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技术合作计划

TECHNICAL COOPERATION
PROGRAMME

PROGRAMME DE
COOPÉRATION TECHNIQUE

PROGRAMA DE
COOPERACIÓN TÉCNICA

برنامج التعاون الفني

Countries:

**Eastern Europe and Caucasus regions
(Armenia, Azerbaijan, Bulgaria, Croatia,
Georgia, Hungary, the Republic of Moldova,
Romania, Serbia and Montenegro, The
former Yugoslav Republic of Macedonia,
Turkey and Ukraine)**

Project Title:

**Emergency assistance for early detection and
prevention of avian influenza in the Eastern
Europe and Caucasus regions**

Project Number:

TCP/RER/3004 (E)

Starting Date:

November 2005

Completion Date:

April 2007

Government Ministry
responsible for
project execution:

Ministries of Agriculture

FAO Contribution:

US\$400 000

Signed:

(on behalf of Government)

Signed:

Jacques Diouf
Director-General
(on behalf of FAO)

Date of Signature:

Date of signature:

I. BACKGROUND AND JUSTIFICATION

There is growing evidence that the avian influenza which has been responsible for serious disease outbreaks in poultry and humans in several Asian countries since 2003 is spread through a number of sources, including poor biosecurity at poultry farms, movement of poultry and poultry products and live market trade, illegal and legal trade in wild birds. Although unproven, it is also suspected that the virus could possibly be carried over long distances along the migratory bird flyways to regions previously unaffected (Table 1) is a cause of serious concern for the region. Avian influenza subtype H5N1 could be transported along these routes to densely populated areas in the South-Asian subcontinent and to the Middle East, Africa and Europe. Until recently, outbreaks have been restricted primarily to the Southeast and East-Asian countries of Cambodia, China, Indonesia, Japan, Korea, Lao PDR, Malaysia, Thailand and Viet Nam but, since late early 2004, HPAI H5N1 has been diagnosed in a variety of captive and wild bird species, progressing north-westerly from Hong Kong, People's Republic of China, (January 2004) via Japan, Korea, China, Mongolia to Kazakhstan and Russia (August 2005). Although avian influenza has not yet been reported in the countries of the Balkan Peninsula, a part from the recent information¹ from Romania and Turkey, this region is, however, at risk due to its proximity to two main flyways, the East Africa West Asia Flyway, which crosses Turkey, and the Central Asia Flyway. Both flyways cross areas in North-eastern Europe, where avian influenza in wild and domestic fowl has been diagnosed.

Table 1. Reported cases of HPAI in wild birds in 2004/2005

COUNTRY	SPECIES	TYPE AI	DATE
China (Hong Kong SAR)	Peregrine Falcon, Grey Heron, Black headed gull, little egret, captive greater Flamingo ²	H5N1	Jan 2004
Cambodia	Wild birds in a zoo collection ²	H5N1	Feb 2004
Japan	Crows ³	H5N1	Mar 2004
Republic of Korea	Magpies ³	H5N1	Mar 2004
Thailand	Pigeons ³ , Open-Bill Storks, Little Cormorant, Red-collar Dove ³ , Scaly Breasted Munia ³ , Black Drongo ³	H5N1	Dec 2004
China(Hong Kong SAR)	Grey Heron	H5N1	Dec 2004
China	Bar-headed geese, Great black-headed gulls, Brown-headed gulls. Ruddy Shelducks and Great cormorants	H5N1	Apr 2005
Mongolia	Bar-headed geese and Whooper swan	Influenza A subtype H5	Aug 2005
Russia (Siberia)	Wild birds	H5N1	Aug 2005
Kazakhstan	Wild birds	H5N1	Aug 2005
Romania	Swan	H5N1	Oct 2005

Sources: World Organisation for Animal Health (OIE), country reports, Global Public Health Intelligence Network (GPHIN), Program for Monitoring Emergency Diseases (ProMED)

¹ Few cases of avian influenza in ducks were reported from Romania and Turkey on 10 October 2005. The identification of the virus is awaited.

² captive specimen are not migrating and cannot be responsible for disease transmission

³ resident species

It has long been known that wild birds are a reservoir host for avian influenza viruses worldwide. Outbreaks of HPAI originating from low-pathogenic avian influenza (LPAI) viruses transmitted by wild birds to domestic poultry have occurred relatively frequently over the last decade, but during the last 40 years, spontaneous HPAI outbreaks have not been reported in wild birds. However, recent surveillance studies in Europe have isolated several subtypes H5 and H7 influenza A viruses from dead wild birds and illegally imported live wild birds, illustrating the potential.

