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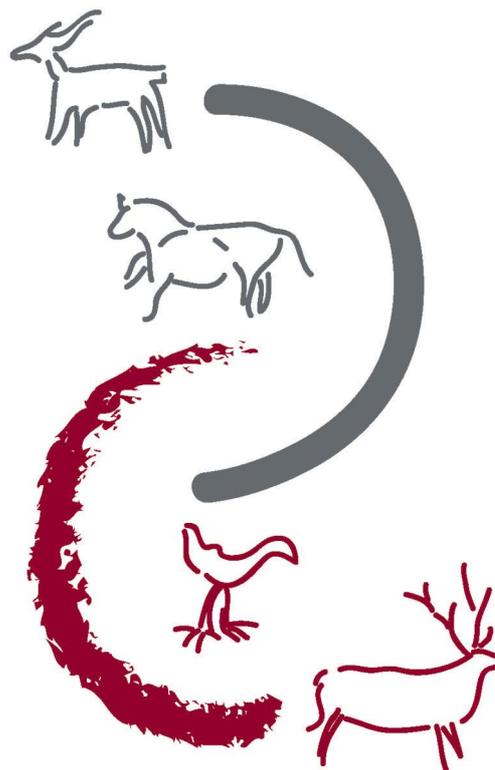
Organización
Mundial
de Sanidad
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Organisation
des Nations Unies
pour l'alimentation
et l'agriculture

Food
and Agricultural
Organization of the
United Nations

Ensuring Good Governance to Address Emerging and Re-emerging Animal Disease Threats



*Supporting the Veterinary Services
of Developing Countries
to Comply with OIE International Standards on Quality*

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and Re-emerging Animal Disease Threats**

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September 2007

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Foreword

Improving animal health worldwide is a priority

By adopting the OIE's Fourth Strategic Plan in May 2005, our Member Countries decided to update our historic mandate. The OIE was created in 1924 with the aim of controlling the international spread of infectious animal diseases. Over and above this historic mission, our new mandate is now "to improve animal health worldwide". This considerably broadens our responsibilities since, not only does it require all our Member Countries and Territories to share the same political will, but new institutional and technical mechanisms will have to be developed at a national, regional and worldwide level.

To succeed, the OIE must now provide policy makers with the right information, arguments and tools for this political will to be exercised effectively and in a sustainable manner. These arguments must first and foremost be founded on a qualitative and quantitative evaluation of the political, social and economic benefits to be gained by investing more in new national, regional and worldwide animal health systems.

Yet, to improve animal health, political will alone is not enough. The effectiveness of investments in animal health systems depends on good governance of the mechanisms intended to implement them. The Veterinary Services, including both their public and private sector components, are in the front line when it comes to improving animal health. Increasing their effectiveness depends on the mobilisation of adequate human and financial resources, and on the application of the methods of good governance described in the OIE Code and democratically adopted in the form of international standards by the 170 Member Countries and Territories. Good governance requires both legislation and the necessary human and financial resources to apply it.

In order to improve animal health by making the Veterinary Services more effective, we need to be able to demonstrate that this field of activity qualifies as a "global public good". This needs to be backed up by solid arguments.

The sudden appearance of new risks to populations and agricultural sectors throughout the world, in an unprecedented context of globalisation of pathogens and climate change, lies central to our argument.

It is easy to demonstrate that the prevention and control of zoonoses by implementing OIE standards and guidelines linked to the WTO/SPS Agreement are an essential component of public health policies. An analysis of the current avian influenza crisis is a perfect example of this argument, but there are many others (SARS, BSE, Rift Valley fever, rabies, etc.).

We must also mention the considerable economic and social impact of animal diseases on the rural economy of our Member Countries and Territories.

Leaving aside the economic and strategic importance of animal production sectors under constant threat from these diseases in rich countries, which have very often already eradicated them at great expense, livestock production plays a considerable role in the survival of poor rural communities in developing countries. The permanent threat that these diseases pose to livestock raised in poor countries is also a grave threat to poor rural and out-of town communities. The losses they are currently suffering from animal diseases are already considerable and are on the increase.

It is important to reiterate that the control of animal diseases makes an important contribution to the fight against poverty throughout the world, in terms of both public health and support for the economic and social development of the populations and countries concerned.

This argument is backed up by an analysis of the current regional and global flow of trade in animals and animal products. Exports can in some cases offer a precious source of income for developing countries and their rural producers, but for sanitary reasons this outlet is very often closed to them. Effective control of animal diseases in these countries would therefore help to give them access to valuable markets from which they are currently barred as they are not yet able to control or eradicate the most important of these diseases.

Investing in new animal health systems throughout the world thus helps not only to protect countries from natural or intentional threats linked to the reintroduction of infectious

animal diseases and zoonoses that they have already succeeded in eliminating, but also to safeguard public health, reduce poverty and open to all the possibility to trade their agricultural products freely with the rest of the world. The OIE will deliver these messages loud and clear wherever they need to be heard. At the same time, we are working with economists to provide policy makers with convincing arguments backed up by figures.

By evaluating Veterinary Services' compliance with its quality standards, the OIE can also identify priority areas for investment on behalf of the national Veterinary Services in each Member Country or Territory that so wishes. The ultimate aim is to ensure that veterinary surveillance networks are in place everywhere, since early detection of diseases and an immediate response are the keys to effective prevention and control of natural or intentional sanitary disasters.

More than 50 countries are currently being evaluated by experts trained and certified by the OIE. The World Animal Health and Welfare Fund, set up by the OIE in 2004, is dedicated to this evaluation and analysis activity and to providing continuing education in the OIE's five regions for national officials in charge of modernising the Veterinary Services and maintaining relations with the OIE as well as for relevant private sector representatives.

In carrying out its new mandate, the OIE will also continue to give top priority to its scientific and technical missions relating to the permanent updating of disease control methods.

In addition to providing the communication needed to ensure that these control methods are applied effectively by adequately resourced Veterinary Services everywhere, it is essential to form alliances with intergovernmental organisations such as the WTO, FAO and the WHO and with relevant regional organisations, not forgetting key private sector partners such as organisations of producers, veterinarians, processors, and catering and distribution chains.

Lastly, we must bear in mind that animal health is a crucial factor in ensuring food safety and an essential component of animal welfare. This explains why consumers and animal welfare groups actively support the fulfilment of our new mandate.

There can be no doubt that improving animal health is a global public good: more than 120 countries need help to reach a situation that is satisfactory for them and does not pose a sanitary risk to other countries. This is clearly a highly relevant area for the expression of international solidarity, in the interests of us all.

Bernard Vallat
Director General of the OIE

List of abbreviations and acronyms

AI	Avian Influenza	IZSVE	<i>Istituto Zooprofilattico Sperimentale delle Venezie</i>
ALive	ALive Platform, Partnership for Livestock Development, Poverty Alleviation & Sustainable Growth in Africa	LPAI	Low Pathogenic Avian Influenza
AU	African Union	NGO(s)	Non Governmental Organization(s)
CEBASEV	<i>Centro de Buenos Aires para la Capacitación de los Servicios Veterinarios</i>	OECD	Organisation for Economic Co-operation and Development
CMC	(FAO/OIE) Crisis Management Centre	OFFLU	OIE/FAO Network on Avian Influenza
EC	European Commission	OIE	World Organisation for Animal Health
ENSV	<i>Ecole Nationale des Services Vétérinaires</i> (French National School of Veterinary Services)	PDR	Participatory Disease Response
EU	European Union	PDS	Participatory Disease Surveillance
EUR	Euro (currency)	PRC	People's Republic of China
FAO	Food and Agriculture Organization (of the United Nations)	PVS	(OIE) Performance of Veterinary Services (formerly "Performance, Vision and Strategy")
FMD	Foot-and-Mouth Disease	SAR	(Hong Kong) Special Administrative Region (PRC)
GF-TADs	(OIE/FAO) Global Framework for Transboundary Animal Diseases	SARS	Severe Acute Respiratory Syndrome
GLEWS	(FAO/OIE/WHO) Global Early Warning System	SPS	Sanitary and Phytosanitary
H5N1	Haemagglutinin type 5; Neuraminidase subtype 1 (Influenza Virus)	SSAFE	Safe Supply of Affordable Food Everywhere
HPAI	Highly Pathogenic Avian Influenza	ToRs	Terms of Reference
IATA	International Air Transport Association	UK	United Kingdom of Great Britain and Northern Ireland
IBAR	Inter-African Bureau of Animal Resources	UN	United Nations
ICEID	International Conference on Emerging Infectious Diseases	USA	United States of America
IFPRI	International Food Policy Research Institute	USD/US\$	US Dollar (currency)
IHR	(WHO) International Health Regulations	USDA	United States Department of Agriculture
IICA	Inter-American Institute for Cooperation on Agriculture	VS	Veterinary Services
		WAHWF	(OIE) World Animal Health and Welfare Fund
		WB	World Bank
		WHO	World Health Organization (of the United Nations)
		WTO	World Trade Organization

Ensuring good governance to address emerging and re-emerging animal disease threats

Supporting the Veterinary Services of developing countries to meet OIE international standards on quality

Introduction

Today, more than ever before, outbreaks of animal diseases, especially zoonotic diseases, are causing serious economic and social disruption and are threatening trade and consumer confidence on an increasingly global scale. The increasing prevalence of incidents involving the human/animal health interface, have elicited unprecedented media coverage and there is increasing recognition of the critical role played by the veterinary services in creating a protective barrier between humans and the animal source of diseases. The (re)emergence and spread of animal diseases such as very recently bluetongue, Rift Valley fever and West Nile virus highlight the impact of global warming and trade globalisation.

The current highly pathogenic H5N1 avian influenza epizootic in Asia, Europe, the Middle East and Africa shows the extent to which animal diseases can have direct consequences for the rural economy and for public health at both regional and global levels. The globalisation of trade and human movement is an important risk factor for disease emergence and can exacerbate both the spread and the impact of disease events.

