



EMPRES



Global Animal Disease Information System

全球动物疾病信息系统

<http://empres-i.fao.org>

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Presentation overview 综述

1. EMPRES-i Platform EMPRES-i 平台

- Overview 简介
- Tools 工具
- Disease events 疾病事件
- Interfaces (public/secured) 界面（公共/安全）

2. EMPRES-i public: an introduction EMPRES-i 公共：介绍

- Overview 概述
- The dashboard 主界面
- How to: 如何：
 - Select, visualize and export disease event 选择可视化及导出疾病事件
 - Generate graphs 生成图表
 - Generate a maps 生成地图

3. EMPRES-i public: from theory to real data

EMPRES-i公共：从理论到真实数据

- Data available for China 中国可用数据
- Practice 实践

4. Conclusion and recommendations 结论和建议

Session 1 第一节

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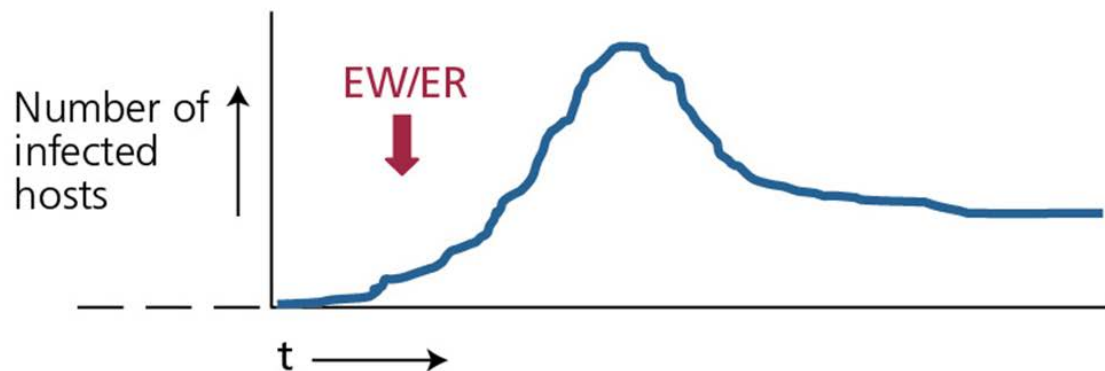
4. Conclusion and recommendations 结论和建议

EMPRES-i platform: Overview

EMPRES-i 平台：概述

- Global Disease Surveillance: A New paradigm 全球疾病监测：一项新的范例

Disease outbreak timeline



incubation → emergence → spread → persistence → → → (and recrudescence)

Shift to the left



- Early Detection/Warning and Early Response (EW/ER)
- Tackling disease drivers of emergence, persistence and spread (upstream)

EMPRES-i platform: Overview

EMPRES-i平台：概述

Disease Tracking Systems

-  FAO EMPRES-i Global Animal Disease Information System
-  WHO Global Health Atlas
-  OIE WAHID World Animal Health Information Database

Additional data

- Other FAO and UN data
- Refugees movements
- Climatic data
- Production, Economic data
- Wildlife and other migration

 **Early Warning**

Disease alerts
Trends and analysis
Forecasting
Risk assessment



Global Early Warning and Response System (GLEWS)
for Major Animal Diseases, including Zoonoses



EMPRES-i platform: Overview

EMPRES-i 平台：概述

➤ Objectives 目标

- To support FAO, national veterinary services and international animal health community:
支持联合国粮农组织、国家兽医服务和国际动物卫生组织：
 - in exchanging national, regional and global disease information on emergent diseases and TADS
 - 在国家、地区以及全球之间交流突发疾病和TADS信息
 - by providing updated and easily retrievable information on global animal disease distribution for priority animal diseases and zoonoses
 - 提供重要的动物疾病和人畜共患病全球分布有关的最新且易检索的信息
- Enhances early warning and response to transboundary and high impact animal diseases and supports prevention, improved management and progressive approach to control
提高跨境、大幅影响动物疾病的预警及防治，并支持预防、优化管理和持续控制方法

EMPRES-i platform: Overview

EMPRES-i 平台：概述

➤ Technology 技术

- It is a web-based application released by FAO in 2009 using the below technology

联合国粮农组织2004年发布的一项基于网页的应用平台，采用了以下技术：

- Platform: Open Source software application (no licensing cost)
平台：开放源软件应用（无许可费用）
- Front-End Languages: Adobe Flex, HTML5, JavaScript
前端语言：Adobe Flex、HTML5和JavaScript
- Back-End Language: JEE (Java Enterprise Edition)
后端语言：JEE (Java 企业版)
- Application/Web Server: JBOSS 7.1 and Apache/Tomcat 7.0
应用/网络服务器：JBOSS7.1和Apache/Tomcat7.0
- Mapping Features (GIS): GeoServer, Kids3g
地图功能（GIS）：地图服务器和Kids3g
- Mobile languages: Android
手机语言：安卓
- Database Server: MySQL 5.6
数据库服务器：MySQL 5.6
- Main Frameworks and Technologies: JPA, Hibernate, Spring, BlazeDS, GraniteDS, XML, JSON
主要架构和技术：JPA、Hibernate、Spring、BlazeDS、GraniteDS、XML和JSON
- Web Services: SOAP, RESTful
网络服务：SOAP和RESTful



EMPRES-i platform: Overview

EMPRES-i 平台：概述

- It is a global animal disease information system which
全球动物疾病信息系统功能：
 - Allows to collect, storage and analyse disease information
收集、储存和分析疾病信息
 - Integrates disease data to those coming from other information systems:
整合其他信息系统的疾病数据：
 - Livestock population /density (GLiPHA/FAO)
家养动物数量/密度（全球家养动物生产和卫生图集/联合国粮农组织）
 - Environmental (Geonetwork/FAO)
环境（地理网络/联合国粮农组织）
 - Genetic information (Openflu database)
遗传学信息（Openflu数据库）
 - Has different tools to support several disease surveillance projects
拥有各种工具来支持数个疾病监测项目
 - Manage data according to different privileges
可以根据不同的权限来进行数据管理

EMPRES-i platform: Tools

EMPRES-i 平台：工具

➤ Main tools 主要工具

1. **Disease Event Module:** entry, management and analysis of epidemiological data on animal disease and zoonoses occurring globally

疾病事件模块： 对全球出现的动物疾病和人畜共患病的流行病学数据进行输入、管理与分析

- **Geographical information system (GIS) mapping tool:** visual presentation of disease events on maps and exploratory analysis using a variety of layers

地理信息系统（GIS）地图工具： 运用各种层次在地图上视觉显现疾病事件并进行探索性分析

- **Analysis tool:** facilitate data presentation in tables, charts or graphs according to different selectable parameters

分析工具： 根据各种可选择的参数，用表格、图表或图形来增强数据的呈现

2. **Genetic:** Link genetic data to avian influenza event hosted in EMPRES-i

基因： 将基因数据连接到在EMPRES-i上列举的禽流感事件



EMPRES-i platform: Tools

EMPRES-i 平台：工具

➤ Main tools 主要工具（接上）

3. **EMA-i:** Event Mobile Application for real-time disease reporting and access from the field

EMA-i: 进行实时疾病报道和连接现场的事件进程应用

4. **Surveillance:** Hosts surveillance data from specific FAO projects

监测: 汇集了联合国粮农组织具体项目的监测数据

5. **Directory:** Contact details of CVOs, experts

名录: 首席兽医官、专家们的联系方式

6. **Library:** Documents/Publications/Photos

文库: 文献/出版物/照片

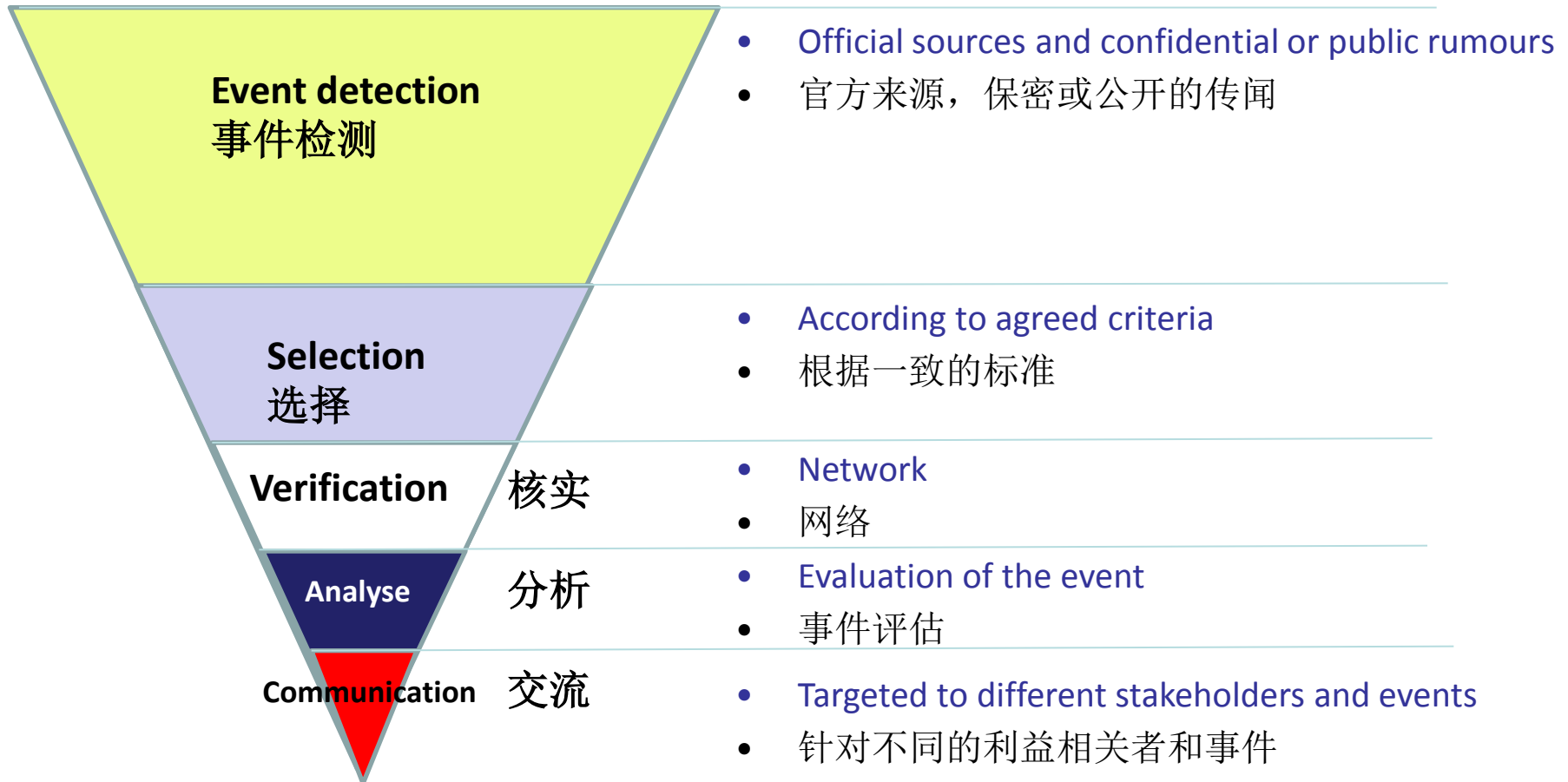
7. **Laboratory:** Contact details of national Veterinary laboratories, Regional Networks; Reference Laboratories and FAO Reference Centers

实验室: 国家兽医实验室，地区网络的联系方式，参考实验室以及联合国粮农组织文献中心

EMPRES-i platform: Disease event

EMPRES-i 平台：疾病事件

➤ Disease tracking process conducted daily 日常疾病追踪过程

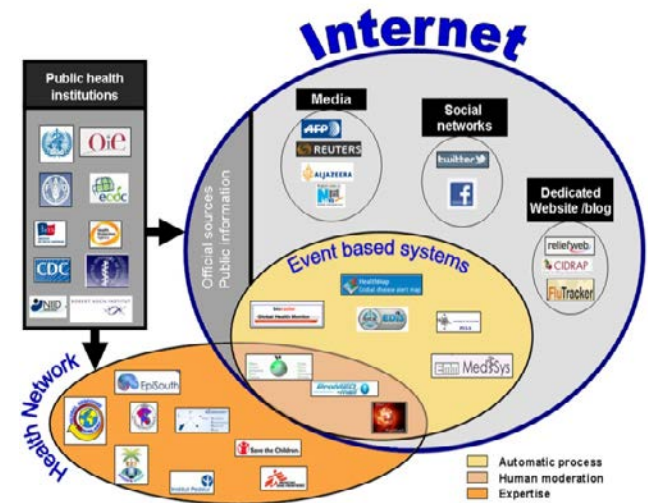


EMPRES-i platform: Disease event

EMPRES-i 平台：疾病事件

➤ Official and un-official sources of information: 官方与非官方信息来源：

- International and national authorities (e.g. WHO, Ministries of Agriculture and Health)
国际与国家主管部分（例如：世界卫生组织、农业部与卫生部）
- FAO/OIE Reference Laboratories (e.g. Pirbright institute..)
联合国粮农组织/国际兽疫局实验室（例如：英国普尔布莱特机构）
- Media and web-based health surveillance systems
传媒和网络健康监测系统
- Country or regional project reports
国家和地区项目报告
- Network: FAO or UN in-country representations
网络：联合国粮农组织或联合国国内代表
- Partner NGOs cooperating institutions
合作伙伴：非政府组织合作机构
- Publication
出版





EMPRES-i platform: Disease event

EMPRES-i 平台：疾病事件

➤ Disease events of interest 受到关注的疾病事件

- Confirmed or Suspected, Confidential or Public: 确诊或疑似的，保密或公开的：
 - Transboundary diseases (e.g. FMD, PPR, LSD...) 跨界疾病（例如：口蹄疫、PPR、牛结节性疹块病等）
 - Emerging diseases (e.g. MERS-CoV..) 新发疾病（例如：中东呼吸综合征 等）
 - Zoonoses (e.g. RVF, AI...) 人畜共患病（例如：裂谷热、AI等）
- Occurring in: 出现于：
 - Wild or domestic terrestrial animals 野生或家养的陆栖动物
 - Wild or domestic birds 野禽或家禽
 - Human 人类
- Information available: 提供信息包括：
 - Disease and diagnosis status 疾病与诊断状况
 - Characteristic on the affected species 受感染物种的特征
 - Location and Epidemiology 地理位置和流行病学
 - Treatment and control measure 治疗与控制措施

EMPRES-i platform: Disease event

EMPRES-i 平台：疾病事件

DATA ENTRY: DATA ARE ENTERED MANUALLY (COMPUTER AND/OR MOBILE PHONE)



MOBILE PHONE APPLICATION TO PROVIDE AND/OR ACCESS DISEASE OUTBREAK INFORMATION



VALIDATION: DATA ARE VERIFIED AND VALIDATED BEFORE BEING OFFICIALLY PUBLISHED BY FAO

MY EMPRES-i:
USER PREFERENCES SET UP FOR DIFFERENT SECTIONS INCLUDING DISEASE OUTBREAKS (BY SELECTING A DISEASE, A PERIOD AND A GEOGRAPHICAL AREA), CVOS, LABORATORIES AND NEWSLETTERS.

