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TECHNICAL ANNEX

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 2.5 MILLION
(US\$ 3.5 MILLION EQUIVALENT)

AND A

PROPOSED GRANT

IN THE AMOUNT OF SDR 2.5 MILLION
(US\$ 3.5 MILLION EQUIVALENT)

TO

GEORGIA

FOR AN

AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND
RESPONSE PROJECT

UNDER THE

GLOBAL PROGRAM FOR AVIAN INFLUENZA AND HUMAN PANDEMIC
PREPAREDNESS AND RESPONSE (GPAD)
FOR ELIGIBLE COUNTRIES UNDER THE HORIZONTAL APL

May 4, 2006

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CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2006)

Currency Unit	=	Lari (GEL)
1.827	=	US\$1
US\$ 1.4378	=	SDR 1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AI	Avian Influenza
APL	Adjustable Program Loan
ARET	Agriculture Extension, Research and Training Project
CE	Catastrophic Event
CFAA	Country Financial Accountability Assessment
EA	Environmental Assessment
ECA	Europe and Central Asia
EMP	Environmental Management Plan
ERA	Emergency Recovery Assistance
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FM	Financial Management
GDP	Gross Domestic Product
GEF	Global Environmental Fund
GHSPIC	Georgian Health and Social Projects Implementation Center
GIS	Global Information System
GPAI	Global Program on Avian Influenza
GSCAIG	Governmental Steering Commission on Avian Influenza in Georgia
HMIS	Health Management Information System
HPAI	Highly Pathogenic Avian Influenza
H5N1	Influenza A Virus
IBRD	International Bank for Reconstruction and Development
ICT	Information and Communications Technology
IDA	International Development Association
IFAD	International Fund for Agriculture Development
ILI	Influenza-like Illness
IRR	Internal Return Rate
ISDS	Integrated Safeguards Datasheet
KAP	Knowledge, Attitude and Practices
LEPL	Legal Entity of Public Law
LICUS	Low Income Countries under Stress
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoLHSA	Ministry of Labor, Health and Social Affairs
MTR	Mid Term Review

NAIPP	National AI Preparedness Plan
NBG	National Bank of Georgia
NCDC	National Center for Disease Control
NIC	National Influenza Center
NGO	Non-governmental Organization
NPIAP	National Pandemic Influenza Action Plan
NPV	Net Present Value
NRL	National Reference Laboratory
OIE	World Organization for Animal Health (Office International des Epizooties)
PCC	Project Coordination Center
PCN	Project Concept Note
PHC	Primary Health Care Project
PHRD	Policy and Human Resources Development (Grant)
PID	Project Information Document
PIT	Project Implementation Team
PIU	Project Implementation Unit
PP	Procurement Plan
RDP	Rural Development Project
RVP	Regional Vice President
SARS	Severe Acute Respiratory Syndrome
SOE	Statement of Expenses
SRS	Structural Reform Support Project
UFR	Unaudited Financial Reports
UNDB	United Nations International Children's Fund
UNICEF	United States Agency for International Development
USAID	World Health Information System
WAHIS	World Animal Health Information System
WHO	World Health Organization

Vice President:	Shigeo Katsu
Country Manager/Director:	Donna Dowsett-Coirolo
Sector Manager:	Juergen Voegelé
Task Team Leaders:	Frauke Jungbluth/V. Roy Southworth

GEORGIA
GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPAREDNESS AND RESPONSE PROJECT

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A. BACKGROUND AND STRATEGY

1. Country and Sector Background

1. Georgia is a small country with a population of 4.6 million people, bordered by the Black Sea to the west, Russia to the north, Turkey and Armenia to the south and Azerbaijan to the east. Georgia's location places it at extreme risk for the spread of Highly Pathogenic Avian Influenza (HPAI). Georgia's border with Turkey is near the regions in eastern Turkey with a high number of reported outbreaks (13 separate outbreaks in domestic poultry as of the end of January). A major migratory bird flyway crosses from this direction over Georgia. Another flyway from the north crosses over Georgia's long border with Russia, where outbreaks in seven regions have been reported, with recent outbreaks in three regions bordering Georgia. The length of that border, the fact that it traverses difficult mountainous terrain and two conflict zones, complicates surveillance efforts for the disease. Finally, the recent outbreak in wild fowl and domestic birds and the five human deaths from HPAI in Azerbaijan show the tragic and critical nature of the threat facing Georgia and its neighbors.

2. Agriculture plays a key role in Georgia's economy contributing about 20 percent of GDP in 2005 and accounting for about 50 percent of employment. Agriculture production is predominately small holder, though commercial farming is growing in importance. One growth area in agriculture is poultry production, both in terms of egg and meat production, though its contribution to the GDP is still quite small at about 1.6% of GDP in 2004. About 90 percent of poultry are owned by households, and contribute significantly to the income of rural, often poor families. Commercial production has grown by over ten times in the last five years, with some 20 large to medium commercial poultry farms producing both eggs and meat. In all an estimated, 10,000 people are employed in commercial poultry production and trade.

3. Georgia reported its first case of Avian Flu on February 21, 2006 when a dead swan found at a lake in the Ajara region tested positive to a test using a real time PCR test. A second migratory bird tested positive the following day, and the Government declared a State of Emergency in Ajara. It implemented culling in a three kilometer radius around the site where the dead birds were found, killing all domestic poultry (about 1800 chickens) in 12 villages within the 3km. radius. Testing at the Central Reference in Weybridge UK later confirmed that the virus was indeed Influenza A (H5N1).

4. Responsibility for the ongoing surveillance and monitoring for HPAI in poultry and migratory fowl and for response in case of an outbreak rests with the Ministry of Agriculture (MoA). Up until the positive result, over 1,000 samples had been taken from suspicious birds identified during passive surveillance. Also, regular testing of water fowl has been initiated at lakes along major migratory routes.

5. Until January this year, state veterinarians were under the Ministry's Veterinary Department, with branch offices in each of Georgia's 65 Rayons. Some 560 Veterinarians were employed by the Ministry. The MoA in late 2005 undertook a major review of its structure, and developed restructuring plans which are to be introduced over the first half of CY 2006. The restructuring is intended to contract out much of the services provided by the Ministry to private contractors who, it is hoped, would be much more effective in providing the services. The Ministry under this plan would then revert to a largely policy making role. As part of the restructuring, the Veterinary Department will be absorbed into a newly created Food Safety Agency and the number of public veterinarians will be reduced to about 200. While state veterinarians will still be assigned to Rayon offices, the intention is to evolve much of the previous state veterinary functions that are of a more private nature to the private sector. The reform is intended to forge a smaller more effective public veterinary service that would oversee the delivery of services by contract veterinarians.

6. In response to the threat of HPAI outbreak, the Government has established local crisis centers in each of the 65 Rayons based on the former structure of the Rayon Veterinary Units. Weekly meetings of a committee including representatives of the veterinary administration, health care department, local government, the Ministry of Education and the Ministry of the Environment are taking place to oversee the work of the monitoring centers. Hotlines to the centers have been established to report suspicious bird deaths. These centers provide the first line intervention when bird deaths are reported and investigate each report. They are backstopped by eight regional centers that aim to respond within two hours of a reported outbreak to assist in taking samples and with disinfection. Finally, there is a national Crisis center in Tbilisi that is staffed 24 hours a day and which coordinates monitoring, testing, and response activities in the field.

7. Two Bank-financed projects are under implementation in the agricultural sector: (i) the Agricultural Extension, Research and Training Project (ARET) - funded by an IDA Credit and a GEF grant; and (ii) the Rural Development Project (RDP) which is funded by IDA, the International Fund for Agricultural Development (IFAD), and a Japanese PHRD implementation grant. Funds from both projects have been used to meet immediate needs for the Avian Flu response.

8. Responsibility for preparing for the threat of HPAI to human health rests with the Ministry of Labor, Health and Social Affairs (MoLHSA). Health sector reforms, initiated in 1995, supported a purchaser/provider split, where MoLHSA maintains only a stewardship role. The Ministry, as steward of the system, is responsible for policy formulation, financing and regulatory action for controlling the quality, safety and effectiveness of health services, pharmaceuticals and medical equipment. The infectious disease surveillance system, sanitary inspection control and health promotion are carried out by Public Health Department of MoLHSA. The National Center for Disease Control (NCDC) is a public entity subordinated to the Public Health Department which serves as a National Referral Laboratory (NRL) for the control of communicable and non-communicable diseases. The NRL is further supported by two regional laboratories, one in Kutaisi and another in Ajara and a public health laboratory network of smaller laboratories.

9. The institutional arrangements for disease control are well established in Georgia, though the effectiveness of the national disease surveillance system varies depending upon the disease at issue, and whether or not there is a special disease-specific vertical program in place. For human influenza proper, the surveillance system has been in place since 2003, and has been fully operational since 2004. Accordingly, each PHC center reports on a weekly basis the number of influenza cases to Regional Public Health Centers. In addition, specialists working in various inpatient care facilities report influenza-like illness (ILI) cases within 24 hours of admission. Cases are ascertained on the bases on mucosal (nasal or pharyngeal) swab samples taken and shipped to the NRL. Monthly reporting to the NCDC is made by Regional Public Health Departments using the ILI Form which then issues a monthly national report.

10. Two IDA-financed projects are under implementation in the health sector. The Primary Health Care Project (PHC) aims at helping the Government develop and implement a primary health care strategy, and the Hospital Restructuring component of the Structural Reform Support Project (SRS) is helping to rehabilitate key hospital infrastructure in the context of ongoing Government efforts to restructure the sector. Some funds from both these projects have been allocated to finance urgently needed equipment to prepare for a human outbreak of HPAI. The equipment includes respirators, monitors, and personal protection gear for health care workers.

2. Country overall damage assessment

11. Even before the recent outbreak, Georgia had not escaped the negative impact of the disease on its economy. Sales of poultry products dropped by as much as 90 percent in January 2006 following intensive coverage of the outbreaks in Turkey and speculation about its spread to Georgia. The decline in sales not only affected the commercial producers but smallholder farmers who own the vast majority of poultry in the country. Numerous reports of spontaneous culling have also been received. Three commercial producers have culled their flocks and stopped production in response to the downturn in demand and fears about AI. Since the outbreak, there have been further reports of spontaneous culling and sales of poultry products remain depressed.

3. Country strategy in the context of GPAI

12. Georgia's strategy for addressing the threat of HPAI is based on the Strategic Action plan prepared by WHO for responding to the Avian Influenza Pandemic Threat. The objectives of Georgia's strategy can be structured in three phases – pre-pandemic, emergence of a pandemic, and pandemic declared and spreading internationally. In the current pre-pandemic phase, the focus is on monitoring, surveillance, and testing of both domestic and migratory birds coupled with tightened border controls. As already demonstrated with the outbreak in Ajara, in the event of a confirmed outbreak in birds, the Government will rely on rapid reaction to contain the spread of the virus, including culling. In addition, collaboration between animal and human health services has been strengthened through weekly coordination meetings between MoA and MoLHSA staff, and efforts are also underway to strengthen capacity to respond to a spread of the virus to the human population. If a pandemic shows signs of emerging, the focus of the strategy will be on containing or delaying the spread at the source through such measures as social distancing and quarantine. If a full-blown pandemic emerges, the strategy will focus on reducing morbidity, mortality and social disruption. At all three stages, a key element of the strategy is a comprehensive communication program, to inform the population of the risks, enlist its help in surveillance and reporting, to ease the implementation of social distancing measures and to minimize panic and social disruption.

4. Country response to the AI emergency

13. The Georgian Government has moved quickly to respond to the threat of HPAI. In January 2006 a Government Steering Commission on Avian Influenza in Georgia (GSCAIG) was established under the chairmanship of the Prime Minister and consisting of the State Minister for European Integration and the Ministers of Finance, Labor, Health and Social Affairs, Environment, and Agriculture. Responsibility for day-to-day coordination across Government rests with an inter-ministerial working group headed by the Deputy Minister for MoLHSA and the Senior Veterinary Officer in the MoA, and including representatives of the other ministers. The inter-ministerial working group meets weekly to review the current status of preparedness and coordinate activities. Under the coordination of GSCAIG, the working group developed a draft National AI Preparedness Plan (NAIPP). This plan provides a good basis for further preparatory work with a particular focus on development of contingency plans in both MoA and MoLHSA and creation of a conducive legal framework, that will enable the Government to implement recommended disease detection, control, prevention, containment, and eradication measures in a uniform and effective way. In addition, immediate preventative measures have been implemented with particular emphasis on surveillance and monitoring, and testing of poultry and migratory water fowl, strict border controls, including disinfection of entering vehicles, and the launching of a public education campaign, both in the schools and in the media. Also, for human health, medical equipment is being mobilized, and medical personnel trained to respond to an outbreak.

14. In developing the NAIPP, the Government prepared a proposal in January for donor support for the prevention and control of avian influenza in Georgia. The objective of the proposal is to provide the necessary equipment, materials, and training to monitor for outbreaks and respond when they occur, both in poultry and humans. The proposal also provides for contingency funds to be used in case compensation for culling becomes necessary and in case effective vaccines are developed. At the same time, the Prime Minister wrote to the Bank on January 17, 2006 to request assistance in putting together a coordinated donor response to the Government's proposal.

5. Country eligibility under GPAI

15. Georgia qualifies as a country at risk, at an early stage of an outbreak. It has fulfilled the eligibility criteria including demonstrating Government commitment. This commitment is apparent in the establishment of the GSCAIG chaired by the Prime Minister, and the Government's approach to the Bank to help it secure and coordinate donor assistance for the Government's program for the Prevention of Distribution and the Control of Avian Influenza in Georgia. This program supports Georgia's capacity for the early detection of HPAI, and rapid response to an outbreak.

B. BANK RESPONSE AND STRATEGY

1. International support to the Avian Influenza emergency in the country

16. Several donors are currently supporting the Government's HPAI strategy. For testing for the presence of the virus in both humans and poultry and wild birds, Georgia is fortunate to have a program of US assistance to upgrade labs for human testing at the NCDC, and at Kutaisi Hospital, as well as three labs for veterinary testing. The upgrade was initiated prior to the emergence of the HPAI threat and is intended to equip Georgia with laboratory capacity for a wide range of testing needs, fortunately including the capacity to test for HPAI. The rehabilitation of the labs provides Georgia with adequate testing facilities that are fully equipped to test for HPAI on the human side. The veterinary labs are now equipped to test for the virus with real time PCR and three lab technicians have been trained in administering the test. Further training is planned to ensure that the labs are fully capable of testing for the virus in birds. Included in the assistance, besides equipment and civil works, is training for lab technicians and consumables and reagents needed for the virological tests. As part of this assistance, construction is underway on a Bio-Safety Level 3 lab in Tbilisi with separate lab facilities for animal and human testing, though the construction will take two years before the lab can be commissioned.

17. WHO and FAO are providing rapid assessments of the situation in Georgia, and are providing technical backstopping in the preparation of contingency plans for AI and for the preparation of a coordinated program of donor assistance. Moreover, FAO is providing support for: (i) regional workshops for 11 countries for Avian Influenza on such topics as surveillance in wild birds, diagnosis procedures and outreach management; (ii) limited equipment and supplies; (iii) a multi-country emergency reaction fund (US\$ 45,000) for priorities identified by each recipient country; (iv) establishment in Georgia of an Emergency Center for Transboundary Animal Diseases. The center will focus on monitoring and reporting on transboundary disease threat for Armenia, Georgia and Azerbaijan. UNICEF is preparing learning materials focusing on information for elementary school children for dissemination in schools across the country. USAID is providing Georgia with US\$0.8 million assistance as part of the US Government's global US\$ 131 million program of support for HPAI. The funding will provide technical assistance and some equipment for MoLHSA and MoA, as well as support for a communications campaign. Finally, the EU has allocated 5.0 million Euro for the response to the threat

of HPAI in three Caucasus countries, Moldova, Ukraine and Belarus. This funding is being provided through the Multi-Donor Trust Fund for Avian flu and will be administered by the World Bank. The allocation between the eligible countries and the trust fund mechanism are currently under discussion, with a June target date to have the trust fund operational.

