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# Cross-border Cooperation in Animal and Human Health

EU Regional HPED Programme in Asia



EuropeAid

## European Commission

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# FOREWORD



Highly pathogenic and emerging (or re-emerging) diseases (HPEDs) cause serious crises and affect livelihoods. The economic and public health costs of HPEDs are so great globally that a preventive strategy is not only cost-effective, but essential.

Over 30 new pathogens have been detected in the last three decades, 75% of which have originated from animals. New pathogens from animals, particularly viruses, remain unpredictable. They continue to emerge and spread across countries, and many of them have profoundly affected countries in Asia.

The European Union's (EU) regional strategy in Asia reflects the specific situation there by encouraging regional integration and cooperation and by contributing to the control of epidemics and zoonosis and to disaster risk reduction. Cross-border activities focusing on animal and human health are among the strategic priorities for EU-Asia regional cooperation in the period 2007-2013.

This brochure looks at the EU's recently launched HPED regional programme in Asia. The programme's objective is to improve epidemic and pandemic preparedness in the region.

The programme is funded by the Directorate-General for Development and Cooperation – EuropeAid and implemented by the World Organisation for Animal Health (OIE), the World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO), in close consultation with the ASEAN and SAARC secretariats.

**Dirk Meganck**  
 Director 'Asia and Central Asia'  
 Directorate-General for Development  
 and Cooperation – EuropeAid





## TABLE OF CONTENTS

<b>Avian influenza and other HPEDs as a global challenge</b> .....	<b>5</b>
<b>The global response</b> .....	<b>8</b>
<b>Europe's contribution</b> .....	<b>10</b>
<b>The EU's Regional HPED Programme in Asia</b> .....	<b>12</b>
<b>Programme projects</b> .....	<b>14</b>
• The OIE project.....	15
• The FAO project .....	16
• The WHO project.....	17
<b>References</b> .....	<b>18</b>



# Avian influenza and other HPEDs as a global challenge

Highly pathogenic and emerging or re-emerging diseases (HPEDs) in animals and humans continue to spread across the world, with considerable health, social and economic consequences. Highly pathogenic avian influenza (HPAI) caused by the influenza virus A, subtype H5N1, has been the most significant of these during the last five years. Efforts to control the outbreaks have resulted in the culling or death of hundreds of millions of domestic birds worldwide. The economic losses in the Asian poultry sector alone were estimated at nearly €8 billion following the HPAI outbreak in 2003-2004.

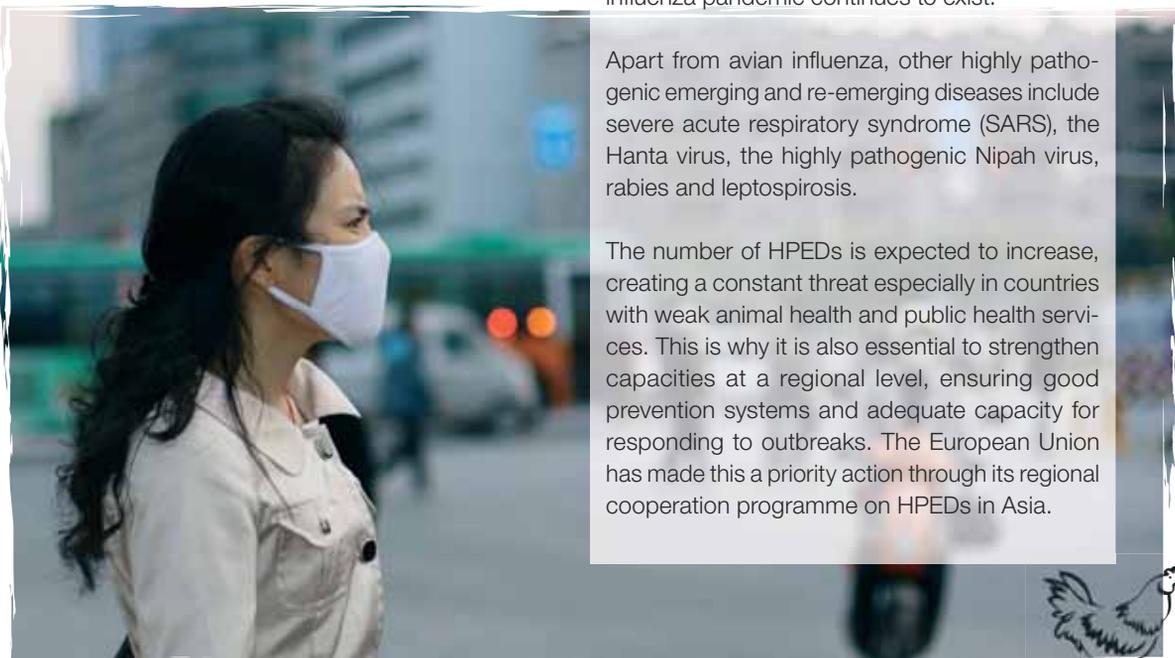
Despite global action to contain the disease, HPAI has spread to several Asian countries and beyond. Areas where the disease is considered endemic, because of its permanent presence in wild birds, include Indonesia, Vietnam, China,