INTERACTIVE MAP:
ACCESS TO EPIDEMIOLOGICAL AND LABORATORY INFORMATION FROM AN OUTBREAK LOCATION

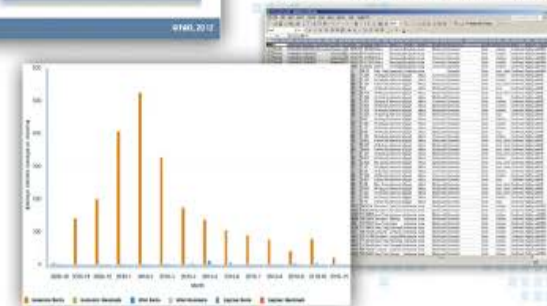


ADDITIONAL LAYERS:
LAYERS SUCH AS LIVESTOCK POPULATION AND PRODUCTION, BIOPHYSICAL, SOCIO-ECONOMIC, ANIMAL HEALTH STATUS OR TRADE (FAO - GLIPHA)

ANALYSIS TOOL:
DATA IS PRESENTED IN TABLES, CHARTS OR GRAPHS AND CAN EASILY BE DOWNLOADED IN CSV OR XLS FORMAT FOR FURTHER ANALYSIS



AUTOMATED DATA UPLOAD:
A SPECIAL EXCEL FILE APPLICATION FACILITATES THE UPLOAD OF LARGE AMOUNTS OF DATA INTO THE SYSTEM



<http://empres-i.fao.org>

EMPRES-i platform: Available interfaces

EMPRES-i 平台: 可用界面

Public website 公共网站
(English, French, Spanish)
(英语、法语和西班牙语)
Open 公开

Internal website 内部网站
(English) (英语)
Password secured 密码保护

EMPRES-i Global Animal Disease Information System

EMPRES-i provides up to date information on the global animal disease distribution and current threats at national, regional and global level. Disease Events can be presented on a map and further analyzed by choosing from a variety of

LATEST EVENTS

- Ortmean Congo haemorrhagic fever 14/052012 - Pakistan
- Ortmean Congo haemorrhagic fever 14/052012 - Pakistan
- Ortmean Congo haemorrhagic fever 14/052012 - Pakistan
- Ortmean Congo haemorrhagic fever

DIRECTORY

EMPRES-i provides contact details of the Chief Veterinary Officers (CVOs) for each country.

LABORATORIES

EMPRES-i provides contact information of FAO/OIE reference laboratories and Regional laboratory.

LIBRARY

EMPRES-i provides access to FAO technical publications such as bulletins, journals, reports.

<http://empres-i.fao.org>

FAOLogin

Security message

This is a Public or Shared computer
You must select this option if other people have access to this computer.
This is a Private computer
Select this option if you are the only person who will use this computer.

FAOADMIN

FAO Login

EMPRES-i

EMPRES-i provides up to date information on the global animal disease distribution and current threats at national, regional and global level. Disease Events can be presented on a map and further analyzed by choosing from a variety of

Disease situation

Total number of events since 10/07/2011

Month	Confirmed	Denied	Ventative
January	100	0	0
December	350	0	0
November	300	0	0
October	450	0	0
September	400	0	0
August	450	0	0

<http://empres-i.fao.org/empres3g/>

Session 2 第二节

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EMPRES-i Public: Overview

EMPRES-i 公共：简介

- **Objective:** enables the public: 目标：使公众获得以下能力：
 - to access, retrieve and analyse geo-referenced information on animal disease or zoonoses events occurred throughout the world
获取、检索并分析关于在全球范围内出现的动物疾病或人畜共患病的地理参考信息
 - provides access to publications, manuals, contact details of chief veterinary officers (CVOs) and FAO/OIE (World Organisation for Animal Health) reference laboratories
获得出版物、手册、首席兽医官的联系方式和联合国粮农组织/世界动物健康组织实验室的参考资料
- **Languages:** English, French, Spanish 语言：英语、法语和西班牙语
- **Data available:** 提供数据
 - confirmed or denied, non-confidential, disease events collected since 2004
2004年以来收集到确认的或否认的、非机密的疾病信息。

EMPRES-i Public: The dashboard

EMPRES-i 公共：主界面

<http://empres-i.fao.org/eipws3g/>

Language Selection
语言选择

User manuals
用户手册

My EMPRES-i: private area for customization with geographical and disease preferences
我的EMPRES-i: 拥有地理和疾病偏向的私人订制区域

Directory: 名录:
Contact information for expert personnel
专家的联系方式

Laboratories: 实验室:
Contact information for laboratories and reference centers
实验室和参考中心的联系方式

Library: 文献:
FAO technical publications (e.g. reports, journals..)
联合国粮农组织科技出版物 (例如: 报道、期刊等)

DIRECTORY ▶

EMPRES-i provides contact details of the Chief Veterinary Officers (CVOs) for each country.

LABORATORIES ▶

EMPRES-i provides contact information of FAO/OIE reference laboratories and Regional laboratory networks.

LIBRARY ▶

EMPRES-i provides access to FAO technical publications such as reports, documents and other publications.

EMPRES-i Public: The dashboard

EMPRES-i 公共：主界面

RSS (Reach Site Summary) feed:

RSS供应:

real time information from external sources (e.g. Promed, WHO, UCDAVIS news on FMD)

外界来源的实时信息（例如：世界卫生网、世界卫生组织和加州大学戴维斯分校关于口蹄疫的报道）

Disease events:

To track and map disease event

疾病事件：追踪并在地图上标出疾病事件



Latest event: 最新事件:

Real time disease event available in EMPRES-i
实时疾病事件

- FAO Home
- EMPRES-i Home
- About EMPRES-i
- Disease Events
- Directory - CVOs
- Laboratories
- Library
- Links
- ProMED
- HealthMap
- OIE WAHID
- WHO



Event	Date	Location
Highly pathogenic avian influenza	09/02/2012	Viet Nam
Highly pathogenic avian influenza	09/02/2012	China, Hong Kong SAR
Schmallenberg	08/02/2012	Netherlands
Schmallenberg	08/02/2012	Netherlands
Schmallenberg	08/02/2012	Netherlands
Schmallenberg	08/02/2012	Netherlands
Schmallenberg	08/02/2012	Netherlands
Schmallenberg	08/02/2012	Netherlands
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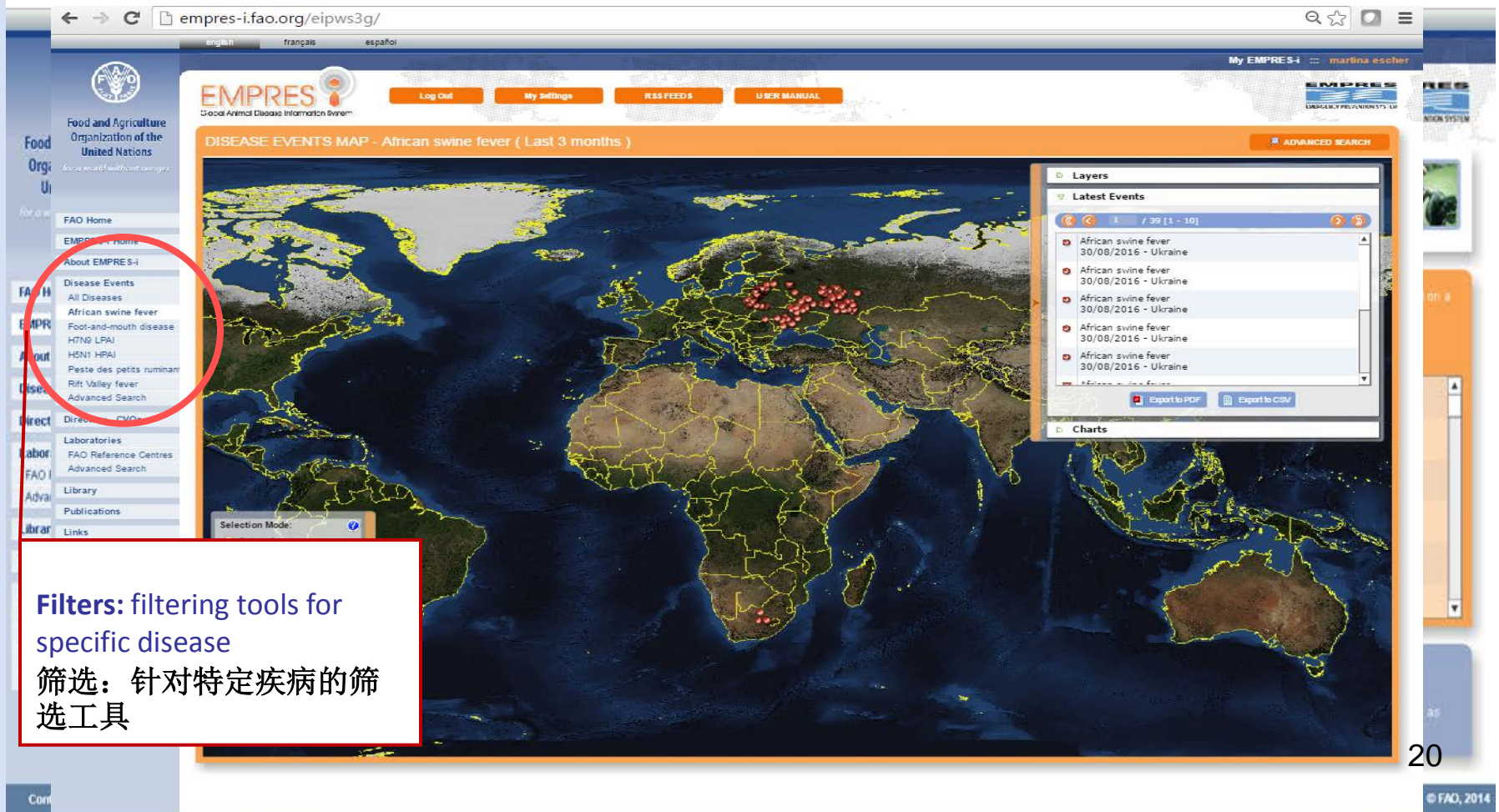
LIBRARY

EMPRES-i provides access to FAO technical publications such as bulletins, journals, reports, documents and other publications.

EMPRES-i Public: How to select the data

EMPRES-i 公共：如何选择数据

- 1) From the “Disease event”, users can access to the disease event map page
在”疾病事件”中用户可以连接到疾病事件地图页



Filters: filtering tools for specific disease
筛选：针对特定疾病的筛选工具

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EMPRES-i Public: How to select the data

EMPRES-i 公共：如何选择数据

2) By clicking the “advanced search” button, users can access the query page
通过点击”高级搜索”按钮，用户可以连接到查询页面

The screenshot displays the EMPRES-i Public website interface. The main content area features a 'DISEASE EVENTS MAP - All Diseases (Last 3 months)' with a world map showing red markers for disease events. A sidebar on the left contains navigation links such as 'FAO Home', 'EMPRES-i Home', 'About EMPRES-i', 'Disease Events', 'Directory - CVOs', 'Laboratories', 'Publications', and 'Links'. A red circle highlights the 'Advanced Search' button in the top right corner of the map area. Another red circle highlights the 'Advanced Search' button in the top right corner of the page header. The 'Layers' panel on the right shows a list of 'Latest Events' including MERS-CoV and Low pathogenic avian influenza - H7N9, with options to 'Export to PDF' and 'Export to CSV'.