Further spread of avian influenza beyond the presently identified foci of infection in Russia and Kazakhstan seems highly possible. Wild birds until recently nesting in the recently HPAI-affected areas of Novosibirsk and Altai are now beginning the 2006 winter migration season and rest on their way to Africa and Europe. These regions, as well as West Asian countries (Caspian Sea area) along the flyways, could become a potential gateway for the virus to establish in new areas. It is plausible that HPAI H5N1 virus could be spread via migratory flyways from Siberia to the Near East countries in the foreseeable future. This progressive spread of HPAI into new regions will require proactive intervention by the countries at risk, especially those situated along wild bird migration routes. Migratory birds from Western/Central Siberia and Central Asia fly along the eastern leg of the East Africa West Asia flyway to rest or overwinter along the river systems crossing the Arabian Peninsula and the Nile. Birds from Eastern Europe/Caucasus (Balkans, Black Sea) traverse the Peninsula along the Black Sea—Mediterranean flyway to reach these same wintering areas. Seasonal seeding of influenza viruses into backyard poultry systems by waterfowl migrating in the east and central Asian flyways (recognized migration routes from Northern China/Siberia to Southeast Asia and South and West Asia) allows regular addition of new viruses to the diverse domestic poultry virus pool and may explain some of the geospatial features of regional virus distribution. Although the epidemiology of wild bird transmission dynamics remains unclear, there is no denying, given the data currently available, that wild water fowl play a role in the avian influenza cycle and could be the prototype for HPAI viruses passing from resident water fowl to domestic fowl, particularly domestic ducks.

The complex overlapping of major flyways and the lack of information on migratory species potentially involved in the spread of HPAI make simple associations of wild bird flyways with outbreaks of AI difficult and confounds a realistic analysis of the risks of introduction. To counter this deficit, countries considered at risk need to initiate a specific appraisal of wild waterfowl migration and enhance their surveillance of domestic poultry and wild birds for influenza viruses. Raising public awareness and strengthening surveillance and laboratory diagnostic services are important components to be addressed. With the information provided, sound risk analysis will then feed into developing realistic, science-based emergency preparedness procedures with contingency action plans to strengthen early warning of and early reaction to HPAI introduction if this occurs.

Conditions Specific to the Eastern Europe Region

Countries in Eastern Europe and Central Asia are exposed to incursions of AI through migratory routes of infected wild birds from neighbouring countries. In all of these, laboratory diagnostic capabilities and surveillance systems for the detection of AI viruses are limited. From the geographical point of view, Eastern Europe countries represent a vast area, where introduction of AI is likely to occur but where the sensitivity of early detection is low.

The project will provide some of these countries participating in this TCP with laboratory facilities, training and resources to strengthen existing surveillance. Although resources to address HPAI are unavailable, the project complements activities of value to the control of avian influenza. National levels of expertise differ greatly. Some countries have the technical expertise to diagnose HPAI, while others will need substantial addition support.

Human and Poultry Populations in Eastern Europe and the Caucasus Region

Human and poultry populations in the recipient countries vary greatly (Table 2), as do their veterinary and human health services infrastructures. Several countries (Turkey and Ukraine) have substantial, vertically integrated commercial poultry industries, whereas many others comprise mostly backyard poultry. The geography of the region is complicated, with numerous inland seas waterways and shorelines providing ideal habitats for migratory and other wild birds. Significant numbers of domesticated poultry in the region are free ranging, with the potential of contacting migratory birds. Outbreaks of HPAI have occurred northeast of the region, which is at significant risk of being exposed to avian influenza from birds flying from infected areas. Informal domestic poultry trade within and among countries in the region may also contribute to the dispersal or spread of HPAI and needs to be assessed and monitored.

The veterinary systems of the smaller, less resource-rich countries will have more difficulty coping with controlling the disease.

Table 2—Human and Poultry Populations in the Eastern Europe and Caucasus Region ('000)

Countries	Chickens	Ducks	Turkeys	Geese	Total Poultry	Humans
Armenia	3 600				3 600	3 052
Azerbaijan	16 878				16 878	8 447
Bulgaria	18 000	400	500	240	19 140	7 829
Croatia	10 235	120	710	120	11 185	4 416
Georgia	8 500		700		9 200	5 074
Hungary	37 502	2 709	4 256	2 801	47 268	9 831
Moldova	15 686		70		15 756	4 263
Romania	76 616	4 000	860	4 000	85 476	22 280
Serbia	15 000	540	670	960	17 170	10 519
Turkey	250 000	800	3 300	400	254 500	72 320
Ukraine	121 200	2 000	1 200		124 400	48 151
Total	535 715	7 860	8 010	5 720	557 305	186 351