2. Response gaps and Bank's assistance

18. On the animal health side, financing needs include strengthening of disease monitoring and surveillance, border controls and on containment measures in event of an outbreak, including preparation of plans for compensation for culling and for disposal of culled birds. Immediate inputs required include cars, fuel, protective gear, disinfectant material, sprayers and rapid testing kits. Training, particularly for regional staff is required, along with technical assistance to help develop contingency plans, review the legal and regulatory framework for response to an outbreak, and develop a mechanism to compensate poultry owners when culling becomes necessary and to dispose of culled birds in a safe manner.

19. On the human health side, financing is needed for equipment and materials to enable the health system to respond both in the pre-pandemic stage where limited human cases might occur, and in the pandemic case where the focus would be on slowing the spread of the disease and reducing morbidity and mortality. Training also needs to be intensified for health care workers at all levels on monitoring for the disease and on how to handle cases safely should they occur. Moreover, technical assistance is required to help develop contingency plans and reviewing the legal and regulatory environment. A final financing requirement is for the development and implementation of a communications strategy.

20. All potential needs for a broad-based Avian Influenza Preparedness program have been roughly estimated at about US\$ 17.0 million (see table below). Immediate assistance of about US\$ 1.2 million for urgently needed equipment and materials to enable the Government to implement monitoring and surveillance and to help prepare initially for an outbreak both in poultry and humans is being provided from four existing projects –Rural Development Project, Agricultural Research Extension and Training Project, Primary Health Care Development Project, and Structural Reform Support Project. The proposed project provides for US\$ 7.0 million in IDA financing and is designed to meet priority medium term investment needs aimed at strengthening the capacity of both the animal health and human health agencies to respond to the threat of an HPAI outbreak and to support a communications strategy. Also included in the proposed project is co-financing through a PHRD co-financing grant for US\$ 1.4 million to help meet the technical assistance gaps outlined above, complemented by an US\$ 0.8 million grant from USAID.

21. While project financing is adequate to meet the project objectives, additional program financing of about US\$ 4.4 million would enable the Government further strengthen its capacity to respond to the HPAI threat. Of this amount, about US\$ 1.6 million would be used for additional compensation in the event of multiple outbreaks requiring extensive culling. The remaining financing needs for animal health are for additional goods for surveillance and response capacity. Additional financing for human health are for additional goods, mostly ventilators, monitors and personal protection equipment, while the additional financing for communication would allow for an expansion of public awareness raising activities.

22. Government is considering further reallocations from the ARET and PHC projects to cover part of these additional program financing needs. Moreover, a possible allocation for Georgia from the Multi-donor trust fund would help to meet the additional program requirements. Finally, Government will continue to consult with donor partners in an effort to find additional financing.

Estimated Program Costs

Component and Expenditure Category	Total Program Cost	Government	World Bank	Japan PHRD Grant	Covered under current WB portfolio	USAID	Additional Program Financing Needs
Component A:	8,900,000	747,400	3,866,000	570,000	765,000	350,000	2,601,600
Component B:	7,000,000	918,000	2,879,000	520,000	423,000	350,000	1,910,000
Component C:	1,100,000	235,000	355,000	310,000	0	100,000	100,000
Total Costs by Financier	17,000,000	1,900,400	7,100,000	1,400,000	1,188,000	800,000	4,611,000

3. Rationale for Bank involvement

23. The justification for the Bank involvement is the Global Public Goods aspect of the HPAI, one of many emerging and re-emerging zoonoses, and its strong link to poverty reduction. HPAI control programs require a multi-disciplinary approach to integrate technical, social, economic, political, policy, and regulatory issues in addressing a complex problem. The Bank is well-placed to build upon its knowledge of multi-disciplinary approaches needed in the proposed Project, which draws on evidence and lessons learned in the various regions regarding emergency preparedness responses and multi-disciplinary approaches. The Bank's experience with multi-sectoral emergency response and risk-mitigation projects gives it considerable qualifications in bringing together the relevant ministries, government agencies, and the donor community, in understanding and addressing the social and economic impact, and in assuring high level political coordination.

24. Given the Bank's work with FAO, WHO, OIE, the US Assistance Program, EU and other partners in country and at the international level to address both preparedness and outbreaks and to assist with institutional assessments, the Bank can assist Georgia in leveraging additional resources from other international and bilateral agencies. In addition to its financial role, the technical assistance provided by the Bank has been important in similar global or regional emergency situations such as SARS, Tsunami relief, and HIV/AIDS. The Bank's national and regional support will be closely linked with the activities of FAO, WHO, OIE, and the EU and the proposed project is fully consistent with, and draws heavily on, the global strategies proposed by FAO and WHO.

4. Lessons learned

25. Relevant lessons for the design of the proposed operation have been drawn from implementation of projects in the agricultural and health sectors in Georgia and from the design of previous World Bank/IDA and FAO-supported emergency recovery projects. Included is the Vietnam Avian Influenza Emergency Recovery Project, which is the only Bank project on this matter that is already being implemented. Three projects have been approved by the Bank in response to the Avian Influenza so far (Vietnam, Kyrgyz Republic, and Nigeria).

26. The lessons learned indicate that project success depends largely on the speed of the response provided and, particularly when dealing with smallholders' production systems, a speedy, efficient and transparent distribution of suitable key inputs is clearly a major factor in limiting the impact of a crisis and hastening recovery. A performance audit of some of the emergency projects supported by the Bank in various regions drew the following general lessons: (i) emergency projects should avoid policy conditionality; (ii) project design must be simple and take into account a realistic assessment of the

existing Borrower's capacity and other stakeholders capacity, i.e. NGOs; (iii) a speedy appraisal and approval are crucial to provide a prompt response and a substantial contribution to project success; (iv) procurement arrangements need to be flexible and should be finalized at an early stage; (v) mitigation and prevention measures should be included in the design to minimize impacts of a possible recurrence of the disaster; and (vi) realistic assessments should be made of counterparts absorption capacity, as well as of the effective communications and coordination mechanisms among all relevant stakeholders.

27. Even though the Vietnam Avian Influenza Emergency Recovery Project has been in implementation for only about one year (effective on November 9, 2004), the main recommendations arising from its implementation are:

- ③ Preparedness is a key factor. While Vietnam had a national strategy document to control avian influenza in the domestic poultry population, it was not clearly understood and shared by all relevant stakeholders and some aspects of the response have lagged.
- ③ A two-pronged strategy is recommended, including: (i) the control of HPAI at the source in high-risk regions (through aggressive measures including culling and movement control); and (ii) simultaneously prepared short and medium-term measures to minimize the risks to humans and prepare for an eventual pandemic.
- ③ For implementation arrangements, a coordination structure is needed which is empowered with multi-sectoral responsibilities, for instance at the Prime Minister's Office level, and to have full time project coordinators to implement activities in a "crisis situation". Coordination should not only involve the Government, but include the donor community, the private sector and the civil society.
- ③ A "compensation framework" is essential to obtain cooperation from affected farmers and to ensure the efficacy of the surveillance and diagnosis mechanisms.
- ③ Strengthening the technical, scientific and operational capacity of relevant participating agencies is important. The HPAI crisis highlighted several weaknesses in the existing animal health and public health services systems, including: poor surveillance at the local level, weak diagnostic capacity, lack of epidemiological expertise and information system, and inadequate operating budget to bear the additional physical and human cost to contain the disease.
- ③ An effective national response is imperative in case of a human epidemic, including all technical ministries in charge of agriculture/animal health and human health, as well as other relevant sectors, at the national and sub-national level.
- ③ Raising awareness in the public and private sectors is important from the initial moments.
- ③ Support should be given for the integration of each country to a regional and global framework for the control of HPAI, and more broadly of all trans-boundary animal diseases and other emerging infectious diseases, to increase cost-effectiveness and ensure the harmonization of activities and responses.

28. Some important lessons learned from the response to the HIV/AIDS epidemic¹ are incorporated in the design of the proposed project. They include:

- ③ High level political commitment and leadership is key.
- ③ A comprehensive multi-sectoral approach is need for prevention, treatment, care and support services.
- ③ Monitoring and evaluation is critical in the scaling-up of a national response.
- ③ Stakeholders at the country and international levels are important in dealing with the AI threat

¹ World Bank. 2005. Committing to Results: Improving the Effectiveness of HIV/AIDS Assistance. An OED Evaluation of the World Bank's Assistance for HIV/AIDS Control. Washington, D.C.

- ③ Building a strong fiduciary system is needed.

C. DETAILED PROJECT DESCRIPTION

1. Project development objectives and key indicators

29. The overall development objective of the project is to minimize the threat posed to humans and the poultry industry in Georgia by HPAI and other zoonoses in domestic poultry, and to prepare for, control, and respond to influenza pandemics and other infectious disease emergencies in humans. To achieve this, three areas would be supported by the project: (i) prevention; (ii) preparedness and planning; and (iii) response and containment.

30. Key indicators include: (i) evidence of an effective and inter-sectoral surveillance system in place for both animals and humans for HPAI and other zoonoses; (ii) evidence of institutional mechanisms in place for effective implementation of an integrated and multi-sectoral contingency plan for endemic preparedness; and (iii) contained outbreaks in poultry with no demonstrated transmission from birds to humans.

2. Project components

31. The project consists of three components: (i) animal health; (ii) human health; and (iii) strategic communication.

Component 1: ANIMAL HEALTH

Total component cost is estimated at US\$ 5.18 million. Bank financing is US\$ 3.86 million, co-financing through the Japanese PHRD co-financing grant is US\$ 0.57 million and Government contribution is US\$ 0.75 million.

(A) Strengthening National HPAI Preparedness and Prevention Capability

A1 - Strengthening the Regulatory and Institutional Environment. This component will provide technical assistance to MoA for a legal, regulatory and institutional review. The technical assistance will help ensure that the legal and regulatory framework for disease prevention, detection, containment and eradication is effective and in accordance with OIE standards and guidelines. The project includes a review the current legislative framework to assure its alignment with the public veterinary services that are currently being reorganized. The component will assist in drafting of legal amendments, regulations and implementation guidelines and manuals. On the institutional side, technical assistance will be provided to review the restructured veterinary services and the arrangements in place for surveillance, monitoring, sampling and outbreak response and make recommendations as necessary to ensure that they provide adequate and timely coverage. To meet international standards set by the OIE and the recommendations developed by FAO, the veterinary services need to develop and document appropriate procedures and standards for the implementation and management of animal health measures and international veterinary certification activities. The OIE has developed instruments that allow national veterinary services to carry out a self-evaluation and establish their current level of performance, form a shared vision with service providers and clients in the private sector, establish priorities, and facilitate strategic planning. The current reorganization of responsibilities and functions of the veterinary services into the Food Safety Agency will be examined against these instruments and further adjustments might be warranted for the veterinary sector to ensure it is capable of meeting international requirements.

A2 - National Action and Contingency Plan. While the Government has taken appropriate measures for short term surveillance activities, a comprehensive contingency plan is lacking. The project will provide technical assistance and training to help develop contingency plans that detail required activities at all levels and to develop the necessary implementation guidelines and manuals for all relevant agencies and services. The focus of the work will be on planning for an outbreak, and detailing how a response to an outbreak would be managed, including organization of culling programs, isolating the area of outbreak, and testing procedures to determine the spread of the virus. The experts assigned to this work will need to work with the MoA, customs, laboratories, private veterinarians and other agencies involved in HPAI prevention and control. Support will also be provided for the participation of veterinary experts in regional information exchanges on avian influenza as well as for working visits to other countries implementing similar activities. The project will also facilitate the organization of regular regional workshops for information exchange and cooperation agreements. Finally, the project will provide for simulation exercises to test the plan and to familiarize plan participants at all levels with their responsibilities in the event of an outbreak of HPAI.

A3 - Establishment of a National Compensation Policy and Funding. Early detection and reporting, as well as rapid response, depend critically on the incentives for poultry owners to report very quickly any sick or dead poultry to veterinary staff. For this to happen, adequate compensation arrangements have proven absolutely essential. The veterinary law, amended in 2004, provides for the establishment of compensation mechanisms, but does not detail the required implementation arrangements – including financing, fiduciary aspects, eligibility criteria, the level of compensation, payment arrangements, and flow of funds. The project will support the development of these implementation arrangements. The project will also provide US\$ 1.4 million for compensation funding.

(B) - Strengthening Disease Surveillance, Diagnostic and Containment Capacity

B1 - Strengthening the Disease Monitoring and Containment System. Support will be provided to strengthen the public veterinary services to bring them in line with OIE standards. This will include training of staff and provision of priority infrastructure and equipment (limited works, equipment, materials and supplies). It will also include improvement of the selected border inspection posts operated by the Customs Service through training and equipment and facilities as well as improving the mobility of the veterinary services. Staff training will be targeted at the personnel of the State Veterinary Unit in the Food Safety Agency in MoA as well as public and private veterinary practitioners operating in the rural areas. Specifically, training will be provided to the staff of the 65 Rayon monitoring units and the eight regional rapid response centers. Priority early in the project will be given to the centers in Regions and Rayons designated as high risk for HPAI outbreaks. The focus of the training will be on awareness raising, monitoring, investigating, sampling and testing procedures to be applied in case of an outbreak, as well as on analyzing epidemiological data and performing risk assessments. The training will also focus on outbreak containment, including arrangements for culling, disposal and compensation. The project will also link the local level into the surveillance and monitoring system so that a feedback system for notifiable animal diseases reaches to farmers, farm workers, and veterinarians at the local level. The sub-component will support (i) training for veterinarians on treatment of infected animals, reporting procedures and immediate local response measures; (ii) hands-on training for farmers in detection of clinical signs of notifiable diseases; and (iii) training on bio-security measures at the farm level. Funding will also be provided for essential first response equipment. This will include personal protection equipment, disinfectant equipment, vehicles, mobile incinerators, and materials and equipment for sampling and culling. Also, selected major border crossing points will be supported through improved facilities for inspection of suspect consignments including separate inspection rooms, disinfectants sprayers, wash basins, specimen containers and bags.

B2 - Strengthening Diagnostic Capacity. Georgia's laboratory capacity has been substantially strengthened over the past two years and it is largely equipped to diagnose all notifiable diseases including HPAI. Therefore, project support will be targeted primarily to strengthening the diagnostic capacity that needs to feed into the laboratory system. This will comprise strengthening through equipment, training and technical assistance regional laboratories and inspectors and veterinarians working on the local level in sample collection and submission, prescreening, reporting and follow-up of reported AI cases. Surveillance activities and rapid assessments for serological tests and screening surveys will also be supported. Essential equipment, consumables and reagents, rapid test kits, staff training and technical assistance will be provided to complete the chain of response for disease surveillance.

B3 - Strengthening Animal Disease Information Systems. Equipment, software, training, and technical assistance will be provided to improve the reporting of animal health information from the field and the flow of information among relevant agencies. The emphasis will be on developing an efficient disease information system, to enable Georgia to participate in global disease information sharing, in full compliance with the obligations of membership in the OIE. Emphasis will be placed on human resources development in the establishment and use of database programs (including GIS) and the analysis of data to deliver the necessary support to decision makers charged with prevention and control of animal diseases. The system will be linked with rapid and standardized methods of routine analysis of surveillance data, which will demonstrate important changes in the H5N1 situation, and this information will be promptly supplied to field staff. It will also support the upgrading of Georgia's participation in the World Animal Health Information System (WAHIS) to strengthen the country's ability to participate in global disease information sharing. The applicability of graphical information system technology will be fully exploited.