Event	Date	Location
MERS-CoV	22/07/2016	Saudi Arabia
Low pathogenic avian influenza - H7N9	21/07/2016	China
Low pathogenic avian influenza - H7N9	21/07/2016	China
Low pathogenic avian influenza - H7N9	21/07/2016	China
Low pathogenic avian influenza - H7N9	21/07/2016	China
Low pathogenic avian influenza - H7N9	21/07/2016	China

EMPRES-i Public: How to select the data

EMPRES-i 公共：如何选择数据

3) From the query page, users can select data by setting several criteria:

在查询页面，用户可以通过设置几项条件来选择数据

a. Time frame of occurrence or reporting 发生或报道的时间框架

b. Disease 疾病

c. Status of the event 事件的状态

d. Diagnosis source (e.g. OIE, National Authorities) 诊断源（例如：国际兽疫局、国家主管部门）

The screenshot displays the 'Diseases Events' search interface. It is divided into several sections:

- DATES:** Includes 'Observation From' (01/2015) and 'Reporting From' fields, both with calendar icons. A note states: 'If the Observation date is not available in a record, the Reporting date will be considered by default'. A red box labeled 'a' highlights the date selection area.
- CASE INFO:** Includes 'Disease Event ID', 'Disease Event Status' (set to 'CONFIRMED'), and 'Diagnosis Source' (with a search icon). A red box labeled 'c' highlights the status dropdown, and a red box labeled 'd' highlights the diagnosis source field.
- DISEASE LIST:** A tree view showing 'Influenza - Avian' with sub-items: HPAI, LPAI, H2N2 LPAI, H5 HPAI, H5 LPAI, and H5N1 HPAI (checked). A red box labeled 'b' highlights the disease list area.
- ADMINISTRATIVE UNITS:** A tree view showing a list of countries and regions, including Afghanistan, Aksai Chin, Armenia, Arunachal Pradesh, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, and China (checked). A red box labeled 'd' highlights this section.
- GENETIC INFORMATION FOR INFLUENZA VIRUSES:** Includes 'Genetic Link Status' with options: Validated link, Proposed link, Absent, and Unknown.
- ANIMALS AFFECTED:** A tree view showing 'Domestic', 'Wild', 'Captive', and 'Human'.

At the bottom, there are buttons for 'Find', 'Clear', and 'Close', along with an 'Order By' dropdown set to 'ID Event' and a 'Desc' checkbox.

EMPRES-i Public: How to select the data

EMPRES-i 公共：如何选择数据

3) From the query page, users can select data by setting several criteria:

在查询页面，用户可以通过设置几项条件来选择数据

e. Affected animal 被感染的动物

f. Only for Avian Influenza events 只针对禽流感事件

f.1. Clade 分化枝

f.2. Genetic link status 遗传学信息关联情况

The screenshot displays the 'Diseases Events' query interface. It is divided into several sections:

- Search Criteria:** A header for the search filters.
- DATES:** Includes 'Observation From' (01/2015) and 'To' (13/07/2016), and 'Reporting From' and 'To' fields. A note states: 'If the Observation date is not available in a record, the Reporting date will be considered by default'.
- CASE INFO:** Includes 'Disease Event ID', 'Disease Event Status' (set to CONFIRMED), and 'Diagnosis Source'.
- GENETIC INFORMATION FOR INFLUENZA VIRUSES:** Includes 'Genetic Link Status' with options: Validated link, Proposed link, Absent, and Unknown. This section is highlighted with a red box labeled 'f.2'.
- DISEASE LIST:** A tree view showing 'Influenza - Avian' with sub-categories like HPAI, LPAI, H2N2 LPAI, H5 HPAI, H5 LPAI, and H5N1 HPAI. The 'H5N1 HPAI' option is checked. Below it is a 'Genetic Clade' field, highlighted with a red box labeled 'f.1'.
- ADMINISTRATIVE UNITS:** A list of countries/regions including Afghanistan, Aksai Chin, Armenia, Arunachal Pradesh, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, and China. 'China' is checked.
- ANIMALS AFFECTED:** A list of animal categories: Domestic, Wild, Captive, and Human. This section is highlighted with a red box labeled 'e'.

At the bottom, there are buttons for 'Find', 'Clear', and 'Close', along with an 'Order By' dropdown set to 'ID Event' and a 'Desc' checkbox.

EMPRES-i Public: How to select the data

EMPRES-i 公共：如何选择数据

4) Click on the “Find” button to retrieve the event selected

点击“寻找”按钮来检索被选择的事件

The screenshot displays the EMPRES-i Public interface for searching disease events. The interface is divided into several sections:

- Search Criteria:** A header for the search filters.
- DATES:** Fields for "Observation From" (01/2015) and "Reporting From", and "To" (131/07/2016).
- CASE INFO:** Fields for "Disease Event ID", "Disease Event Status" (set to CONFIRMED), and "Diagnosis Source".
- GENETIC INFORMATION FOR INFLUENZA VIRUSES:** Radio buttons for "Validated link", "Proposed link", "Absent", and "Unknown".
- DISEASE LIST:** A tree view under "Influenza - Avian" with sub-items like HPAI, LPAI, H2N2 LPAI, H5 HPAI, H5 LPAI, and H5N1 HPAI. The "H5N1 HPAI" item is checked.
- ADMINISTRATIVE UNITS:** A list of countries/regions including Afghanistan, Aksai Chin, Armenia, Arunachal Pradesh, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, and China. "China" is checked.
- ANIMALS AFFECTED:** Radio buttons for "Domestic", "Wild", "Captive", and "Human".
- Footer:** A "Find" button circled in red, along with "Clear", "Close", and "Order By: ID Event" (set to Desc).

EMPRES-i Public: How to visualize disease events

EMPRES-i 公共：如何呈现疾病事件

The “Result list” page will be displayed “结果列表”版面显示

Diseases Events

Search Criteria Result List 1

Export to PDF Export to CSV Export to Graph Export to MAP

88 / 88 [1741 - 1760]

Show Clade

<input checked="" type="checkbox"/>	Status	Diagnosis Source	Docum	ID	Genetic Link	Rep. Date	Obs. Date	Disease	Clades	Country/Territory	Admin 1	Affected Species	Human
<input type="checkbox"/>		National authorities		106621	Validated link	13/03/2006	22/02/2006	Influenza - Avian ...	2.2.1	Austria	Steiermark	wild, duck, wild, swan, domestic, chicken, wild, goose	
<input type="checkbox"/>		National authorities		106613	Validated link	16/02/2006	16/02/2006	Influenza - Avian ...	2.2.1	Austria	Steiermark	wild, duck, wild, unspecified bird, domestic, chicken, wild...	
<input type="checkbox"/>		International refere...		105148	Validated link	24/02/2006	10/02/2006	Influenza - Avian ...	1	Cambodia	Kampong Cham	domestic, duck, domestic, chicken	
<input type="checkbox"/>		National authorities		103239	Validated link	22/12/2005	13/12/2005	Influenza - Avian ...	2.1.3.2	Indonesia	Dki Jakarta		Human
<input type="checkbox"/>		OIE		103065	Validated link	15/12/2005	15/12/2005	Influenza - Avian ...	2.3.4	China	Jiangxi Sheng	domestic, duck	
<input type="checkbox"/>		National authorities		102396	Validated link	16/11/2005	16/11/2005	Influenza - Avian ...	2.3.4	China	Anhui Sheng		Human
<input type="checkbox"/>		National authorities		102386	Validated link	11/11/2005	11/11/2005	Influenza - Avian ...	2.3.4	China	Anhui Sheng		Human
<input type="checkbox"/>		OIE		102143	Validated link	17/11/2005	17/11/2005	Influenza - Avian ...	2.3.2	China	Yunnan Sheng	domestic, chicken	
<input type="checkbox"/>		Other		101678	Validated link	04/11/2005	03/11/2005	Influenza - Avian ...	2.2	China	Liaoning Sheng	domestic, chicken	
<input type="checkbox"/>		Other		101392	Validated link	24/10/2005	22/10/2005	Influenza - Avian ...	2.2	Croatia	Osijek-baranja	wild, swan	
<input type="checkbox"/>		Other		100399	Validated link	09/05/2005	04/05/2005	Influenza - Avian ...	2.2	China	Qinghai Sheng	wild, bar-headed goose, wild, gull, wild, gull, wild, cormor...	
<input type="checkbox"/>		Other		4588	Validated link	24/02/2004	28/01/2004	Influenza - Avian ...	1	Thailand	Khon Kaen	domestic, chicken	
<input type="checkbox"/>		Other		4164	Validated link	05/02/2004	16/01/2004	Influenza - Avian ...	1	Cambodia	Phnom Penh	domestic, duck, domestic, chicken, domestic, goose	
<input type="checkbox"/>		Other		3996	Validated link	16/02/2004	06/02/2004	Influenza - Avian ...	2.3.1	China	Guangdong Sheng	domestic, unspecified bird, domestic, chicken, domestic, ...	
<input type="checkbox"/>		Other		3928	Validated link	12/02/2004	27/01/2004	Influenza - Avian ...	2.3.3	China	Hunan Sheng	domestic, duck, domestic, chicken, domestic, chicken	
<input type="checkbox"/>		Other		3872	Validated link	10/02/2004	07/02/2004	Influenza - Avian ...	1-8-9-like	China	Guangdong Sheng	domestic, duck, domestic, unspecified bird, domestic, ch...	
<input type="checkbox"/>		Media		3816	Validated link	27/01/2004	27/01/2004	Influenza - Avian ...	1	Thailand	Suphanburi	domestic, chicken	
<input type="checkbox"/>		Media		3756	Validated link	28/01/2004	28/01/2004	Influenza - Avian ...	1	Thailand	Kalasin	domestic, chicken	

Search Criteria Close

EMPRES-i Public: How to visualize disease events

EMPRES-i 公共：如何呈现疾病事件

The list of selected disease events will be displayed 被选择的疾病事件列表将被展示

1) Each event can be visualized in detail by clicking on it 每一事件都可通过点击来查看细节

Diseases Events

Search Criteria Result List 1

Export to PDF Export to CSV Export to Graph Export to MAP

EMPRES-i - Global Anir

empres-i.fao.org/eipws3g

Show Clade

Status Diagnosis Source

- National authorities
- National authorities
- International refere...
- National authorities
- OIE
- National authorities
- National authorities
- OIE
- Other
- Other
- Other
- Other
- Other
- Other
- Other
- Other
- Media
- Media

Disease Event Details

General Info			Location				
Disease Event ID	Reporting date	Observation date	Region	Admin 1 (Country)	Locality	Lat/Long	Quality of Coordinates
208385	12/11/2015	30/06/2015	Asia	Hunan Sheng (China)	Hanshou County	28.910376 / 111.970227	Exact

Disease			
Status	Disease	Serotype	Diagnosis Source
Confirmed	Influenza - Avian	H5N6 HPAI, H5N2 HPAI, H5N1 HPAI	National authorities

Species affected									
An_Type	An_Class	Species	At Risk	Cases	Deaths	Destroyed	Slaughtered		
Domestic	Birds	Duck	0	2	0	0	0		
Domestic	Birds	Chicken	0	1	0	0	0		

Laboratories						
Disease Tested	Species	Test	Sample	Result	Result Date	Reference Laboratory
Influenza - Avian	Duck, Chicken	RRT-PCR (real-time reverse transcriptase PCR)		Positive		

OIE	205043	Unknown	19/06/2015	07/06/2015	Influenza - Avian H5N6	China	Jiangsu Sheng	domestic, unspecified bird	
National authorities	201802	Unknown	03/04/2015	23/03/2015	Influenza - Avian H5N6	China	Yunnan Sheng		Human
National authorities	201593	Unknown	25/03/2015	13/03/2015	Influenza - Avian H5N6	China	Yunnan Sheng		Human
National authorities	201558	Unknown	23/03/2015	13/03/2015	Influenza - Avian H5N6	China	Yunnan Sheng		Human
National authorities	201376	Unknown	13/03/2015	01/03/2015	Influenza - Avian H5N6	China	Sichuan Sheng		Human

26

EMPRES-i Public: How to export disease events

EMPRES-i 公共：如何导出疾病事件

From the “Result list” page, disease event selected can be exported as:

从“结果列表”页，被选择的疾病事件都可被导出：

PDF file PDF文档

CSV file CSV文档

Diseases Events

Search Criteria Result List 1

Export to PDF Export to CSV Export to Graph Export to MAP

88 / 88 [1741 - 1760]