Bangladesh and Egypt. Outbreaks of HPAI H5N1 among domestic birds in Asia, Africa and Europe mark the first time in the history of this disease where so many countries have been simultaneously affected with large-scale losses of birds.

Avian influenza can affect several species of domestic birds (e.g. chickens, turkeys, quails, guinea fowl), including pet birds and wild birds with some strains resulting in high mortality rates. Humans can be infected through close contact with infected birds, for example when live birds carrying infection are sold or by coming into contact with bird droppings or contaminated equipment. So far, human-to-human transmission of the H5N1 virus has been rare and has followed no general pattern. However, if HPAI is not controlled at the original source, i.e. poultry, the risk of human H5N1 infection remains and the threat of a potential influenza pandemic continues to exist.

Apart from avian influenza, other highly pathogenic emerging and re-emerging diseases include severe acute respiratory syndrome (SARS), the Hanta virus, the highly pathogenic Nipah virus, rabies and leptospirosis.

The number of HPEDs is expected to increase, creating a constant threat especially in countries with weak animal health and public health services. This is why it is also essential to strengthen capacities at a regional level, ensuring good prevention systems and adequate capacity for responding to outbreaks. The European Union has made this a priority action through its regional cooperation programme on HPEDs in Asia.





Cumulative number of laboratory-confirmed human cases of avian influenza (H5N1). This figure is followed by the number of deaths up to 2 February 2011. (Source: World Health Organization)



Outbreaks of avian influenza (subtype H5N1) in poultry from the end of 2003 to 7 February 2011. (Source: World Organisation for Animal Health)

The addition into the graph of outbreaks of HPAI H5N1 reported from Egypt and Indonesia has been suspended since 26/09/2006 for Indonesia and 07/07/2008 for Egypt, dates for which they declared the disease as endemic. The number of outbreaks of HPAI for these two countries can be found in their respective OIE six-monthly report.

# Areas with HPAI outbreaks and confirmed human cases



# The global response to animal and pandemic influenza

Between 2005 and 2010, the global community made unprecedented efforts to limit the impact – on both poultry production and human populations – of the HPAI H5N1 crisis that originated in Asia and spread across the entire world. The comprehensive response processes put in

place against HPAI H5N1 achieved a degree of preparedness which greatly helped ensure that efficient global, regional and national responses to the H1N1 pandemic (2009) were provided.