(C) Component Implementation Support, Monitoring and Evaluation

Financing will be provided for limited consultant services to ensure effective implementation of the project in accordance with Bank fiduciary and procurement guidelines. Implementation support for this component will be provided through the existing PCC in the MoA which is supporting ongoing Bank-financed in the sector. Funding will be provided for additional procurement and financial management support as required, and for monitoring and evaluation, as well as possible assistance to the component manager.

Component 2: HUMAN HEALTH

Total Component Cost is estimated at US\$ 4.32 million. Bank financing is US\$ 2.88 million, co-financing through the proposed Japanese PHRD co-financing grant is US\$ 0.52 million and Government contribution is US\$ 0.92 million.

32. Building an effective national public health response to the threat of HPAI will require an enabling environment and the necessary resources to bring proven interventions quickly up to a nationwide scale. Thus, the Project will help to expand quickly certain elements of the global strategic plan. As it is unlikely that the global spread of a pandemic influenza virus could be prevented once it emerges, the emphasis is on reducing its impact. Several tools will help achieve this aim: (i) year-round surveillance; (ii) effective and accurate methods of diagnosis; (iii) social distance interventions; (iv) vaccinations and anti-viral drugs; and (v) strengthened medical services. The interventions supported under the Project are based on a careful analysis of Georgia's epidemiological and programmatic needs. The interventions are grouped into three broad categories: Enhancing Public Health Planning and Programming; Strengthening National Public Health Surveillance Systems; and Strengthening of Health System Response Capacity.

(A) Enhancing Public Health Program Planning and Coordination

While MoLHSA and MoA recently prepared a draft NAIPP, the development by MoLHSA of a national pandemic influenza action plan (NPIAP) is equally important. The project will provide technical assistance to complete required sections, including: (i) the context and epidemiological underpinnings of an eventual influenza pandemic in humans; (ii) the current legislative and regulatory basis for interventions, especially social distancing; (iii) surveillance arrangements; (iv) verification of suspected cases through serological testing and virological subtyping; (v) prevention through immunization; and (vi) symptomatic case management with antiviral drugs. Also, the plan will detail the coordination of the emergency response, the logistics involved, the protocols and algorithms to be followed for surveillance, diagnosis, immunization and anti-viral therapy during inter-pandemic, pandemic alert and pandemic periods, and the means of communication and public information. It will also estimate resource and training requirements for effective implementation and make the necessary arrangements that they are in place.

The Project will provide training to MoLHSA to build its institutional capacity to command and control in a coordinated fashion the implementation of the plan and to members of the working level AI inter-ministerial committee to become a truly functioning coordinating agency.

(B) Strengthening of National Public Health Surveillance Systems

The detection of novel influenza strains is done through clinical and virological surveillance of human and animal influenza disease. More specifically this surveillance will include: (i) active surveillance for influenza-like illnesses (ILI) nationwide; (ii) collection of specimens for diagnostic testing and virus subtyping of suspected cases; (iii) confirmation of positive and a certain proportion of negative results in a reference laboratory; and (iv) outbreak investigation in areas with confirmed human cases. Surveillance systems should be enhanced prior to the start of a pandemic to ensure that the high demand for timely information that can be anticipated in a pandemic can be met. To this end, the proposed Project will support:

B1 - Improvement of Laboratory Networks. In Georgia there is one National Reference Public Health Laboratory (NRL) for virology at the NCDC which acts as the National Influenza Center (NIC). The NRL's capacity has been substantially strengthened over the past year with US assistance and it is largely equipped to diagnose all notifiable diseases including HPAI. Two other laboratories in Kutaisi and Batumi are also being upgraded with US assistance which will form the main core of laboratory capacity for a human pandemic. While laboratory capacity has been greatly enhanced, it still is unlikely to cope with the increased demands in times of pandemic. Therefore, the project will provide financing for targeted interventions aimed at supplementing existing capacity. Specifically, the sub-component will finance the upgrading of the NRL in Tbilisi to Bio-Safety Level 3 (BSL-3) with physical containment requirements for virus isolation and sub-typing to determine various strains. In addition, the public health laboratory system at the regional level, which would be needed for sample collection in a pandemic will be supported through procurement of basic supplies, and training of personnel

B2 - Improvement of Health Information and Telecommunication Systems. In coordination with the bank-financed Primary Health Care Project and other ongoing interventions financed by donor agencies, this sub-component will finance technical assistance and training to strengthen surveillance, communications, and information technology at the different levels of the health care system. The focus will be on supporting the country's preparedness and capacity to respond to avian influenza and other infectious disease outbreaks and to fast-track available treatments for the disease.

(C) Strengthening Health System Response Capacity

Aggressive containment measures such as patient isolation and prophylactic use of antiviral drugs may slow the spread of a pandemic and allow time for response measures. Although mass vaccination is the preferred intervention, an efficacious vaccine may not be ready or available for use as part of a large-scale vaccination campaign soon enough to contain the pandemic. Anti-viral supply and production capacity are also limited. Therefore, the project will support through the implementation of the NAIPP, “social distancing measures” -- such as simulation exercises, quarantine, bans on mass gatherings, and travel restrictions, backed up by a well-designed communication strategy. The project will support a program of vaccination for regular seasonal influenza, particularly aimed at high risk groups. In addition, support for the procurement of antiviral drugs will be provided. Additional preventive actions such as personal hygiene promotion and distribution of masks will be supported, along with increased awareness and promotion of community participation in slowing the spread of the pandemic. In this area, the project will support:

C1 - Social Distancing Measures. One possible measure to prevent contracting avian influenza is to limit, as much as possible, contact of suspect cases or people from infected areas with the general public. Therefore, the project will support through technical assistance and training the implementation of classic “social distancing measures”--such as school closings, backed by a well-designed communication strategy. Financing will be made available for developing guidelines on social distancing measures based on existing or new laws and regulations, for supporting coordination with other sectoral agencies, and for supporting the MoLHSA on protecting health personnel and other sectoral staff involved in pandemic response activities. Additional preventive actions to complement social distancing such as personal hygiene promotion including hand washing and proper cooking, and use of masks would be supported, along with increased awareness and promotion of community participation in slowing the spread of the pandemic.

C2 - Vaccination Support and Antiviral Therapy. Support will be provided for expanding regular seasonal flu vaccination as one step to help prevent an outbreak among humans. Under this sub-component, funding will be made available for implementation of expanded influenza vaccination program to administer rapidly vaccine to high risk groups and to monitor effectiveness and safety. In addition, financing will be provided for procurement of Tamiflu for stockpiling.

C3- Medical Services. In coordination with the PHC Project and other ongoing interventions financed by donor agencies, equipment, supplies, technical assistance and training will be provided to the health care system for preparedness planning to provide optimal medical care and maintain essential community services in the event of a pandemic. To this end, financing will be provided for establishment of specialized units in selected hospitals. Equipment for these units would include ventilators, monitors, and respirators, and personal protection equipment. Guidelines will also be developed for increasing bed availability in case of a pandemic through more stringent triage for admission and earlier discharge with follow-up by home health care personnel. Assistance will also be provided for the development and/or updating of treatment guidelines and hospital infection control guidelines and measures, including building antibiotic stocks, mobilizing additional health personnel, training of health personnel, and providing equipment, drugs, vaccines, and other medical inputs.

(D) Component Implementation Support, Monitoring and Evaluation

Financing will be provided for limited consultant services to ensure effective implementation of the project in accordance with Bank fiduciary and procurement guidelines. Implementation support for this component will be provided through the existing PIU for the Primary Health Care Project in the

MoLHSA, the Georgia Health and Social Projects Implementation Center (GHSPIC), which is supporting ongoing Bank-financed in the sector. Funding would be provided for additional procurement and financial management support as required, for monitoring and evaluation

Component 3: PUBLIC AWARENESS AND COMMUNICATIONS

Total component cost is US\$ 0.90 million. Bank financing is US\$ 0.36 million, co-financing from the proposed Japanese PHRD co-financing grant is US\$ 0.31 million and Government contribution is US\$ 0.23 million.

33. This component is intended to promote awareness and improved coordination of the execution of the NAIPP and related contingency plans in MoA and MoLHSA. It is designed to help protect the poultry industry and safeguard human health and to facilitate surveillance and monitoring for outbreaks by improving public awareness and information. Under this component, support will be provided for information and communication activities to increase the attention and commitment of government, private sector, and civil society organizations, and to raise awareness, knowledge and understanding among the general population about the risk and potential impact of the pandemic. Information and communication activities will be designed to deliver a variety of messages that would change as the threat of HPAI evolves. The messages will also be directed at a wide range of audiences such small farmers, commercial producers and processors, traders, veterinarians, participants in monitoring and control activities, health care workers, and the public at large. Finally, communications and information will be tailored to needs of ethnic minority communities, where language is an issue.

34. To design and coordinate these activities, a communication unit will be established to work with the Project Implementation Team (PIT), with an immediate input into: the design of an integrated and comprehensive communications strategy and action plan; selection and sub-contracting of services to implement the communication interventions; training of spoke-persons from priority sectors in managing the media; partnering with the electronic and print media to highlight the national response and ensure accurate reporting. To help undertake these functions a communication professional will be assigned for day to day support to the PIT. In addition, communication specialists and goods, training and consultant services would be provided for both, MoA and MoLHSA, to subcontract rapid-research around knowledge, attitude and practices (KAP studies) of vulnerable at-risk populations; to design and produce awareness-raising and prevention campaigns; and promote fast reporting through innovative technologies. The Ministry of Education and relevant partners will participate in the development of educational materials to be used in schools, community and faith-based organizations, to access groups that are marginalized or hard-to-reach.

3. Project costs and financing

Total Project Cost and Financing in US\$

Components	Government	IDA	PHRD	Total
Animal Health Component				
A. Strengthening National HPIA Preparedness and Prevention Capability	85,000	1,412,000	330,000	1,827,000
B. Strengthening Disease Surveillance, Diagnostic and Containment Capacity	638,000	2,359,000	240,000	3,237,000
C. Component Implementation support, Monitoring and Evaluation	24,000	95,000	0	119,000
Sub Total	747,000	3,866,000	570,000	5,183,000
Human Health Component				
A. Enhancing Public Health Program Planning and Coordination	80,000	60,000	280,000	420,000
B. Strengthening of National Public Health Surveillance Systems	217,000	776,000	28,000	1,021,000
C. Strengthening Health System Response Capacity	586,000	1,902,000	212,000	2,700,000
D. Component Implementation support, Monitoring and Evaluation	35,000	141,000	0	176,000
Sub Total	918,000	2,879,000	520,000	4,317,000
Public Awareness and Information Component	235,000	355,000	310,000	900,000
Total	1,900,000	7,100,000	1,400,000	10,400,000

D. IMPLEMENTATION ARRANGEMENTS

1. Overall project organization and management

35. The project will be implemented jointly by MoA and the MoLHSA. The Minister of Agriculture will designate a senior veterinary official as the component manager for the Animal Health Component and the Minister of Health will designate a deputy minister to be in charge of the Human Health and Communications Components. Both component managers will be responsible for the implementation of their respective components. Under the communications component, the project will finance communication assistants to the managers to meet the day to day communications requirements of the project and to provide overall assistance in project implementation.

2. Institutional arrangements for implementation

36. **Governmental Steering Commission on Avian Influenza in Georgia (GSCAIG).** This multi-sectoral task force was formed in January 2006 to respond to the threat of HPAI. It is chaired by the Prime Minister and includes the ministers of finance, health, education, agriculture, environment and defense. It sets overall policy on HPAI prevention and control and oversees the efforts of the Government in monitoring and surveillance, prevention measures, and in preparing responses to contain outbreaks. The task force will also serve as the overall coordinating and oversight body for the proposed project and it will review at least twice annually progress with project implementation.

37. **Inter-ministerial Task Force (IMTF).** This Task force chaired by the Deputy Minister of Labor, Health and Social Affairs and represented by Ministry of Agriculture, Ministry of Education and Science, Ministry of Finance, Ministry of Defense, Ministry of Environmental Protection and Natural Resources, Customs Department, Public Health Department, National Center for Disease Control, Drug Agency and Infectious Disease Hospital, WHO, WB, UNICEF, and USAID. It is charged with the responsibility of ensuring that the policy and operational directions of the Commission are carried out. This task Force meets weekly to oversee and coordinate Avian Flu activities across the Government and reports regularly on the progress to the GSCAIG.

38. **Project Implementation Team (PIT).** Given the multi-sector nature of the project and the need to coordinate across the sectors particularly in overall information sharing and in the implementation of the communications strategy, a project implementation team will be established to coordinate project activities. Participants in the team would include the two component managers, a representative from the customs department, and the communications assistants hired by the project. The team will be chaired by a designated official from the Prime Minister's Office. It will meet regularly to review project implementation, identify outstanding issues, and coordinate activities. The project would provide funds for one consultant to provide support to the PIT and the component managers in the day-to-day management of the project.

39. **Animal Health Component.** The implementing agency for this component will be MoA. A senior Veterinary official in the ministry, designated by the Minister, will be the component manager for this component. Since procurement and financial management skills required by IDA and necessary for Project implementation are lacking within the Ministry, assistance in these areas will be provided by the existing Agricultural Development Project Coordinating Center (PCC) which has been established to support implementation of the ongoing IDA projects in the agricultural sector. The PCC is an entity under Public Law reporting to MoA. The entity is well-experienced in managing IDA-financed projects and in assuring that procurement and financial management is carried out in accordance with World Bank

guidelines. The activities of the PCC under this component will be under direct oversight of the component manager.

40. **Human Health Component.** The Human Health Component will be implemented by the MoLHSA. The Deputy Minister who is responsible for Avian Flu in the Ministry will be designated by the Minister to be in charge of the Project. Financial management and procurement services for the component will be provided by GHSPIC, which is experienced in implementing IDA projects including the PHC project. The activities of GHSPIC under this Project will be under direct oversight of the Component Manager. The Ministry will be responsible for all other functions related to implementation of this component, including inter alia decisions relating to the terms of references for consultants, and substantive supervision of their work.

41. **Public Awareness and Communications Component.** The Strategic Communications Component will also be managed by the MoLHSA, specifically by the Component Manager for the Health Component, and the GHSPIC in the Ministry will also handle procurement and financial management arrangements for this component. Substantive management of the component will, however, need to take into account that the communication strategy for HPAI has to encompass both the animal and human aspects of the HPAI threat. Thus, while the day-to-day management of the Component will rest within the MoLHSA, for substantive decisions on the communications strategy, and specific messages arising from that strategy, the component would receive guidance from the GSCAIG at the level of strategy formulation, and from the PIT on, inter alia, the content of specific messages, choice of media, and design of training activities. The project will provide for technical assistance to assist with communications component at both the level of the PIT and at the MoA and MoLHSA.

3. Procurement and Financial management

42. A new public procurement law enacted in January 2006 is considered generally acceptable in terms of procurement framework legislation. However, the procurement environment in Georgia is rated as "high risk".

43. MoA, supported by the PCC, will implement all activities under the Animal Health Component. MoLHSA, supported by GHSPIC, will implement all activities under the Human Health and Public Awareness and Communications Components. Both Ministries, supported by their respective implementation units, are deemed to have the necessary capacities for implementing the Project. All goods and works contracts to be financed by the Bank will be undertaken in accordance with the procedures set forth in the Bank's "Guidelines – Procurement under IBRD Loans and IDA Credits" dated May 2004 (the Procurement Guidelines). Similarly, the selection and employment of consultants shall be governed by the "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004 (the Consultant Guidelines). Further details on procurement arrangements are provided in Appendix 6.

