

Terms of Reference

The Financing of Animal Epizootics and Zoonoses Losses in Developing and in Transition Countries

Background

The World Organization for Animal Health (OIE) is preparing, with support from the World Bank and other partners, a feasibility study to enhance the global system of veterinary sanitary governance, with the objective of preventing or controlling the emergence and re-emergence of animal diseases to ensure a safe and reliable supply of animals and animal products, thus improving the livelihood of producers, protecting consumers and improving public health. The emphasis will be on strengthening the National Veterinary Services¹ in developing and in transition countries.

The purpose of this component is to evaluate and develop financial arrangements based on a public-private partnership between the international donors, the multilateral agencies, the national governments and the private sector. The financial model would rely on three complementary funding mechanisms:

- a) ***World Animal Health and Welfare Fund.*** This fund which has already been established, would provide capacity building, including technical assistance and training, to countries for the strengthening of their national veterinary services and for the adoption of a policy and of an institutional framework for addressing prevention and control of animal diseases, including zoonoses, and for complying with OIE international standards.
- b) ***Global Emergency Response Fund for Animal Epizootics and Zoonoses.*** A Global Emergency Response Fund for Animal Epizootics and Zoonoses (GERFAE) would provide countries with immediate funding to cover livestock owners' compensation costs (as early detection and reporting depend critically on available incentives for farmers to report very quickly any suspicious case of animal disease), as well as other direct costs (e.g., culling costs, containment costs, disinfection, ring vaccination). This fund could operate as a grant to countries and would be mainly funded by donors.

Deliverable 1 and **Deliverable 2** are linked to the above funding mechanisms (*see further details below*).

- c) ***Animal Epizootics Insurance Program.*** This program would complement the GERFAE and would support the development of private insurance products for those insurable losses not covered under the GERFAE. For example, they may cover indirect losses faced by medium and large companies or cooperatives concerned with livestock production, processing, wholesaling and distribution (e.g., business interruption).

Deliverable 3 is linked to the above funding mechanism (*see further details below*).

¹ Veterinary Services means the Veterinary Administration, all the Veterinary Authorities, and all persons authorised, registered or licensed by the Veterinary statutory body.

Deliverable 1. Economic Impact of Diseases and Cost-Benefit Analysis of Improved Disease Prevention and Rapid Control

Objective

To clarify the relative direct and indirect impacts and the economic cost of different types of animal diseases and assess the costs and benefits of global and national animal disease prevention and control, in particular through appropriate governance allowing early detection and notification and rapid response within all parts of a country. The cost of the appropriate governance (in compliance with OIE international standards) will be compared with the potential cost of sanitary crisis resulting from diseases such as BSE, FMD and avian influenza

Activities

The consultant will prepare

1. An analysis and a summary of available literature (e.g., WB², FAO, AU/IBAR/PACE, ILRI, INRA, AFD, EC, university research, etc.) on the economics of animal health and the cost of disease outbreaks, differentiating e.g. between:
 - Direct costs of disease outbreaks for different types of diseases (in particular endemic, transboundary, highly pathogenic, zoonoses), increased cost of disease control (culling and disinfection, confinement measures, movements control, etc.), losses in animal production and products, and losses related to effects on human health, such as lost labor earnings because of illness, hospitalization costs, etc.;
 - Indirect costs related to the disease outbreak, such as drops in demand and prices of animal products, loss of external markets, under-utilization of processing capacity; and
 - Indirect losses resulting from general changes in people behavior, such as losses in tourism, etc.
2. A summary of available literature on the costs and benefits of specific animal disease control campaigns in infected countries or zones, with particular attention to (if available):
 - The main costs elements of the control campaign;
 - The source of funding (international, national, private or associative sector);

² WB:World Bank

FAO: Food and Agriculture Organization for the United Nations

AU/IBAR/PACE: African Union/ Inter-African Bureau for Animal Resources/ Pan African programme for the Control of Epizootics

ILRI: International Livestock Research Institute

INRA: *Institut National de Recherche Agronomique*

AFD: *Agence Française de Développement*

EC: European Commission

- An overview of the role of the main parties involved (governments/institutions, farmers, processors, exporters, retailers, consumers, etc.); and
- An analysis and comments on the strengths and weaknesses of the different types of disease control systems (compensation schemes, eradication, vaccination, regionalization/zoning, etc., on the one hand; as well as public/private insurance schemes, organization/cooperative funds, etc., on the other hand).