## Facts and figures on avian influenza

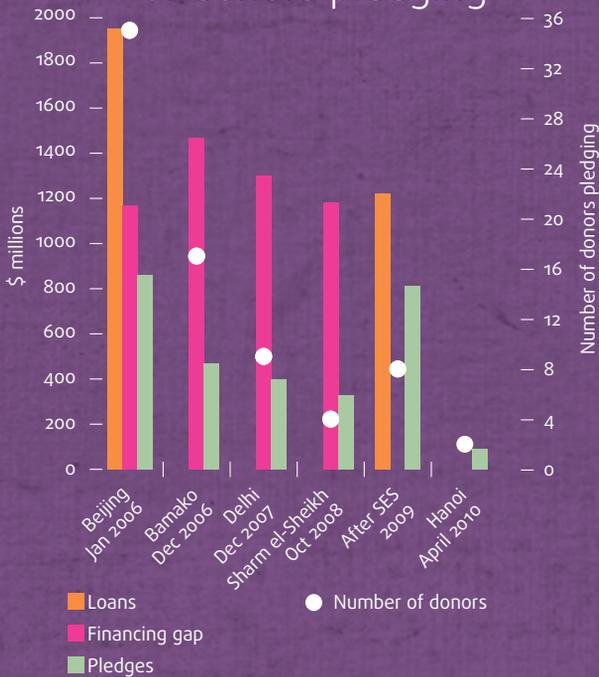
- ➔ For every human infected, there are at least **one million** infected birds.
- ➔ Between 2003 and the end of 2010 there were **6 735** outbreaks of H5N1 in **63** countries.
- ➔ The virus has killed and prompted the destruction of **hundreds of millions** of domestic and wild birds in more than **60** countries.
- ➔ **The most affected countries** are Bangladesh, Egypt, Indonesia, Nigeria and Vietnam.
- ➔ A total of **516** cases of infected people were confirmed in **15** countries; **306** of them died.

Source: WHO and OIE, situation by end 2010

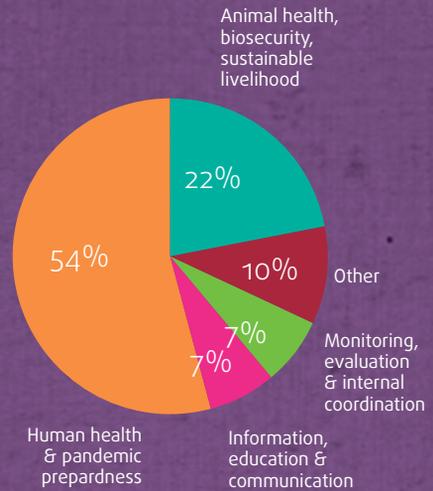
Bilateral and multilateral donors pledged total contributions of \$4.3 billion (approximately €3.3 billion) between 2005 and December 2009 to fight AI. \$2.7 billion was actually paid. Approximately 40% (\$1.6 billion) of committed funds went directly towards supporting country programmes, while 29% (\$1.1 billion) supported country efforts and global functions through international organisations.



## Volume of pledges and the number of donors pledging



## Sector composition of commitments (Nov 05 – Dec 09)



Source: Fifth Global Progress Report on Animal and Pandemic Influenza

## The 'One Health' approach

**One Health is an integrated approach that calls for increased multidisciplinary and intersectoral cooperation and communication to address diseases that emerge at the human-animal-ecosystem interface and that pose a threat to animal and human health. Together with partners around the world, the EU has promoted One Health since 2008.**

**One Health encourages deeper understanding of the links between the health of humans and animals and the ecosystems they inhabit. Zoonoses – animal diseases that can be transmitted to humans, or vice versa – occur at the interfaces between humans, animals**

**(including domestic and wildlife) and the ecosystems in which they co-exist. It is an intricately interrelated system where any event that affects one domain can bring about profound effects and changes in other domains.**

**The diseases of primary importance under the One Health approach are those with the potential to jump between animals in the wild and livestock or humans. Diseases targeted by this approach include emerging or re-emerging infectious diseases (EIDs). Examples are HPAI, Nipah/Hendra viruses, SARS, monkeypox and Hanta viruses, rabies, Rift Valley Fever and Q Fever.**



## Europe's contribution

The European Union, one of the two largest donors to the global response to avian influenza (GRAI), has provided more than €413 million worldwide for the fight against animal and human pandemic influenza. All funds have been pledged under the global AI framework agreed in Beijing in 2006.

The EU has been a key partner in defining the policy response to the avian influenza crisis. From the outset, the EU has placed its response to the AI crisis in the context of a medium- and long-term vision. It is linking crisis response and development, investing in institution-building and regional/global networking, contributing in a sustainable way to the control of epidemics and zoonoses, and rebuilding affected sectors.

The core principle of EU cooperation on AI is to support the development and implementation of integrated national plans for avian influenza control and pandemic preparedness. Various types of activities are funded: public awareness and communication, technical assistance, training, equipment and operational expenses; all focusing on sustainable, long-term improvements, including regional networking.