44. The procurement and financial management functions of the two out of the project's three components (Human Health and Public Awareness and Communications) will be handled by the GHSPIC in MoLHSA and the third component (Animal Health) by the PCC in MoA. Both implementing agencies will be responsible for the flow of funds, accounting and reporting in their respective ministries. They will coordinate their work, and the reports will be consolidated by the GHSPIC for submission to the IDA.

45. A **financial management** assessment of both PCC and GHSPIC was undertaken in March 2006 to determine whether the existing financial management arrangements are acceptable to IDA. This was

in addition to assessment of the financial management arrangements of the PCC conducted in October 2004 during preparation of RDP. Furthermore, the FM systems have also been reviewed periodically as part of current projects supervisions for last several years and have been found satisfactory in both agencies. The PCC and GHSPIC have established and maintained good financial management systems for the implementation of the active RDP, ARET, and Irrigation and Drainage Community Development Project by PCC, and PHC project and Hospital Restructuring Component of SRS by GHSPIC respectively. The financial management systems of both the PCC and GHSPIC are capable of supporting the implementation of the proposed project in accordance with the requirements of OP 10.02, except for the Compensation sub-component for which internal control and fund flow arrangements have been discussed with the Government representatives but not been prepared during the assessment and are planned to be developed and approved during project implementation. The flow of funds under this sub-component will only begin after appropriate internal control arrangements as well as fund and documents flow procedures, satisfactory to IDA, have been adopted and documented in the Operational Manual/s of the entity/ies that will be responsible for the Compensation implementation. In addition, an action plan has been prepared with capacity building actions which are required to ensure that the financial management arrangements are strengthened for this project (presented in Appendix 7).

4. Retroactive financing

46. Retroactive Financing of up to an amount of US\$1.4 million will be provided for eligible expenditures incurred after April 5, 2006 and up to the signing of Financing Agreement. Eligible expenditures include goods, works, and services. Retroactive financing can also be used for compensation funding provided that the disbursement condition for compensation funding is lifted (para. 52).

5. Environmental and social aspects

Environmental assessment Environmental Category B

47. The Environmental Management Plan has been prepared and was disclosed on March 31, 2006.

48. The Project's prevention-focused activities are expected to have a positive environmental impact as the Project's investments in facilities, equipment, and training for animal and public health workers and facilities will develop capacity to improve the effectiveness and safety over existing avian influenza handling and testing procedures. This will be reinforced by the mainstreaming of environmental safeguards into protocols and procedures for the culling and disposal of animals during AI outbreaks, and for laboratory safety and appropriate waste management procedures. The Environmental Assessment (EA) and an Environmental Management Plan (EMP) will address the deployment of mobile incinerators, disposal by burial, use of disinfectants, and laboratory practices.

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP/GP 4.01)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats (OP/BP 4.04)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pest Management (OP 4.09)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cultural Property (OPN 11.03, being revised as OP 4.11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Involuntary Resettlement (OP/BP 4.12)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indigenous Peoples (OD 4.20, being revised as OP 4.10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Forests (OP/BP 4.36)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Safety of Dams (OP/BP 4.37)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Projects in Disputed Areas (OP/BP/GP 7.60)*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects on International Waterways (OP/BP/GP 7.50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6. Monitoring and evaluation of outcomes/results

49. Monitoring and evaluation (M&E) activities related to the project will be the responsibility of both the MoLHSA and MoA. Depending on the specific situation in each case, these activities could be carried out by the regular staff of the agencies (with the support of the respective implementation units) or by contracting out these functions with specialized agencies/institutes when appropriate.

50. Monitoring project progress and the achievement of objectives will entail continuous and systematic review of the various project implementation activities. The purpose of the M&E activities are to: (i) measure input, output and outcome indicators (see Appendix 10); (ii) provide information regularly on progress toward achieving results and facilitating reporting to the government and IDA/IBRD; (iii) alert government authorities and the Bank to actual or potential problems in implementation so that adjustments can be made; (iv) determine whether the relevant stakeholders are responding as expected and intended by the project; and (v) provide a process whereby the coordinating and executing agencies can reflect and improve on their performance.

51. The results of relevant M&E activities will be reflected in the semi-annual and annual progress reports. The progress reports will cover the progress with the works, the institutional activities, training and studies, performance indicators, and Unaudited Financial Reports (UFR). Part of the progress reports will be devoted to issues identified during project implementation and the strategies and actions to be taken to resolve such issues that affect progress. The second report of each year will be an annual report, providing information of the progress during the past year.

7. Loan/credit conditions and covenants

52. A disbursement condition on funding for compensation for culling is the adoption of a compensation funding manual satisfactory to IDA that describes compensation systems and procedures, including appropriate internal control mechanisms and documented arrangements for the flow of funds and documents.

8. Policy exceptions and readiness

53. No policy exceptions are anticipated for the Project.

* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

E. FINANCIAL AND ECONOMIC JUSTIFICATION

1. Economic and financial analyses

54. For the economic analysis, the focus is on animal health. The costs and benefits are calculated of reducing the likelihood of a catastrophic event (CE) through project interventions. A CE is defined as multiple outbreaks that cause substantial poultry deaths and a collapse in demand and prices for poultry products. Of course, the emergence of a human influenza pandemic caused by a lethal virus would have a social and economic impact many times greater than the impact on the poultry sector. This would be through the costs associated with public and private efforts to prevent the emergence or spread of the disease in humans and to treat its effects and the economic consequences of sickness or death resulting from the disease outbreaks. However, given the much greater uncertainty of a human pandemic, the economic analysis focuses only on the economic losses in the poultry sector.

55. In this treatment of HPAI as an animal health issue, actions to be taken by the Government are analyzed using the traditional “without project” and “with project” scenarios. Under the “without project” case, the low capacity of government and the poultry industry to deal with outbreaks causes the sector to be increasingly vulnerable to a catastrophic AI occurrence. This CE would be characterized by multiple, simultaneous outbreaks leading to a spread of the disease to large sections of the country’s poultry flock. The costs are estimated to be equivalent of a 60 percent reduction in value added in the poultry sector in the year of CE with a gradual and partial recovery in the following three years. A further, one-time cost to the poultry sector occurs in the form of abandoned capital production assets as a result of the permanent decrease in demand and poultry stock that has to be culled in response to the outbreaks. This loss is estimated at 40% of the capital stock. The value of the poultry sector capital stock itself is assumed to be equal to three times the value of annual production in the poultry sector. The stream of total annual costs due to a CE in a particular year is summarized as the present value as of the year of the CE. This value is then multiplied with the probability of the CE occurring in a particular year to arrive at the expected cost. In the without project scenario, the probability of the CE occurring is assumed to be 10% in 2006, increasing annually at a rate of 1.0% due to increasing presence of the virus in the environment.

56. In the “with project” it has been assumed that the impact of the project will fully come into play in year four after the project start. Therefore, the probability of the full impact of a catastrophic event being felt is assumed to be the same as under the without project scenario for the first three project years. From year 4, the likelihood of a catastrophic outbreak is assumed to reduce by 20%. Based on these assumptions, the analysis yields an NPV of US\$ 149 million and an internal rate of return of 70.8 %.

2. Technical analysis

57. **Animal Health.** Successful implementation of the project depends on a phased multi-disciplinary strategy based on a sound epidemiological approach to control HPAI outbreaks. This strategy has to take into consideration the range of epizootic and epidemiological scenarios that exist or may arise in Georgia as well as the different poultry production systems within the country and different levels of incidence (ranging from high incidence with variable flock outbreaks, through low frequency disease outbreaks with partial flock immunity, to sporadic outbreaks). A balanced combination of appropriate disease control options, tailored to the specific characteristics and needs of Georgia is therefore essential for the achievement of the project objectives.

58. The implementation of the project raises important technical issues and presents substantial challenges. The main issues are:

- **The capacity of the public and private veterinary services.** The Georgian veterinary services is undergoing a major restructuring and downsizing and is inadequately equipped and trained to deal with HPAI and the potentially large scope, severity and rapid spread of any outbreaks. This is evident across the entire range of critical capabilities: surveillance and diagnostic capacity for early detection and reporting of outbreaks, monitoring the disease, rapid response and implementation of the required control measures within and around the outbreaks.
- **Bio-security measures.** Bio-containment measures to prevent the spread of the virus from infected premises and bio-exclusion measures to exclude the virus from uninfected locations are essential, but have often proven to be difficult to implement effectively. The lack of capacity and experience in practicing effective measures is one of the main reasons for the persistence of the disease and its spread in the world. It will be critical to develop and practice effective implementation under the specific conditions of Georgia and to develop and institutionalize efficient coordination among local and national institutions, agencies and services.
- **Harmonized disease information systems.** The importance of harmonized disease information systems, linked to disease surveillance and epidemiological programs, is widely accepted. Although Georgian authorities exchange relevant information with their counterparts in neighboring countries, this information exchange is not systematic and adequately institutionalized. This issue is compounded by the presence of two conflict zones. The project will support the development of effective information sharing arrangements within the Caucasus region as well as the upgrading of Georgia's capacity to participate in the World Animal Health Information System (WAHIS) of the OIE.
- **Wildlife species and reservoirs are a source of HPAI.** Migratory birds are a major potential source of transmission of H5N1 viruses to domestic poultry. Georgia is an important stop-over place on the flyways for migratory birds and, thus, faces significant risk. It is very difficult to apply bio-security measures aimed at avoiding contact between migratory and other wild birds and domestic poultry, particularly because in Georgia backyard poultry predominates and domestic birds are allowed to roam freely. In these circumstances, it is likely to prove very difficult, if not impossible, to completely eradicate the HPIA virus, but the project will emphasize efforts to minimize contact between wild and domestic birds.
- **Poor coordination among public agencies and weak linkages with the private sector.** Ineffective coordination among ministries and public agencies, as well as weak linkages with the private sector, are major impediments to long-term planning for infectious disease control. Given the zoonotic and transboundary nature of this disease, a well coordinated public-private response is essential. The project will seek to establish efficient coordination arrangements and mechanisms.

59. **Human Health.** According to WHO, the current epidemiological situation of avian influenza corresponds to "a Pandemic Alert Period, phase 3, with human infection (s) with a new sub-type, but no human-to-human spread or at most, rare instances of spread to a close contact". It differs from previous influenza pandemics where health services had little time to prepare for the abrupt increases in cases and deaths that characterize these events, for several reasons: (i) the world has been warned in advance; (ii) this advance warning has brought an unprecedented opportunity to prepare for a pandemic and develop ways to mitigate its effect; (iii) apart from stimulating national preparedness activities, the present situation has created an important opportunity for international intervention aimed at delaying the emergence of a pandemic virus or forestalling its international spread.

60. The recent risk to human health posed by the avian influenza outbreaks led to the preparation of a Global Technical Framework (as part of the GPAI) to guide action against an increasing pandemic threat, while recognizing that there are areas that would still require further development and that specific actions to be included and supported under country projects (including this one) would reflect the epidemiological conditions, institutional capacity, and needs and priorities of each country.

61. Critical for pandemic planning is ensuring that the building blocks are in place ahead of an actual pandemic threat. The two major strategies supported under the GPAI are: (i) containment measures to prevent transmission and spread of the virus through social distancing measures, judicious use of anti-viral medication, and strengthening of surveillance and public health laboratory systems to ensure that capacity is in place to identify rapidly and accurately emerging virus sub-types, and (ii) maintenance of essential medical services and mobilization of international emergency health care and staffing for low-income and low-capacity situations, if there is explosive spread of the virus within the general population and containment is not longer possible, coupled with preparedness for pandemic vaccination development and administration. In addition, it is important to ensure that appropriate decision making bodies are in place and have the necessary expertise and authority to make decisions quickly and effectively in the face of rapidly developing situations. As such, the Project will support short-and long-term actions in the public health sector while ensuring that an appropriate balance is struck between the two. The project is fully consistent with recommendations of WHO. The aim of proposed interventions is to minimize the morbidity and mortality associated with the pandemic event.

3. Critical risks and possible controversial aspects

RISK	RATING	MITIGATION MEASURE
From Outputs to Objective		
Decline in political commitment to the threat of AI and a global influenza pandemic.	M	Continuing support for inter-country collaboration through information exchanges, dialogue, and mobilization of international commitment and resources.
Project implementing agencies do not have sufficient authority, leadership, and capacity to take leading role in AI prevention and control. Of particular concern is the newly established Food Safety Agency in MoA which will take over responsibility for public veterinary services during this year.	S	Adequate implementation arrangements in place as a pre-condition of Bank financing; careful monitoring of leadership and project management during project implementation; technical assistance and training.
Intervention activities not effective in containing the spread of Avian Influenza from birds to the human population.	S	Project activities will strengthen response capacity in the short- and medium term and lay the foundations for a broader-based strategy, including awareness and communication campaigns, which will be critical to containing the spread of a global influenza pandemic. Choosing well designed, cost-effective interventions that are phased and carefully monitored, allowing for modifications and redesign as needed. Good M&E to flag emerging issues
Inadequate or lack of multi-sectoral participation	M	The Avian Flu Crisis Task Force and the inter-ministerial working group overseeing the program are representative of the relevant agencies working on HPAI issues; transparent annual work programming exercises.

Low local-level commitment means that strong central commitment does not translate into action on the ground.	M	Implementation mechanisms explicitly address local level coordinating bodies, specifically the local crisis centers at the Rayon level, communication strategies include decentralized authorities as targets.
From Components to Outputs		
Controlling the spread of the pandemic may expose the government to criticism for the curtailment of civil rights due to the adoption of quarantines and other related measures.	M	Project will support advocacy and coalition building to sensitize key groups including policy makers and the media. This will be complemented by carefully designed mass communication campaigns to build support for the project among the wider population
Inadequate transparency and control measures in place to prevent corruption in operation of compensation arrangements	S	Project will support design of a compensation mechanism focused on simple and transparent arrangements for recording ownership of culled birds, determining the amount of compensation owed, and making payments. Included will be adequate control and audit arrangements and responsive feedback mechanisms. Development of such a system would be a condition of disbursement for the compensation sub-component.
Lack of sufficient quantity of drugs and other medical inputs needed to address the needs of the general population during a pandemic	S	Project activities will be coordinated with efforts undertaken by other international organizations
Inadequate institutional capacity to manage project and perform effectively	S	Capacity building and institutional development as one of the project's key objectives. Existing project implementation arrangements will be tapped to help with implementation, and additional financing will be made available to bolster this capacity.
Financial resources not accessible in a timely manner, weak procurement management	S	Rapid disbursement procedures and simplified public sector procurement in accordance with OP for emergency operations.
Lack of timely and predictable access to expert advice and technical support	M	Project activities are designed and implemented with leading multilateral agencies such as FAO and WHO; regional bodies such as the European Union; and bilateral and other donor organizations.
Low priority given to public accountability and transparency in program management	M	Publication of audit results and achievements; transparency in decision and resource allocation.
Inadequate capacity for planned surveillance, surveys and monitoring and evaluation	S	Technical assistance and partnership between local organizations and international institutions will be provided. M&E plan will include information on instruments for data collection, agencies responsible and a detailed time table.
Overall Risk Rating:	S	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

Appendix 1: International and Country Background

GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

Macro-economic Framework

1. Georgia is a small country with a population of 4.6 million people which declared its independence from Soviet rule in 1991. In the ensuing 15 years, its efforts to construct a democratic state and rebuild the economy have been challenged by several factors, including separatist conflicts in South Ossetia, and Abkhazia, civil war, crisis in Russia and a number of natural calamities. Significant economic reforms were undertaken in the early years, which led to good performance in 1996 and 1997, but momentum slowed thereafter. Achievements in trade reform bank restructuring, legal and regulatory reforms, privatization and competition reforms, judicial reform, and health reforms were blunted by weak fiscal management and poor public sector capacity. Further, a dramatic deterioration in Governance slowed economic growth and poverty reduction. In response to the deteriorating situation, opposition to the Government coalesced in massive protests during Parliamentary elections in November 2003, which prompted the resignation of President Shevardnadze, and election of the new Government in January 2004.