As of August 16, 2007, the list of Countries or Territories which had reported H5N1 in wild birds or poultry since 2003 (**Countries in bold** have reported outbreaks in 2007) was as follows¹ (alphabetic order): **Afghanistan**, Albania, Austria, Azerbaijan, **Bangladesh**, Bosnia and Herzegovina, Bulgaria, Burkina Faso, **Cambodia**, Cameroon, **Côte d'Ivoire**, Croatia, **Czech Republic**, Denmark, **Djibouti**, Egypt, **France**, Georgia, **Germany**, **Ghana**, Greece, **Hong Kong (SARPRC)**, **Hungary**, **India**, Indonesia, Iran, Iraq, Israel, Italy, **Japan**,

Jordan, Kazakhstan, **Kuwait**, Laos, Malaysia, Mongolia, Myanmar, Niger, Nigeria, **Pakistan**, Palestinian Autonomous Territories, **People's Republic of China**, Poland, **Republic of Korea**, Romania, **Russia**, **Saudi Arabia**, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sudan, Sweden, Switzerland, **Thailand**, **Togo**, **Turkey**, Ukraine, **United Kingdom**, Vietnam (Total: 60).

Due to the extent of the current avian influenza situation, this updated document considers countries currently affected by H5N1 avian influenza as well as those at heightened risk of infection as having priority for international attention.

Veterinary Services are the national focal point for the prevention and control of animal diseases, including zoonoses. Veterinarians play a major role as custodians of animal health and veterinary public health issues. The veterinary mandate has never been clearer. Important roles include animal health surveillance, early detection and rapid response to animal diseases and sanitary certification of animals and animal products traded. In order to discharge this mandate appropriate legislation and governance systems are needed, to legitimise the quality and reliability of veterinary decisions. The private sector, including farmers and the industry, can play an important role in partnership with the Veterinary Services, assisting with the fulfilment of the mandate.

Governments, via their national Veterinary Authorities, communicate directly on sanitary certification of animals and animal products destined for trade and it is essential to establish a relationship of trust based on good governance, transparency and information sharing. Indeed, regarding sanitary certification of animals and animal products destined for trade as well as certification of the quality of animal health services, all importing countries will accept such certification only if it has been issued by the

¹ Last update available at: <http://www.offlu.net/> or at: http://www.oie.int/wahid-prod/public.php?page=disease&disease_id=15.

veterinary services under the authority of the exporting country's government.

The proposals presented herein are aimed at helping the countries that face the greatest challenges in establishing effective Veterinary Services. Many developing and in-transition countries have difficulty in obtaining international credibility. Key challenges include the effective performance of early disease detection and rapid response which are the key objectives for an efficient prevention and control of animal diseases.

The proposals in this document have the objective of supporting Veterinary Services' efforts to comply with the OIE international standards for good governance, effective organisation and functionality, including the establishment of partnerships with the private sector. The 170 OIE Members support this project at both political and technical level. It is in the interests of all Members to have effective and sustainable Veterinary Services in every country of the world.

The program will be implemented in partnership with FAO and other international and regional organisations, through specific activities for each organisation and through joint plans.

Bringing Veterinary Services into compliance with international standards is expected to provide economic benefits, via strengthening of the agricultural economy and food security and the capacity to trade internationally, and benefits to public health, by helping to improve food safety and security (supply of animal protein) and preventing or controlling zoonoses at the animal source. Strengthening the prevention and control of emerging and re-emerging diseases at the national, regional and international level will benefit human health all around the world.

Good governance of animal health systems based on a close public/private partnership is the responsibility of all Governments. If one country fails, it may endanger the entire planet.

The document is structured according to the following key aspects:

- Needs for good governance of veterinary services;
- Implementation timeframes (short, medium and long term);
- Coordination levels (global, regional, and national).

A preliminary estimate of costs at global level is outlined in Part 5.

1 | Good governance of veterinary services

Unprecedented increasing movement of commodities and people linked with globalization as well as global warming are increasing and worsening risks and challenges related to emerging and re-emerging highly pathogenic animal diseases, including zoonoses. The probability of occurrence of natural and intentional biological disasters is dramatically increasing from year to year. The governments and the relevant competent authorities therefore need to be prepared to meet these challenges and mitigate the risks.

Good governance to address highly pathogenic emerging and re-emerging animal diseases is a global public good.

Global Public Goods

According to *Kaul and al.*², public goods have two main properties: they are (i) non-rival (one person's consumption of them does not prevent anyone else's) and (ii) non-excludable (no one can be excluded from consuming them). This includes "non-rival goods" kept or made non-exclusive, such as norms and standards; and "pure public goods" which include communicable diseases controlled or eradicated/spreading which are both in the global public domain. Global public goods are goods whose benefits extend to all countries, people, and generations.

In the case of eradication of infectious diseases, the benefits have international and intergenerational spillovers³. Countries are depending from one another and an inadequate action by one nation can jeopardize all the others. Global animal diseases eradication (including zoonoses and animal diseases with major economical impact) can benefit to every country and no one can be prevented from this benefit. Benefits of animal diseases eradication are conferred both on the present and future generations.

The central issue for health-related global public goods is how best to ensure that the collective action necessary for health is taken at the international level⁴.

² *Inge Kaul, Isabelle Grunberg & Marc A. Stern (1999); Global Public Goods: International Cooperation in the 21st Century; Oxford University Press.*

³ *Sandler T. (2005); Regional Public Goods and International Organizations; School of International Relations; University of Southern California.*

⁴ *Smith R. (2003); Global Public Goods and Health; Bull. of WHO, 81 (7).*

Animal health systems including veterinary services are global public goods. Their improvement will have an impact on poverty alleviation, market access and public health, including food security and food safety.

There is a crucial need for appropriate legislation in the animal health field and its strict implementation through appropriate national animal health systems allowing in principle for:

- Early detection of disease incursions, transparency and notification;
- Rapid response to animal disease outbreaks and implementation of biosecurity and biocontainment measures;
- Compensation strategies to indemnify animal owners;
- Vaccination, as appropriate.

1.1. Early detection, transparency and notification

General principles of epidemiological animal disease surveillance as well as those relating to specific animal diseases, such as avian influenza, bovine spongiform encephalopathy, bluetongue or foot and mouth disease are described in various appendices contained in the OIE *Terrestrial Animal Health Code* (the *Terrestrial Code*). The *Terrestrial Code* includes an official list of animal diseases and zoonoses which are to be considered as priorities by the international community.

The Chapters in the *Terrestrial Code* relating to the quality of Veterinary Services describe among others the importance of the tools allowing appropriate surveillance and early detection of and rapid response to animal diseases including zoonoses, which are linked to the efficiency of the Veterinary Authority.

The ability of collecting data in the field with all the appropriate information based on animal identification and traceability is essential to assure the effectiveness of epidemiological surveillance systems.

Epidemiological surveillance systems are essential for the good governance of animal health, and food safety programmes. Adequate surveillance strategies should be prepared and implemented to detect any natural or intentional epidemiological event of significance. The establishment and maintenance of efficient epidemiological surveillance networks and territorial meshing covering the entire national territory with a potential to identify all relevant animal diseases, including zoonoses and emerging diseases, is the responsibility of all Governments.

The efficiency and reliability of an epidemiological surveillance system depends on the level of knowledge and expertise of all the participants and good co-operation between private and public sectors. Private sector veterinarians and farmers are the most likely persons to early detect the presence of diseases in livestock and epidemiological surveillance is therefore strongly dependent upon their contribution. A key concept of animal health systems and good surveillance of animal diseases is the establishment and maintenance of sustainable cooperation between official veterinarians, private veterinarians, farmers and other stakeholders, preferably through official alliances. Targeted continued education to every sector and a good understanding of the animal diseases reporting system is crucial.

An early detection and warning system throughout the whole production, processing and marketing chain is of paramount importance for the early notification of suspicions of animal diseases and the rapid response aimed to confine the pathogen as soon as it appears.

To ensure transparency in the global animal disease situation, each OIE Member Country commits to report the OIE notifiable animal diseases that it detects on its territory. The OIE disseminates the information to other countries, so that they can take the necessary preventive action. Information also includes diseases transmissible to humans and intentional introduction of pathogens. Information is sent out immediately or periodically depending on the seriousness of the disease.

Rapid and fair compensation of livestock owners for direct losses incurred as result of animal disease control actions, and to support re-establishment of markets are key components to facilitate transparency and early notification.

OIE Recommendation⁵

1. Veterinary Services of Member countries organise and manage countrywide epidemiological surveillance networks at national levels in a way that will allow the collection, collation and analyses of data generated at all possible levels taking into consideration the livestock sector including backyard flocks and wildlife.
2. The analysis of epidemiological data must be performed by properly trained personnel. Specialised national centres or units should be established to function as focal and reference points to assure coherence of the network. The OIE collaborating centres and reference laboratories should take a leading role providing training and expertise to Member Countries to achieve this objective.
3. Veterinary Services implement epidemiological surveillance systems assuring early detection of, and rapid response to animal diseases including zoonoses. This system should be led by an efficient Veterinary Authority, involving networks of veterinary practitioners in all rural and urban areas as well as livestock owners. This is to be set up in compliance with OIE international standards on disease surveillance and quality of Veterinary Services.
4. Training and refresher courses or continuing education must be organised and made available to all stakeholders involved in the surveillance system.
5. Adequate compensation must be provided to livestock owners for killing and destruction of animals carried out as part of disease control programmes. The compensation schemes should promote good preventive management practices including high biosecurity and biocontainment standards, as well as transparency in early reporting.
6. Appropriate measures must be implemented so that veterinarians and livestock owners report and notify suspicion of disease; sanctions must also be applied in case of non compliance.
7. The OIE promotes the creation of surveillance networks for relevant diseases, for example bluetongue, avian influenza and foot and mouth disease. These networks must take OIE Reference Laboratories, Collaborating Centres and existing networks into consideration. If necessary, the network should involve other neighbouring regions.

1.2. Rapid response to animal disease outbreaks and biosecurity

Immediate clinical and laboratory investigation of all suspected cases of animal diseases is the first step in a rapid response strategy. This needs to be complemented by regular and frequent inspection and testing of high risk animals or groups.