The biggest part of the EU's budget for external action against avian influenza is channelled through multi-donor trust funds, such as ALIVE<sup>1</sup> or the Avian and Human Influenza Facility (AHIF)<sup>2</sup>.

Furthermore, the EU has allocated more than €100 million to 50 influenza research projects via its Research Framework and Public Health Programmes since 2000. The EU funds research worldwide in a number of areas, from basic virology and drug target research to the development of new diagnostics and better avian and human pandemic vaccines.

The regional cooperation programme on HPEDs in Asia is a logical next-step in this process.

### Millennium Development Goals



Human health is a key element in eradicating poverty and achieving the UN Millennium Development Goals (MDGs). Addressing pandemics and HPEDs is therefore part of the EU's commitment to the MDGs. It is of direct relevance to MDG 6 (combating HIV/AIDS, malaria and other diseases), to MDG 4 (reducing child mortality) and MDG 5 (improving maternal health). Dealing with the causes and consequences of HPEDs also supports MDG 1 (eradicating extreme poverty and hunger) and MDG 7 (ensuring environmental sustainability).

<sup>1</sup> <http://www.alive-online.org/>

<sup>2</sup> <http://www.worldbank.org/avianflu>





The Avian and Human Influenza Facility (AHIF), operational since June 2006, is a multi-donor trust fund administered by the World Bank for highly pathogenic avian influenza and other zoonoses. The EU is one of the main funding partners of the AHIF. By December 2010, the AHIF had received combined pledges of €95 million from 10 donors, of which €71 million came from the EU.

## CASE STUDY

### AHIF supports a coordinated and effective response to HPAI H5N1 in Laos

Grant amount:	€3 million
Disbursement (September 2010):	€1.9 million
Closing date:	June 2011

In 2004 and 2007, Laos faced major outbreaks of H5N1 that led to the culling of 505 000 birds. For its national plan, the Laos government requested an AHIF grant, receiving an initial €1.4 million and a subsequent €1.6 million. These funds have been used to plug gaps in resources provided from other sources. Activities in support of the AHIF included: strengthening and upgrading laboratory facilities; capacity-building at all levels of society; training on biosecurity to minimise the effects of outbreaks on farms and beyond; and supporting local training courses, such as a three-month course on epidemiology. One of the most successful components supported by the AHIF was a compensation programme aimed at offsetting losses experienced by families and poultry producers.



# The EU's regional HPED programme in Asia

More than 3.9 billion people, or 60% of the world population, live in Asia, a continent that contributes 31.75% to the global burden of infectious diseases (*Global Disease Burden*, WHO, 2002). Over 30 new human pathogens have been detected in the last three decades, 75% of which have originated in animals. New pathogens from animals, particularly viruses, remain unpredictable; they emerge and spread across countries, sometimes with profound effects, posing a major challenge in the region. Thus, while HPEDs may emerge in any single country, it is imperative to address HPEDs on a regional basis. Significant investment in building regional capacity to deal with HPEDs is highly relevant given the potential socio-economic impact of their global spread.

In Asia, two significant zoonotic diseases have emerged in the past decade to cause serious epidemics in humans: the Nipah virus disease and Severe Acute Respiratory Syndrome (SARS). More recently, highly pathogenic avian influenza (HPAI) H5N1 has become a major problem across the region with varying incidences of outbreaks at national levels.

European cooperation in the health sector in Asia has traditionally targeted the national level. However, both continents have suffered recent outbreaks of transboundary infectious diseases, shifting the emphasis towards developing a rapid, broad response at regional level. The EU regional strategy in Asia reflects the specific situation there by encouraging regional integration and cooperation and by contributing to the control of epidemics, epizootics and zoonoses and to disaster risk reduction. Cross-border cooperation in animal and human health is among the strategic priorities for EU regional cooperation in Asia over the period 2007-2013.

## Facts on the EU regional HPED programme in Asia

**Total EU contribution:** €20 million

**Duration:** Four years  
(December 2009 – December 2013)

**Beneficiaries:** South and Southeast Asia

**Partners:** OIE, FAO, WHO

**Programme focus**

The new EU regional cooperation programme on HPEDs in Asia, launched in December 2009, provides funding to strengthen animal health and human health services and to develop regional efforts to combat the disease.