2. Economic performance during the first two years following the change of Government has been encouraging. GDP growth is robust with estimated growth of 5.9 percent in 2004 and 9.3 percent in 2005. Inflation remained at about 6.2 percent in the 12 months ending in December, 2005. Tax revenues have increased dramatically as a percentage of GDP, increasing from 14.7 percent in 2003 to 18.2 percent in 2004 and 19.8 percent in 2005. On the expenditure side the Government has substantially reduced arrears, increased pensions, and has been able to increase spending for priority areas such as infrastructure and education. Poverty, however, remains high, delivery of public services requires significant improvements. Moreover, the young Government now faces a new and sobering challenge – Highly Pathogenic Avian Flu (HPAI).

3. Georgia is bordered by the Black Sea to the west, Russia to the north, Turkey and Armenia to the south and Azerbaijan to the east. Georgia's location places it at extreme risk for the spread of HPAI. Georgia's border with Turkey is near the regions in eastern Turkey with a high number of reported outbreaks (13 in domestic poultry as of the end of January). A major migratory bird flyway crosses from this direction over Georgia. Another flyway from the north crosses over Georgia's long border with Russia, where outbreaks in seven regions have been reported. The length of that border, the fact that it traverses difficult mountainous terrain and two conflict zones, complicates surveillance efforts for the disease. The recent recorded outbreak in poultry and wild fowl and the five human deaths in Azerbaijan show the tragic and critical nature of the threat facing Georgia and its neighbors.

4. Georgia reported its first case of Avian Flu on February 21, 2006 when a dead swan found at a lake in Ajara region tested positive to a test using a real time PCR. A second migratory bird tested positive the following day, and the Government declared a State of Emergency in Adjara. It implemented culling in a three km radius around the site where the dead birds were found, killing all domestic poultry (about 1800 chickens) in 12 villages within the 3km. radius. Testing at the Central Reference in Weybridge UK later confirmed that the virus was indeed Influenza A (H5N1).

5. Responsibility for the ongoing surveillance and monitoring for HPAI in poultry and migratory fowl and for response in case of an outbreak rests with the MoA. Up until the positive test result, over

1,000 samples had been taken from suspicious birds identified during passive surveillance. Also, regular testing of water fowl has been initiated at lakes along major migratory routes.

Agriculture and Poultry Sector

6. Agriculture plays a key role in Georgia's economy, during the last five years, contributing about 20 percent of total GDP. Due to the fact, that agriculture production is predominately small holder, in 2004 this sector accounted for about 50 percent of employment, though commercial farming is growing in importance.

7. Poultry production is widespread across the country and provides significant contribution to the economy. The estimated annual output of this sector in monetary terms has grown over last 10 years and achieved 156 million GEL in 2004, though its contribution to the GDP is still quite small at about 1.6% of GDP in 2004.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005*
Poultry	32.4	33.0	31.2	34.5	38.9	51.3	56.6	60.5	78.1	80.7
Eggs	50.3	49.4	49.1	56.2	53.0	57.0	65.6	74.6	77.8	78.7
Total (mln. gel)	82.7	82.4	80.4	90.7	91.9	108.3	122.2	135.1	155.9	159.4

8. Poultry production is growing more rapidly than other livestock products. In monetary terms the share of poultry production to livestock production increased from 10% up to 20%, over the last 10 years.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005*
Red Meat (mln. gel)	311.6	319.9	301.8	310.8	324.8	332.1	392.9	414.1	413.7	407.5
Poultry (mln gel)	32.4	33.0	31.2	34.5	38.9	51.3	56.6	60.5	78.1	80.7
%	10.39	10.32	10.35	11.10	11.97	15.44	14.42	14.61	18.88	19.81

9. During the last few years poultry sector grew not only in monetary terms, but also physical stocks also steadily increased, as well as number of eggs and quantity of poultry meat produced.

	2000	2001	2002	2003	2004	2005*
Poultry (ths. heads)	7825.5	8494.6	8898.7	9200.6	9836.2	10,600
Eggs (mln.)	364	395.4	408.8	458.6	496.6	504.5
Poultry meat (ths. tons)	13.7	12.8	13.2	13.45	15.6	16.3

10. The poultry industry is one of the major sources of income of rural households as more than 90% of the production is conducted in small and backyard farms.

	2000	2001	2002	2003	2004
Households	7743.5	8390.2	8413.5	8586.0	8955.7
Enterprises	82.0	104.4	485.2	614.6	880.5
Total (ths. heads)	7825.5	8494.6	8898.7	9200.6	9836.2

11. The share of commercial enterprises is increasing, but currently they provide only about 10% of total production. There are about a dozen of commercial enterprises in Georgia, with flock size from 40,000 to 200,000 head. Despite the fact that there is no registered case of Avian Influenza yet in domestic poultry, it has already negatively impacted the Georgian economy and especially the poultry sector. Sales of poultry products dropped tremendously, down to 10-15 percent of previous levels and

three commercial enterprises already slaughtered their flock and stopped operations. Many small farmers are also slaughtering their flocks.

12. Responsibility for the ongoing surveillance and monitoring for HPAI in poultry and migratory fowl and for response in case of an outbreak rests with the MoA. Until January this year, state veterinarians were under the Ministry's Veterinary Department, with branch offices in each of Georgia's 65 Rayons. The MoA, in 2005, undertook a major review of this structure, and developed a two stage restructuring plans. During the first stage, in July 2005 the number of employees was reduced from 2500 to 650, out of which about 70 veterinarians are employed in the headquarters of veterinary department and 580 in Rayon offices and in veterinary laboratories. A second stage of these reforms, which is to be introduced over the first half of CY 2006, envisages that the veterinary department will be absorbed into a newly created Food Safety Agency and the number of state veterinaries will be reduced to about 200. One or, in some cases two, state veterinarians will still be assigned to Rayon offices and the intention is to evolve much of the previous state veterinary functions that are of a more private nature to the private sector or have the private sector carry out some functions with a public good element, such as vaccinations or HPAI control measures on a contractual basis. While the basic direction of the reforms will eventually lead to a more efficient division of veterinary services between the public and private sector, there is a real concern whether in the transition period the much reduced public sector veterinary service will be able to cope with the demands of constant surveillance for HPAI. The Government will need to monitor the situation carefully, and adjust staffing in most critical areas to assure adequate staffing for monitoring and surveillance, and quick response with containment measures in the event of an outbreak.

13. In response to the threat of HPAI outbreak the Government has established local crisis centers in each of the 65 Rayons based on the former structure of the Rayon veterinary units. Weekly meetings of a committee including the veterinary administration, health care department, local Government representatives as well as local representatives of the Ministry of Education and Ministry of Environment are taking place to oversee the work of the monitoring centers. Hotlines to the centers have been established to report suspicious bird deaths. These centers provide the first line intervention when bird deaths are reported. Fourteen of the 65 centers have been identified as being in high risk areas for HPAI outbreaks and have been given additional veterinarian staff and equipment for sample collection and testing. They are backstopped by eight regional centers that aim to respond within two hours of a reported suspicious bird death to assist in taking samples and with disinfection.

14. Almost US\$ 90.0 million in US assistance is being provided to upgrade labs for human testing at the NCDC, and at Kutaisi Hospital, and three labs for veterinary testing. While the rehabilitation of the labs is intended to strengthen capacity for a wide range of testing, the assistance fortunately provides Georgia with adequate testing facilities that are fully equipped to test for HPAI on the human side. Also, the Central Veterinary Laboratory has been renovated and equipped to test for the virus. Three lab technicians have been being trained in administering the test and further training is scheduled for additional technicians. Construction is also about to start on a Bio-Safety Level 3 lab in Tbilisi with separate facilities for animal and human testing. Construction will be finished in 2009. In addition two more regional veterinary labs will be renovated in Kutaisi and Akhaltsikhe (2007-2008), each of these labs will have 4 sentinel stations, totally 8 sentinel stations across the country. Included in the US assistance, besides equipment and civil works, is training for lab technicians and consumables and reagents needed for the virological tests.

15. In addition to the proposed project, Bank assistance to the agriculture sector includes the ongoing Agricultural Research, Extension and Training project (ARET) and the Rural Development Project (RDP). At the Government's request, funds from both projects have been allocated to meet emergency

needs for HPAI preparedness, including personal protection equipment, disinfection equipment, cars for surveillance, and materials for sample collection and testing.

Health Sector

16. Health sector reforms, initiated back in 1995, supported purchaser/provider split, where the MoLHSA maintained only stewardship role. The ministry, being a steward of the system, is responsible for policy formulation, financing and regulatory action for controlling the quality, safety and effectiveness of health services, pharmaceuticals and medical equipment. Service providers are governed by the commercial law, though major share-holder remains to be the state with the exception of small share of already privatized ones. Health services are financed by public and private sources. Public funds are administered by the autonomous legal entity “State Social Insurance Fund” practicing purchasing function and the only limited private funding is formal and pooled. In the context of Governments decentralization policy some of the ministry’s functions are delegated to the Municipalities.

17. Infectious disease surveillance system, sanitary inspection control and health promotion are carried out by Public Health Department. The NCDC, being the public entity subordinated to the Public Health Department, serves as a National Referral Center for the control of communicable and non-communicable diseases. The central laboratory is further supported by two regional laboratories, one in the western part of the country and another in the Autonomous Region of Adjara and the public health laboratory network.

18. Two IDA projects are under implementation in the health sector. The Primary Health Care Project (PHC) is aimed at helping the Government develop and implement a primary health care strategy, and the Hospital Restructuring component of the Structural Reform Support Project (SRS) is helping to rehabilitate key hospital infrastructure in the context of ongoing Government efforts to restructure the sector. In addition to the proposed project, some funds from both these projects have been allocated to finance key equipment to prepare for a human outbreak of HPAI. The equipment includes respirators, monitors, and personal protection gear for health care workers.

Appendix 2a: Country Eligibility under GPAI

Georgia: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

1. A country will qualify for support for an emergency project under the Program when it demonstrates its commitment and readiness to implement early detection and rapid response measures appropriate to the specific country conditions. As there is a wide variation of country conditions (i.e., widely differing needs and development levels, as well as implementation capacities), projects need to reflect the environment in which they will be implemented with scaling and sequencing of project activities, management arrangements, cost-sharing provisions, and risk mitigation measures appropriate to the Borrower's/Recipient's needs and institutional, fiscal and social reality. To reflect the above, a country request for assistance will be eligible for financing under the APL when it meets the following eligibility criteria:

- (i) **For countries in endemic situation** (e.g. Cambodia, China, Indonesia, LAO PDR and Vietnam), where new human infections are being detected, it has prepared and is implementing an HPAI Control Strategy;
- (ii) **For newly infected countries** (e.g. Croatia, Kazakhstan, Mongolia, Romania, Russia and Turkey) with an active outbreak of avian flu among poultry, but no human infection, the existence of an appropriate program of rapid response, detection and containment measures, including appropriate implementation and monitoring arrangements that the international agencies and donor community, including the Bank, could support.
- (iii) **For countries at risk, with no outbreak, or that are at an early stage of an outbreak**, government commitment and appropriate plan of early detection and rapid response, including appropriate implementation and monitoring arrangements that the international agencies and donor community, including the Bank, could support.
- (iv) **For countries with very low income levels and very low capacity circumstances**, including LICUS countries, special criteria and waivers would apply if a full-blown human pandemic were to materialize, to ensure that assistance would be available if and when needed, even if the country itself would hardly be able to generate or mobilize any effective AI response, to safeguard the global public good nature of the global avian influenza objective.

2. A joint World Bank/WHO/FAO mission made an assessment of the readiness of Georgia to proceed with program of support. It concluded that it meets the eligibility criteria as per (iii) above, i.e. it is a country at risk, at an early stage of an outbreak. The level of commitment of the Government is high: (i) a letter requesting Bank's assistance was received on January 17, 2006 and a high level Governmental Steering Commission on Avian Influenza in Georgia (GSCAIG) chaired by the Prime Minister was established, (ii) a draft national plan on response to avian influenza pandemic was prepared by the Government and will be finalized with assistance to be provided by the project, and (iii) appropriate implementation and monitoring arrangements have been agreed upon. Moreover, the Government prepared a Program for the Prevention of Distribution and Control of Avian Influenza in Georgia, and asked the World Bank's assistance in financing the program and in coordinating donor assistance for the program.

Appendix 2b: Georgia Avian Influenza Assessment Questionnaire
**Georgia: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPAREDNESS AND RESPONSE PROJECT**

1. Is there a intergovernmental committee/task force involving all relevant ministries under PMs office?

An Inter-ministerial working group with representatives of different ministries and organizations was established in October, 2005. This taskforce is led by the MoLHSA, and is responsible for day-to-day coordination of Avian Influenza activities. The higher level Governmental Steering Commission on Avian Influenza in Georgia (GSCAIG) was also established on January 18, 2006 under the leadership of Prime Minister. The Commission sets overall policy and coordinates activities at the Ministerial level. Members include the Ministers of Health, Agriculture, Education, and Defense. The relevant decrees are available upon request.

2. Is there an integrated MoLHSA-MoA AI contingency plan?

Draft of an integrated MoLHSA-MoA AI contingency plan has been prepared.

3. Is there a MoLHSA human influenza preparedness and action plan?

Draft version of human influenza preparedness and action plan has been prepared and introduced to/shared with the Inter-ministerial working group.

4. Is there a seasonal influenza surveillance system in place?

The seasonal influenza surveillance system is reported on monthly basis, but hospitalized cases of ILI should be notified within 24 hour to a higher level of healthcare system.

5. Is there a human influenza vaccination program for high risk population in place? Who are they?

There is municipal program for human influenza vaccination for high risk population in Tbilisi and Batumi. Medical staff and residents of nursing and children's homes have been immunized with seasonal influenza vaccine.

6. Do the legislative framework and regulations allow for drastic measures such as quarantine, social distancing (closure of schools, factories, etc)?

Under the legislative regulations special measures such as quarantine, social distancing (closure of schools, factories, etc) are taken according to the epidemiological situation in place.

7. Is there a national zoonosis or pandemic committee? Who are the members?

No national zoonosis/pandemic committee is in place.

8. Does MoLHSA have a crisis management unit? How will be in charge of the overall coordination?

There is no unit at MoLHSA which deals with crisis management at the moment. Ministry will be in charge of overall coordination.

9. Does MoLHSA have a public information unit? How quickly they can coordinate with MoA and other agencies and prepare an IEC strategy and material?

Comprehensive public information strategy will be drafted soon with donor help. However, a draft IEC strategy is available and can be shared upon request.

10. Who in the periphery is in charge of carrying out active surveillance and case finding?

Epidemiologists at rayon and regional Public health Centers are in charge of active surveillance and case detection.

11. Have primary health care and hospital staff been informed of what ILI is and what to do about it (i.e. referral of cases, care and management)?

Special guidelines have been prepared concerning issues of Influenza and ILI. They will be distributed among medical facilities of the country.

12. Are there laboratories in the regions that can carry out analysis, if not arrange for sample transportation to the national influenza center (NIC is the reference laboratory)?

There are no laboratories in the regions of Georgia carrying out analysis of influenza. The NCDC is responsible for sample collection, transportation and investigation.

13. What is the capacity of the NCDC and how many specimens they can handle in a day?

Since January 2006 an Influenza laboratory has been functioning at NCDC. Up to 30 samples are handled per day at the moment, but according to the situation this number may be increased.

14. Where is the international reference laboratory, and are the arrangements in place for the transportation of specimens for quality control and confirmation of cases?

The international reference laboratory in England will be used for definitive diagnosis of H5N1. All specimen transportation arrangements are currently being finalized.