Show Clade

<input checked="" type="checkbox"/>	Status	Diagnosis Source	Docun	ID	Genetic Link	Rep. Date	Obs. Date	Disease	Clades	Country/Territory	Admin 1	Affected Species	Human
<input type="checkbox"/>		National authorities		106621	Validated link	13/03/2006	22/02/2006	Influenza - Avian ...	2.2.1	Austria	Steiermark	wild, duck, wild, swan, domestic, chicken, wild, goose	
<input type="checkbox"/>		National authorities		106613	Validated link	16/02/2006	16/02/2006	Influenza - Avian ...	2.2.1	Austria	Steiermark	wild, duck, wild, unspecified bird, domestic, chicken, wild...	
<input type="checkbox"/>		International refere...		105148	Validated link	24/02/2006	10/02/2006	Influenza - Avian ...	1	Cambodia	Kampong Cham	domestic, duck, domestic, chicken	
<input type="checkbox"/>		National authorities		103239	Validated link	22/12/2005	13/12/2005	Influenza - Avian ...	2.1.3.2	Indonesia	Dki Jakarta		Human
<input type="checkbox"/>		OIE		103065	Validated link	15/12/2005	15/12/2005	Influenza - Avian ...	2.3.4	China	Jiangxi Sheng	domestic, duck	
<input type="checkbox"/>		National authorities		102396	Validated link	16/11/2005	16/11/2005	Influenza - Avian ...	2.3.4	China	Anhui Sheng		Human
<input type="checkbox"/>		National authorities		102386	Validated link	11/11/2005	11/11/2005	Influenza - Avian ...	2.3.4	China	Anhui Sheng		Human
<input type="checkbox"/>		OIE		102143	Validated link	17/11/2005	17/11/2005	Influenza - Avian ...	2.3.2	China	Yunnan Sheng	domestic, chicken	
<input type="checkbox"/>		Other		101678	Validated link	04/11/2005	03/11/2005	Influenza - Avian ...	2.2	China	Liaoning Sheng	domestic, chicken	
<input type="checkbox"/>		Other		101392	Validated link	24/10/2005	22/10/2005	Influenza - Avian ...	2.2	Croatia	Osijek-baranja	wild, swan	
<input type="checkbox"/>		Other		100399	Validated link	09/05/2005	04/05/2005	Influenza - Avian ...	2.2	China	Qinghai Sheng	wild, bar-headed goose, wild, gull, wild, gull, wild, cormor...	
<input type="checkbox"/>		Other		4588	Validated link	24/02/2004	28/01/2004	Influenza - Avian ...	1	Thailand	Khon Kaen	domestic, chicken	
<input type="checkbox"/>		Other		4164	Validated link	05/02/2004	16/01/2004	Influenza - Avian ...	1	Cambodia	Phnom Penh	domestic, duck, domestic, chicken, domestic, goose	
<input type="checkbox"/>		Other		3996	Validated link	16/02/2004	06/02/2004	Influenza - Avian ...	2.3.1	China	Guangdong Sheng	domestic, unspecified bird, domestic, chicken, domestic,...	
<input type="checkbox"/>		Other		3928	Validated link	12/02/2004	27/01/2004	Influenza - Avian ...	2.3.3	China	Hunan Sheng	domestic, duck, domestic, chicken, domestic, chicken	
<input type="checkbox"/>		Other		3872	Validated link	10/02/2004	07/02/2004	Influenza - Avian ...	1-8-9-like	China	Guangdong Sheng	domestic, duck, domestic, unspecified bird, domestic, ch...	
<input type="checkbox"/>		Media		3816	Validated link	27/01/2004	27/01/2004	Influenza - Avian ...	1	Thailand	Suphanburi	domestic, chicken	
<input type="checkbox"/>		Media		3756	Validated link	28/01/2004	28/01/2004	Influenza - Avian ...	1	Thailand	Kalasin	domestic, chicken	

EMPRES-i Public: How to generate graphs

EMPRES-i 公共：如何生成图表

From the “Result list” page, disease event selected can be visualized and exported in graphs
在“结果列表”页，可以查看被选择的疾病事件并导出图表

1) Click on “Export to Graph” button 点击“导出图表”按钮

Diseases Events

Search Criteria Result List 1

Export to PDF Export to CS **Export to Graph** Export to MAP

88 / 88 [1741 - 1760]

Show Clade

<input checked="" type="checkbox"/>	Status	Diagnosis Source	Docun	ID	Genetic Link	Rep. Date	Obs. Date	Disease	Clades	Country/Territory	Admin 1	Affected Species	Human
<input type="checkbox"/>		National authorities		106621	Validated link	13/03/2006	22/02/2006	Influenza - Avian ...	2.2.1	Austria	Steiermark	wild, duck, wild, swan, domestic, chicken, wild, goose	
<input type="checkbox"/>		National authorities		106613	Validated link	16/02/2006	16/02/2006	Influenza - Avian ...	2.2.1	Austria	Steiermark	wild, duck, wild, unspecified bird, domestic, chicken, wild...	
<input type="checkbox"/>		International refere...		105148	Validated link	24/02/2006	10/02/2006	Influenza - Avian ...	1	Cambodia	Kampong Cham	domestic, duck, domestic, chicken	
<input type="checkbox"/>		National authorities		103239	Validated link	22/12/2005	13/12/2005	Influenza - Avian ...	2.1.3.2	Indonesia	Dki Jakarta		Human
<input type="checkbox"/>		OIE		103065	Validated link	15/12/2005	15/12/2005	Influenza - Avian ...	2.3.4	China	Jiangxi Sheng	domestic, duck	
<input type="checkbox"/>		National authorities		102396	Validated link	16/11/2005	16/11/2005	Influenza - Avian ...	2.3.4	China	Anhui Sheng		Human
<input type="checkbox"/>		National authorities		102386	Validated link	11/11/2005	11/11/2005	Influenza - Avian ...	2.3.4	China	Anhui Sheng		Human
<input type="checkbox"/>		OIE		102143	Validated link	17/11/2005	17/11/2005	Influenza - Avian ...	2.3.2	China	Yunnan Sheng	domestic, chicken	
<input type="checkbox"/>		Other		101678	Validated link	04/11/2005	03/11/2005	Influenza - Avian ...	2.2	China	Liaoning Sheng	domestic, chicken	
<input type="checkbox"/>		Other		101392	Validated link	24/10/2005	22/10/2005	Influenza - Avian ...	2.2	Croatia	Osijek-baranja	wild, swan	
<input type="checkbox"/>		Other		100399	Validated link	09/05/2005	04/05/2005	Influenza - Avian ...	2.2	China	Qinghai Sheng	wild, bar-headed goose, wild, gull, wild, gull, wild, cormor...	
<input type="checkbox"/>		Other		4588	Validated link	24/02/2004	28/01/2004	Influenza - Avian ...	1	Thailand	Khon Kaen	domestic, chicken	
<input type="checkbox"/>		Other		4164	Validated link	05/02/2004	16/01/2004	Influenza - Avian ...	1	Cambodia	Phnom Penh	domestic, duck, domestic, chicken, domestic, goose	
<input type="checkbox"/>		Other		3996	Validated link	16/02/2004	06/02/2004	Influenza - Avian ...	2.3.1	China	Guangdong Sheng	domestic, unspecified bird, domestic, chicken, domestic,...	
<input type="checkbox"/>		Other		3928	Validated link	12/02/2004	27/01/2004	Influenza - Avian ...	2.3.3	China	Hunan Sheng	domestic, duck, domestic, chicken, domestic, chicken	
<input type="checkbox"/>		Other		3872	Validated link	10/02/2004	07/02/2004	Influenza - Avian ...	1-8-9-like	China	Guangdong Sheng	domestic, duck, domestic, unspecified bird, domestic, ch...	
<input type="checkbox"/>		Media		3816	Validated link	27/01/2004	27/01/2004	Influenza - Avian ...	1	Thailand	Suphanburi	domestic, chicken	
<input type="checkbox"/>		Media		3756	Validated link	28/01/2004	28/01/2004	Influenza - Avian ...	1	Thailand	Kalasin	domestic, chicken	

Search Criteria Close

EMPRES-i Public: How to generate graphs

EMPRES-i 公共：如何生成图表

2) A pop-up panel appears, where you can set several parameters

当弹出框出现时你可以设置几项参数

1. Type of chart: line, bar or pie chart

图表类型：线形、条形或饼形分隔统计图表

2. X Axis Variable: e.g. year-month

x轴变量：例如：年-月

3. Y Axis Variable: e.g. no. of outbreaks

y轴变量：例如：暴发的序号

4. Grouping variable: e.g. serotypes, country

分组变量：例如：血清类型、国家

5. Direction of the graph: Vertical/Horizontal

图表指南：垂直/水平

The screenshot shows the EMPRES-i Public interface. A table of outbreak data is visible, with columns for 'Rep. Date', 'Obs. Date', 'Disease', 'Country/Territory', and 'Admin 1'. A 'Graph Data Search' pop-up panel is overlaid on the table, allowing users to configure graph parameters. The panel includes the following settings:

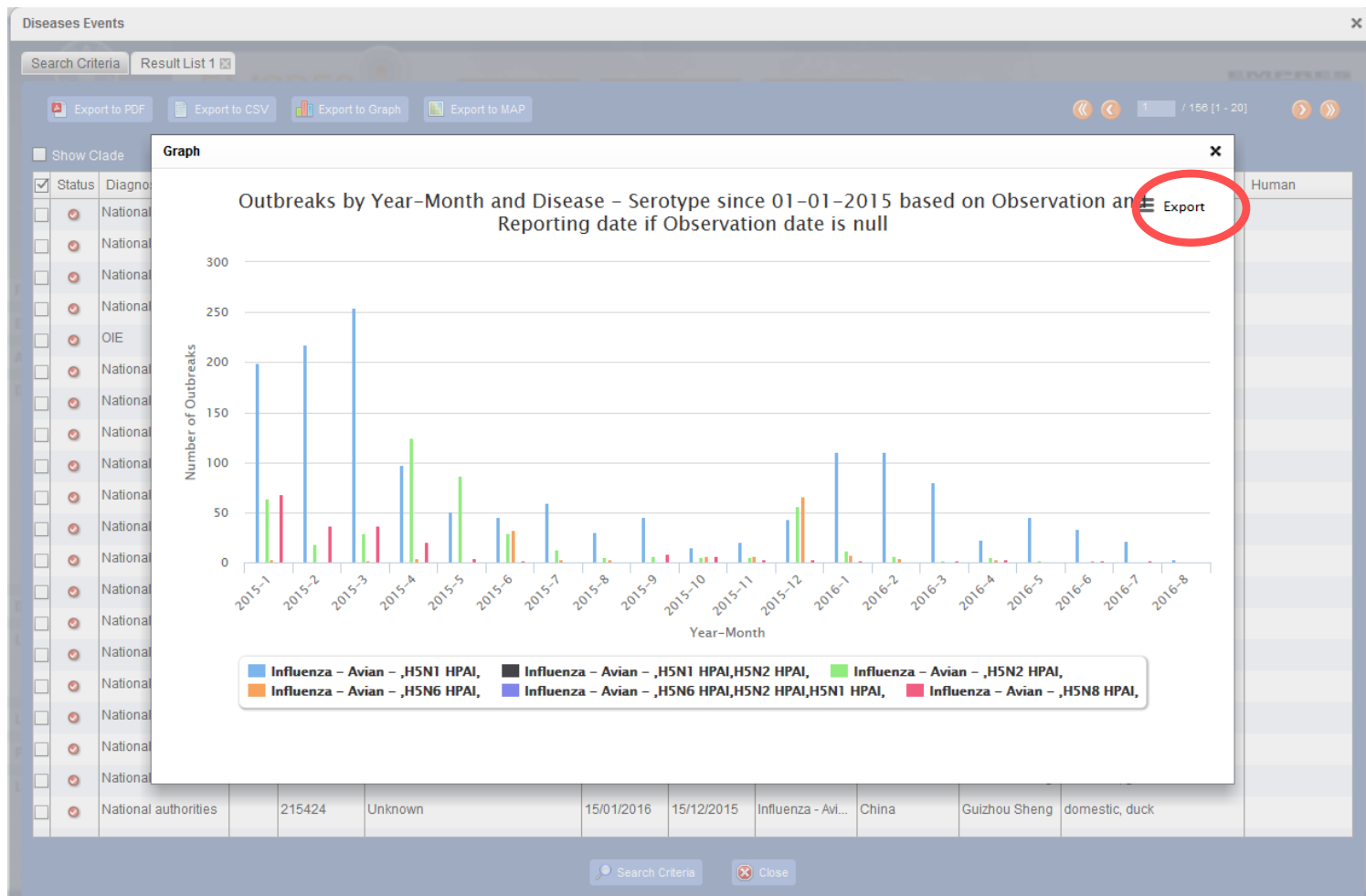
- 1. Selected type of graph: Bar Chart
- 2. X axis variable: Year-Month
- 3. Y axis variable: No of Outbreak
- 4. Grouping variable: Serotype
- 5. Direction: Vertical

Buttons for 'Graph' and 'Close' are located at the bottom of the pop-up panel. The table data includes entries for Influenza - Avian H5N1 in China, Yunnan Sheng, and Sichuan Sheng.