The regional programme aims at improving food security, preserving human health and nutrition, and reducing trade disruption in Southeast and South Asia, thus alleviating poverty through the prevention and control of HPEDs. It can therefore significantly contribute to achieving the Millennium Development Goals.

All diseases with a high potential for crises are targeted, with particular focus on HPAI. The programme takes an inter-sectoral, integrated One Health approach to disease prevention and control, thus broadening the scope of the EU response to the HPAI crisis.

The programme consists of three individual projects implemented by the OIE, FAO and WHO.

**Programme governance**

Implementation of HPED programme activities is managed within existing coordination mechanisms, namely the Regional Steering Committee (RSC) for Asia and the Pacific of the Global Framework for Progressive Control of Transboundary Animal Diseases (GF-TADs), which is composed of members from the OIE, FAO and WHO, as well as regional organisations, including ASEAN and SAARC. The first steering committee meeting of the programme was held with the RSC GF-TADs for Asia and the Pacific in Bangkok in July 2010.



### Programme objective

The objective of the HPED programme is to strengthen the institutional capacities of ASEAN (Association of Southeast Asian Nations) and SAARC (South Asian Association for Regional Cooperation) and their secretariats to control HPEDs and to improve epidemic and pandemic preparedness in the region.

ASEAN and SAARC are two major and well-defined sub-regions in terms of human population, culture and farming systems. In their respective areas, they seek to foster sub-regional cooperation to promote stronger cultural ties, trade and economic growth. More than 40 years old, ASEAN has evolved as an influential organisation improving regional economic cooperation. In South Asia, SAARC is expected to become increasingly important as a number of countries in the sub-region experience rapid economic growth and recognise the benefits of greater regional cooperation.



## ASEAN COOPERATION IN ANIMAL AND HUMAN HEALTH

The Association of Southeast Asian Nations is a geo-political and economic organisation of 10 countries located in Southeast Asia. ASEAN was formed in August 1967. The member states are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar/Burma, Philippines, Singapore, Thailand and Vietnam. The organisation's secretariat is in Jakarta, Indonesia. ASEAN members cooperate in political and security matters, the economy, socio-cultural issues and external relations.

In recognition of the human, economic, social and security threats posed by zoonoses, ASEAN members have worked over the past several years to implement integrated approaches to strengthening surveillance and responses to HPEDs with a focus on multisectoral cooperation, information-sharing and multi-country approaches.

The ASEAN Secretariat working group targets human-animal-ecosystem interface issues – One Health; and coordinates various health-related initiatives of the Secretariat to maximise the use of resources and promote efficiency and integration.



## SAARC COOPERATION IN ANIMAL AND HUMAN HEALTH

The South Asian Association for Regional Cooperation was set up in 1985. Its member states are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. The SAARC Secretariat is in Kathmandu, Nepal. SAARC members cooperate in agricultural and rural development, biotechnology, culture, the economy, energy, the environment, human resource development, information, communication and media, poverty alleviation, science and technology, security, social development, tourism, and trade and finance.

Foot-and-mouth disease and Peste des Petits Ruminants (PPR) are the two predominant transboundary animal diseases currently causing severe economic difficulties in South Asia. The risk of HPAI in poultry and also of its spread remains a key challenge. Rinderpest has recently been eradicated from the region.

# Programme projects

The programme consists of three individual projects implemented by the OIE, FAO and WHO.

## Strengthening veterinary services in Asia, a regional vaccine bank, and capacity-building for surveillance, early detection and eradication of highly pathogenic emerging and re-emerging animal diseases



Implemented by  
the World Organisation for Animal Health (OIE)

**The OIE** is a highly specialised intergovernmental organisation responsible for improving animal health worldwide. The objectives of the OIE include ensuring transparency of the global animal disease situation, collecting, analysing and disseminating veterinary scientific information, and improving the legal framework and resources of national veterinary services.

### Duration of the action

48 months, December 2009 – December 2013

### Total budget

€9 million (EU contribution €7 million)

### Beneficiary countries

Afghanistan, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Democratic People's Republic of Korea, Laos, Malaysia, Mongolia, Burma/Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam

The objective of the project is to strengthen regional integration and regional and sub-regional cooperation, and to provide capacity-building for surveillance, early detection and eradication of

highly pathogenic emerging and re-emerging transboundary animal diseases in the region as well as good governance in animal health structures.