15. Has there ever been a simulation exercise conducted by MoLHSA alone or in combination with MoA?

No simulation exercise conducted so far.

16. Does the MoLHSA have the capacity to investigate outbreaks?

Special outbreak teams conduct investigations of outbreaks.

17. Have measures been taken to procure anti-virals and vaccines?

MoLHSA has negotiated with the Swiss company Roche to supply Georgia with Tamiflu for stockpiling.

18. Have criteria for proper use of vaccines and anti-virals been defined?

Criteria for proper use of vaccines and anti-virals are defined in the draft version of influenza preparedness and action plan. Besides that, a special decree is under discussion.

19. Is there a contingency plan to handle increased case load and maintain essential healthcare services and an algorithm for patient referral?

The issues regarding increased case load, maintaining essential healthcare services and an algorithm for patient referral are assessed and indicated in the draft version of influenza preparedness and action plan.

20. Are there measures taken to ensure safety of the health workers who will operate at the frontline?

Brochures regarding Avian Influenza have been prepared and distributed among medical staff in the whole country. Safety measures are described in those brochures. Trainings on AI are planned to be conducted in the nearest future for public health workers.

Appendix 3: Detailed Project Description

Georgia: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

1. The proposed project is to be supported by an IDA Credit of US\$3.5 million and a IDA grant of the same amount. In addition co-financing from the Government of Japan through a PHRD co-financing grant will finance US\$1.4 million in technical assistance for the project. The Project is supported by the Bank financed Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response (GPAI). The GPAI is provided using a horizontal adaptable program loan instrument (APL). The horizontal APL provides an overall framework for coordinated action and co-financing with other multilateral organization and donor agencies, by establishing a US\$500 million facility to provide individual countries, including Georgia, with financial and technical assistance.

2. The Proposed project will run for three years from April 2006 to August 2009. It would finance activities under three components: (i) animal health; (ii) human health; and (iii) public awareness and information. It complements activities financed on an emergency basis under four ongoing World Bank financed projects and those financed by other donors, namely the United States (USAID and the Department of Defense).

Component 1 – ANIMAL HEALTH

3. This component will strengthen the Government's preparedness for monitoring, testing and responding to an outbreak of Avian Flu in the domestic poultry industry. This component has three main sub-components, namely:

(A) Strengthening National HPAI Preparedness and Prevention Capability (US\$ 1.83 million of which US\$ 0.33 million are from PHRD grant funds)

A1 - Strengthening the Regulatory and Institutional Environment. The project will support efforts to ensure that the regulatory framework for disease prevention, detection, containment and eradication is effective and in accordance with OIE standards and guidelines. The project includes a review the current legislative framework to assure its alignment with the public veterinary services structures that are currently being reorganized. The component will assist in drafting of legal amendments, regulations and implementation guidelines and manuals, as required, and assist in assuring that the restructured veterinary services provide an adequate preparedness and prevention capacity. Legal and veterinary staff from the Ministry of Agriculture, representatives of the Ministry of Justice and other agencies with the support of international experts on veterinary laws and regulations will review relevant legislation and regulations. The review will focus particularly on regulations related to the control of notifiable diseases and the responsibilities of public and private veterinary services, and any provisions for compensation mechanisms for livestock owners in the event of mandatory culling. On the institutional side, the current veterinary structures are not best suited to respond to the increased need for information and prompt action posed by HPAI. To meet international standards set by the OIE and the recommendations developed by FAO, the veterinary services need to develop and document appropriate procedures and standards for the implementation and management of animal health measures and international veterinary certification activities. The OIE has developed instruments that allow national veterinary services to carry out a self-evaluation and establish their current level of performance, form a shared vision with service providers and clients in the private sector, establish priorities, and facilitate strategic planning. The current reorganization of responsibilities and functions will have to be examined against these

instruments and further adjustments might be warranted for the veterinary sector to ensure it is capable of meeting international requirements. This component will provide Technical Assistance for the legal, regulatory and institutional review.

A2 - National Action and Contingency Plan. While the Government has taken appropriate measures for the short term monitoring activities, a comprehensive action and contingency plan is lacking. The project will provide technical assistance to assist in developing contingency plans that detail required activities on all levels and to develop the necessary implementation guidelines and manuals for all relevant agencies and services. The focus of the work will be on planning for an outbreak, and detail how a response to an outbreak would be managed, including organization of culling programs, isolating the area of outbreak, and testing procedures to determine the spread of the virus. The experts for this assignment will need to work with the MoA, customs, laboratories, private veterinarians and other agencies involved in HPAI prevention and control. Support will also be provided for the participation of veterinary experts and project staff in regional information exchanges on avian influenza as well as for working visits to other countries implementing similar activities. The project will also facilitate the organization of regular regional workshops for information exchange and cooperation agreements. Finally, the project will provide for simulation exercises to test the plan and to familiarize plan participants at all levels with their responsibilities in the event of an outbreak of HPAI.

A3 - Establishment of a National Compensation Policy and Funding. Early detection and reporting, as well as rapid response, depend critically on the incentives for poultry owners to report very quickly any sick and dead poultry to the respective veterinarians. For this to happen, adequate compensation arrangements have proven absolutely essential. The veterinary law, amended in 2004, provides for the establishment of compensation funding, but does not detail the required implementation arrangements – including financing, fiduciary aspects, eligibility criteria, payment arrangements, flow of funds, etc. The project will provide technical assistance in the development of these implementation arrangements and ensure that all key players are sufficiently trained in conducting the compensation payments on the local level.

Compensation payments, should a disease outbreak occur, will need to be provided quickly and in a transparent manner. The Government will establish a compensation funding mechanism from which owners of culled animals will be compensated, and the project will provide up to US\$1.4 million to finance the establishment of this facility. A condition of disbursement for this subcomponent will be that the modalities for operating the fund have been established and have been approved by IDA.

The legal, institutional, and operational details of the facility will be developed and agreed upon during the first months of project implementation. Key parameters guiding this effort include:

- ③ Compensation payments to owners of culled animals will be cash payments or transfers using, where possible, existing mechanisms established for similar transfers (checks, pension payments, poverty benefit);
- ③ Records of animals culled and their owners will need to be kept and verified at the time of culling;
- ③ Separate arrangements for culling commercial operations and backyard poultry will need to be designed; and
- ③ Payments per bird will need to be *merit* based well advertised during the culling operation. Actual payment should be made within one month of the culling operation.

(B) Strengthening Disease Surveillance, Diagnostic, and Containment Capacity (US\$ 3.24 million of which US\$ 0.24 million are from PHRD grant funds)

B1 - Strengthening the Disease Monitoring and Containment System. Support will be provided to strengthen the public veterinary services to bring them in line with OIE standards. This will include: (i) training of staff; and, (ii) provision of priority infrastructure and equipment (limited works, equipment, materials and supplies). It will also include targeted improvement of the border inspection services operated by the Customs Service through training and required equipment and facilities as well as improving the mobility of the veterinary services. Staff training will be targeted at the personnel of in the new Food Safety Agency of the Ministry of Agriculture as well as public and private veterinarians practitioners operating in the rural areas. Specifically training will be provided to the staff of the 65 Rayon monitoring units and the eight regional rapid response centers. Priority early in the project will be given to the centers in Regions and Rayons designated as high risk for HPAI outbreaks. The focus of the training will be on awareness raising, monitoring, investigating, sampling and testing procedures as well as on analyzing epidemiological data and performing risk assessments. The training will also focus on outbreak containment, including arrangements for culling, disposal and compensation. The project will also link the local level into the surveillance and monitoring system so that a feedback system for notifiable animal diseases reaches to farmers, farm workers, and veterinarians at the local level. The sub-component will support (i) training for veterinarians on treatment of infected animals, reporting procedures and immediate local response measures and (ii) hands-on training for farmers in detection of clinical signs of notifiable diseases. Funding will be provided for essential first response equipment. This will include personal protection equipment, disinfectant equipment, vehicles, mobile incinerators, and materials for sampling and culling.

B2 - Strengthening Diagnostic Capacity. Georgia's laboratory capacity has been substantially strengthened over the past years and is largely equipped to diagnose all notifiable diseases including HPAI. Therefore, project support will be targeted primarily to strengthening the diagnostic capacity that needs to feed into the laboratory system. Developing this diagnostic capacity comprises strengthening of border inspection, regional laboratories and inspectors and veterinarians working on the local level in sample collection and submission, detection, reporting and follow-up of reported AI cases. It also involves surveillance activities and rapid assessments for serological tests and screening surveys. Essential equipment, consumables and reagents, staff training and technical assistance will be provided to complete the chain of response for disease surveillance. Selected major border crossing points will be supported through improved facilities for inspection of suspect consignments including separate inspection rooms, disinfectants sprayers, wash basins, specimen containers and bags. The project will also support the strengthening of the existing epidemiology network to implement the national disease and surveillance system to: (i) enable early detection and investigation of outbreaks of exotic diseases or unusual events; (ii) provide timely and reliable information about patterns of occurrence of enzootic diseases to establish disease control priorities and formulate cost-effective control strategies; (iii) facilitate international trade and marketing of local livestock products; and (iv) enable full reporting of disease status to international and regional organizations.

B3 - Strengthening Animal Disease Information Systems. Project assistance will be provided to improve the reporting of animal health information from the field and the flow of information among relevant agencies. The emphasis will be on developing an efficient disease information system, as part of the effort to enable Georgia to participate in global disease information sharing, in full compliance with the obligations of membership in the OIE. Much emphasis will be placed on human resources development in the establishment and use of database programs (including GIS) and the analysis of data to deliver the necessary support to decision makers charged with prevention and control of animal diseases. The system will be linked with rapid and standardized methods of routine analysis of surveillance data, which will demonstrate important changes in the H5N1 situation, and this information will be promptly supplied to field staff. The project will finance relevant epidemiological studies and surveillance programs to inform the improvement of disease control measures, which will be then

adjusted and improved as new information becomes available. It will also support the upgrading of Georgia's participation in the World Animal Health Information System (WAHIS) to strengthen the country's ability to participate in global disease information sharing. The applicability of graphical information system technology will be fully exploited.

C. Component Implementation Support, Monitoring and Evaluation

Financing will be provided for limited consultant services to ensure effective implementation of the project in accordance with Bank fiduciary and procurement guidelines. Implementation support for this component will be provided through the existing PCC in the MoA which is supporting ongoing Bank-financed in the sector. Funding will be provided for additional procurement and financial management support as required, and for monitoring and evaluation.

Component 2: HUMAN HEALTH

4. In the public health field, short-and long-term actions need to be taken and an appropriate balance need to be struck between the two. While immediate steps can be taken to address the crisis, there is also a longer-term agenda given systemic shortcomings in core public health functions. Work on both the short- and long-term fronts, therefore, needs to proceed in parallel, and efforts should be made to ensure that short-term responses are consistent with and contribute to proposed longer-term interventions. Setting priorities in both cases is essential.

5. Building an effective national public health response will require an enabling environment and the necessary resources to bring proven interventions quickly up to nationwide scale. Thus, the Project will help to operationalize some elements that are contemplated as part of the global strategic plan, expanding and intensifying the responses rapidly. As it is unlikely that the global spread of a pandemic influenza virus could be prevented once it emerges, the emphasis is on reducing its impact. Several tools will help achieve this aim: (i) year-round surveillance; (ii) effective and accurate methods of diagnosis; (iii) social distance interventions; (vi) anti-viral drugs; and (vi) strengthened medical services. The interventions supported under the Project will be based on Georgia's epidemiological and programmatic needs, and well-assessed options for meeting them. The interventions would be grouped into three broad categories:

(A) Enhancing Public Health Program Planning and Coordination (US\$ 0.42 million of which US\$ 0.28 million is from PHRD grant funds)

While MoLHSA recently prepared a national preparedness plan (NAIPP), development of national pandemic influenza action plan (NPIAP) is important. The project will provide technical assistance to complete required sections, including: (i) the context and epidemiological underpinnings of an eventual influenza pandemic; (ii) the current legislative and regulatory basis for intervention; (iii) surveillance arrangements; (iv) verification of suspected cases through serological testing and virological subtyping; (v) prevention through immunization; and (vi) symptomatic case management with antiviral drugs. Also the plan will need to provide details on the coordination of the emergency response, and the logistics involved. It will also need to focus on the protocols and algorithms to be followed for surveillance, diagnosis, immunization and anti-viral therapy during inter-pandemic, pandemic alert and pandemic periods, and the means of communication and public information. Finally, it will need to estimate resource and training requirements for effective implementation and make the necessary arrangements that they are in place.

The Project will help MoLHSA to build its institutional capacity to command and control in a coordinated fashion the implementation of the plan and assist the GSCAIG to become a truly functioning coordinating agency. The proposed sub-component will finance technical expertise for the preparation of the national pandemic influenza action plan (NPIAP) in close coordination and collaboration with all respective government agencies. Moreover, financing will be made available for technical assistance to help establish an enabling legal environment. The sub-component will also meet the resource requirements for field-testing (e.g. simulation exercises) and implementation involving regional and local levels, as well as supranational levels.

(B) Strengthening of National Public Health Surveillance Systems (US\$ 1.02 million of which US\$ 0.028 million are from PHRD grant funds)

Novel influenza strains are detected through clinical and virological surveillance of human and animal influenza disease. More specifically detection involves (i) active surveillance for influenza-like illness (ILI) nationwide; (ii) collection of specimens for diagnostic testing and virus subtyping of suspected cases; (iii) confirmation of positive and a certain proportion of negative results in a reference laboratory; and (iv) outbreak investigation in areas with confirmed human cases. Surveillance systems should be enhanced prior to the start of a pandemic, to ensure that the high demand for timely information that can be anticipated in a pandemic can be met. To this end, the proposed Project will support:

B1 - Improvement of Laboratory Networks. In Georgia there is one reference public health laboratory for virology at the NCDC which acts as National Influenza Center (NIC). The capacity of the NIC has been substantially strengthened over the past year and it is largely equipped to diagnose all notifiable diseases including HPAI. It is not clear however, whether existing capacity can cope with the increased demand in times of pandemic. Therefore, project support would be targeted primarily to strengthen the diagnostic capacity. Under this sub-component, financing will be available to upgrade the existing national reference laboratory in Tbilisi (NRL), including design, renovation and upgrade to Bio-Safety Level 3 (BSL-3) laboratory with concomitant physical containment requirements (P3), required for virus isolation and sub-typing to determine various strains. In addition, financial support will be provided to upgrade the regional public health laboratory in Batumi for rapid diagnosis and cell culture, as well as equipping the NRL with the mobile laboratory. Support will be provided for upgrading regional public health laboratories through procurement of consumables, and training for regional health managers and communicable disease division chiefs.

B2 - Improvement of Health Information Systems. In coordination with PHC project and other ongoing interventions financed by donor agencies, this sub-component will support technical assistance and training to strengthen the Health Management Information System (HMIS) to improve surveillance, communications, and information sharing at the different levels of the health care system to strengthen preparedness and response capacity to avian influenza and other infectious disease outbreaks and to fast-track available treatments for the disease.