Biosecurity measures are an integral component of good farming practice – whether disease is present or not. The main purpose of a biosecurity system is to prevent the entry of a pathogenic agent into an establishment or, if it is already present, to prevent further spread from the infected establishment while eradication measures of this pathogen are implemented. Biosecurity measures must be reviewed and strengthened as soon as a disease is confirmed and be accompanied by appropriate epidemiological investigations (identification of primary and secondary cases route of entry of pathogen, etc.). The intensity and level of biosecurity measures applied will vary and must be adapted as appropriate to the disease and the production system. For example, more stringent biosecurity is needed and is feasible for large scale/intensive production units/compartments than for back yard production or extensive production systems in rural areas.

The OIE provides technical expertise to countries requesting assistance and encourages international solidarity in the control and eradication of animal diseases, including zoonoses. Strengthening the capacity of poor countries to control diseases helps to safeguard the global animal health situation and thus helps all Member Countries.

The OIE maintains continuous contact with international, regional and national funding organizations to advocate global financial investment in systems for the prevention and control of animal diseases and zoonoses.

1.3. Compensation

Compensation of livestock owners for direct losses caused by animal diseases is crucial to encourage early disease reporting and transparency and to help minimize the impact of highly pathogenic diseases on livestock producers. Penalties for failure to comply with reporting and control measures are also important to ensure that all livestock producers are treated fairly.

⁵ Recommendation No.1 - Epidemiological surveillance and on-farm inspections: rural veterinary network, public-private sector relations, training of farmers and veterinarians - Adopted by the OIE Regional Commission for Europe on 29 September 2006 and endorsed by the International Committee of the OIE on 24 May 2007

Highly pathogenic avian influenza (HPAI) poses a major risk to human and animal health. Early identification of HPAI in poultry and the immediate culling and safe disposal of diseased or suspected animals are critical to reducing the risk of the disease spreading. Efforts to contain the HPAI quickly and effectively are therefore of national and global interest. One of the most widely and common used practice for the control of outbreaks in poultry involve culling birds that are infected and in close contact with infected animals (e.g. flocks adjacent to infected premises). Obtaining the cooperation of poultry owners and others in early reporting and intervention strategies, such as culling, is much easier if farmers can obtain appropriate compensation for the culling of their animals. The international community and some national governments have responded to this challenge by establishing funding mechanisms to enable compensation.

Relevant considerations may be found in the report⁶: "Enhancing Control of Highly Pathogenic Avian Influenza in Developing Countries Through Compensation: Issues and Good Practice" prepared by the World Bank, FAO, IFPRI⁷, and OIE for the 4th International Conference on Avian and Human Influenza held in Bamako, Mali, in December 2006.

In addition, the OIE, with the financial support of the World Bank, has employed consultants to carry out the following economic studies on animal health systems:

- (i) Worldwide economic studies on the cost/benefit analysis of public investments in international public goods like the cost of maintenance of public and private components of the national public veterinary services, *versus* the cost of a sanitary crisis;
- (ii) A feasibility study on the setting up of a Global Emergency Response Fund for Animal Epizootics and Zoonoses in developing and in-transition countries;
- (iii) A Pre-Feasibility Study on Insurance Products for Emerging and Re-emerging Animal Disease Losses not Covered by Public Compensation.

The OECD ⁸ is also currently studying the cost/benefit analysis of the impact of animal

diseases and the strengthening of Veterinary Services.

1.4. Appropriate use of vaccination

Vaccination is an important tool in the control and eradication of many animal diseases. Control strategies based on a combination of classical eradication methods (e.g. stamping out and movement restrictions) and vaccination could maximize eradication efforts for certain diseases in certain situations.

As an example, the control of HPAI has become a more complex issue than in the past. The unprecedented and almost worldwide spread of HPAI infections, and the related serious animal and human health implications have increased the need to develop control strategies complementary to a stamping out policy, which has often been used to eradicate this disease.

Vaccination against HPAI or other diseases should in all cases be used in addition to the classical control methods (e.g. increase of biosecurity and stamping out) and is aimed primarily at a reduction of the replication and shedding of the pathogens (e.g. at national level in a country heavily infected unable to manage the situation). For HPAI an important goal is the reduction of the virus spread between poultry and as a positive result the decrease of the human exposure. The scientific basis for the use of each vaccination strategy is the induction of a protective immunity in the target animal population. A good vaccination program would raise the levels of protective flock / herd immunity and increase the resistance to infection. In combination with the implementation of effective biosecurity measures, in certain situations, vaccination could prevent the introduction of HPAI or other pathogens, or alternatively in reducing its spread, minimizing the negative impact on animal production and decreasing potential economic losses.

Before a vaccination program can be designed and implemented, it is necessary to analyse the current disease situation in the country and in the global context, and to analyse the logistical requirements for conducting an effective campaign. For avian influenza the OIE has written an information leaflet on the implementation of vaccination which guides the decision making process whether to vaccinate or not and gives guidance in the development of a proper vaccination program.

⁶ Available at: http://siteresources.worldbank.org/INTARD/Resources/HPAL_es_english_final.pdf

⁷ International Food Policy Research Institute

⁸ Organisation for Economic Co-operation and Development

A vaccination campaign which is not managed appropriately is likely to result in a disease becoming endemic. Therefore, a monitoring program should be implemented in vaccinated populations to determine whether the pathogen is still circulating in these populations. This program will also give data on the efficacy of the used antigen in the vaccine.

In general terms, for the use of vaccination against any disease in the target species, consideration should be given to the objective of a campaign:

- Emergency vaccination in the face of an epizootic, which means whenever the epidemiological situation indicates that there could be massive and rapid spread of infection.
- Preventive vaccination (i.e. prophylactic) which may be carried out if a high risk of incursion of a disease is identified and early detection/ rapid response measures will most likely not be sufficient to control the disease immediately after introduction.
- Routine vaccination which can be performed in endemic areas.

Also various vaccination strategies can be applied:

- Mass vaccination where vaccination is applied to all susceptible animals.
- Targeted vaccination where vaccination is applied to defined categories of animals, e.g. the high risk groups when it is logistically not possible to vaccinate all susceptible animals or when the resources are not available.
- Ring vaccination which is vaccination is applied in a defined area around an outbreak and is mostly used in an emergency vaccination campaign.

Very long term vaccination programs are not likely to be sustainable since the costs will be very high and the vaccination acceptance by the farmers will decrease after a certain period without disease outbreaks. Therefore each vaccination program should contain an exit strategy.

Only high quality vaccines produced according to OIE standards should be used in vaccination programs. In the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*⁹ general and disease specific guidelines are given for the production of vaccines. Governments should ensure that vaccine producers comply with OIE standards continuously, with special emphasis on bio-containment standards.

⁹ http://www.oie.int/eng/normes/mmanual/A_summry.htm

For the case of vaccines which need low temperature to remain efficient (such as avian influenza vaccines which need to be kept permanently between +2 and +8°C), the existence of an efficient national cold chain is crucial.

Vaccination used alone is never a sufficient tool for the control of animal diseases.

2 | Actions to be implemented

2.1. Evaluation of Veterinary Services using the OIE-PVS Tool

To help ensure the effective performance of the Veterinary Services of Member Countries, the OIE has dedicated two Chapters of the *Terrestrial Animal Health Code* to the evaluation of Veterinary Services:

- Chapter 1.3.3.: Evaluation of Veterinary Services¹⁰, and
- Chapter 1.3.4.: Guidelines for the Evaluation of Veterinary Services¹¹.

A specific methodology has been developed to enable countries to evaluate their Veterinary Services and verify their compliance with OIE standards. The OIE has published the “OIE Tool for the Evaluation of Performance of Veterinary Services” (OIE-PVS Tool) as the basis for evaluating performance against the international standards published in the *Terrestrial Animal Health Code*. The OIE-PVS methodology, endorsed by the 170 OIE Member Countries and Territories, may be used in the following contexts:

- A self-evaluation of the Veterinary Services of a country against OIE standards. The aim is to assess internally the compliance of Veterinary Services with the international standards;
- An evaluation as part of bilateral negotiations between trading countries. It may be performed with or without the involvement of independent experts at the request of both countries;

¹⁰ http://www.oie.int/eng/normes/mcode/en_chapitre_1.3.3.htm

¹¹ http://www.oie.int/eng/normes/mcode/en_chapitre_1.3.4.htm

- An external independent evaluation performed as part of an official assessment of a Veterinary Service may be requested by a national authority and/or an international financing institution. The resulting report on strengths and gaps can be used to obtain external or internal support including the commitment of financial resources for appropriate investments aimed to comply with international standards on quality. Donor agencies, notably the World Bank, have requested the use of the official OIE-PVS in the evaluation of Veterinary Services as part of the process of considering countries' requests for financial support.

**OIE Tool for the Evaluation of Performance
of Veterinary Services – OIE-PVS Tool**

4 Fundamental Components:

- I – Human, Physical and Financial Resources
- II – Technical Authority and Capability
- III – Interaction with Stakeholders
- IV – Access to Markets

including a total of **37 Critical Competencies** overall,
with **5 levels of advancement** for each Competency
(from “non acceptable” to “well advanced”)

i.e.¹² **200 PVS Variables**
for the Evaluation of Veterinary Services

In the countries currently infected with H5N1 avian influenza and in countries at risk of infection, short-term actions will include an emergency ‘limited’ OIE-PVS Evaluation of the Veterinary Services that will address the following competencies as a priority:

1. Capacity for rapid preparation and implementation of emergency plans, which include early detection and rapid response capacities,
2. Capacity to confirm clinical and laboratory diagnoses,
3. Capacity and authority of the Veterinary Services to prevent the entry and spread of diseases in the country,
4. Ability of the Veterinary Services to obtain the necessary financial resources to compensate livestock producers,
5. Capacity to conduct national vaccination campaigns, where necessary (e.g. when and where the disease has become endemic),

6. Capacity to update national legislation, emergency plans and control systems, to verify their application in the aforementioned fields and to involve the private sector in disease prevention activities.

The evaluation of the Veterinary Services in the countries under this activity will primarily aim to determine gaps and deficiencies in governance, organisation, functionality and resource allocation.