EMPRES-i Public: How to generate graphs

EMPRES-i 公共：如何生成图表

3) Export the resulting graphs as image or as PDF by clicking on the “Export” button
通过点击“导出”按钮将结果图表导出为图片或PDF



EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

From the “Result list” page, disease event can be visualized and exported in maps
在“结果列表”页中，疾病事件可以以地图形式查看或导出

1) By Clicking on “Export to Map” button, the EMPRES-i MAP page will open
点击“导出地图”按钮，EMPRES-i页将会打开

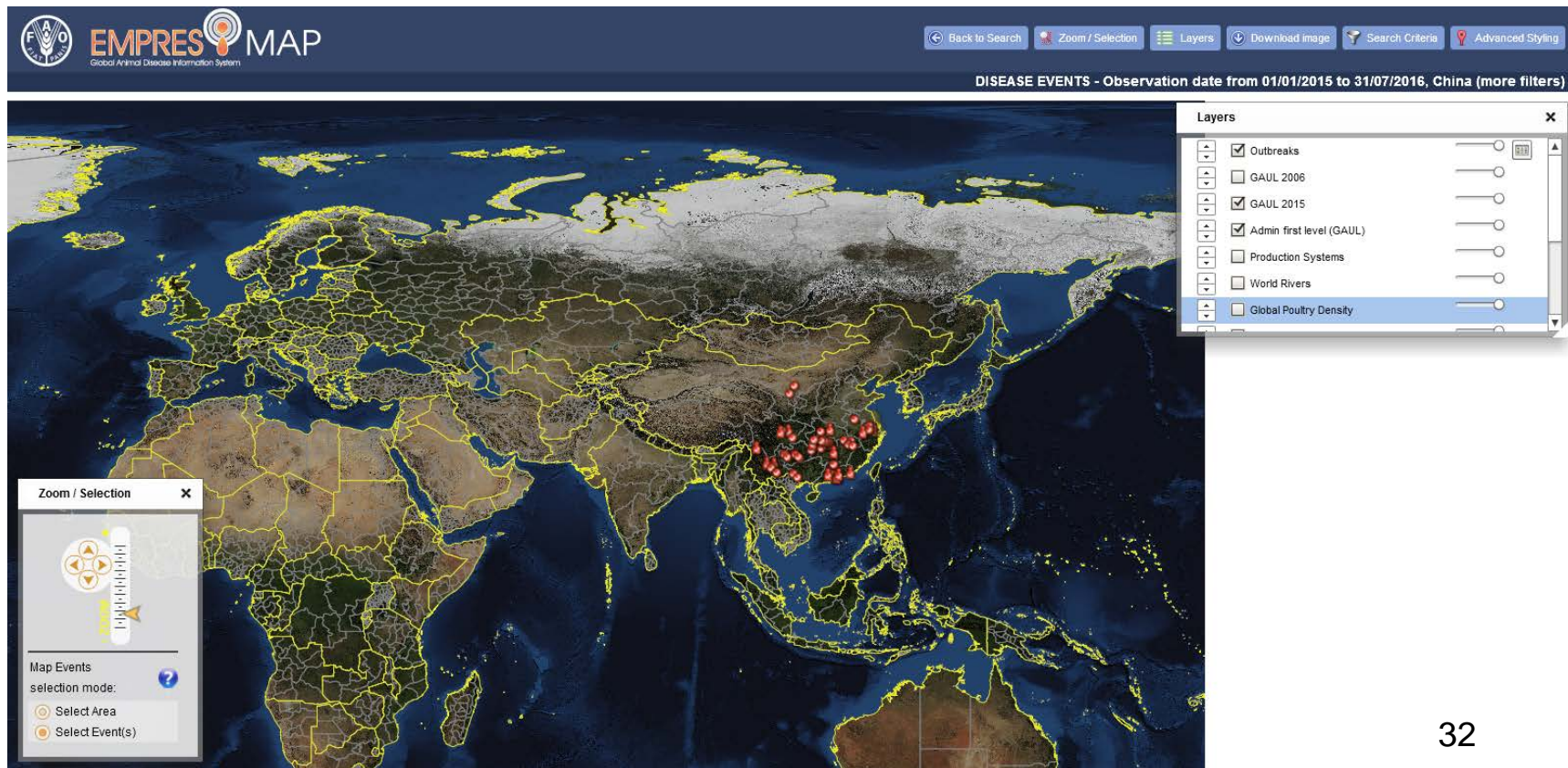
The screenshot displays the EMPRES-i MAP interface. At the top, there are navigation buttons: "Export to PDF", "Export to CSV", "Export to Graph", and "Export to MAP" (circled in red). Below these is a table of disease events with columns for Status, Diagnosis Source, Docum ID, Genetic Link, Rep. Date, Obs. Date, Disease, Clades, Country/Territory, Admin 1, Affected Species, and Human. The table lists various events, including those from National authorities, International references, OIE, and Media. Below the table is a map of China showing disease events as red markers. The map is titled "DISEASE EVENTS - Observation date from 01/01/2015 to 31/07/2016, China (more filters)". A "Layers" panel on the right shows options for "Outbreaks", "GAUL 2006", "GAUL 2015", "Admin first level (GAUL)", "Production Systems", "World Rivers", and "Global Poultry Density". A "Zoom / Selection" panel is also visible, showing a zoom slider and "Map Events selection mode" options: "Select Area" and "Select Event(s)".

EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

2) Disease events are displayed according to defined icons
根据定义图标，疾病事件会被展示

LEGEND			
	DOMESTIC	WILD	HUMAN
CONFIRMED			
DENIED			



EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

3) Through the “Zoom/Selection” panel, you can: 通过放缩/选择版面，你可以：

- Zoom in/out 放大/缩小
- Select your area of interest 选择你的感兴趣的区域

EMPRES-i MAP
Global Animal Disease Information System

Back to Search Zoom / Selection Layers Download image Search Criteria Advanced Styling

DISEASE EVENTS - Observation date from 01/01/2015 to 31/07/2016, China (more filters)

Layers

- Outbreaks
- GAUL 2006
- GAUL 2015
- Admin first level (GAUL)
- Production Systems
- World Rivers
- Global Poultry Density

Zoom / Selection

Map Events
selection mode:

- Select Area
- Select Event(s)

EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

4) By clicking the “Advanced Styling” button, users can set the background settings
点击“高级样式”按钮，用户可以进行背景设置

The screenshot displays the EMPRES-i MAP web application interface. At the top, the logo and navigation menu are visible. The main map area shows a satellite view of the world with yellow markers indicating disease events. A red circle highlights the 'Advanced Styling' button in the top right corner. Below the map, a 'Layers' panel is open, showing 'Outbreaks' and 'GAUL 2006' layers. The 'Advanced Styling' dialog box is open, showing the 'Layer to be symbolized' dropdown set to 'GAUL 2015'. The dialog box has two radio button options: 'Blue Sea | Gray Countries' (selected) and 'Dark Boundaries'. A 'Default style' button is at the bottom of the dialog. On the left side, a 'Zoom / Selection' panel is visible, showing a zoom slider and 'Map Events selection mode' options: 'Select Area' and 'Select Event(s)'. The browser address bar shows the URL: `empres-i.fao.org/et3gmapcomp/?MAPREQUEST=1440446e-de5d-4b20-bca1-27f6e92f3de1`. The page number '34' is in the bottom right corner.

EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

5) Through the “Layers” panel, users can set different layers (e.g. animal density, Administrative division...)

通过“层次”选项，用户可以设置不同的层次（例如：动物密度、行政区域等）

The image displays two screenshots of the EMPRES-i MAP interface. The top screenshot shows a map of China with a 'Layers' panel on the right. The 'Layers' panel is circled in red and includes the following options: Outbreaks, GAUL 2006, GAUL 2015, Admin first level (GAUL), Production Systems, and World Rivers. The bottom screenshot shows a map of Asia with a 'Layers' panel on the right. The 'Layers' panel includes the following options: GAUL 2015, Admin first level (GAUL), Production Systems, World Rivers, Global Poultry Density, Global pig density (2005), and Global cattle density (2005). Both screenshots also feature a 'Zoom / Selection' panel on the left with a 'Map Events selection mode' dropdown set to 'Select Area' and radio buttons for 'Select Area' and 'Select Event(s)'. The interface includes navigation buttons like 'Back to Search', 'Zoom / Selection', 'Layers', 'Download image', 'Search Criteria', and 'Advanced Styling'.

EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

6) By clicking on the “Download Image” button the map can be downloaded:

点击“下载图片”按钮即可下载地图

a. Drag and adjust the red area to select the area to be downloaded 拖拉调试红色区域来选择要下载的区域

The screenshot displays the EMPRES-i MAP web interface. The browser address bar shows the URL: empres-i.fao.org/ei3gmapcomp?MAPREQUEST=4c6e7769-6b9c-4ae8-ba63-bb0761a2c0a7. The page title is "EMPRES-i - Global Animal Disease Information System". The main navigation bar includes "Back to Search", "Zoom / Selection", "Layers", "Download image" (circled in red), "Search Criteria", and "Advanced Styling". The map shows "DISEASE EVENTS - Observation date from 01/06/2016, Asia (more filters)". A red rectangular selection box is overlaid on the map, covering a large portion of East and Southeast Asia. A "Download image" dialog box is open on the right side of the map, displaying the coordinates for the selected area:

Download image	
Top-Left Corner	
Lon.	96.5978
Lat.	38.9461
Bottom-Right Corner	
Lon.	122.965
Lat.	21.368

At the bottom of the dialog box, there are buttons for "Edit And Download" and "Download image". The number "36" is visible in the bottom right corner of the dialog box. The page footer includes "MyWinLocker".

EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

b. In the “Download image” panel, you can click on:

在“下载图片”版块处，你可以点击：

“Download map”: map will download as image “下载地图”：地图将会以图片形式下载

“Edit and download”: the “Edit options” panel will open: “编辑并下载”：编辑选项版块将打开

The screenshot shows the EMPRES-i MAP interface. The main map displays disease events in Asia, with a red rectangle highlighting a specific region. The 'Download image' panel is open on the right side, showing the following coordinates:

Top-Left Corner	
Lon.	96.5978
Lat.	38.9461

Bottom-Right Corner	
Lon.	122.965
Lat.	21.368

In the bottom right corner of the 'Download image' panel, the 'Download Map' button is circled in red. The number 37 is visible in the bottom right corner of the panel.

EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

c. Customize your map by setting the parameters in the “Edit and download” panel

通过在“编辑和下载”处设置参数来定制你的地图

Parameters: 参数:

1) Size of the image

图片尺寸

2) The legend to be displayed and their positions

展示的图例及其所在位置

3) The title: text, font and position

标题：文本、字体和位置

d. Download the map by clicking on the “Download button” 点击“下载”按钮
下载地图

The screenshot displays the 'Download map image' panel of the EMPRES-i Public interface. The panel is overlaid on a map of China showing disease events. The interface includes the following elements:

- Edit options:** A section on the right side of the panel with three sub-sections:
 - Image pixels:** Contains input fields for 'Width' (534) and 'Height' (352), both with up/down arrows. A red box with the number '1' is placed to the right of this section.
 - EMPRES-i Logo:** Contains a 'corner' dropdown menu set to 'bottom right'. A red box with the number '2' is placed to the left of this section.
 - Show Legend(s):** A checked checkbox and a 'corner' dropdown menu set to 'bottom left'.
- Map Title:** A section at the bottom of the panel with a text input field containing 'DISEASE EVENTS - Observation date from 01/01/2015 to 31/07/2016, China (more filters)'. A red box with the number '3' is placed to the left of this section.
- Map Legend:** A legend box on the left side of the map showing 'Confirmed Domestic' (red circle) and 'Confirmed Humans' (red square).
- Map Interface:** The background map shows China with a heatmap overlay and red markers. The top of the interface has navigation buttons: 'Back to Search', 'Zoom / Selection', and 'Layers'.
- Download Button:** A red circle highlights the 'Download image...' button at the bottom right of the panel.

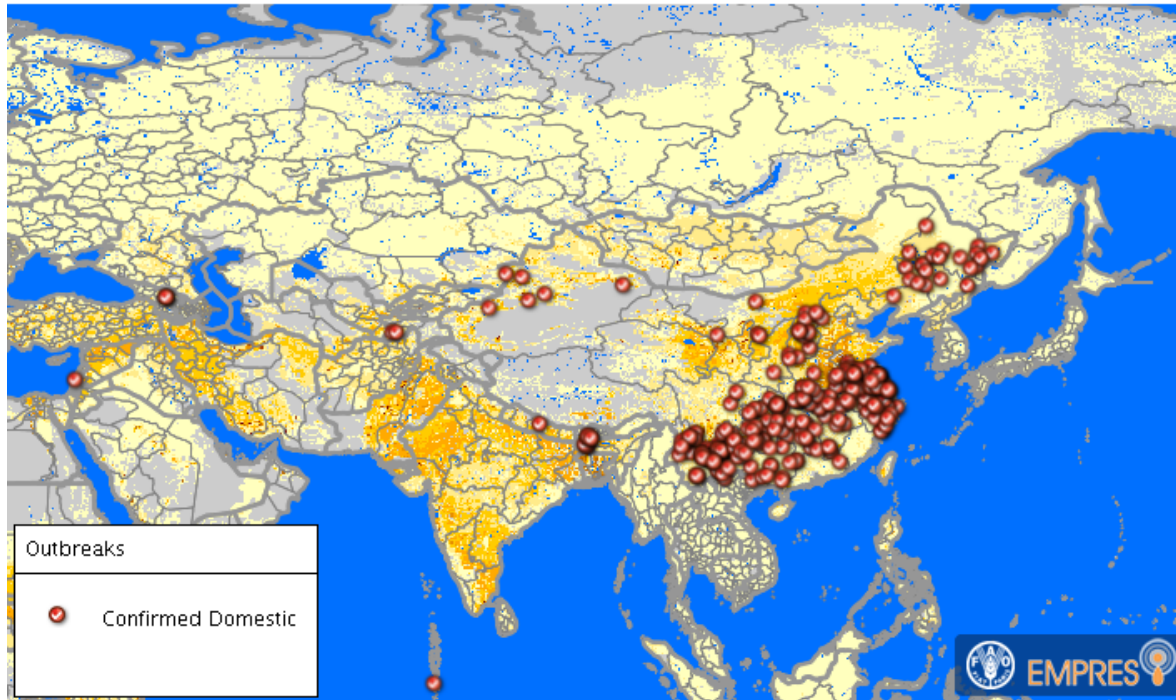
EMPRES-i Public: How to generate maps

EMPRES-i 公共：如何生成地图

e. Your map will automatically open

地图会自动打开

Peste des ptits ruminants – Observation date from 01/01/2013, Asia



f. If satisfied, users can save it as an image

如果满意此地图，可以将其保存

EMPRES-i Public: How to....

EMPRES-i 公共：如何.....

For more information, consult the guidelines!

想要得到更多信息，查看参考指南！

The screenshot shows the EMPRES-i website interface. At the top, there are language options (english, français, español) and navigation buttons for 'My EMPRES-i', 'RSS FEEDS', and 'USER MANUAL'. The 'USER MANUAL' button is circled in red. Below the navigation is a description of the system: 'EMPRES Global Animal Disease Information System (EMPRES-i) is a web-based application that has been designed to support veterinary services by facilitating the organization and access to regional and global disease information. Timely and reliable disease information enhances early warning and response to transboundary and high impact animal diseases, including emergent zoonoses, and supports prevention, improved management and progressive approach to control.'