(C) Strengthening Health System Response Capacity (US\$ 2.7 million of which US\$ 0.212 million are from PHRD grant funds)

Aggressive containment measures such as isolation and prophylactic use of antiviral drugs may slow the spread of a pandemic and allow time for response measures. Although mass vaccination is the preferred intervention, an efficacious vaccine may not be ready and/or available for use as part of a large-scale vaccination campaign soon enough to contain the pandemic. Anti-viral supply and production capacity are also limited. Therefore, the project will indirectly support through the implementation of the NPIAP, “social distancing measures” -- such as simulation exercises, quarantines, bans on mass gatherings, and

travel restrictions, backed up by a well-designed communication strategy. The project may also help MoLHSA to implement its vaccination strategy in the case of a pandemic, depending upon the estimation of country's needs. In addition, the project will support the procurement of anti-virals of sufficient quantity for prevention of Influenza in those groups at highest risk such as poultry farmers and healthcare workers. Additional preventive actions such as personal hygiene promotion and distribution and use of masks will be supported, along with increased awareness and promotion of community participation in slowing the spread of the pandemic. In this area, the project will support:

C1 - Social Distancing Measures. Measures to prevent contracting avian influenza is to limit, as much as possible, contact with the public. Therefore, the project will support the implementation of immediate term responses -- the classic "social distancing measures"--such as school closings, backed up by a well-designed communication strategy. Financing will be made available for developing guidelines on social distancing measures to put into operation existing or new laws and regulations, for supporting coordination with other sectoral ministries and agencies, and for supporting the Ministry of Health on the caring health personnel and other sectoral staff involved in pandemic response activities. Additional preventive actions to complement social distancing such as personal hygiene promotion through various communication channels, including hand washing and proper cooking, and distribution and use of masks will be supported, along with increased awareness and promotion of community participation in slowing the spread of the pandemic.

C2 - Vaccination Support and Anti-viral Therapy. Support will be provided for expanding regular seasonal flu vaccination as a vital step to prevent an outbreak among humans. In case of an influenza pandemic, when a vaccine becomes available, funding could also be made available for implementing an influenza vaccination program that rapidly administers vaccine to priority groups and monitors vaccine effectiveness and safety. The targeted priority groups will be selected on the basis of several factors: (i) risk of occupational infectious/transmission (e.g., health care workers); (ii) the responsibilities of certain occupations in providing essential public health safety services; (iii) impact of the circulating pandemic virus on various age groups; and (iv) heightened risks for persons with specific conditions. To this end, support will be provided for the rehabilitation, expansion, and equipment of cold storage facilities where needed to strengthen the distribution and storage of vaccines and other medical products.

In a pandemic, vaccine supply levels will change over time. That is, when a pandemic first strikes, vaccine will likely not be ready for distribution. The therapeutic use of anti-viral drugs, while not a panacea, would be part of the strategy to contain an avian influenza pandemic and to reduce morbidity and mortality. Governments and international agencies, such as WHO, are stockpiling anti-viral drugs. Therefore, support will be provided for the purchase and distribution of anti-viral drugs in accordance with WHO guidelines and arrangements, determine the susceptibility of the pandemic strain to existing influenza antiviral drugs and target use of available supplies; adoption of measures to avoid inappropriate use to limit the development of antiviral resistance and ensure that this limited resource is used effectively. Support will also be provided to monitor patient compliance with treatment regimes and the onset of resistance to anti-viral drugs.

Although anti-viral drugs such as neuraminidase inhibitors (oseltamivir) do not cure influenza infection, they have been shown to reduce the severity of the symptoms as well as alleviate complications, thus decreasing the consequences of the infection and reducing the hospitalization rate. However, the availability of influenza antiviral medications is limited and production cannot be rapidly expanded. Therefore, planning by health agencies is needed to assure effective use of available drugs. To this end, support will be provided for developing guidelines and educating physicians, nurses, and other health personnel before and during the pandemic to promote effective use of these drugs.

C3 - Medical Services. Assistance would be provided to the health care system for preparedness planning and strategy development to provide optimal medical care and maintain essential community services. To this end, sub-component will finance: a) technical assistance for the development of plans to establish specialized units in selected hospitals and increase bed availability in case of a pandemic through more stringent triage for admission and earlier discharge with follow-up by home health care personnel, b) development and/or updating of treatment guidelines and hospital infection control guidelines and measures, including antibiotic stocks, and mobilization of additional health personnel, c) training of health personnel, d) provision of equipment, drugs, vaccines, and other medical inputs, diagnostic reagents, including kits, and e) minor renovation of specialized units in selected hospitals.

(D) Component Implementation Support, Monitoring and Evaluation

Financing will be provided for limited consultant services to ensure effective implementation of the project in accordance with Bank fiduciary and procurement guidelines. Implementation support for this component will be provided through the existing PIU for the Primary Health Care Project in the MoLHSA which is supporting ongoing Bank-financed in the sector. Funding will be provided for additional procurement and financial management support as required, and for monitoring and evaluation.

Component 3 – PUBLIC AWARENESS AND INFORMATION (US\$ 0.9 million of which US\$ 0.31 million are from PHRD grant funds)

This component is intended to promote awareness and improved coordination of the execution of the contingency plans and the NAIPP. It is designed to safeguard human health and to facilitate surveillance and monitoring for outbreaks by improving public awareness and information. Under this component, support will be provided for the development of strategies to promote public awareness and improved coordination of the execution of the national HPAI responses strategies and plans.

Support will focus on information and communication activities to increase the attention and commitment of government, private sector, and civil society organizations, and to raise awareness, knowledge and understanding among the general population about the risk and potential impact of the pandemic. It will provide communications support to the Avian Influenza response operations across different sectors, at different administrative levels, and along different pandemic phases:

- ③ Advocacy interventions will be needed to maintain and/or create the high-level political engagement; a multi-sectorial approach; a credible and trusted public sector response; a professional media reporting accurately the AI agenda; and an informed base of decision-makers, supportive of policy implementation and safety-net programs.
- ③ Public information and behavior-change interventions to prevent farmers, poultry workers, traders and processors, veterinarians, extension workers and health workers, as well as vulnerable groups, from becoming infected. As the epidemic evolves, there will be the need to highlight preparedness plans to contain and delay the spread of the virus. For the mid-term, formal education interventions to segmented populations, will teach general populations about living with an endemic situation.
- ③ Creation of a pro-active citizenry, ready to mobilize community resources at the grass-root level, to monitor and mitigate the impact on the poorest of the poor.

- ③ As fast-reporting and fast-response is a pre-requisite for containment, the communication component will use available communications and information technology (ICT), to scale-up information-sharing from the grass-root level, up to important stakeholders and decision-makers.

To design and coordinate these activities, a communication unit that is part of the PIT/Inter-Ministerial Working Group is required, with an immediate input into: the design of an integrated and comprehensive communications strategy and action plan; selection and sub-contracting of services to implement the communication interventions; training of spoke-persons from priority sectors in managing the media; partnering with the electronic and print media with a view to highlighting the national response, as well as accurately reporting on the monitoring, preparedness, containment and mitigation plans, as the case may be.

A communication professional will be assigned for day to day support to the PIT/Inter-Ministerial Task-Team. A communications budget, contingent on an overarching strategy and plan, will be assigned to subcontract high-impact and far-reaching campaigns, and to maintain a constant presence in the public's agenda. The communication plan will put a strong emphasis on immediate actions to advocate, prevent and contain, and the budgetary allocation will reflect that emphasis.

In addition to the advocacy role, communication programs will bring the public's attention to a wide range of actions stemming from the national response (investments in infrastructure, rapid-training for service delivery, allocation of special financial instruments to compensate and mitigate the impact, etc.) This information, together with the activities of the civic and private sectors, will create an "enabling environment," that reduces uncertainty, and builds social-support, trust, and understanding of the possible scenarios.

To carry out these communication activities, communication specialists and operational resources will be assigned to the component managers of both the MoA and MoLHSA, to subcontract rapid-research around knowledge, attitude and practices (KAP studies) of vulnerable and at-risk populations; to design and produce awareness-raising and prevention campaigns; and promote fast reporting through innovative technologies. The Ministry of Education and relevant partners will participate in the development of educational materials to be used in schools, community and faith-based organizations, to access groups that are marginalized or hard-to-reach.

The mobilization of group resources is an important element that needs to be considered, particularly in preparation for possible pandemic levels 5 and 6. Fostering community support is crucial to facilitate transparency in the allocation of financial incentives, responsiveness in the containment and mitigation actions, and adoption of policies and ordinances that might be enforced (culling and banning backyard farming, for example). A two-way flow of communications, and not only a top-down approach, has to be established, where local interests and cultural context are accounted.

The communications component will provide resources to subcontract technical assistance, training, as well as goods and services.

Appendix 4a: Implementation Arrangements

Georgia: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

1. The project will be implemented by MoA and the MoLHSA. The Minister of Agriculture will designate a senior veterinary official as the component manager for the Animal Health Component and the Minister of Health will designate a deputy Minister to be in charge of the Human Health and Communications Components. Both component managers will be responsible for the implementation of their respective components.
2. **Governmental Steering Commission on Avian Influenza in Georgia (GSCAIG).** This multi-sectoral task force was formed in January 2006 to respond to the threat of HPAI. It is chaired by the Prime Minister and includes the ministers of finance, health, education, agriculture and defense. It sets overall policy on HPAI prevention and control and oversees the efforts of the Government in monitoring and surveillance, prevention measures, and in preparing responses to contain identified outbreaks. The task force would also serve as the overall coordinating and oversight body for the proposed project and it will review at least twice annually progress with project implementation.
3. **A Inter-ministerial Task Force (IMTF).** This Task force chaired by the Deputy Minister of Labor, Health and Social Affairs and represented by Ministry of Agriculture, Ministry of Education and Science, Ministry of Finance, Ministry of Defense, Ministry of Environmental Protection and Natural Resources, Customs Department, Public Health Department, National Center for Disease Control, Drug Agency and Infectious Disease Hospital, WHO, WB, UNICEF, and USAID. It is charged with the responsibility of ensuring that the policy and operational directions of the Commission are carried out. This task Force meets weekly to oversee and coordinate Avian Flu activities across the Government and report on the progress to the GSCAIG.
4. **Project Implementation Team (PIT).** Given the multi-sector nature of the project and the need to coordinate across the sectors particularly in overall information sharing and in the implementation of the communications strategy, a project implementation team has been established to coordinate project activities. Participants in the team will include the two component managers, and representatives from the customs department, and the Ministry of Finance. These same team members serve on the working group established under the Task Force. The team will be chair by a designated official of the Prime Minister's Office. It will meet regularly to review project implementation, identify outstanding issues, and coordinate activities.
5. **Animal Health Component.** The implementing agency for this component will be MoA. A senior Veterinary official in the ministry, designated by the Minister, will be the component manager for this component. Since procurement and financial management skills required by IDA and necessary for Project implementation are lacking within the Ministry, assistance in these areas will be provided by the PCC which has been established to support implementation of several IDA projects in the agricultural sector. The PCC is an entity under Public Law reporting to MoA. The entity is well experienced in managing IDA-financed projects and in assuring that procurement and financial management is carried out in accordance with World Bank guidelines.
6. PCC accountant/financial management specialists will be responsible for setting up and operating the project's financial management and accounting system according to IDA standards and to keep and monitor project accounts for the Animal Health component.

7. Procurement for the Animal Health component will be carried out under the IDA procurement guidelines. The PCC will draft procurement documents for the Animal Health Component, and will carry out day-to-day contract management activities. However, the MoA will be responsible for decision-making issues such as decisions about evaluation committee members. Contracts will be signed by the MoA and the contractors. Contract negotiations will be carried out by the MoA with participation of the PCC. The MoA will keep originals of all procurement documents with copies at the PCC.

8. **Human Health Component.** The Human Health Component will be implemented by the MoLHSA. The Deputy Minister, who is responsible for Avian Flu in the Ministry, will be designated by the Minister to be in charge of the Project. As with the other component, financial management and procurement services for the component will be provided by an existing entity in the Ministry that is experienced in implementing IDA projects. Specifically, GHSPIC, which is responsible for the ongoing Primary Health Care Project, will also handle procurement and financial management under the Human Health Component.

9. The main function of the GHSPIC will be assisting the MoLHSA to undertake procurement work, project financial management and accounting, disbursements, financial reporting, and auditing arrangements. The activities of the PIU under this project will be under direct oversight of the Component. The Ministry will be responsible for all other functions related to implementation of this component, including inter alia decisions relating to the terms of references for consultants, and substantive supervision of their work.

10. The GHSPIC accountant/financial management specialists will be responsible for setting up Project financial and accounting system according to IDA standards and to keep and monitor project accounts for the health component. An auditor acceptable to IDA will annually audit project-related accounts, disbursements, and Statements of Expenditures (SOEs) according to international standards. Both the GHSPIC and the PCC will coordinate their activities and the GHSPIC will be responsible for submitting consolidated reports to IDA.

11. The GHSPIC will undertake procurement in accordance with World Bank Guidelines for this component and will carry out day-to-day contract management activities. However, for consultant services, MoLHSA will be responsible for establishing evaluation committees, contract negotiations and signing and providing substantive input to the contractors.

12. **Public Awareness and Information Component.** The communications component will also be managed by the Ministry of Health, specifically by the component manager for the health component, and GHSPIC will also handle procurement and financial management arrangements for this component. Substantive management of the component will, however, need to take into account that the communication strategy for HPAI has to encompass both the animal and human aspects of the HPAI threat. Thus, while the day-to-day management of the Component will rest within the MoLHSA, for substantive decisions on the communications strategy, and specific messages arising from that strategy, the component would receive guidance from the **GSCAIG** at the level of strategy formulation, and the PIT on, inter alia, the content of specific messages, choice of media, and design of training activities.

Appendix 4b: Project Coordination

GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

	Planned	Actual
PCN review		
Initial PID to PIC	March 3, 2006	March 13, 2006
Initial ISDS to PIC		
Appraisal	March 30, 2006	March 30, 2006
Technical Discussions/Negotiations	April 20, 2006	April 20, 2006
Board/RVP approval	May 15, 2006	
Planned date of effectiveness	May 31, 2006	
Planned date of mid-term review	October 2007	
Planned closing date	August 1, 2009	

Key institutions responsible for preparation of the project:

Ministry of Agriculture, Ministry of Labor, Health and Social Affairs, Ministry of Finance, Inter-ministerial Task Force.

Bank staff and consultants who worked on the project included:

Name	Title	Unit
Frauke Jungbluth	Senior Rural Dev. Economist	ECSSD
Iliia Kvitaishvili	Rural Development Specialist	ECSSD
Tamar Gotsadze	Health Specialist	ECSHD
Enis Baris	Senior Public Health Specialist	ECSHD
Roy Southworth	Georgia Country Manager	ECCGE
Gennady Pilch	Senior Counsel	LEGEC
Arman Vatsyan	Financial Management Specialist	ECSPS
Karl Skansing	Procurement Consultant	ECSPS
Amy Evans	Environmental Consultant	ECSSD
Mario Bravo-Rivera	Senior Communications Officer	EXTCD
Jose-Manuel Bassat	Senior Communications Officer	EXTCD
Miriam van Dyck	Communications Associate	ECAVP
Koshie Michel	Program Assistant	ECSSD

Bank funds expended to date on project preparation:

- | | |
|--------------------|-------------|
| 1. Bank resources: | US\$ 70,000 |
| 2. Trust funds: | - |
| 3. Total: | US\$ 70,000 |

Estimated Approval and Supervision costs:

- | | |
|---------------------------------------|--------------|
| 1. Remaining costs to approval: | US\$ 15,000 |
| 2. Estimated annual supervision cost: | US\$ 100,000 |

Appendix 5: Project Costs and Financing
**GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPAREDNESS AND RESPONSE PROJECT**

Project Cost By Component and/or Activity	Local US \$million	Foreign US \$million	Total US \$million
Component A: Animal Health			
Strengthening the Regulatory and Institutional Environment	1.724	0.102	1.826
Strengthening Disease surveillance, Diagnostic & Containment Capacity	2.640	0.565	3.205
Component Support and Monitoring	0.098	0.020	0.118
Component B: Human Health			
Enhancing Public Health Program Planning and Coordination	0.348	0.071	0.419
Strengthening of National Public Health Surveillance Systems	0.848	0.173	1.021
Strengthening Health System Response Capacity	2.239	0.456	2.695
Component Support and Monitoring	0.146	0.003	0.176
Component C: Strategic communication			
	0.739	0.150	0.889
<hr/>			
Total Baseline Cost	9.0	0.9	9.9
Physical Contingencies	0.2	0.0	0.2
Price Contingencies	0.3	0.0	0.3
Total Project Costs¹	9.5	0.9	10.4
<hr/>			
Total Financing Required *	9.5	0.9	10.4

¹Identifiable taxes and duties are US\$ 1.4 million and the total project cost, net of taxes, is US\$ 8.96 million. Therefore, the share of project cost net of taxes is 86.5 %.