The full PVS Evaluation of a country is a voluntary process based exclusively upon a formal request to the OIE by the governmental authority of the country (*sine qua non* condition to carry out a PVS evaluation). Evaluations are conducted in accordance with standardised procedures described in the OIE-PVS Manual for Assessors.

PVS evaluations are conducted by a team of OIE-trained and certified experts. Teams will normally include a Team Leader, one or two expert(s), and possibly other participants (observers and/or facilitators). The composition of evaluation teams may be modified on a case by case basis as appropriate to the context of the Evaluation and the parameters of the country.

Reports prepared by the PVS evaluation teams are submitted to an internal peer review carried out by OIE experts before submitting the draft final report to the country concerned for final approval. The report will not be released to other parties, or published, unless the country concerned has given its approval for this to occur.

The OIE experts carrying out the PVS evaluations use harmonised and standardised methodologies, communication aids and procedures, including the following:

- **Manual of the Assessor** (restricted to OIE PVS Assessors);
- **OIE-PVS Tool with Provisional Indicators** (restricted to OIE PVS Assessors);
- **OIE-PVS Tool** (public document)¹³.

These documents are available in English, French, Spanish and Russian.

The OIE will regularly update the PVS Tool through the work of an *ad hoc* Group of experienced PVS Assessors that will report to the Terrestrial Code Commission. A second edition of the OIE PVS Tool and of the Manual for Assessors will be produced in 2008 and the process of review will be ongoing.

¹² Some Critical Competencies have a Part A and a Part B leading to more than 185 variables in total

¹³ Last version available at: http://www.oie.int/downld/ENG_PVS_FINALWEB_09_02_2007.pdf



The main steps of an OIE-PVS Evaluation

1. Official request received from the Country (*sine qua non condition*)
2. Proposal of dates for the review and names of PVS Team members sent by the OIE to the applicant country
3. Acceptance of mission by the Country
4. Preparation of the mission between the PVS team and the Country
5. PVS Mission / Visit to the Country
6. Draft PVS Country Report
7. OIE Peer Review of the Draft Report
8. Draft Final PVS Country Report
9. Comments / Acceptance by the Country
10. Final PVS Country Report (made public depending on endorsement by the Country)

The PVS evaluation will assess capacities of the Veterinary Services in areas such as:

- (i) awareness of and compliance with international standards (including the OIE *Terrestrial Animal Health Code*);
- (ii) recruitment and training procedures for public and private sector staff (initial training and continuing professional education);
- (iii) independent and sustainable funding of activities;
- (iv) technical capability in relevant fields;

- (v) conditions under which policies are implemented and their application monitored, including for laboratories;
- (vi) independence of scientific decision-making from political influence, notably in terms of transparency in reporting the animal health status;
- (vii) consultation and involvement of public and private sector partners, including consumers;
- (viii) participation in the work of relevant international bodies;
- (ix) conditions that apply when delegating aspects of public services to the private sector;
- (x) implementation of programmes in partnership with the private sector;
- (xi) in assessing the ability to access international markets for animals and animal products, the capacity of the Veterinary Services will be evaluated with respect to the:
 - compliance of national legislation with OIE standards;
 - quality and credibility of export certification;
 - existence of equivalence agreements with trading partners, if relevant;
 - capability to identify and trade animals and animal products;
 - application of the concepts of zoning and compartmentalisation, if relevant.

2.2. Short term actions

The actions to be taken in the short-term are essentially emergency measures aimed at rapidly controlling the regional and global spread of highly pathogenic avian influenza. They are designed to control the virus at its animal source and prevent its spread. These measures would also be effective in addressing the risks posed by other zoonoses emerging in association with poultry production.

Should a first outbreak occur in an uninfected country, the main objective should be to prevent spread in poultry, by immediately applying a classical stamping out policy. This policy includes culling, with compensation, of infected and suspect birds and the introduction of strict restrictions on animal movement and human activities that risk spreading the disease. The establishment of effective compensation

mechanisms for livestock producers is important to ensure the effectiveness of these measures. Control measures may also need to be applied on some countries at risk of infection via wild birds, as well as on those bordering and trading in poultry with infected countries.

For countries that have established infections it is important to provide ongoing support for disease containment measures aimed at limiting spread and gaining control of the situation. Vaccination may be used in this case as a complement to the classical stamping out measures referred to above.

“Vaccination: a tool for the control of avian influenza”, an international conference co-organised by the OIE, FAO and the *Istituto Zooprofilattico Sperimentale delle Venezie* (IZSVE) and supported by the European Commission, was held in Verona, Italy on 20-22 March 2007. Around 400 experts from all continents reviewed recent experience and achievements of AI vaccination programs throughout the world. This scientific conference provided a unique opportunity to review current methods of vaccine application and recent experience and to update recommendations on the use of vaccination as one of the control methods to contain the disease and prevent losses due to avian influenza. It also provided an opportunity to discuss the decision-making process required before embarking on a vaccination strategy. As confirmed at the conference, vaccinating poultry is an important adjunct to the control of disease due to H5N1 HPAI but should be used in combination with other control measures. The recommendations¹⁴ summarising the outcome of the Verona conference are referenced in Part 4 of this document.

The emergency measures to be implemented in the short term are described in the FAO/OIE Strategic Plan for the eradication of avian influenza: “The Global Strategy for Prevention and Control of H5N1 Highly Pathogenic Avian Influenza”, updated in March 2007¹⁵. This strategic plan is based on the FAO/OIE GF-TADs’¹⁶ initiative. It will be regularly updated taking into account new developments and knowledge of avian influenza worldwide.

The FAO/OIE Global Framework for Progressive Control of Transboundary Animal Diseases (GF-TADs)

The Global Framework for Progressive Control of Transboundary Animal Diseases (GF-TADs) is a joint FAO/OIE initiative approved on 24th May 2004, which combines the strengths of both organisations to achieve agreed common objectives. GF-TADs is a facilitating mechanism which will endeavour to empower regional alliances in the fight against transboundary animal diseases (TADs), will provide for capacity building and will assist in establishing programmes for the specific control of certain TADs based on regional priorities..

The GF-TADs programme will be developed along four main thrusts:

1. A regionally led mechanism, to operationally address and implement action against priority diseases as agreed by relevant stakeholders;
2. The development of Regional and Global Early Warning Systems for major animal diseases;
3. The enabling and application of research on TADs causing agents at the molecular and ecological levels for more effective strategic disease management and control; and,
4. The completion of the Global Rinderpest Eradication Programme set for achieving global declaration of freedom by the year 2010.

The goals of GF-TADs are:

- To safeguard the livestock industry of developed as well as developing countries from repeated incursions of infectious disease epidemics,
- To improve food security and economic growth of developing countries through the reduction of the damaging effects of epidemic animal diseases,
- To promote safe trade in livestock and animal products at national, regional and international levels.

The OIE and the FAO have also set up the “OIE/FAO Network of Expertise on Avian Influenza”¹⁷ (OFFLU), a world-wide network of laboratories and other avian influenza expertise. The international community is requested to provide funding to enable the network's activities to be suitably implemented. This network is also responsible for providing to WHO the animal virus strains to be used in the early preparation of human vaccines.

¹⁴ http://www.oie.int/eng/info_ev/Other%20Files/A_Guidelines%20on%20AI%20vaccination.pdf

¹⁵ <http://www.fao.org/docs/eims/upload/228807/a1145e.pdf>

¹⁶ http://www.oie.int/eng/OIE/accords/GF-TADs_approved_version24May2004.pdf

¹⁷ <http://www.offlu.net/Home>



The OIE/FAO OFFLU Network

In April 2005, the OIE and FAO created and endorsed a joint network of expertise on avian influenza for the benefit of Member Countries.

The objectives of OFFLU are:

1. To exchange scientific data and biological materials (including virus strains) within the network, and to share such information with the wider scientific community;
2. To offer technical advice and veterinary expertise to Member Countries assisting in the diagnosis, surveillance and control of AI;
3. To collaborate with the WHO influenza network on issues relating to the animal-human interface; notably early detection of new strains for human vaccines;
4. To highlight avian influenza research needs, promote their development and ensure co-ordination.

The international mandate of Veterinary Services for the control of animal diseases

To limit the spread of newly emerging or re-emerging epizootic diseases, including avian influenza, there is a need to strengthen the veterinary services to develop the necessary capacity to rapidly detect the occurrence of natural or intentional sanitary events in animals and take the appropriate emergency actions to immediately eliminate the causative pathogen(s). Immediately eradicating an emerging disease as soon as it occurs will reduce significantly the cost of eradication and will minimize drastically potential biological disasters. For this reason, steps must first be taken to ensure the efficacy of the specialised public services responsible for formulating, implementing and enforcing the relevant legislation. The Veterinary Services, with their public and private professional components are responsible for coordinating the animal diseases prevention and control activities.

Under the mandate of the World Trade Organization (WTO) Agreement on the

Application of Sanitary and Phytosanitary Measures (the SPS Agreement), the World Organisation for Animal Health (OIE), which publishes standards on safety of animals and animal products, is recognised as an international standard setting organisation (Article 3.4. of the SPS Agreement).

The OIE standards are prepared by elected Specialist Commissions, supported by groups of internationally renowned scientists. Draft standards are adopted each year by the official national Delegates, representing the 170 Member countries, at the annual meeting of the OIE International Committee.

The OIE's international standards, guidelines and recommendations are published in the "Terrestrial Animal Health Code"¹⁸, the "Manual of Diagnostic Tests and Vaccines for Terrestrial Animals"¹⁹, the "Aquatic Animal Health Code"²⁰ and the "Manual of Diagnostic Tests for Aquatic Animals"²¹. All reference publications are updated annually.

2.3. Medium term actions

The actions to be taken in the medium term will be aimed at assessing and possibly restructuring the Veterinary Services of developing and transitional countries. The assessment will be done in association with public and private sector partners.

The guidelines to be used in this assessment will be established on the basis of global and regional consultation and prioritizing mechanisms.

The action programme will be applied in three stages:

- (i) an OIE-PVS Evaluation of the Veterinary Services of selected countries worldwide with the identification of actions needed to improve governance and bring them into compliance with international standards,
- (ii) preparation of projects and training of participants, with a view to involving them in economic feasibility studies and direct participation in the national programmes,
- (iii) active implementation of the projects.