The main content area features a 'DISEASE EVENTS' section with a map showing global distribution and a 'LATEST EVENTS' list. The 'LATEST EVENTS' list includes:

- MERS-CoV 14/07/2016 - Saudi Arabia
- MERS-CoV 11/07/2016 - Saudi Arabia
- Anthrax 11/07/2016 - Kazakhstan
- MERS-CoV 08/07/2016 - Saudi Arabia
- MERS-CoV 08/07/2016 - Saudi Arabia
- Anthrax 13/07/2016 - Sweden

At the bottom, there are three sections: 'DIRECTORY', 'LABORATORIES', and 'LIBRARY', each providing contact information and access to technical publications.

The cover of the 'EMPRES-i User Guidelines' document. It features the EMPRES-i logo at the top, followed by the title 'User Guidelines'. Below the title is a world map. At the bottom, it indicates 'Version 3.0 October 2012' and provides the URL 'http://EMPRES-i.org'.

The cover of the 'Quick guidance for users of the EMPRES-i Influenza Genetic Module' document. It features the title and a brief description of the module's purpose: 'The EMPRES-i influenza genetic module aims to facilitate the analysis and better understanding of influenza by linking genetic information to detailed epidemiological disease event records. The genetic module therefore aims for a synergistic examination of influenza's ecology to allow for insights that cannot be gained independently.'

The document also includes a diagram illustrating the linking process between disease events and genetic records. The diagram shows a flow from 'Disease Events' to 'Genetic Records' and back, with a central box labeled 'Linking'.

Session 3 第三节

1. EMPRES-i Platform EMPRES-i 平台

- Overview 简介
- Tools 工具
- Disease events 疾病事件
- Interfaces (public/secured) 界面（公共/安全）

2. EMPRES-i public: an introduction EMPRES-i 公共：介绍

- Overview 概述
- The dashboard 主界面
- How to: 如何：
 - Select, visualize and export disease event 选择可视化及导出疾病事件
 - Generate graphs 生成图表
 - Generate a maps 生成地图

3. EMPRES-i public: from theory to real data

EMPRES-i公共：从理论到真实数据

- Data available for China 中国可用数据
- Practice 实践

4. Conclusion and recommendations 结论和建议

EMPRES-i Public: event available for China

EMPRES-i 公共：中国相关信息

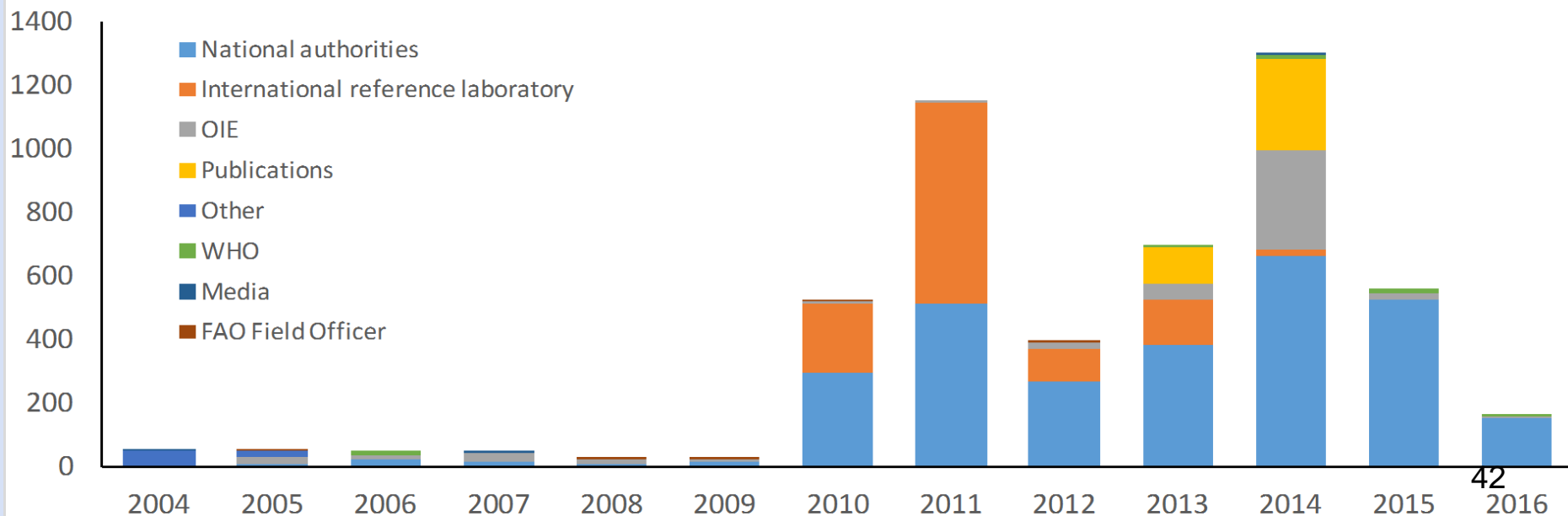
- Over 5000 disease events from January 2004 to September 2016

2004年1月至2016年12月超过5000例疾病事件

- Main sources of information:

信息主要来源：

- National authorities 国家主管部门
- International reference laboratory 国际参考实验室



EMPRES-i Public: examples in China

EMPRES-i 公共：中国病例

➤ Example 1) Highly Pathogenic Avian Influenza (HPAI) in China

例1) 中国的高致病性禽流感（HPAI）

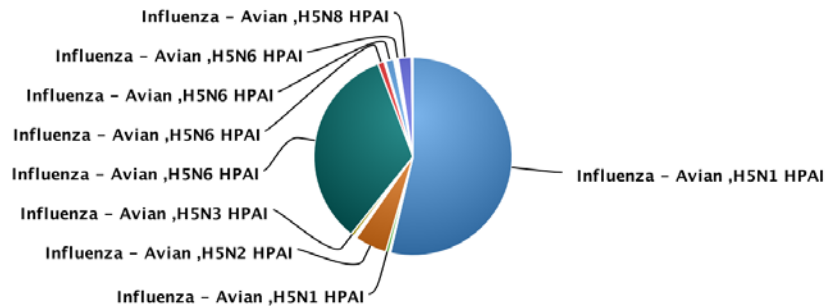
• Disease event selection criteria: 疾病事件选择标准:

- Since 2004, all type of Influenza Avian HP, confirmed events, China, wild and domestic animals

自2004年以来，各种类型的高致病性禽流感、确诊病例，中国，野生和家养动物

• Pie chart by serotype 按血清型分类的饼形统计图表:

Outbreaks by Disease and serotype since 01-01-2004 based on Observation and Reporting date if Observation date is null



EMPRES-i Public: examples in China

EMPRES-i 公共：中国病例

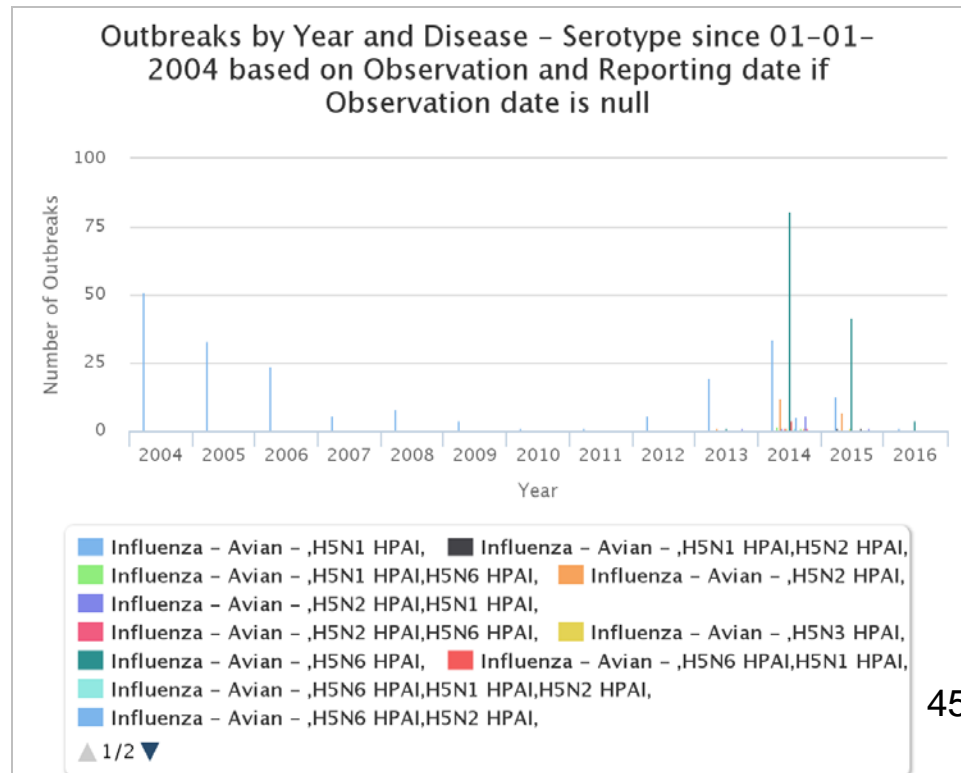
➤ Example 1) Highly Pathogenic Avian Influenza (HPAI) in China

例1) 中国的高致病性禽流感（HPAI）

- Disease event selection criteria: 疾病事件选择标准:

- All time frame, all type of Influenza Avian HP, confirmed events, wild and domestic animals
全时间段，所有类型的高致病性禽流感，确诊病例，野生和家养动物

- Bar chart by year and serotype 按照年份和血清型制成的条形图:



EMPRES-i Public: examples in Asia

EMPRES-i 公共：亚洲病例

➤ Example 2) H5N6 Highly Pathogenic Avian Influenza (HPAI) in Asia

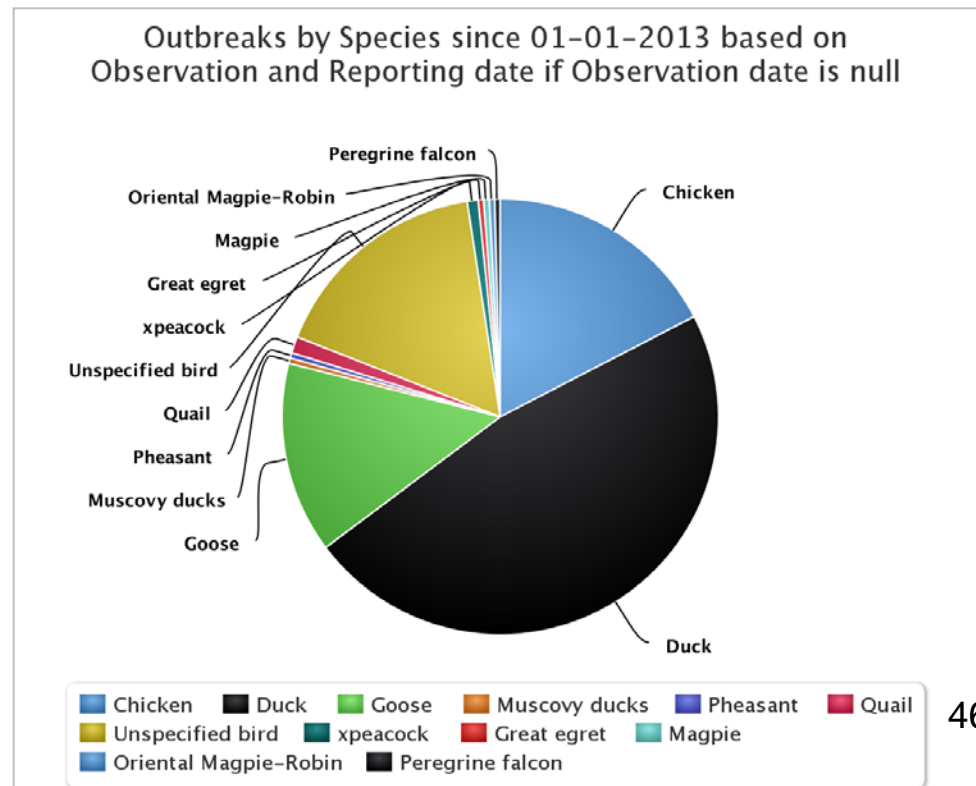
例2) H5N6亚洲高致病性禽流感 (HPAI)