Source: FAOSTAT, 2004

Justification

Justification for regional emergency assistance to the Eastern Europe Region is fourfold: (a) the potential human health hazard resulting from an AI virus transmission chain from migratory birds-to-poultry-to-humans, as took place with several human fatalities in Southeast Asia, (b) the potential impact on livelihoods of local communities economic losses to the poultry sector caused by deaths, culling, export and marketing bans, and also to avian wildlife-generated tourism, (c) veterinary infrastructures unfamiliar with addressing migratory bird-domestic poultry interactions, and (d) likelihood for scientific identification of species of migratory birds spreading or not spreading HPAI to inform prevention strategies in this and other regions. The Eastern Europe Region at new risk encompasses substantial commercial and backyard poultry sectors, and poultry meat is one of the principal sources of dietary animal protein.

The emergency assistance is designed to be preventive as well as proactive. Where required, National Action Plans for the Prevention and Control of HPAI will be developed, as has been done in projects covering other regions. Experience indicates that the veterinary services in many of the countries involved are not well-structured to meet the challenge of controlling epidemic diseases. Early warning networks, emergency response, timely reporting and feedback, the epidemiology of wild bird-domestic bird interactions and diagnostic capacity in the face of an emerging epidemic are often weak. Government compensation for losses is rarely available, nor is the emergency response system needed to support stamping-out exercises. Obtaining clear and concise baseline data and information on migratory flyways, the role of wild bird species, disease mapping, and the epidemiology of AI are matters of basic importance that need to be strengthened to prepare for potential outbreaks.

In line with the FAO/OIE Global Strategy for the Progressive Control of HPAI, this project has been developed to provide support to countries in the Eastern Europe and Caucasus region to strengthen emergency preparedness against the eventuality of HPAI being introduced into this currently free area.

II. OBJECTIVES OF THE ASSISTANCE

The **primary objective** of the proposed project is to strengthen the capacity for generating and sharing HPAI disease intelligence and using this to mount emergency preparedness planning against the eventuality of HPAI being introduced into the region, specifically in relation to migration of and trade in wild birds.

To accomplish this objective, **secondary objectives** will entail: (a) generating an understanding of migratory bird movement into and within the region and the potential for their contact with domestic poultry, (b) building public awareness of the issues relating to the risks, (c) strengthening HPAI field surveillance and laboratory support for diagnosis, (d) establishing information and technology network linkages with other regions (GLEWS and OFFLU) in the global system for HPAI surveillance.

III. PROJECT OUTPUTS

- baseline data on migratory birds and domestic poultry will be mapped for use in targeted surveillance and HPAI control;
- disease surveillance and monitoring for HPAI in domestic and migratory birds will be strengthened;
- documentation of wild bird trade and other movement of wild bird species;
- laboratory capacity to support HPAI diagnosis will be strengthened;
- timely, regional disease information exchange will improve regional early-warning disease intervention, technical information and technology transfer;
- national action plans will be developed to form the framework for national HPAI control plans and a regional strategy in line with the FAO/OIE/WHO Global Strategy for the progressive control of HPAI.

IV. WORK PLAN

The project will have duration of 18 months. The following is a tentative work plan that will be adjusted to the needs and priorities resulting from the interaction between national counterparts in participating countries, FAO staff and project stakeholders.

Months 1-2:

- appointment of the National Project Coordinators (NPC) to supervise on the government side the project activities in each recipient country;
- recruitment of the International Project Coordinator (IPC). She/he will be stationed at FAO Animal Health Service (AGAH) in Rome and will be assigned fulltime to oversee the five regional TCPs of which the Eastern Europe/Caucasus Region is a part;
- recruitment of the Regional Project Coordinator (RPC). She/he will be stationed at FAO Subregional Office for Central and Eastern Europe in Budapest, to oversee the Project, and will be contracted as a National Consultant;
- set up in each recipient country a National Steering Committee (NSC), chaired by the CVO, with representatives of the relevant participating ministries and agencies. The NSC will provide facilitation to the RPC where and when needed;
- the Launching Workshop will be organized by the RPC, at the FAO Subregional Office for Central and Eastern Europe. Representatives from each country (CVO, epidemiology/laboratory, wildlife/natural resources) will attend. Russia will be invited as a non-recipient observer country. The workshop's principal objective will be to define and agree on final project content, the work plan and implementation timetables. During this workshop, the FAO/OIE global strategy for the progressive control of HPAI control will be presented and discussed;
- signature of the letters of agreement with three specialized institutions (wildlife, epidemiology and laboratory training) to carry out field studies and deliver capacity building workshop and training under the five regional TCPs (North Africa, East Africa, West Africa, Middle East and Eastern Europe/Caucasus);
- regional networking will be established utilizing existing information networks in the participating countries. The FAO Subregional Office for Central and Eastern Europe will act as the hub for regional disease information networking. Establishing liaison and linkage with an OIE/FAO reference laboratory and epidemiology collaborating centre;
- finalizing the list of project inputs (laboratory equipment and supplies, communication and data management equipment, etc.) for tender call and procurement;
- recruitment of GIS expert for data collation and mapping. This work will be carried out in close collaboration with the groups collecting the baseline data and analyzing it.