A clear distinction should be made between different situations:

- Costs in “peace time” (including prevention and emergency preparedness including compensation schemes); costs of passive and active surveillance networks (including monitoring and involvement of livestock owners and private veterinarians);
- Costs of disease control in crisis time (including the cost of vaccination in the framework of a generalized vaccination policy);
- Costs of eradication in crisis time (including compensation schemes; consecutive to an outbreak; this may also include cost of ring vaccination and/or cost of stamping out).

The analysis should focus and concentrate on the two first bullet points above (i.e. cost “in peace time” – as opposed to cost of control/eradication measures).

The cost in “peace time” should be compared with the cost of control measures and with the cost of eradication measures

3. On the basis of available literature, a set of possible criteria (e.g., economical, environmental, different husbandry systems) and rationale (selected countries should belong to different categories and regions) for the selection of a small number of (say 3 to 5) countries to be used as a “starter culture” for this study.
4. A classification of the types of costs involved (e.g. laboratories, veterinary staff, etc.) and, to the extent possible, an approximate assessment of the cost involved in strengthening the global veterinary sanitary system through an extrapolation from the estimated requirements of a small number of countries (say 3 to 5), of a “country sample”, to a regional/global level. Such a “country sample” could be classified on the basis of the current and past performance reviews of their veterinary system compared to OIE standards on quality using the PVS³ instrument, the size and economic significance (contribution to GDP) of their livestock population and the nature of existing production systems (extensive or intensive). The main source of information is to be found in the Emergency APL⁴, selected Emergency Preparedness Assessments for HPAI, and, depending on their availability, the pilot studies carried out in parallel with this study; and
5. A classification of potential benefits (e.g. income gains accruing to producers and processors as a result of improved sales on domestic and export markets, improved public health, etc.) and to the extent possible an assessment of the estimated benefits of the above interventions, with a comparison between the status quo (business as

³ PVS instrument: Performance, Vision and Strategy

⁴ World Bank’s Emergency Adaptable Program Loans

usual) and the situation of greatly reduced risks (e.g. compliance with OIE standards), using where possible simple estimation tools that can be designed specifically or that may be available in the literature.

Expected outputs

1. The report would highlight and emphasize the potential impact of improved veterinary sanitary governance and infrastructures in a clear and transparent fashion. It will be used as an advocacy document to convince decision makers from the public (e.g., ODA) and private sectors (including major food manufacturers and major retailers) to provide additional support for the strengthening of veterinary systems in the developing and in transition countries using OIE standards (already voted by all member countries) as an objective. The report will in particular include:
 - Introduction, the target audience and the approach;
 - Overview of recent emerging and re-emerging diseases;
 - Main costs (direct and indirect losses, increased disease control, as specified in the terms of reference);
 - Overview of recent disease control campaigns, breakdown of costs, sources of funding;
 - Indication of the type and scale of costs likely to be required to bring veterinary services of different countries similar to those of the selected “country sample” up to compliance with OIE standards, and their expected global and national public and private goods status. This cost estimate may be calculated by region or by groups of similar countries;
 - Estimate of incremental costs of regional/global system and expected disease risk reduction in developing and in transition countries;
 - Establishing benefits resulting from reduced disease risk;
 - Conclusions and recommendations for decision makers; and
 - A detailed bibliography.
2. Dissemination material (one-page executive summary, brochure and PowerPoint presentation) presenting the main findings of the report.

All reports are required in both English and French and in both hard and soft copy and are to be prepared using standard PC-compatible software.

It is expected that the consultants will present the main findings of the report during a workshop in early (March) 2007.

Resources

To obtain the expected results will require a thorough desk review of available works and studies on the economics of animal diseases and control programmes covering all

documented animal disease epizootics and OIE standards on Veterinary Services and relevant disease surveillance and control.