¹⁸ http://www.oie.int/eng/normes/mcode/en_sommaire.htm

¹⁹ http://www.oie.int/eng/normes/mmanual/A_summry.htm

²⁰ http://www.oie.int/eng/normes/fcode/en_sommaire.htm

²¹ http://www.oie.int/eng/normes/fmanual/A_summry.htm

Institutional and technical partners and stakeholders at the national level (e.g. scientific agencies responsible for risk evaluation, diagnostic laboratories) and private sector professionals involved in the management of animal health and veterinary public health (e.g. local veterinarians, livestock producers and their animal health organisations, etc.) should be involved in the evaluation procedure as partners of the Veterinary Services. Agri-food industry operators (e.g. processors, suppliers of feed and veterinary products, distributors of livestock products, caterers) should also be party to the evaluation, given their contribution to the sanitary quality of food products, as partners of the official food inspection services and as major contributors to economic performance of the livestock sector.

Farmers and private veterinarians are always key partners.

Gaps in governance and other deficiencies will be identified, recorded and action to redress them prioritised, to enable recommendations on remedial actions to be taken and, where necessary, appropriate public and/or private investment secured.

In liaison with relevant parts of the private sector working in partnership with the Veterinary Services, actions that would require legislative or regulatory amendment will be drawn to the attention of the competent authorities. Dialogue and partnerships between private and public sector will be encouraged during the evaluation and the implementation of recommendations. The relevant public and private sector investments (national and/or international) will be evaluated and their contribution to improved compliance with international standards and overall performance of the Veterinary Services explained.

When relevant, initiatives such as Participatory Disease Surveillance (PDS) or Participatory Disease Response (PDR) projects should be included in the proposed projects in relation to national animal health systems in a spirit of close cooperation between the veterinary authorities, the livestock producers, the farmers, consumers and private veterinarians.

2.3.1. Gap Analysis: Preparation of national projects

Once the evaluation of the Veterinary Services has been completed, and the gaps identified, national projects will be suggested. These projects will be aimed at improving and/or restructuring relevant components of the Veterinary Services to bring

them into compliance with OIE standards. These projects will be compiled and submitted to the national authorities, and, where appropriate, to external funding agencies.

The private sector (livestock producers, veterinarians, processors, distributors, consumers, exporters), including the insurance sector, should be closely and regularly associated with the preparation and execution of projects. Private sector participation in carrying out and jointly financing some of the components is encouraged, as it is important to promote permanent participation in cost-sharing activities, including financial compensation of livestock producers in the event of a sanitary crisis.

The OIE will initiate and facilitate national seminars with Veterinary Authorities and relevant stakeholders, preferably in cooperation with the FAO.

2.3.2. Follow-up: Implementation of the projects

The projects will be implemented during a preliminary pilot phase in the following regions:

- Asia-Pacific
- Africa
- Middle East
- Eastern Europe
- Central and South America

These regions have permanent OIE regional offices, each of which provides the permanent regional secretariat for the regional Steering Committees of the FAO/OIE GF-TADs mechanism.

Developing and in transition Member Countries have expressed an interest in receiving support to bring their Veterinary Services into line with the OIE standards. The veterinary services in at least 120 of these countries will require significant investments. The number of countries receiving support will depend on the availability of external resources.

Proposed actions that are eligible for external funding, as a counterpart to public and private national funding, include:

- Implementation of the evaluation of compliance of Veterinary Services with OIE standards. This process will be transparent and may be published by the OIE on a worldwide basis, depending on endorsement by countries concerned;

- Technical support for the preparation of projects aimed at upgrading of governance and legislation;
- Support for institutional and organisational restructuring and the training of relevant participants;
 - carrying out evaluation missions and consultations with stakeholders in beneficiary countries and in regional and sub-regional organisations involved in animal health;
 - holding training seminars and workshops, mainly at regional level, to define regional and national veterinary health policies and requirements;
 - holding training seminars and workshops for relevant partners in the private sector (specifically private operators, livestock producers, agri-food firms and insurance firms);
 - carrying out studies to verify the economic and strategic justification (importance for national, regional and global public health) of the investments.
- The development of priority infrastructure (technical material, logistics and technical investments such as the upgrading of veterinary laboratories).

2.4. Longer-term actions

Longer-term actions will cover follow-up activities. A mechanism will be established between the OIE and evaluated Member Countries to examine the results obtained from the implementation of the first national projects (after three years), in order to establish future course of action.

A contingency fund for use in the event of regional or global sanitary crisis and managed jointly by different partners will be proposed.

3 Organisation of the different levels of coordination

This chapter describes how the short, medium and long-term actions are to be organised at global, regional and national levels.

3.1. Global level

3.1.1. Mechanisms

The OIE has created the World Animal Health and Welfare Fund (“the World Fund”) on 28 May 2004 by Resolution No. XVII (copy enclosed, see Part 4)²² of the OIE International Committee (General Assembly of representatives from the 170 Member countries). The Fund has been established “for the purpose of projects of international public utility relating to the control of animal diseases, including those affecting humans and the promotion of animal welfare and animal production food safety”. This includes programs for the early detection and global control of avian influenza and other emerging and re-emerging infectious diseases.

The fund will provide the GF-TADs mechanism developed by the FAO and the OIE with the necessary resources to ensure the political (i.e. governance) and methodological influence necessary for its promotion and implementation. This fund will also enable policy promotion actions to be financed at the regional level, along the same principles as those proposed at the global level.

Following the announcement of the OIE that a coordination mechanism would be set up and managed by the OIE and the World Bank, with the participation of the FAO, the WHO, interested funding agencies, and representatives of world federations in the agri-food (livestock producers, processors, distributors/retailers, including the major catering groups) and insurance sectors, a coordination mechanism has been set up in the form of an Advisory Committee of the World Animal Health and Welfare Fund (see text box below).

A system to coordinate, monitor and promote the outputs of the mechanisms and activities supported by World Animal Health and Welfare Fund has been established jointly by the OIE and the World Bank and other partners, including FAO, WHO, WTO and donors. This coordination and monitoring mechanism primarily aim to define and promote suitable governance mechanisms for veterinary health policies at the global level in accordance with the standards adopted by the international community. The coordinating group (the Advisory Committee of

²² See page 37 to 40 at: http://www.oie.int/download/SG/2004/A_RESO_2004_WP.pdf

the World Fund) defines, evaluates and updates these policies, when necessary with the help of technical consultants/assistants. It also promotes the output through communication activities, particularly in time of crisis.

Governance of the OIE World Animal Health and Welfare Fund

The Governance of the World Animal Health and Welfare Fund follows the general statutory governance of the OIE: International Committee (General Assembly of 170 Member Country national Delegates); Administrative Commission (elected board of the OIE), two elected Auditors (*Commissaires aux comptes*); Internal Audit and External Audit.

In addition, two specific Committees are in place:

(a) Management Committee of the World Fund

- In accordance with Article 4 of the Appendix to Resolution No XVII of May 2004 creating the OIE World Animal Health and Welfare Fund, a Management Committee has been established. The first meeting of the management Committee was held on 20 February 2007 at the OIE headquarters, in Paris.

(b) Advisory Committee of the World Fund

- The Advisory Committee of the World Fund has been step up. It is composed of high level representatives (Director's level) from the World Bank, WTO, WHO, FAO, from major Donors to the Fund, to date: USDA; UK; Japan; France; Canada and Australia and observers from the European Commission (EC), Switzerland and SSAFE²³. The first meeting of the Advisory Committee (see above) of the World Fund was held on 20 October 2006 in Paris, at OIE headquarters.

(c) External audit

- The accounts of the World Animal Health and Welfare Fund, as a special account of the OIE, are audited yearly (financial year from 1 January to 31 December) by an elected external auditor.

3.1.2. Priority actions

- Emergency actions: promotion of the appropriate global control policies for avian influenza at the animal source and of the OIE/FAO strategic plan at the global level;
- Definition and evaluation of veterinary health policies at the global level;
- Coordination, support and monitoring of regional policies;

- Supply of vaccines, as appropriate:

Vaccines should be produced according to the *OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* and evidence should be provided that the vaccine significantly reduces virus excretion from vaccinated birds if they are subsequently infected. Vaccines should be selected on the basis of evidence that the product is able to prevent virus circulation in the target animal species. It is desirable that the quality control tests associated with this degree of efficacy are reflected in individual batch documentation. It is of critical importance to maintain a cold chain (+2°C / +8°C) during storage and transport of no thermo-stable vaccines.

The OIE established a virtual avian influenza (AI) vaccine bank, initially for African countries, to rapidly provide infected countries with a strategic stock of vaccines to vaccinate poultry populations at risk.

Countries free of infection but wishing to establish strategic vaccine supplies can also benefit from this concept. A short strategic vaccine supply could be immediately available in the country and can be used in the event of a threat or high risk situations.

The virtual vaccine bank is mainly reliant on commitments from the supplier to deliver vaccines immediately when requested. This avoids loss of vaccines due to lapsing expiry dates.

The supplier is selected by the OIE through an international call for tender based on the quality of the product, the price and speed of shipments. It complies with quality standards required and recommended in the *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*.

The OIE has succeeded in maintaining and extending a virtual AI Vaccine Bank worldwide for poor countries. Initially supported financially by the European Commission within the PACE programme, this is now currently supported by Canada within the OIE World Fund for Animal Health and Welfare. Cost of vaccines and air transport to the main airport of the country of destination are covered by the World Fund. The country of destination is responsible for storage (cold chain), local transport and distribution, and application of the vaccines in accordance with its national vaccination programme/strategy.

More contributions will allow more active support from the OIE to vaccination programmes in poor countries where the permanent circulation of the virus makes vaccination policies an essential tool for the control of the disease.