### Key activities

- Set up a global vaccine bank for avian influenza, foot-and-mouth disease and rabies, which may be extended to other highly pathogenic emerging and re-emerging animal diseases.
- Use the OIE-PVS tool to evaluate the performance of veterinary services in Asia, and use the PVS Gap Analysis tool to confirm priorities and to help prepare an indicative five-year budget for the country's veterinary services.
- Capacity-building: organise national and regional seminars and workshops on good governance of veterinary services and on the need for appropriate legislation and implementation through national animal health systems, thus allowing for early detection; transparency; notification of animal diseases including zoonoses; rapid response to outbreaks; biosecurity measures; compensation for farmers in cases of compulsory slaughter; vaccination when appropriate; and cooperation between public and private sectors (notably farmers and private veterinarians).

**Traditional vaccine banks often make losses due to the limited shelf-life of the stored biological materials. This situation has encouraged the creation of virtual rolling stocks. Biologicals are not physically stored in the bank, but delivered by the supplier to one main airport in the beneficiary country when needed. They are produced by the supplier when needed, or stay with the supplier at the supplier's risk, being renewed on a rolling basis to ensure a guaranteed minimum one-year shelf-life.**



## Improvement of regional capacities for prevention, control and eradication of HPEDs (including HPAI and other Transboundary Animal Diseases - TADs) in ASEAN and SAARC



### Implemented by the Food and Agriculture Organization (FAO)

**The FAO** leads international efforts to defeat hunger. Under the HPED programme, the FAO is responsible for animal health. The FAO helps developing countries and countries in transition to modernise and improve agriculture, forestry and fisheries practices.

#### Duration of the project

48 months, December 2009 – December 2013

#### Total budget

€8.8 million (EU contribution €8 million)

#### Beneficiary countries

Cambodia, Indonesia, Laos, Malaysia, Myanmar/Burma, Philippines, Thailand, Vietnam, Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka

The objective of this project is to enhance the capacities and capabilities of ASEAN and SAARC member countries to prevent, control and eradicate HPEDs, with a focus on HPAI, through improved veterinary and public health services and inter-sectoral cooperation on a regional basis.

#### Key activities

- Establish two regional support units in ASEAN and SAARC to serve as hubs for seconding

national animal health personnel, covering training, mentoring and experience for regional staff, and also as an additional source of support for animal health policy makers, risk communication, and emergency preparedness of animal health services.

- Create a regional epidemiology network in ASEAN through sharing training, expertise and information. This will strengthen the regional capacity to understand epidemiology in the context of farming systems, HPAI and other HPEDs in animals and humans, so that appropriate control measures can be designed.
- Set up a regional epidemiology centre in SAARC to serve as a platform for training in epidemiology expertise.
- Establish a regional laboratory network in ASEAN to act as both a support for leading laboratories and a training platform.
- Strengthen leading regional diagnostic laboratories in SAARC: organise and coordinate networks of national laboratories in order to provide technical support to improve laboratory diagnoses of priority HPEDs and also provide backing to epidemiological studies on developing rational disease control strategies.

**The FAO Emergency Centre for Transboundary Animal Diseases (ECTAD) was established in December 2004 as part of the FAO's commitments to the fight against HPAI H5N1. Since HPAI H5N1 and its control need to be addressed using a comprehensive, systems-oriented approach, ECTAD operates professional working groups and regional centres which encompass the socio-economic/farming system dimensions of the programme in addition to animal health and social communication. The FAO office for Asia and the Pacific region (RAP) is involved in coordinating, networking and providing technical support for the control of HPAI and other HPEDs to countries in the region. ECTAD-RAP works closely with both ASEAN and SAARC to strengthen their capacity and strategic vision for promoting regional collaboration.**

## Strengthening surveillance and response capacity for highly pathogenic and emerging and re-emerging diseases in ASEAN and SAARC countries under World Health Organization Regional Offices for Southeast Asia and the Western Pacific



World Health Organization

Implemented by  
the World Health Organization (WHO)

The **WHO** is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.