This will also require the review of existing economic analysis models and/or the design of simple models that could be used as practical tools by the countries to evaluate their own situation, taking into account their own specificities.

The consultant team would ideally comprise (livestock) economists and veterinarians (if possible, veterinarians certified by OIE (PVS experts) and/or veterinarians with significant experience in administrative capacity building; officials or formerly (e.g., recently retired) officials -i.e. persons (formerly) authorised, registered or licensed by a Veterinary statutory body-), with significant experience in epidemiology and Veterinary Services assessment.

This assignment is to be carried out as an economic research work both at office level and at field level and is to be designed to be generally representative of different regions. This work is likely to require travels to the selected countries (“country sample”) and will involve contacts with teams and specialists having worked on the Economics of animal health.

Deliverable 2. Feasibility Study on the setting up of a Global Emergency Response Fund for Animal Epizootics and Zoonoses in Developing and in Countries in Transition

Objective

A Global Emergency Response Fund for Animal Epizootics and Zoonoses (GERFAE) would provide countries with immediate funding to cover livestock owners' compensation costs, as early detection and reporting depend critically on available incentives for farmers to report very quickly any suspicious case of animal disease, as well as other direct costs (e.g., culling costs, containment costs, disinfection, ring vaccination). This fund could operate as a grant to countries and would be mainly funded by donors.

The study will explore an overall framework for the financing of economic losses in developing and in transition countries due to emerging and re-emerging animal diseases. This framework will classify the direct and indirect costs due to needed sanitary measures to be taken to control the disease. It will identify those costs which are or should be eligible for public financial and/or in kind compensation to affected private operators (mainly livestock owners and/or their organizations). The study will also specify the role of donors, multilateral agencies, national governments and the private sector in the financing of the cost of controlling animal epizootics.

The framework to be designed will have to be based on a strong public-private partnership (here, the private sector includes livestock owners, their organizations, private veterinarians, traders, exporters, processing/transformation industry, major retailers and catering industry), including the proposed Global Emergency Response Fund for Animal Epizootics and Zoonoses (GERFAE).

Activities

This consultancy will propose an overall framework for the financing of a coordinated international response for control and/or relevant eradication of animal diseases. The consultants will build on the summary of available literature and on the results of the cost/benefit analysis of improved disease prevention and rapid control (Deliverable 1), the findings of veterinary services evaluations (including those prepared outside the framework of this study) and, if necessary the pre-feasibility study for the Animal Epizootics Insurance Programme (Deliverable 3).

A key element of the framework will be the possible options for the setting-up an operational Global Emergency Response Fund for the control of animal diseases. The fund will aim to provide effective financial compensation mechanisms to countries facing animal epidemic outbreaks. The payout schedule should create incentives for countries to collaborate with international institutions like the OIE and the FAO, to declare any suspicious cases without delay and to take any action required, particularly firm sanitary measures to eradicate the disease in the shortest period possible. The fund should also encourage countries to invest in proactive risk management policies (e.g., early detection and rapid response in surveillance and control programmes for emerging and re-emerging animal diseases, and when appropriate, relevant food safety systems as far as some zoonosis are concerned).

The consultant will:

1. Review and analyze the operational principles of selected national/regional financial programmes that are presently used to cover the costs caused by animal epizootics in both developed and developing countries:
 - Direct costs: value of losses linked to sick and dead animals
 - Direct costs: value of animals before culling (e.g., market price, production costs), welfare control measures, organizational costs (e.g., monitoring of farms and products in restricted zones/areas), etc.
 - Indirect costs: business interruption, losses related to establishment of restricted zones, additional repopulation costs, price effects, tourism and related professional activities, human illness in case of zoonoses, etc.
 - Emergency vaccination (with its impact on trade, including export)
2. Establish the role of the government and the private sector in the management of national/regional financial programmes for animal epizootics;
3. Indicate the relevance of the experiences of selected existing global public emergency funds (e.g., for human diseases, windstorms, hurricanes, winter storms, *dzuds* in Mongolia);
4. Develop requirements and options for a global institutional framework for the financing of animal epizootics costs
 - Propose options on public-private partnership models for the financing of animal epizootics costs;