²³ SSAFE: Safe Supply of Affordable Food Everywhere initiative regrouping representatives from major food groups of the private sector (e.g., Cargill, McDonalds, Nestlé, Sodina)

3.2. Regional level

3.2.1. Structures involved

Responsibility at the regional level will include the promotion of the relevant governance models, implementation of the capacity building programmes as well as, in collaboration with the FAO and Donors, technical support for the preparation of projects aimed at compliance with standards of the national Veterinary Services within a region. Capacity building will initially be targeted at national public and private sector leaders in developing countries in each of the regions involved in the programme. This action will include regular meetings between the policy decision-makers of both developed and developing countries in each region, for example the countries of North, Central and South America, and those of Western and Eastern Europe. Other seminars will be organised to define policies at the regional level for

representatives and OIE focal points of all the developing countries involved.

The structures responsible for regional coordination will consist of the OIE Regional Representations, which are already in place and will host OIE/FAO Animal Health Regional Centres, mainly established at the OIE Regional and Sub-Regional offices, to provide their Member Countries with technical support and to evaluate national projects, backed up where necessary by OIE Collaborating Centres (see below) and external consultants.

The regional secretariat of the coordination mechanisms (such as GF-TADs Regional Steering Committees) will be hosted by the OIE Regional Representations and offices listed below, which are also involved in the current formal partnership set up jointly by the OIE, the FAO and the WHO, and further described in the GF-TADs Agreement. The Animal Health Regional Centres will operate directly within the framework of the GF-TADs Agreement.

OIE Regional Representations and Sub-Regional Representations potentially involved	
OIE Regions	OIE Offices
Africa	Bamako, Gaborone, and Maghreb office (Tunis, to be established soon)
Asia and Pacific	Tokyo and Bangkok
Americas	Buenos Aires and Panama
Middle East	Beirut
Europe	Sofia and Brussels

Activities to strengthen the capacities and abilities of national public and private sectors will include regional and sub-regional seminars, designed to achieve economies of scale and create synergies and harmonised approaches between countries.

To enable and facilitate the training of the various key national players who will be responsible for field activities in the pilot countries selected in each region (public sector Veterinary Service officials, private sector veterinarians, livestock producers and economic operators involved), the OIE Regional Representations will have the permanent support of the OIE's global network of Collaborating Centres, each of which will be involved in the particular field covered by its mandate (e.g. OIE Collaborating Centre for Training of Official Veterinarians – *Ecole Nationale des Services Vétérinaires (E.N.S.V.)*, France and *Centro de Buenos Aires para la Capacitación de los Servicios Veterinarios (CEBASEV)*).

Due to the high turnover of National Governmental Delegates from Member Countries to the OIE (on average, 1 of 3 delegates are new to the OIE each year), there is a need to establish of continuing education programmes for OIE Delegates and OIE National focal points for:

- (i) disease reporting/sanitary information systems,
- (ii) veterinary medicinal and biological products,
- (iii) aquatic animal diseases,
- (iv) animal welfare, and
- (v) wildlife diseases.

There is also a need to encourage regional coordination and cooperation for the eradication of transboundary animal diseases. This would also facilitate active participation of developing and transitional countries in the negotiation of international standards both at the OIE International Committee meetings, Codex meetings (Joint FAO/WHO Food Standards

Programme) and at meetings of the Sanitary and Phytosanitary Committee of the WTO (SPS Committee).

The Animal Health Regional Centres involved in training of leaders, assisting the national Veterinary Services, and preparing and formulating new projects are under the authority of the OIE Regional Representations and FAO representatives and also benefit from the support of the OIE's worldwide Collaborating Centres. They operate within the general framework of the FAO/OIE GF-TADs mechanism.

3.2.2. Priority actions

- Improvement of awareness of good governance of Veterinary Services and provision of capacity building for national public and private sector leaders in all developing and transitional countries, by means of regional seminars.
- Creation or maintenance of OIE/FAO Animal Health Regional Centres to provide the relevant countries with technical assistance. In Africa, AU-IBAR²⁴ will be a partner of these centres as it is already the case in Bamako, Mali, where the first Animal Health Regional Centre has been established.

The tripartite agreement between the FAO, AU-IBAR and the OIE for the establishment of this centre for the coordination of the fight against Avian Influenza in West and Central Africa was signed on 25th April 2006.

- Institutional and organisational restructuring and training of key players in the pilot countries of each region.
- Technical and methodological support by the Animal Health Regional Centres to assist with the technical and economic preparation of projects for the countries in each region that are the subject of projects.

3.3. National level

3.3.1. Actions at the institutional level

In liaison with global and regional levels of coordination, including the FAO, and their Animal Health Regional Centres and Collaborating Centres, the national coordination bodies to be set up in those countries in each of

the regions and sub-regions, will be responsible for:

- providing technical support for countries to conduct an evaluation of the Veterinary Services, based on OIE methodologies described in paragraph 3.1: the OIE Tool for the Evaluation of Performance of Veterinary Services (OIE-PVS Tool) based on the standards set out in the OIE *Terrestrial Animal Health Code*;
- identifying gaps in the capabilities of Veterinary Services that require legislative and regulatory action, and helping to identify, in collaboration with the FAO or Donors, the investments needed to upgrade performance, including key infrastructure;
- providing support for the definition of veterinary health policies, and for the organisation and functioning of the Veterinary Services, to ensure rapid detection of and response to outbreaks of emerging and re-emerging diseases, and effective control of food-borne pathogens, with the assistance of the private sector (livestock producers, private veterinarians, processors, distributors, etc.), and including the participation of insurance organisations and reinsurance organisations at the regional and/or international level;
- providing support for the evaluation of national investment projects, with recourse to additional international resources where necessary, notably with the assistance of the Animal Health Regional Centres and OIE Collaborating Centres;
- suggesting technical assistance mechanisms where necessary, with the FAO and/or donors, within the framework of the GF-TADs mechanism.

OIE Delegates, who provide input into international animal health standards, should be involved in discussions with other Organisations on cooperation in the application of such standards. The Veterinary Authority should also be consulted, beforehand, when technical analysis and feasibility studies of supporting projects are carried out.

- The OIE has initiated a **Laboratory Twinning Programme** to assist laboratories in developing and in-transition countries to build their capacity and scientific expertise with the help of existing OIE Reference Laboratories or Collaborating Centres. The aim of this initiative is that some of them could eventually become

²⁴ The Interafrican Bureau for Animal Resources of the African Union (IBAR)

OIE Reference Laboratories in their own right. By doing this the countries would not only have more ready access to scientific expertise but will also start to build a national scientific community able to negotiate and formulate sanitary control measures.

To ensure the success of a twinning agreement between laboratories, it is essential that:

- The Delegates of the Member Countries of the two involved laboratories, and their respective directors, should agree to such a twinning arrangement;
- The twinning arrangement should favour a scientific need relevant to the sanitary situation of the country or region of the applicant laboratory;
- Communication facilities between the laboratories and experts involved must be assured;
- The objectives, time frames and desired outcomes must be realistic and attainable.

The OIE will ensure *ex ante* and *ex post* control of the different twinning projects and facilitate negotiations for donor funding for the purchase or upgrading of laboratory equipment.

External funding:

Overall, the utilisation of resources allocated at the national level will be managed directly by the recipient country. Compliance of veterinary health policies with OIE standards at the national level and monitoring of investment programmes will be the subject of external audits under the auspices of the OIE.

The main requirement governing the external funding of national projects will be a commitment by the different countries to comply with international standards for the quality of Veterinary Services and private sector involvement in support of the public sector.

3.3.2. Priority actions and investments

- Support aimed at bringing national governance and veterinary health legislation into line with international standards;

To assist countries to draft legislation, the OIE has initiated a model for national veterinary legislation (e.g. Animal Health Act) to be used by countries when drafting updated national legislation. This will cover issues such as disease surveillance, detection, diagnosis, control measures, prevention, communication, compensation, and vaccination to ensure the sanitary safety of international trade in animals and animal products while avoiding unjustified sanitary barriers;

- Support for the definition of mechanisms of governance (advice on partnerships, procedures, and on the organisation of the chain of command) and for negotiations between Government, veterinarians, livestock producers, processors and distributors (including the distribution of responsibilities);
- Preparation of emergency plans and systems for early detection of, rapid response to and surveillance for priority diseases (especially the role of emergency intervention teams);
- Support for the technical feasibility and ex ante economic evaluation of programmes (in liaison with the FAO and Regional Animal Health Centres);
- Strengthening the capabilities of public and private national role players;
- Support for the organisation, participation and compliance with standards by producers and processors;
- Creation of a compensation fund for livestock producers, if possible with the involvement of insurance and re-insurance firms;
- Upgrading diagnostic laboratories to improve their capabilities for diagnosis and confirmation of priority diseases in line with international standards;
- Support for the creation of national emergency stocks of relevant vaccines and antigens;

A provisional estimate of the cost of these actions is given in Part 5.

4 Technical Appendices (see CD Rom)

Titles and sub-titles of the above paper are repeated here for ease of reference.