Months 3 to 6:

- Conducting a five-day workshop for technical staff from wildlife/natural resources institutions and epidemiology services in the recipient countries to cover the following topics: epidemiological techniques, disease surveillance in domestic poultry and both free-ranging and captive avian wildlife, disease monitoring, emergency preparedness and biosecurity, data management and analysis, HPAI virus interactions between domestic poultry and migratory birds. This workshop will be delivered jointly by contracted institutions on wildlife and epidemiology in close collaboration with the RPC, the IPC

and AGAH. This workshop could be held immediately following the Launching Workshop if identification of appropriate participants is made during months 1-2;

- conducting a one-week laboratory training on HPAI diagnostic techniques for selected laboratory staff from each participating country. The training will be delivered by a contracted OIE reference laboratory on HPAI within the facilities of the regional laboratory to be identified in the subregion;
- procurement and delivery of project equipment and materials;
- start of commissioned studies relating to waterbird migrations including determination of migratory patterns, timing and important locations, as well as the trade and human movement of wild species of birds, risk assessment of migratory bird-domestic poultry and human interactions. Baseline data collection on migratory bird patterns and prevalence, together with the domestic poultry infrastructure, will be mapped to produce for each country a clear oversight of locations and potential risk areas for targeted surveillance and intervention;
- first backstopping mission.

Month 7 to 18:

- continue targeted disease surveillance and wildlife field investigations as appropriate;
- participation of representatives from the recipient countries in an international meeting on wildlife and the role of migratory birds in transmission of HPAI;
- second backstopping mission;
- analysis of results available from the above-mentioned surveillance and wildlife investigations and consolidation of findings by contracted institutions;
- presentation at a regional workshop of main findings and provision of recommendations for longer-term plans when TCP ends;
- final technical report and terminal statement writing.

V. CAPACITY BUILDING

The project is designed to strengthen the capacities of the recipient countries to address the avian influenza threat. National experts will gain capacity in laboratory diagnosis, emergency preparedness, epidemiologically-based disease investigation and surveillance in domestic poultry and both free-ranging and captive avian wildlife, as well as data management and analysis.

Disease emergency preparedness plans, disease surveillance and wildlife investigation studies will be managed and implemented by qualified staff at the national level.

VI. INPUTS TO BE PROVIDED BY FAO

Inputs are open to review to ensure the best possible use of limited resources depending on the specific circumstances and developments over time. For cost effectiveness and to ensure a better coordination of activities to control avian influenza, a number of inputs are common to four other similar projects in neighbouring regions.

The beneficiary countries are all countries in the region with emphasis on those presenting the potential risk for HPAI incursion. Russia will be invited to attend the Inception Workshop and regional coordination meetings at no cost to the project.

To the possible extent and where most appropriate, taking into account each country situation (risks and needs), the project budget will support the following:

1. Personnel services

International experts

- an international coordinator based in Rome will be recruited for 18 months to be shared with four other regional projects (3.6 months under this project). She/he will coordinate project activities and provide technical support as and when needed. ToRs in Annex 1;
- a GIS consultant will be recruited for six months to organize into a GIS system data related to ecosystems, wild bird migration patterns, avian influenza outbreak data, and poultry population, areas of interaction between domestic poultry and wild birds; and produce maps identifying potential areas for targeted surveillance. The cost will be shared with four other regional projects (1.2 months under this project). ToRs in Annex 6.
- an operation specialist will facilitate actual and swift delivery of project inputs. Twelve person-months to be shared with four other regional projects (2.4 months under this project). ToRs in Annex 8.

National consultant

- one regional coordinator, based in Budapest, will be responsible for the implementation of all project inputs and outputs (11 months, on a WAE basis). The RPC will be stationed at the FAO Subregional Office for Central and Eastern Europe in Budapest with frequent travel to the region. ToRs in Annex 2.