- Disease event selection criteria: 疾病事件选择标准

- From 2013, H5N6 HPAI, confirmed events, Asia, wild/domestic animals

自2013年以来，H5N6高致病性禽流感，确诊病例，亚洲，野生/家养动物

- Pie chart by animal affected
被感染的动物的饼形统计
图表：



EMPRES-i Public: examples in Asia

EMPRES-i 公共：亚洲病例

➤ Example 2) H5N6 Highly Pathogenic Avian Influenza (HPAI) in Asia

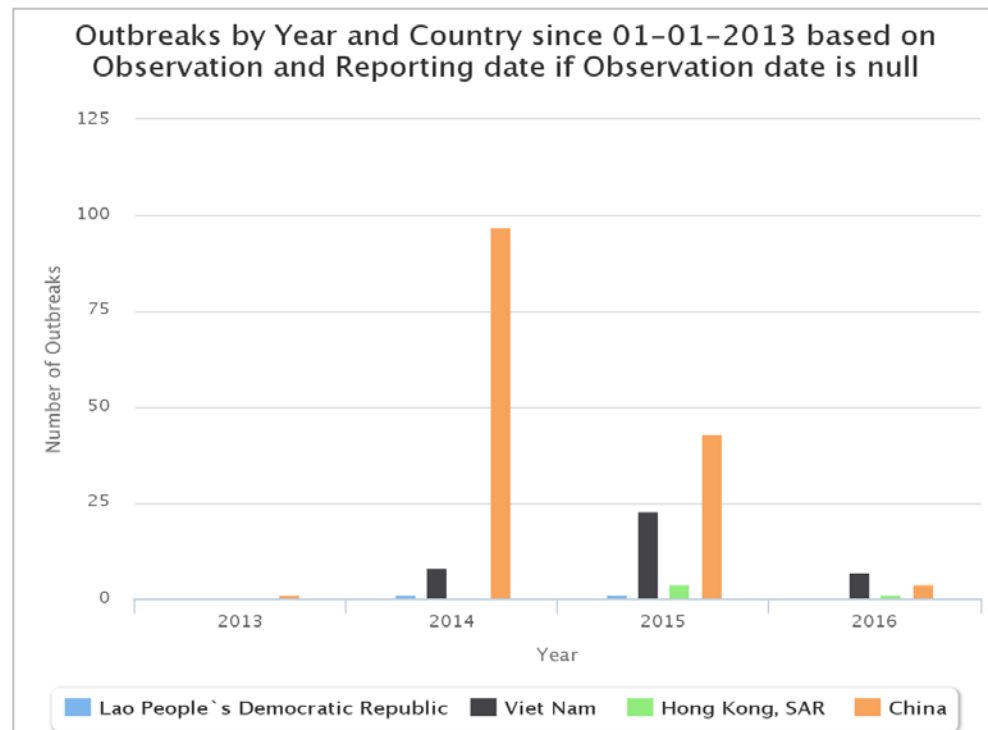
例2) H5N6亚洲高致病性禽流感（HPAI）

- Disease event selection criteria 疾病事件选择标准:

- From 2013, H5N6 HPAI, confirmed events, Asia, wild/domestic animals

自2013年以来，H5N6高致病性禽流感，确诊病例，亚洲，野生/家养动物

- Bar chart by year and country 按照年份和国家制成的条形图:



EMPRES-i Public: examples in Asia

EMPRES-i 公共：亚洲病例

➤ Example 2) H5N6 Highly Pathogenic Avian Influenza (HPAI) in Asia

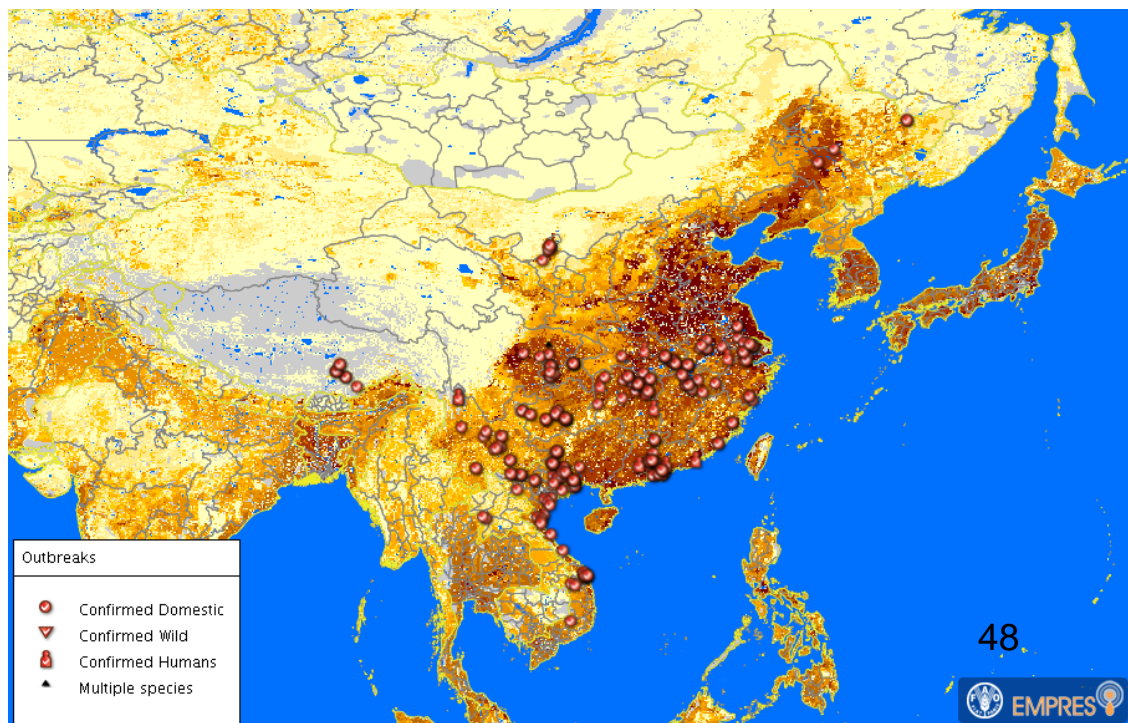
例2) H5N6亚洲高致病性禽流感 (HPAI)

- Disease event selection criteria: 疾病事件选择标准

- From 2013, H5N6 HPAI, confirmed events, Asia, wild/domestic animals/human

自2013年以来，H5N6高致病性禽流感，确诊病例，亚洲，野生/家养动物/人类

- Map by setting poultry density and administration 1 layers: 设置家禽密度和管理为一图层的地图：



EMPRES-i Public: examples global

EMPRES-i 公共：全球病例

➤ Example 3) MERS-CoV, global

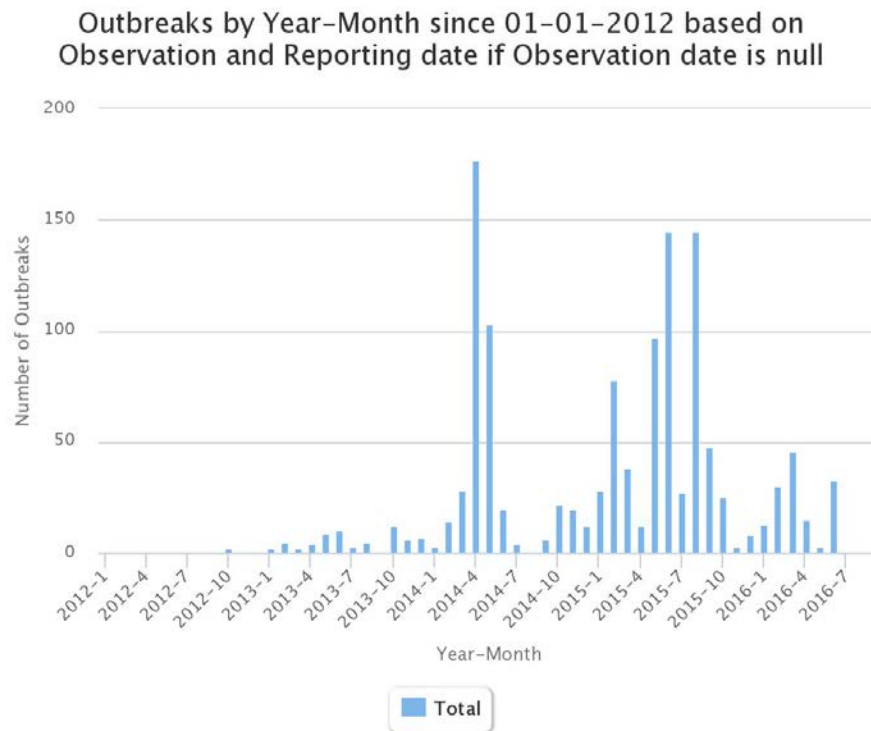
例3) 中东呼吸综合症-CoV, 全球

- Disease event selection criteria: 疾病事件选择标准:

- From 2012, MERS-CoV, confirmed events, Global, humans

自2012年以来，中东呼吸综合症，确诊病例，全球，人类

- Bar chart by year of occurrence and human 按照发生的年份顺序和被感染的动物制成的条形图:



EMPRES-i Public: examples global

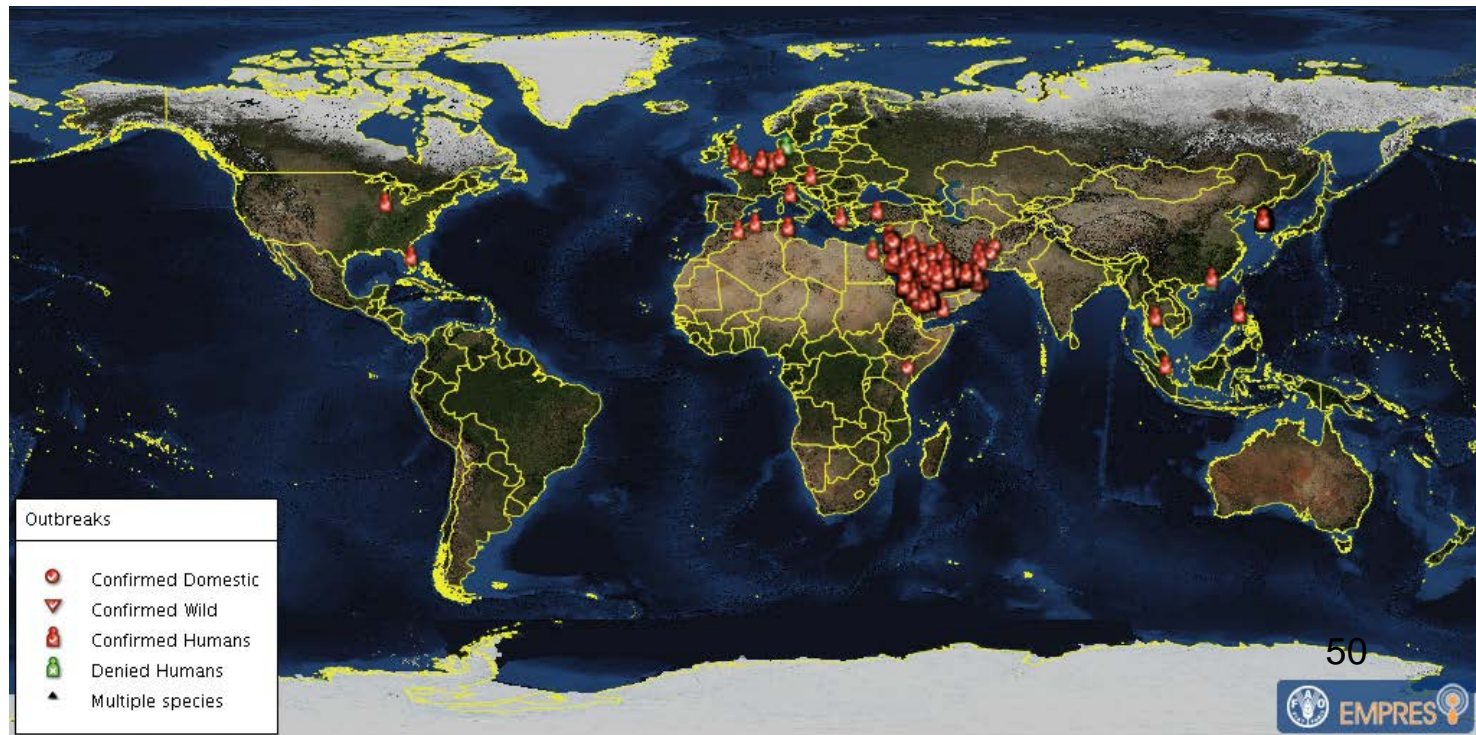
EMPRES-i 公共：全球病例

➤ Example 3) MERS-CoV, global

例3) 中东呼吸综合症-CoV, 全球

- Disease event selection criteria: 疾病事件选择标准
 - From 2012, MERS-CoV, confirmed events, Global, wild/domestic animals/human
自2012年以来，中东呼吸综合症，确诊病例，全球，野生 / 家养动物/人类

• Map 地图



Session 4 第四节

1. EMPRES-i Platform EMPRES-i 平台

- Overview 简介
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 - Generate a maps 生成地图

3. EMPRES-i public: from theory to real data

EMPRES-i公共：从理论到真实数据

- Data available for China 中国可用数据
- Practice 实践

4. Conclusion and recommendations 结论和建议



Conclusions

结论

- EMPRES-i is a powerful animal disease information system, supporting daily disease tracking activities and the analysis of disease event occurrence at national, regional and global level
- EMPRES-i 是一个强大的动物疾病信息系统，它能够支持日常对疾病的追溯，并用来分析在各个国家、地区以及全球范围内出现的疾病事件
- The internal web site EMPRES-i support FAO in:
- EMPRES-i 内部网络支持联合国粮农组织开展下列工作：
 - Conducting Disease Intelligence and Risk Assessment activities
 - 进行疾病情报和风险评估活动
 - Storing confidential data from specific projects
 - 在特定项目中储存机密数据
 - Supporting countries with information technology tools for improving their animal disease surveillance activities (e.g. EMA-i)
 - 为各国提供信息技术工具，提高其动物疾病监测活动（例如：EMA-i）



Conclusions 结论

- The public web site provides access to daily-updated geo-referenced disease events data and with an easy tool for selecting, retrieving and analyzing them
- 公共网站则提供每日更新的地理相关的疾病事件数据，以及选择、检索和分析这些数据的简单工具。
 - Over 60 500 events, occurred since year 2004, are safely stored in a daily updated database;
 - 自2004年以来，有60500多例事件已被安全的储存于每日更新的数据库中；



Conclusions 结论

➤ Strengths 优势

- Disease events include Transboundary Diseases, Zoonoses and Emerging Diseases
收录病例包括跨界疾病、人畜共患病和突发疾病
- Disease events occurring in human are also provided
包括发生在人类身上的疾病事件
- Disease events are:
疾病事件每天:
 - detected from a variety of official and unofficial sources
- 从许多官方和非官方渠道检测
 - verified and validated through a wide network
- 通过广泛的网络查证和确认
- The system is updated on a daily basis
系统每日更新
- The system can be easily adapted to emerging disease events
系统易于适应突发疾病事件