	Fr	Eng	Spa
1 Good Governance of Veterinary Services			
1.3. Compensation			
▪ "Enhancing Control of Highly Pathogenic Avian Influenza in Developing Countries Through Compensation: Issues and Good Practice" was prepared by the World Bank, FAO, IFPRI, and OIE			
1.4. Appropriate use of vaccination			
▪ Guidelines prepared by an OIE <i>ad hoc</i> group of scientists with support from the FAO			
▪ Recommendations of the international conference co-organised by the OIE, FAO and the Istituto Zooprofilattico Sperimentale delle Venezie (IZSVe), and supported by the European Commission: "Vaccination: a tool for the control of avian influenza", held in Verona, Italy from 20 to 22 March 2007			
2 Actions to be implemented			
2.1. Evaluation of Veterinary Services			
OIE Standards on "Quality and Evaluation of Veterinary Services"			
▪ Evaluation of Veterinary Services			
▪ Guidelines for the Evaluation of Veterinary Services			
The "Performance, Vision and Strategy (PVS)" methodology for the evaluation of Veterinary Services using OIE international standards of quality and evaluation			
▪ The OIE-PVS tool for the Evaluation of the Performance of the Veterinary Services			
▪ Editorial: Prevention, detection and monitoring of animal diseases, including those harmful to humans: veterinary services are the keystone of the global system			
Editorials			
▪ Protecting the world from emerging diseases linked to globalisation (March 07)			
▪ Transparency on avian influenza virus strains: the OIE/FAO OFFLU network (August 06)			
▪ Prevention, detection and monitoring of animal diseases, including those harmful to humans: veterinary services are the keystone of the global system (March 06)			
▪ A big thank-you to the Geneva Meeting (December 05)			
▪ The OIE Fourth Strategic Plan: An ambitious programme for the next five years (May 05)			
▪ Emerging and re-emerging zoonoses (November 04)			
▪ The role of private veterinarians and veterinary para-professionals in the provision of animal health services (February 04)			
2.2. Short term actions			
▪ FAO/OIE Strategic Plan: "The Global Strategy for Prevention and Control of H5N1 Highly Pathogenic Avian Influenza", last updated in March 2007			
▪ WHO Strategic Plan: Responding to the AI Pandemic Threat			
▪ Outcome of the June 2007 Rome Technical meeting on HPAI prevention and control			
FAO-OIE "GF-TADs" Agreement			
▪ Proceedings and recommendations of the GF-TADs for Asia and Pacific (7-9 Mar 05)			
▪ Proceedings and recommendations of the GF-TADs for America (14-15 Apr 05)			
▪ Recommendations GF-TADs for the Middle East (Beirut, 6-7 Apr 06)			
▪ Proceedings and recommendations of the GF-TADs for Africa (28 Apr 06)			
Worldwide OIE/FAO Laboratories and expertise network (OFFLU): basic documents			
▪ Material Transfer Agreement OFFLU			
▪ OFFLU_AI Network			
▪ Requirements for collaborators for OFFLU network			
▪ Minutes OFFLU Steering Committee, 13 March 06			
▪ Minutes OFFLU Scientific Committee, 14 March 06			
▪ Minutes OFFLU Steering Committee, 19 July 06			
▪ Minutes OFFLU Steering Committee, March 07			
▪ The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)			
Chapter of the Terrestrial Animal Health Code on AI			
▪ Conditions for trade			
▪ Guidelines for the surveillance of AI (Appendix 3.8.9.)			
▪ Guidelines for the inactivation of the AI virus (Appendix 3.6.5.)			
▪ General Guidelines for compartmentalisation (75 SG/FR 2007- \$152)			
▪ The concept of compartmentalisation; A. Scott, C. Zepeda, L. Garber, J. Smith, D. Swayne, A. Rhorer, J. Kellar, A. Shimshony, H. Batho, V. Caporale & A. Giovannini; <i>Rev. sci. tech. Off. int. Epiz.</i> , 2006, 25 (3), Eng 873-879, Fr 881-888, Es 889-896			

Other recommendations on AI			
▪ Recommendations of the OIE/FAO Conference on AI, (Paris, 7-8 April 05)			
▪ Middle East: recommendation on Mitigation measures against Avian Influenza in the Middle East (26-29 Sep 05)			
▪ Asia, the Far East and Oceania: recommendation on AI and emerging animal diseases (15-18 Nov 05)			
▪ Strategic outlines for AI prevention in the Americas GF-TADs (Buenos Aires, Argentina, 9-10 Feb 06)			
▪ Recommendation on control of AI in Africa of the OIE/AU-IBAR/FAO Regional Seminar on Animal Health Policies, Evaluation of Veterinary Services and the Role of Livestock Breeders in the Surveillance of Animal Diseases (N'Djamena, 13-15 Feb 06)			
▪ Conclusions and recommendations of OIE Wildlife Working Group (Paris, 21 Feb 06)			
▪ Recommendations of the OIE meeting on control of HPAI in Europe (Paris, 27-28 Feb 06)			
▪ Recommendation on control of AI by the Special Meeting of the 12th Meeting of the OIE Sub-Commission for FMD in South East Asia on HPAI (Chiang Mai, Thailand, 3 Mar 06)			
▪ Conclusions and recommendations of the scientific seminar on AI, environment and migratory birds (Nairobi, 10-11 Apr 06)			
▪ Middle East: recommendation on AI preparedness (18-21 Apr 06)			
▪ Recommendations from the FAO & OIE International Scientific Conference on AI and Wild Birds (Rome, Italy 30-31 May 06)			

3	Organisation of the different levels of coordination	Fr	Eng	Spa
3.1.	Global level			
	3.1.1. Mechanisms			
	▪ Fourth OIE Strategic Plan			
	▪ Resolution No. XVII of May 2004			
3.2.	Regional level			
	3.2.1. Structures involved			
	Recommendations voted by regions on quality of Veterinary Services			
	▪ Africa, meeting in Khartoum (7-10 Feb 05)			
	▪ Europe, meeting in Russia (12-14 Sep 05)			
	▪ Middle East, meeting in Bahrain (26-29 Sep 05)			
	▪ Europe, meeting in Lyon (25-29 Sep 06)			
	▪ Americas, meeting in Florianopolis (28 Nov.-2 Dec. 05)			
	▪ Africa, meeting in Asmara (26 Feb.-1 mar.07)			
3.3.	National level			
	3.3.1. Actions at the institutional level			
	▪ The OIE Concept of Twinning between laboratories			
	▪ The OIE Twinning concept: Guidance for Applications			
	▪ OIE Twinning Manual A Guide to OIE Laboratory Twinning Projects			
	3.3.2. Priority actions			
	▪ Alive – Constitutive General Assembly (Paris, 31 May-1 June 04)			
	▪ Résolution du Comité Exécutif Alive (Paris, 31 May 05)			
	▪ Résolution du Comité Exécutif Alive (Nairobi, 20-21 Oct 05)			
	▪ Résolution du Comité Exécutif Alive (Bamako, 24-25 Apr 06)			
	▪ Résolution du Comité Exécutif Alive (Nairobi, 23-25 Oct 06)			
	▪ Résolution du Comité Exécutif Alive (Djibouti, 27-30 March 07)			
	▪ Résolution du Comité Exécutif Alive (Paris, 26 May 07)			

International (Pledging) Conferences			
▪ International Pledging Conference on Avian and Human Pandemic Influenza (Beijing, 17-18 Jan 06)	Fr	Eng	Spa
▪ Addressing Avian Influenza: the challenges of partnership			
▪ Powerpoint presentation: Global and regional perspective			
▪ Powerpoint presentation, The role of the OIE in Animal Health and Zoonosis, International Conference on Emerging Infectious Diseases (ICEID) (Atlanta, 19-22 Mar 06)			
▪ Senior Officials Meeting on Avian and Human Pandemic Influenza (Vienna, 6-7 June 06)			
▪ Powerpoint presentation: Prevention and control of avian influenza at the animal source			
▪ Chair's summary			
▪ Bamako Conference's Declaration (http://www.rr-africa.oie.int/fr/Declaration_de_Bamako.pdf)			
▪ G8 leaders Statement Fight against Infectious Diseases (St. Petersburg, 16 July 06)			

Summary of OIE missions / meetings			
▪ Annual Report of the Director General on the activities of the OIE in 2004	Fr	Eng	Spa
▪ Annual Report of the Director General on the activities of the OIE in 2005			
▪ Annual Report of the Director General on the activities of the OIE in 2006			

5 Financial forecast

The OIE has prepared a three year financial rolling plan aimed at eradicating and/or controlling avian influenza and other highly pathogenic emerging and re-emerging animal

diseases by improving quality of the Veterinary Services through capacity building, by providing scientific expertise and by evaluating their compliance with international standards

	EUR (euros)			
	Year 1	Year 2	Year 3	Total 3 years
1. Actions at global level: World Fund				
Definition of World good governance policies				
1 Coordination Officer + Administrative & accounting support staff (2 persons)	200 000,00	200 000,00	200 000,00	600 000,00
12 support missions of 3 days each				
Travel 1 500 EUR x 12	18 000,00	18 000,00	18 000,00	54 000,00
Daily allowance 36 days x 133 EUR	4 788,00	4 788,00	4 788,00	14 364,00
Technical support for the preparation of Models for Veterinary legislation, including missions in countries	30 000,00	30 000,00	30 000,00	90 000,00
Subtotal 1	252 788,00	252 788,00	252 788,00	758 364,00
2. Actions at regional level: Regional Representations and Sub-Regional Offices				
Mirror actions defined by the global policies				
2-1. Africa (OIE Regional Representation in Bamako)				
1 Technical Coordination Assistant	120 000,00	120 000,00	120 000,00	360 000,00
Organisation of 2 seminars (African decision-makers) 150 000 EUR x 2	300 000,00	300 000,00	300 000,00	900 000,00
4 support missions of 5 days each in the Region				
Travel 3 000 EUR x 4	12 000,00	12 000,00	12 000,00	36 000,00
Daily allowance 20 days x 133 EUR	2 660,00	2 660,00	2 660,00	7 980,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-1	439 660,00	439 660,00	439 660,00	1 318 980,00
2-2. Africa (Gaborone OIE/SADC Sub-Regional Representation)				
1 Technical Coordination Assistant	120 000,00	120 000,00	120 000,00	360 000,00
Organisation of 2 seminars 100 000 EUR x 2	200 000,00	200 000,00	200 000,00	600 000,00
3 support missions of 5 days each in the Sub-Region				
Travel 1 500 EUR x 3	4 500,00	4 500,00	4 500,00	13 500,00
Daily allowance 15 days x 133 EUR	1 995,00	1 995,00	1 995,00	5 985,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-2	331 495,00	331 495,00	331 495,00	994 485,00
2-3. Africa (Maghreb OIE/UMA Sub-Regional Representation)				
1 Technical Coordination Assistant	150 000,00	150 000,00	150 000,00	450 000,00
Organisation of 2 seminars 100 000 EUR x 2	200 000,00	200 000,00	200 000,00	600 000,00
3 support missions of 5 days each in the Sub-Region				-
Travel 1 500 EUR x 3	4 500,00	4 500,00	4 500,00	13 500,00
Daily allowance 15 days x 133 EUR	1 995,00	1 995,00	1 995,00	5 985,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-3	361 495,00	361 495,00	361 495,00	1 084 485,00
2-4. Eastern Europe (OIE Regional Representation in Sofia and OIE Sub-Regional Office opened in Brussels)				
1 Technical Coordination Assistant	180 000,00	180 000,00	180 000,00	540 000,00
Organisation of 3 seminars 100 000 EUR x 3	300 000,00	300 000,00	300 000,00	900 000,00
8 support missions of 5 days each in the Region				
Travel 1 500 EUR x 8	12 000,00	12 000,00	12 000,00	36 000,00
Daily allowance 40 days x 133 EUR	5 320,00	5 320,00	5 320,00	15 960,00
Administrative support staff	50 000,00	50 000,00	50 000,00	150 000,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-4	552 320,00	552 320,00	552 320,00	1 656 960,00
2-5. Middle-East (OIE Regional Representation in Beirut)				
1 Technical Coordination Assistant	180 000,00	180 000,00	180 000,00	540 000,00
Organisation of 2 seminars 100 000 EUR x 2	200 000,00	200 000,00	200 000,00	600 000,00
8 support missions of 5 days each in the Region				
Travel 1 500 EUR x 8	12 000,00	12 000,00	12 000,00	36 000,00
Daily allowance 40 days x 133 EUR	5 320,00	5 320,00	5 320,00	15 960,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-5	402 320,00	402 320,00	402 320,00	1 206 960,00

