any key names, categories etc. into this box in order to perform a quick search.


Click  to generate a list of laboratories which meet your search criteria.

Click  to clear all the fields and begin a new search.

6.2 Laboratory Results

A list of results matching your laboratory search criteria will be displayed on the bottom half of the Laboratory query page after clicking **Find**.

For each laboratory, you are provided with **Country, Laboratory Name, City, Institution, and Address**.

View: To view a specific laboratory in more detail, click on the  icon in the left column. A pop-up window will appear where you can see all of the details of a specific laboratory.

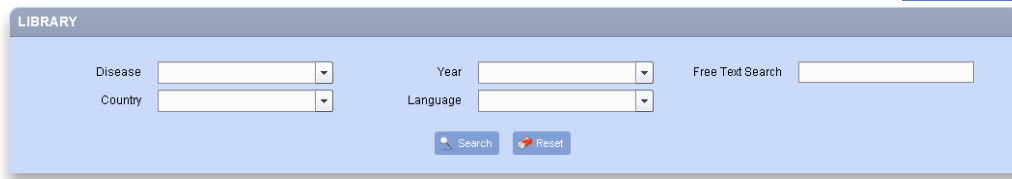
CHAPTER SEVEN: LIBRARY

The **Library** feature enables you to search for FAO technical publications such as journals, reports, documents and other publications.

To access the Library module, click on **Library** in the sidebar. Users can search for information related to the current situation, epidemiology, diagnoses and control of TADs by a number of criteria (document type, topic, language, date or free text).

7.1 Searching the Library

To search the library, enter all search criteria into the Library query page as shown here:




Disease: Select the disease of interest, if any, from the drop down menu


Year: Enter the publication year if available

Free Text Search: Enter any key words or topics to provide a quick search.
Language: Enter the language of your document search.

Country: Enter the country of publication, if applicable.

Year: Enter the year of publication, if applicable.


Click  to generate a list of documents that meet your search criteria.

Click  to clear all the fields and begin a new search.

7.2 Library results

A list of results matching your search criteria will be displayed on the bottom half of the Library query page after clicking **Find**.

For each document, you are provided with **Author** and **Title**.

To view a specific document, click on the  icon in the left column.

If the document is part of a website, a link will be provided, or alternatively you will be provided with a downloadable PDF file.

CHAPTER EIGHT: FINAL WORD

The EMPRES-i system was created in response to the growing need for animal health information worldwide gathering through sharing and is designed to support veterinary services by facilitating regional and global disease information with the ultimate aim of enhancing early warning systems thanks to timely and reliable disease information. It also provides access to publications, manuals and other resources, such as contact details of chief veterinary officers (CVOs) and FAO reference centres.

The EMPRES-i system is under continuous development and many new features are being developed including an animal disease surveillance data module, as part of the password-protected site along with a mobile application for Android and Blackberry in the field. The EMPRES-i database has been used over the past five years covering animal diseases such as H5N1 Highly Pathogenic Avian Influenza, Foot-and-Mouth Disease, Rift Valley fever, African swine fever and Peste des petits ruminants. The system will undoubtedly prove useful in facing the big challenge of the emergence of new diseases.