- Identify the role of stakeholders (e.g., donors, including, when relevant, from the private sector; multilateral agencies; national governments)
 - Identify the role to be attributed to a Global Emergency Response Fund for Animal Epizootics in support of national emergency programmes:
 - a. with regard to the direct costs of epizootic diseases including compensation costs;
 - b. regarding eligible indirect costs, if relevant;
 - c. linked with emergency vaccination costs.
 - Analyze how the Global Emergency Response Fund could complement existing global funds (e.g., OIE World Animal Health and Welfare Fund, World Bank Global Programme for Avian Influenza, ALive multidonors trust fund)
5. Provide recommendations on the main operational principles for the establishment, financing and operation of the Global Emergency Response Fund for Animal Epizootics, e.g. covering:
- Mobilization of the needed funding (donors, multilateral agencies, participating countries, foundations when relevant)
 - Grant financing
 - Financial contribution of participating countries
 - Compensation rules
 - Country eligibility criteria (minimum commitment to improve veterinary services in compliance with OIE standards, etc.)
 - Types of costs covered (direct costs, including how to compensate culled animals (e.g., market price, production costs), emergency vaccination costs)
 - Individual country limits (e.g., maximum annual payout based on GDP per capita)
 - Payment schedules (e.g., full coverage of primary outbreak and decreasing partial coverage for secondary outbreaks in order to reward early detection/declaration and rapid response for eradication)
 - Loss assessment procedure (e.g., culling certificate by relevant bodies)
 - Procedural steps to trigger actual payments
 - Monitoring of payments
 - Governance
 - Role and obligation of beneficiary countries
 - Role and obligation of the donors and multilateral agencies that will finance the fund or are associated to its management
 - Role and obligation of the governance and the operational manager of the Global Fund

Expected Outputs

1. A thorough but concise report presenting:
 - a) A review and analysis of the operational principles of selected national/regional global financial programmes for animal epizootics;
 - b) An indication of the relevance of the experience of existing global emergency funds for human epidemics;
 - c) Requirements and options for a global institutional framework for the financing of direct and, if relevant, indirect animal epizootics' losses;
 - d) Possible options for the governance, structure and operational principles for the Global Emergency Response Fund for the control of animal diseases;
2. Dissemination material (one-page executive summary, brochure and PowerPoint presentation) presenting the main findings of the report.
3. A database including all the data used in this assignment, in Excel spreadsheet and relevant diagrams.

All reports are required in both English and French and in both hard and soft copy and are to be prepared using standard PC-compatible software.

It is expected that the consultants will present the main findings of the report during a workshop in early (March) 2007.

Resources

The consultants will have a strong background in agricultural policy, (livestock) economics, and animal disease prevention and control policies. They will also have a detailed knowledge and experience in the field of national compensation funds for animal epizootics. They will have experience in development economic policies and ideally in interacting with multilateral institutions.

This assignment is likely to require no more than 6 man/months consultancy work, including selected travels and contacts to share views with identified relevant institutions.

Deliverable 3. Pre-Feasibility Study on Market-Based Insurance Products for Emerging and Re-emerging Animal Disease Losses not Covered by Public Compensation

Objective

To identify desirable insurance protection and pre-conditions for the feasibility and development of market-based insurance products to address emerging and re-emerging animal disease losses which would likely not be covered by public compensation (as described under Deliverable 2). The study would also set out the relation with the veterinary services' quality evaluation scheme to be developed within the support of the World Animal Health and Welfare Fund. The cost of the insurance could be closely linked to the result of an evaluation of the quality of veterinary services.

Activities

The consultants will review the current private livestock insurance products (including sanitary risks coverage) available in developed, in transition and developing countries, identify pre-conditions for the development of market-based animal epizootics insurance products and collect stakeholders views on the feasibility of implementing such products through submission to professional private national and international insurance and reinsurance bodies.