Conclusions 结论

➤ Limits 局限

- Disease events collected can be partial: 收集到的疾病事件不完整
 - Non availability of data 数据不可获取
 - Difficulties in accessing the data 访问数据存在困难
 - Disease events collection biased towards FAO priorities 疾病事件的收集限于联合国粮农组织定义的优先领域
- To use the application a good internet connection is a prerequisite
- 良好的网络连接是使用此应用的先决条件



Conclusions 结论

➤ Developments 发展

- A new EMPRES-i public platform is under development:

新的EMPRES-i公共平台正在发展中

- New technology allowing the system to be faster

新技术使得系统运行速度更快

- A good internet connection won't be a prerequisite anymore

良好的网络连接不再是先决条件

- Available in the 6 FAO official languages:

六种联合国粮农组织官方用语

- English, French and Spanish 英语、法语和西班牙语

- Chinese, Arabic, Russian 中文、阿拉伯语和俄语



Recommendation 建议

- Use EMPRES-i 使用EMPRES-I
- Contact us by writing at EMPRES-i@fao.org
通过EMPRES-i@fao.org联系我们
 - To ask for information 咨询信息
 - To signal problems 提示发现的问题
 - To suggest new developments 提出发展建议

Public website: homework

公共网址：作业

Step 1: Access EMPRES-i public: <http://empres-i.fao.org>
第一步: 进入EMPRES-i公共网站 <http://empres-i.fao.org>

Step 2: From “Disease event” access the “advance research” session
第二步: 从“疾病事件”链接到“高级研究”版块

Step 3: Select your data according to the following criteria
第三步: 根据以下标准选择你的数据

- **Time frame: Observation date from 01/01/2010 to 31/07/2016**
时间框架：观察日期从2010年1月1日至2016年7月31日
- **Disease: Avian Influenza, serotypes H5N1 HPAI, H5N6 HPAI**
疾病：禽流感、血清型H5N1高致病性禽流感和H5N6高致病性禽流感
- **Disease event status: Confirmed**
疾病事件状态：确诊
- **Location: China**
地点：中国
- **Genetic Information: All flagged**
基因信息：所有都被标记
- **Animals affected: Domestic and humans**
被感染物种：家养动物和人类

Public website: homework

公共网址：作业

Step 4: Export and download your events list in pdf and csv

第四步：将事件列表导出为PDF和CSV并下载

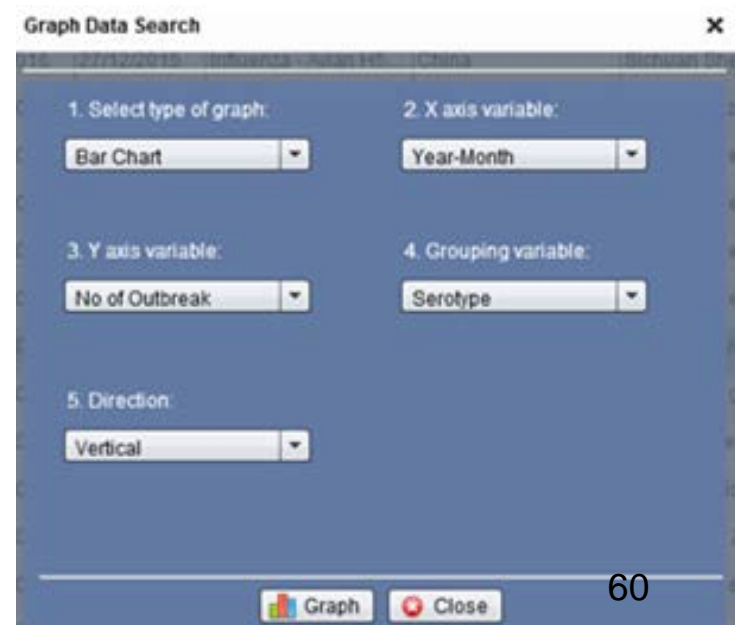
Step 5: Generate a graph from your events list

第五步：将你的事件列表生成一个图表

A. Select the “export to graph” button 选择“导出图表”按钮

B. Select conditions for your graph 为你的图表选择条件

1. Type of chart: Bar 图表类型：条形
2. X Axis Variable: Year-Month X轴变量：年-月
3. Y Axis Variable: No. of outbreaks Y轴变量：暴发序号
4. Grouping variable: Serotypes 分组变量：血清型
5. Direction of the graph: Vertical 图表方向：垂直



The screenshot shows a dialog box titled "Graph Data Search" with a close button (X) in the top right corner. It contains five configuration options, each with a dropdown menu:

- 1. Select type of graph: Bar Chart
- 2. X axis variable: Year-Month
- 3. Y axis variable: No of Outbreak
- 4. Grouping variable: Serotype
- 5. Direction: Vertical

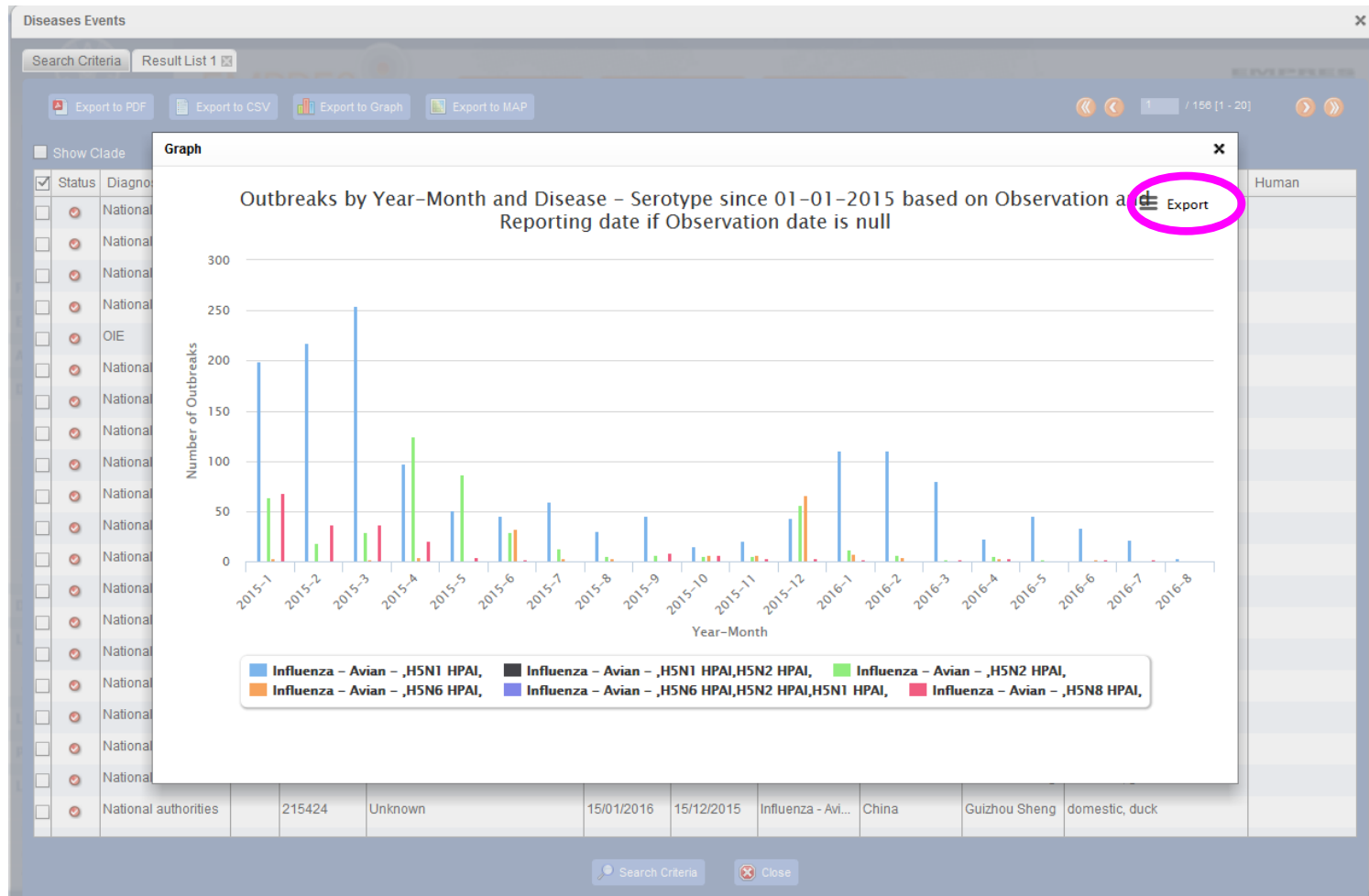
At the bottom of the dialog, there are two buttons: "Graph" (with a bar chart icon) and "Close" (with a red circle and X icon).

Public website: homework

公共网址：作业

C. Visualize and export your graph as an image or pdf

将你的图表导出为图片或pdf格式



Public website: homework

公共网址：作业

Step 6: Generate a graph from your data results 第六步：将数据结果生成图表

A. Select the “export to map” button

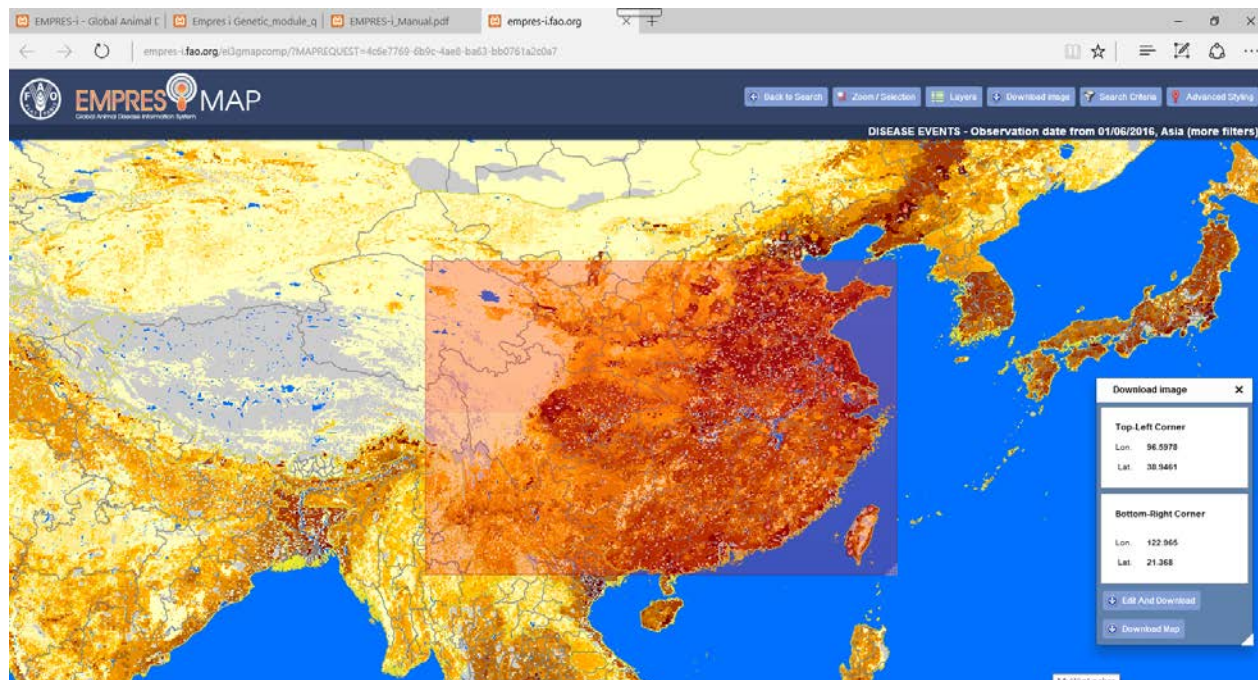
选择“导出地图”按钮

B. Add layers to your map: administrative divisions and poultry density

为你的地图增加层次：行政区域和家禽密度

C. Download your map, selecting China as target area

下载地图，将中国设成目标区域



Public website: homework

公共网址：作业

Step 6: Generate a graph from your data results

第六步：将数据结果生成图表

D. Edit the map by customizing the size, the legend and the title

通过自定义大小、图例和标题来编辑地图

E. Download and save your map

下载并保存地图

The screenshot displays the EMPRES MAP interface. The main map shows a world map with a focus on China, where numerous red and orange dots represent disease events. A 'Download map image' dialog box is open, providing options to customize the map's appearance and download it. The dialog box includes the following sections:

- Download map image**: A title bar for the dialog box.
- Outbreaks**: A legend showing 'Confirmed Domestic' (red dot) and 'Confirmed Humans' (orange dot).
- Edit options**: A section for customizing the map's appearance, including:
 - Image pixels**: Width (534) and Height (352) input fields.
 - EMPRES-i Logo**: A dropdown menu for the logo corner (bottom right).
 - Show Legend(s)**: A checked checkbox and a dropdown menu for the legend corner (bottom left).
- Map Title**: A section for customizing the map's title, including:
 - Checkboxes for 'include title', 'overlap to map', and 'wrap text'.
 - Input fields for 'size' (12) and 'color' (black).
 - Checkboxes for 'background', 'bold', 'italic', and 'underlined'.
 - Text input field: 'DISEASE EVENTS - Observation date from 01/01/2015 to 31/07/2016, China (more filters)'

Buttons for 'Refresh' and 'Download image...' are located at the bottom of the dialog box.