FAO technical support services

- AGAH backstopping (two weeks in two missions and 36 days of deskwork specific to this project) - ToRs in Annex 7. Provide overall guidance and assist in all technical aspects of the project. Promote and facilitate coordination of activities in the region in line with the FAO/OIE global and regional strategies to address the avian influenza. Facilitate linkage with international reference laboratories and epidemiology collaborating centres. Provide recommendations for medium- and long-term proposals for the region.

2. Duty travel

Duty travel will include travel within recipient countries of international consultants, FAO support staff, and other project staff. It will also include travel for the regional coordinator.

3. Contracts

- a Letter of Agreement will be signed with a specialized institution with experience and expertise in avian ecology and wild bird diseases to carry out and train national professionals in conducting case control studies in one or more countries/districts where data quality

allows, assess the role of wild fauna versus other risk factors in the context of avian influenza and provide recommendation and guidance to participating countries (ToRs in Annex 3). The contract will include the five subregions with the costs shared among the five TCP projects;

- a Letter of Agreement will be signed with a specialized institution to prepare and deliver five capacity building training workshops (five days each) in the field of surveillance and epidemiology including and provide guidance and technical assistance as required to participating countries (ToRs in Annex 4). The contract will include the five subregions with the costs shared among the five TCP projects.
- a Letter of Agreement will be signed with an OIE reference laboratory on HPAI to prepare and deliver five capacity building laboratory trainings (one week each) on diagnosis and testing of HPAI (ToRs in Annex 5). The contract will include the five subregions with the costs shared among the five TCP projects.

4. General operating expenses

Support costs related to telephone, photocopy communications, utilities, vehicle rental, drivers, casual labourers and other miscellaneous expenses.

5. Expendable equipment

Laboratory consumable and reagents. The final list will be completed at the Launching Workshop.

6. Non-expendable equipment

Laboratory equipment for laboratory upgrading and strengthening. Communication and data management equipment for networking and information sharing. The final list will be completed at the launching workshop.

7. Direct operating expenses

Seven percent of the budget will cover miscellaneous expenses at FAO headquarters and the Subregional Office for Central and Eastern Europe in Budapest related to project implementation and servicing.

8. Training

To the possible extend and where most appropriate, the project will support travel expenses of up to two nationals from each participating countries to attend the following workshops:

- launching meeting;
- epidemiology and wildlife capacity building workshop;
- laboratory training;
- international conference on wildlife and the role of migratory birds in transmission of HPAI.

VII. PROJECT IMPACT AND BENEFICIARIES

Project impact will be threefold: improved **regional** disease information exchange and strengthened HPAI early warning and control measures; **national** strengthening of the public sector involved in livestock agriculture, natural resources and tourism, to address potential HPAI outbreaks; and **locally** increased health security and food safety for consumers, and production security for commercial and non-commercial poultry producers.

VIII. REPORTING

The RPC will be responsible for preparing quarterly progress reports (in English) under the supervision of the International Project Coordinator in Rome for submission to the AGAH, the Subregional Office for Central and Eastern Europe in Budapest and the Emergency Operations Service (TCEO). These reports will contain progress against preset targets and identify constraints together with their mitigating resolution.

Consultants and consulting institutions will submit as above their reports within one month of completion of their assignments.

The RPC will be responsible for the preparation, in collaboration with NPCs in the recipient countries, of a draft technical report and draft terminal statement (both in English) in FAO format for submission to the Emergency Operations Service (TCEO), FAO headquarters, and the Animal Health Service (AGAH).

IX. STAKEHOLDERS

The project will be operated in close collaboration with

- OIE and WHO ;
- OFFLU Reference Diagnostic Laboratories and Epidemiology Collaborating Centres ;
- organizations involved in the wetland management and wild bird conservation such as Wetlands International and Birdlife International. Efficiency can be gained by integrating capacity building within this project and other projects in the areas such as the GEF Flyways Project which will be start end 2005, in which Wetlands International is the lead contractor.

X. GOVERNMENT CONTRIBUTION AND SUPPORTING ARRANGEMENTS

The Ministries of Agriculture of recipient countries will be the counterparts responsible for project execution.

The Governments of recipient countries will provide local transport, office accommodation and laboratories and will facilitate access by the project personnel to official documents and meetings with government officials, the private sector and academia, as required. A qualified and experienced NPC will be assigned to lead the project and facilitate involvement and collaboration with relevant national staff. In particular, he will ensure that the government

counterpart contribution and support arrangements, as specified under the General Provisions annexed to the project agreement, are provided in a timely and expeditious manner.

The Government of the recipient countries will be also responsible also for:

- making available collaborating technical personnel as may be necessary for the successful implementation and completion of the project;
- providing necessary financial support beyond that provided by the project to facilitate full participation in the training courses.