In particular, they will:

1. Describe animal epizootics insurance products offered by the private insurance and reinsurance industry
 - Product designs (e.g., feasibility, applicability, sum insured, scope of coverage, deductibles, hazards and perils covered, exclusions, premium rates)
 - Underwriting procedures
 - Ratemaking procedures
 - Claim settlement procedures
2. Analyze the strength and weaknesses of these insurance schemes, covering e.g.:
 - Breadth of coverage (livestock owners, with a special emphasis on small and medium livestock owners, livestock owners' associations, cooperatives, companies);
 - Operational effectiveness;
 - Financial performance (including loss ratio, loss cost over the past 10 years);
 - Linkages to animal services losses (e.g., product inputs, cattle feed, fodder product, animal health care, artificial insemination, extension support);
 - Other losses (tourism industry, etc.).
 - Level of satisfaction of both insurers and insured stakeholders.
3. Identify pre-conditions for market-based animal epizootics insurance in developing and in transition countries such as:
 - List and comment possible categories of eligible diseases and of possible categories of insurance products, as well as the criteria used to define those categories;
 - Specify underwriting conditions (e.g., certification, public/private veterinary system to be in place, compliance of national Veterinary Services with OIE international standards on quality and evaluation, use of the PVS⁵ instrument);
 - Carry out interviews with selected major insurance companies, reinsurance companies and brokers or their associations involved in agricultural insurance to

⁵ PVS: Performance, Vision and Strategy

- identify most common pre-requisites for the development of market-based animal epizootics insurance products;
- List and comment on common rating conditions;
 - Determine conditions on common loss adjustment procedures;
 - Present and describe insurance policies' terms and conditions that according to the insurance and reinsurance industry could be the acceptable, including, but not limited to, animal species, production systems (intensive or extensive), scale of operation (small or large herders), type of losses (direct losses, indirect consequential losses, etc.), risk analysis methods to be used for the calculation of the amount to be paid by the beneficiaries, taking into account quality of Veterinary Services.
4. Propose options for a global Animal Epizootics Insurance Program that would provide technical and/or financial support for the development of market-based animal epizootics insurance products.

Expected Outputs

1. A report presenting :
 - a) A review of existing private animal epizootics insurance and reinsurance products;
 - b) An analysis of the strength and weaknesses of existing animal insurance schemes;
 - c) A presentation of the required pre-conditions and mechanisms for the development of market-based insurance products covering different bodies described above;
 - d) Options for an Animal Epizootics Insurance scheme to support the development of market-based insurance products.
2. Dissemination material (one-page executive summary, brochure, PowerPoint presentation) presenting the main findings of the report.
3. A database including all the data used in this assignment, in Excel spreadsheet and relevant diagrams.

All reports are required in both English and French and in both hard and soft copy and are to be prepared using standard PC-compatible software. It is expected that the consultants will present the main findings of the report during a workshop in early (March) 2007.

Resources

The consultants will have strong experience in the insurance business including livestock insurance and a detailed knowledge of the international insurance market, with significant exposure to agricultural insurance in the developing and in transition world. They will have personal contacts with the agricultural insurance and reinsurance market. They will ideally have expertise in the field of animal disease risks insurance.

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This assignment is likely to require no more than 4 man/months of work, including selected travels and contacts with appropriate insurance and reinsurance bodies.

Table 1. The Financing of Animal Epizootics and Zoonoses Losses in Developing and in Transition Countries

The World Animal Health and Welfare Fund

	1	2	3
Deliverable	Economic Impact of Diseases and Cost-Benefit Analysis of Improved Disease Prevention and Rapid Control	Feasibility Study on the setting up of a Global Emergency Response Fund for Animal Epizootics and Zoonoses in Developing and in Countries in Transition	Feasibility Study on Market-Based Insurance Products for Emerging and Re-emerging Animal Disease Losses Non-Eligible to Public Compensation
(OIE) Outputs	1. Report (Study 1) 2. Detailed Bibliography 3. Dissemination material	1. Report (Study 2) 2. Dissemination material 3. Database	1. Report (Study 3) 2. Dissemination material 3. Database
(WB) End products		Global Emergency Response Fund for Animal Epizootics and Zoonoses	Global Animal Epizootics Insurance Scheme
Concepts	Cost-Benefit Analysis	Global Compensation Fund	(Global) Insurance Scheme(s)