### Duration of the project

48 months, December 2009 – December 2013

### Total budget

€4.805 million (EU contribution €4 million)

### Beneficiary countries

Cambodia, Indonesia, Laos, Malaysia, Myanmar/Burma, Philippines, Thailand, Vietnam, Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka

The overall objective of the project is to mitigate the socio-economic impact of HPEDs in ASEAN and SAARC regions by strengthening surveillance and response capacities in member countries to prevent, detect, notify and react to HPEDs.

### Key Activities

- Strengthening coordination and cooperation between animal health and public health sectors through joint workshops, training and networking.
- Training on laboratory diagnosis, field epidemiology and priority zoonoses, and short epidemiology courses.
- Translation of risk communication documents on HPEDs into national languages.
- Pilot project for controlling priority zoonoses of regional importance.

- Operational research activities including research seminars.
- Diagnostic kits and reagents for diagnosing zoonoses.
- Community-based activities (awareness, surveillance and risk reduction measures).

**The International Health Regulations (2005) provide a legal framework for an international public health response to the global spread of diseases.**

**Several countries in Asia and the Pacific have been or continue to be affected by emerging diseases such as SARS, Nipah virus and HPAI. This led to the decision by WHO Regional Offices for Southeast Asia and the Western Pacific to work together against the emerging diseases in line with the IHR. These efforts have resulted in the development of an Asia-Pacific strategy for emerging diseases (APSED) which highlights the prevention and control of HPEDs, including zoonoses, as one of the priority programme areas.**

**APSED provides guidance for countries in the Asia-Pacific region in strengthening capacity for prevention, preparedness and rapid response to emerging infectious diseases. The scope of APSED is broad and includes interrelated objectives for the short-, medium- and long-term capacity required to reduce the threat of emerging diseases.**



# References

## European Union

The EU is a major actor in crisis prevention and response, both inside the Union and globally. It is strongly committed to both health security and global health. In addition to its role coordinating health policies inside its borders, the EU is a driving force behind global efforts to prevent, respond to and mitigate the effects of major health crises.

The European External Action Service defines policies for actions outside the EU and coordinates issues related to the global response to HPAI and One Health.

<http://www.eeas.europa.eu/health>

The Directorate-General for Development and Cooperation – EuropeAid is responsible for designing EU development policies and delivering aid through programmes and projects across the world.

<http://ec.europa.eu/europeaid/where/asia/regional-cooperation/animal-human-health>

## United Nations

United Nations site for avian influenza and pandemic threats

<http://www.un-influenza.org/>

International technical agencies such as the **FAO**, **WHO** and **OIE** have been playing a pivotal role in helping develop global strategies to control HPAI and prevent a human influenza pandemic. The UN Secretary-General's Special Representative and Senior Coordinator for Avian Influenza has made a substantial contribution to ensure that all UN agencies are working together in this effort.

<http://www.oie.int>

[http://www.who.int/csr/disease/avian\\_influenza/avian\\_faqs/en/index.html](http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/index.html)

<http://www.fao.org/europeanunion/en/>

## FAO-OIE-WHO cooperation

The tripartite concept note sets a strategic direction for the FAO, OIE and WHO to take together and proposes a long-term basis for international cooperation aimed at coordinating global activities to address health risks at the human-animal-ecosystem interfaces.

[http://www.oie.int/download/FINAL\\_CONCEPT\\_NOTE\\_Hanoi.pdf](http://www.oie.int/download/FINAL_CONCEPT_NOTE_Hanoi.pdf)

## UNICEF

UNICEF's role in avian influenza has been communication for behaviour change strategies, under the technical lead of the FAO and WHO for animal and human health issues respectively.

<http://www.unicef.org/avianflu/>

## The World Bank

<http://www.worldbank.org/avianflu>

## Fifth Global Progress Report

The United Nations/World Bank 5th Global Progress Report on Animal and Pandemic Influenza provides a comprehensive analysis of HPAI and other animal and pandemic diseases, analyses financial and technical assistance, draws lessons from preparedness campaigns and explores the One Health approach for improved coordination between the animal, human and environmental health disciplines.

<http://www.un-influenza.org/node/4231>

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against highly pathogenic and emerging diseases  
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