2-6. Asia (OIE Regional Representation in Tokyo)				
1 Technical Coordination Assistant	200 000,00	200 000,00	200 000,00	600 000,00
Organisation of 3 seminars 150 000 EUR x 3	450 000,00	450 000,00	450 000,00	1 350 000,00
10 support missions of 5 days each in the Region				
Travel 2 500 EUR x 10	25 000,00	25 000,00	25 000,00	75 000,00
Daily allowance 50 days x 133 EUR	6 650,00	6 650,00	6 650,00	19 950,00
Office expenses (including premises renting)	35 000,00	35 000,00	35 000,00	105 000,00
Subtotal 2-6	716 650,00	716 650,00	716 650,00	2 149 950,00
2-7. Asia (OIE/SEAFMD Sub-Regional Office in Bangkok)				
1 Technical Coordination Assistant (in post for 2006 et 2007)			180 000,00	180 000,00
Organisation of 2 seminars 100 000 EUR x 2	200 000,00	200 000,00	200 000,00	600 000,00
6 support missions of 5 days each in the Sub-Region				
Travel 1 500 EUR x 6	9 000,00	9 000,00	9 000,00	27 000,00
Daily allowance 30 days x 133 EUR	3 990,00	3 990,00	3 990,00	11 970,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-7	217 990,00	217 990,00	397 990,00	833 970,00
2-8. Americas (OIE Regional Representation in Buenos Aires)				
1 Technical Coordination Assistant	150 000,00	150 000,00	150 000,00	450 000,00
Organisation of 3 seminars 150 000 EUR x 3	450 000,00	450 000,00	450 000,00	1 350 000,00
6 support missions of 5 days each in the Region				
Travel 1 500 EUR x 6	9 000,00	9 000,00	9 000,00	27 000,00
Daily allowance 30 days x 133 EUR	3 990,00	3 990,00	3 990,00	11 970,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-8	617 990,00	617 990,00	617 990,00	1 853 970,00
2-9. Americas (Sub-Regional Office in Panama)				
1 Technical Coordination Assistant	150 000,00	150 000,00	150 000,00	450 000,00
Organisation of 2 seminars 100 000 EUR x 2	200 000,00	200 000,00	200 000,00	600 000,00
4 support missions of 5 days each in the Sub-Region				
Travel 1 500 EUR x 4	6 000,00	6 000,00	6 000,00	18 000,00
Daily allowance 20 days x 133 EUR	2 660,00	2 660,00	2 660,00	7 980,00
Office expenses	5 000,00	5 000,00	5 000,00	15 000,00
Subtotal 2-9	363 660,00	363 660,00	363 660,00	1 090 980,00
Subtotal 2	4 003 580,00	4 003 580,00	4 183 580,00	12 190 740,00
3. At national level: Actions in the infected and at-risk countries in conjunction with the FAO and the WHO				
3-1. Technical support for the preparation and launching of national projects and evaluation of Veterinary Services (35 countries / year = 105)⁽¹⁾				
3-1-1. National evaluation and training seminars for public veterinarians (administration) and implementation of mechanisms for the national compensation fund for livestock producers 45 000 EUR x 35 each year	1 575 000,00	1 575 000,00	1 575 000,00	4 725 000,00
3-1-2. National training seminars for livestock producers and private veterinarians and operators 45 000 EUR x 35 each year	1 575 000,00	1 575 000,00	1 575 000,00	4 725 000,00
3-1-3. Gap Analysis and follow up evaluation missions 10 000 EUR x 35 each year	350 000,00	350 000,00	350 000,00	1 050 000,00
3-2. Support to the OIE Collaborating Centres for the elaboration of pedagogical material and support and participation in the seminars⁽²⁾				
10 000 EUR x 35 the 1st year + 8 000 EUR x 35 for each of the subsequent years	350 000,00	280 000,00	280 000,00	910 000,00
Subtotal 3	3 850 000,00	3 780 000,00	3 780 000,00	11 410 000,00
4. Laboratory Twinnings				
Twinnings projects between laboratories 150 000 EUR x 10 (each year)	1 500 000,00	1 500 000,00	1 500 000,00	4 500 000,00
Subtotal 4	1 500 000,00	1 500 000,00	1 500 000,00	4 500 000,00
5. Vaccine Bank				
AI Emergency Vaccine Bank complying with OIE vaccine standards	500 000,00	500 000,00	500 000,00	1 500 000,00
Subtotal 5	500 000,00	500 000,00	500 000,00	1 500 000,00
6. Communication and Publications				
Preparation of gap analysis, leaflets, films and organisation of Regional workshops on communication 200 000 each year	200 000,00	200 000,00	200 000,00	600 000,00
Subtotal 6	200 000,00	200 000,00	200 000,00	600 000,00
Total 1 + 2 + 3 + 4 + 5 + 6	10 306 368,00	10 236 368,00	10 416 368,00	30 959 104,00

7. OIE/FAO OFFLU Network				
7-1. Staff and office expenses				
Staff expenses				
1 veterinary expert working (full time) at FAO ⁽³⁾	105 000,00	106 000,00	110 000,00	321 000,00
FAO experts for lab expert mission (including FAO to IZSve for 30 days lab expert mission) -	35 000,00	35 000,00	35 000,00	105 000,00
1 OFFLU coordinator (full time) at OIE, (OFFLU, Twinning and CMC activities)	105 000,00	106 000,00	110 000,00	321 000,00
Mission/Travel for OFFLU coordinator at OIE (OFFLU, Twinning and CMC)	33 000,00	33 000,00	33 000,00	99 000,00
1 post-doctoral scientist at VLA Weybridge (UK)	80 000,00	80 000,00	80 000,00	240 000,00
Mission/Travel for post-doctoral scientist (Weybridge)	20 000,00	20 000,00	20 000,00	60 000,00
1 post-doctoral scientist at IZSV Padova (Italy) ⁽⁴⁾		80 000,00	80 000,00	160 000,00
Secretariat (inc. Part time secretary at Padova)	37 000,00	37 000,00	37 000,00	111 000,00
1 bioinformatician based in FAO (part time) - 11 months	45 000,00	45 000,00	45 000,00	135 000,00
Office expenses	25 000,00	25 000,00	25 000,00	75 000,00
7-2. Annual meetings of the Scientific and Steering Committees				
Steering committee (2 meetings per year)	10 000,00	10 000,00	10 000,00	30 000,00
Annual meetings of technical groups: 6 persons x 3 each year (other meetings by teleconference)	84 000,00	84 000,00	84 000,00	252 000,00
7-3. Database for sequencing of virus strains				
Sequencing of virus strains ⁽⁵⁾	15 000,00	15 000,00	15 000,00	45 000,00
Data entry training for GISAIID (tagged into conference/ final workshop)	40 000,00	40 000,00	40 000,00	120 000,00
7-4. Transfer of influenza strains between laboratories				
60 shipments a year (with IATA biosecurity measures): 60 x 3 000 / year	180 000,00	180 000,00	180 000,00	540 000,00
7-5. Missions to infected / at risk countries requesting support (in addition to and/or participation to missions organised by the CMC)				
15 missions a year (2 experts, 5 working days)				
Travels: 15 x 2 x 3 000 / year	90 000,00	90 000,00	90 000,00	270 000,00
Travel allowances: 150 days x 133 / year	19 950,00	19 950,00	19 950,00	59 850,00
7-6. Strengthening Laboratory Capacity (to assist in establishing the OFFLU sub-regional hub)				
Training in the OFFLU laboratories:				
5 trainings a year of 5 experts from developing countries (3 working days)	60 000,00	60 000,00	60 000,00	180 000,00
International Training Consultants (elaboration of training material)	80 000,00	80 000,00	80 000,00	240 000,00
1 Seminar for Laboratories' Managers	20 000,00	20 000,00	20 000,00	60 000,00
20 weeks training at IZSve (not included trainees' travels and allowances)	30 000,00	-	-	30 000,00
Seminars in African regions with African laboratory staff for laboratory networking	100 000,00	-	-	100 000,00
Subtotal 7	1 213 950,00	1 165 950,00	1 173 950,00	3 553 850,00
TOTAL 1 + 2 + 3 + 4 + 5 + 6 + 7	11 520 318,00	11 402 318,00	11 590 318,00	34 512 954,00
TOTAL Cost for 3 years				34 512 954,00

- (1) 105 countries are involved within the 170 OIE Member Countries, Some countries will receive more than one support mission within the 3 years period of the programme
- (2) National Veterinary Services School (*Ecole Nationale des Services Vétérinaires* - Lyon (France). 2 other Collaborating Centres for the training of Veterinary Services are currently in creation (Minneapolis - USA and Buenos Aires - Argentina)
- (3) Expert provided and paid by an OIE Member Country (France)
- (4) Expert provided and paid by an OIE Member Country (Italy)
- (5) Overall, sequencing done free of charge by a US Laboratory (NIH) - Provisional for financial assistance of developing countries