* = Numbers may not add up due to rounding

Appendix 6: Procurement Arrangements
**GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPAREDNESS AND RESPONSE PROJECT**

Preamble

1. As described in OP 8.50 for Emergency Recovery Assistance (ERA) and in addition to providing emergency assistance, the Bank may support operations for prevention and mitigation in countries prone to specific types of emergencies. Such operations could assist in: (a) developing a national strategy, (b) establishing an adequate institutional and regulatory framework, (c) carrying out studies of vulnerability and risk assessment, (d) reinforcing vulnerable structures, and (e) acquiring hazard-reduction technology.

2. Given the threat that HPAI poses to the economic and social fabric of Georgia as well as to the health of its population because of the risk of an influenza pandemic, the Project will be financed through an IDA Credit and a PHRD Grant to be approved following ERA procedures.

A. General

3. Procurement. Procurement under the project will be carried out in accordance with the Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated May 2004 (Procurement Guidelines), and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004 (Consultant Guidelines), and with the provisions stipulated in the Legal Agreement. Agreements covering procurement methods, thresholds, and other conditionality will be determined with due regard to capacities and experiences with Bank procurement of the implementing agencies.

4. The activities covered under the project will be implemented on the basis of annual work plans to allow for needed flexibility in adjusting project work to account for in-country experience and the lessons from implementation by other countries participating in the multi-country GPAl. As a result, the following approaches to procurement will be adopted:

B. Procurement arrangements

5. Procurement Plan. Procurement plans (PP) for each component covering the initial 12 month period of Project implementation was finalized during negotiations. PPs will be updated at least every year and will be submitted to the Bank for its review and approval before the end of the previous year and will use a pre-defined standard format which will list as a minimum: (i) each procurement action distributed by type of contract (goods, works, consulting services and training to be carried out during the following calendar year, (ii) their estimated values; (iii) the method of procurement and (iv) the timetable for carrying out the procurement. At the time of approving the annual work program, the Bank would agree on the consistency with the application of the Bank Guidelines to the specific procurement expected during the year and their methods of procurement. If needed, the PP would be revised and re-submitted. A format for a typical plan was agreed at negotiations.

6. Procurement Methods and Thresholds. The PP defines the appropriate methods and thresholds for various procurement and selection methods to be followed. Preparation and updating of the PP will be guided by the following table which indicates thresholds for procurement methods and prior review requirements. The parameters have been determined on the basis of the Bank's assessment of the capacity of the two respective implementing agencies (the PCC and GHSPIC)

which will be responsible for procurement, the estimated risks of corruption in the country and the capacities of Georgia's manufacturing, construction and consulting industries as well as current ECA policy (this policy was recently revised).

Table 1: Procurement methods and thresholds

Procurement Method	Threshold	Comments
ICB: Goods	>US\$300,000	
LIB: Goods	NA	For specialized equipment
NCB: Goods	<US\$300,000	If goods are available competitively from within the country and bidding documents shall contain draft contract and conditions of contract acceptable to the Bank. The Bank's sample form shall be used.
Shopping: Goods	<US\$200,000	
Direct Contracting		Goods and works which the Bank agrees meet the requirements of the Procurement Guidelines
Shopping (Works)	<US\$200,000	
Quality and Cost Based Selection (QCBS) for Consultant Services	>US\$200,000 (International shortlist) <US\$200,000 (National shortlist)	
Selection Based on Consultants' Qualifications	<US\$200,000	
Individual Consultants		Services for assignments that meet the requirements set forth in the first sentence of para. 5.1 of the Consultant Guidelines.
Single-Source Selection		Services for tasks in circumstances which meet the requirements of para. 3.10 of the Consultant Guidelines, with the Bank's prior agreement.

7. Prior review by the Bank. The Procurement Plan shall set forth those contracts which shall be subject to the Bank's prior review process. All other contracts shall be subject to post review.

8. Advertisement. A General Procurement Notice shall be published in the on-line edition of Development Business in April 2006. Special Procurement Notices for all ICB goods contracts and Requests for Expressions of Interest for consulting assignments exceeding the value of US\$200,000 equivalent shall be published in a local newspaper of a wide circulation, in the on-line edition of the UNDB and posted on the websites of the MoA and MoLHSA.

9. Information on the contracts awarded as a result of an ICB and results of selection of consultant firms for contracts exceeding US\$ 200,000 will also be posted on the World Bank web-site by submitting the information to the World Bank Country Office in Tbilisi.

10. The two PIUs will follow the World Bank anti-corruption measures and will not allow contracting with firms and individuals debarred by the Bank. The listing of such debarred firms and individuals is located at:

<http://www.worldbank.org/html/opr/procure/debarr.html>

C. Procurement Capacity Assessments

11. The two PIUs are presently in charge of procurement under several regular Bank-financed operations and the experience so far is good. The procurement staff in each of the two PIUs is experienced in procurement following World Bank Guideless. The same staff will be responsible for procurement under this Project. If need be, additional short-term procurement consultants may be hired to cope with peak workloads.

12. The Bank has carried out procurement capacity assessments of the two PIUs which will be responsible for fiduciary tasks including procurement and disbursements and has found them satisfactory. The concerned staff is also familiar with all the procurement methods to be used under the Project. However, given the country conditions and recent political history, the overall assessment is: "high risk". The PP will define thresholds for prior review appropriate to each type and estimated amount of contract. Such thresholds will be defined to minimize prior review as appropriate to the level of risk.

13. As the Project would have a strong decentralized implementation element, and to help the Bank to carry out post-review of procurement actions, consultants would be hired by the Project to carry out annual procurement audits of a sample of contracts, under terms of reference acceptable to the Bank.

14. A number of specialized UN and bilateral agencies operating in the Region have supported various country agencies in the procurement of drugs, vaccines, specialized test equipment and supplies and other materials. Using this type of assistance may become part of the planned procurement arrangements. In accordance with the Procurement Guidelines Section 3.9, the Project will include the possible use of Specialized Agencies of the United Nations (WHO, FAO and UNICEF) as suppliers of goods (mainly for drugs and vaccines and some medical supplies such as reagents); such agencies would follow their own procedures of procurement.

Appendix 7: Financial Management and Disbursement Arrangements
GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPAREDNESS AND RESPONSE PROJECT

Country Issues

1. The most recent CFAA was conducted in September 2003 and updated in March 2004. The CFAA assessed each component of the public expenditure management framework and analyzed the fiduciary risks in the system of internal controls. The individual assessments took account of the level and magnitude of risk presented in each component. The CFAA team adopted the European Union's Public Internal Financial Control Systems (PIFCS) model of internal control as the basis for its analysis of the Government's internal control framework. Significant and serious weaknesses remain in many parts of the public expenditure management system. However, the Government is taking actions to improve its systems of financial management. Particularly, the treasury function revenue accounting was transferred from the NBG to the Treasury and a system for cash management has been introduced. The severe cash shortages of the past few years have been addressed. A single treasury revenue account has been established. Treasury introduced a Treasury Single Account. In addition, Treasury is in the process of implementing a modern Treasury system with the support of the Bank-financed Public Sector Financial Management Reform Support Project that is currently beginning implementation. In addition, the WB financial management team has reviewed the Treasury system and assessed it as satisfactory for holding special accounts of the project.

Strengths and Weaknesses

2. The strengths that provide a basis for reliance on the project financial management system include: (i) significant experience of both PIUs management and FM staff in implementing Bank-financed projects for past several years; and (ii) adequate accounting software utilized by both PIUs.

3. Weaknesses were not identified at the PIUs. However, proper design of the Compensation Funding procedures and their implementation are expected to mitigate the risk of misuse of the funds to be provided under the Compensation Funding sub-component.

Internal Controls

4. With the exception of the Compensation Funding sub-component, for which adequate internal control procedures need to be designed, both PCC and GHSPIC have maintained an effective internal control system to ensure that project expenditures are properly authorized, supporting documents are maintained; accounts are reconciled periodically; project assets, are safeguarded. Although project accounting will be on an accrual basis, detailed asset/inventories register will be maintained as part of the project internal control procedures. The PCC and Health PIU will implement appropriate controls over inventories of drugs, vaccines, medical equipment, and other sensitive and/or expensive assets will be especially important for the project.

Staffing

5. The existing FM staffing in the PCC and GHSPIC are considered adequate to implement this new project at the initial phase, but additional staff are expected to be needed to strengthen the existing capacity in both PIUs and particularly in the entity responsible for compensation funding (probably PCC)

to allow for regular reconciliation of the documents to be received as well as periodic visits to the village level to review the implementation of the compensation mechanism. The additional FM staff will report to the PIUs financial managers and will be responsible for disbursement functions as well as project accounting - maintaining books of accounts, reporting day-to-day transactions and preparing accounting reports and financial statements, as well as monitoring financial flows to project beneficiaries. The financial managers of both PIUs will have primary responsibility for the quarterly financial reports (FMRs) and will prepare the annual financial statements for audit. However, the Health PIU's financial manager will be also responsible for consolidation of the separate FMRs into one for regular submission to the Bank.

Accounting

6. The accounting books and records of the both PIUs will be maintained on an accrual basis and project financial statements, including quarterly FMRs, are going to be presented in United States dollars. The financial management manuals are being updated based on the agreed organizational structure of the FM team to reflect relevant accounting policies and internal control procedures.

Internal Audit

7. No internal audit units exist nor are going to be established in the PIUs, considering the small size of the entities.

Reporting and Monitoring

8. For project monitoring purposes, quarterly financial monitoring reports will be required to be prepared by each PIU for the component/s under their management. Both PIUs will be responsible for designing appropriate financial monitoring reports (FMRs) to include: (a) Project Sources and Uses of Funds, (b) Uses of Funds by Project Activity, (c) Designated Account/Treasury Account Statements, (d) Physical progress report, and (e) Procurement report. These financial reports will be submitted to IDA within 45 days of the end of each quarter. The first quarterly FMR will be submitted after the end of the first full quarter following the initial disbursement. Formats of the annual financial statements and the FMRs will be incorporated in the Financial Management Manuals (FMM) of both PIUs. The accounting software currently used by the PCC and GHSPIC will need to be upgraded to have the capacity to prepare FMRs incorporating all components, sub-components and expenditure categories, as may be appropriate.

Information Systems

9. PCC has the in-house developed software "Coppers" and, for salaries, also in-house developed (very simple) software "Payroll". Both of them have been functioning for a number of years already, and no problems have been noted. For both systems a very good comprehensive user manual has been developed and distributed to all accounting staff. The "Coppers" system has a functionality of exporting to Excel where the FM staff can made further modification to enhance the reports. Recently, the accounting system has been upgraded to include the accounting and reporting requirements of the MOF.

10. The GHSPIC is using ORIS accounting software, which is used by most of projects in Georgia and has been found as adequate for accounting and reporting purposes in WB-financed projects. However, ORIS does not yet produce FMRs automatically and it is planned to complete upgrading of the software to incorporate that functionality.

Disbursement Arrangements

11. Project funds will flow from (i) the Bank, either via two Dedicated Accounts (Treasury Foreign Currency Sub-Accounts) to be maintained in the Treasury: one for Human Health and Public Awareness and Information components implemented by MoLHSA (GHSPIC) and second for Animal health component implemented by MoA (PCC), which will be replenished on the basis of SOEs or by direct payment on the basis of direct payment withdrawal applications received from both PIUs; and (ii) the Government, via the Treasury through normal Budget allocation procedures initiated by the PIUs in accordance with standard Georgian Treasury and Budget execution regulations. The funds flow process is described below.

12. Expenditures will be processed in accordance with standard Treasury/Budget execution procedures. The PCC and GHSPIC will implement the relevant components of the project for which they are the responsible. Thus PCC or GHSPIC will approve contracts, enter commitments, and discharge payments relating to the components for which they are responsible, all of which will be performed through the Treasury system.

Compensation Funding

13. The Compensation mechanism was discussed with the Government representatives but not been developed per the Government request. The mechanism will be documented and finalized after the project negotiations, which will be a disbursement condition under the Compensation funding sub-component. However, key components of the mechanism and a time line for finalizing the design of the mechanism were discussed during the negotiations. Elements discussed included adequate record keeping during culling exercises, maintenance of data bases for the records, well advertised pricing arrangements, transparent flow of funds and documents and payment arrangements, adequate disclosure of payments made, clear and appropriate internal control procedures, and adequate feedback or complaints mechanisms.

Financial Audits

14. There will be annual audits of the project financial statements prepared for relevant components by PCC and GHSPIC and consolidated by GHSPIC, covering all aspects of the project, including specific requirements for the Compensation Funding. The audits will be performed by independent auditors acceptable to the Bank, and in accordance with International Standards on Auditing (ISA), and the Bank's guidelines on auditing as stated in the guidelines: *Annual Financial Reporting and Auditing for World Bank-financed Activities* (June 2003). The auditors' TORs will be prepared by the GHSPIC in coordination with PCC and cleared by the Bank before the engagement of the auditor. The audit TOR will include both the audit of financial transactions, an assessment of the internal control, funds flow mechanisms at the PIUs, and the reasonableness of the accounting, reporting and internal controls in respect of the Compensation Funding. The annual audit reports will consist of a single opinion on the financial statements of the project, incorporating the project accounts, including two Dedicated Accounts Reconciliation, and SOE Withdrawal Schedules; as well as a Management Letter. The audit reports will be submitted to the Bank not later than six months after the end of the fiscal year to which they relate. The cost of the audits will be eligible for financing from the Credit. The both PIUs will provide the auditor with full access to project-related documents and records, including the compensation claims database, and with the information required for the purpose of the audit. Sample TORs for project audit will be included in the Financial Manual.

Financial Management Action Plan

15. With the exception of compensation funding, the financial management arrangements of the PCC and GHSPIC are adequate, but a number of capacity building actions are required to ensure that the financial management arrangements are strengthened for this project. The following action plan was discussed with the Recipient during Negotiations. Satisfactory implementation of the action plan will ensure the establishment of a financial management system that fully meets requirements of the Project and of the Bank.

	Action	Responsibility	Due Date	Remarks
1	Design, document and implementation of appropriate internal control procedures as well as funds and documents flow arrangements for the <i>Compensation Funding</i> .	MoA, MOF	Disbursement Condition for the Compensation Funding	The Compensation Funding will be disbursed after the internal control and fund flow arrangements are designed, documented and implemented satisfactory to IDA. Upon finalization of the Compensation Funding mechanisms the Financial Management Manual of the PIU involved in the compensation will need to be updated to reflect the flow of funds and accountability for cash grants/ compensation fund arrangements approved.
2	<i>Staffing of the FM Unit.</i> Recruitment of Financial/Disbursement Specialist. This is only an action for capacity building and not a FM condition.	PCC and GHSPIC	To be ready by or initial stage of the project implementation	
3	<i>FM Procedures Manuals.</i> Revise existing manuals to fully document the procedures for accounting and internal control, including disbursement and flow of funds (including flow chart), financial reporting, including FMR, annual reports and audit. This is only an action for capacity building and not a FM condition.	PCC and GHSPIC	To be ready before project implementation	Manuals already exist and will require only minor updates to reflect the characteristics of the project. The manuals then need to be updated to reflect the flow of funds and accountability for cash grants/ compensation fund arrangements approved.

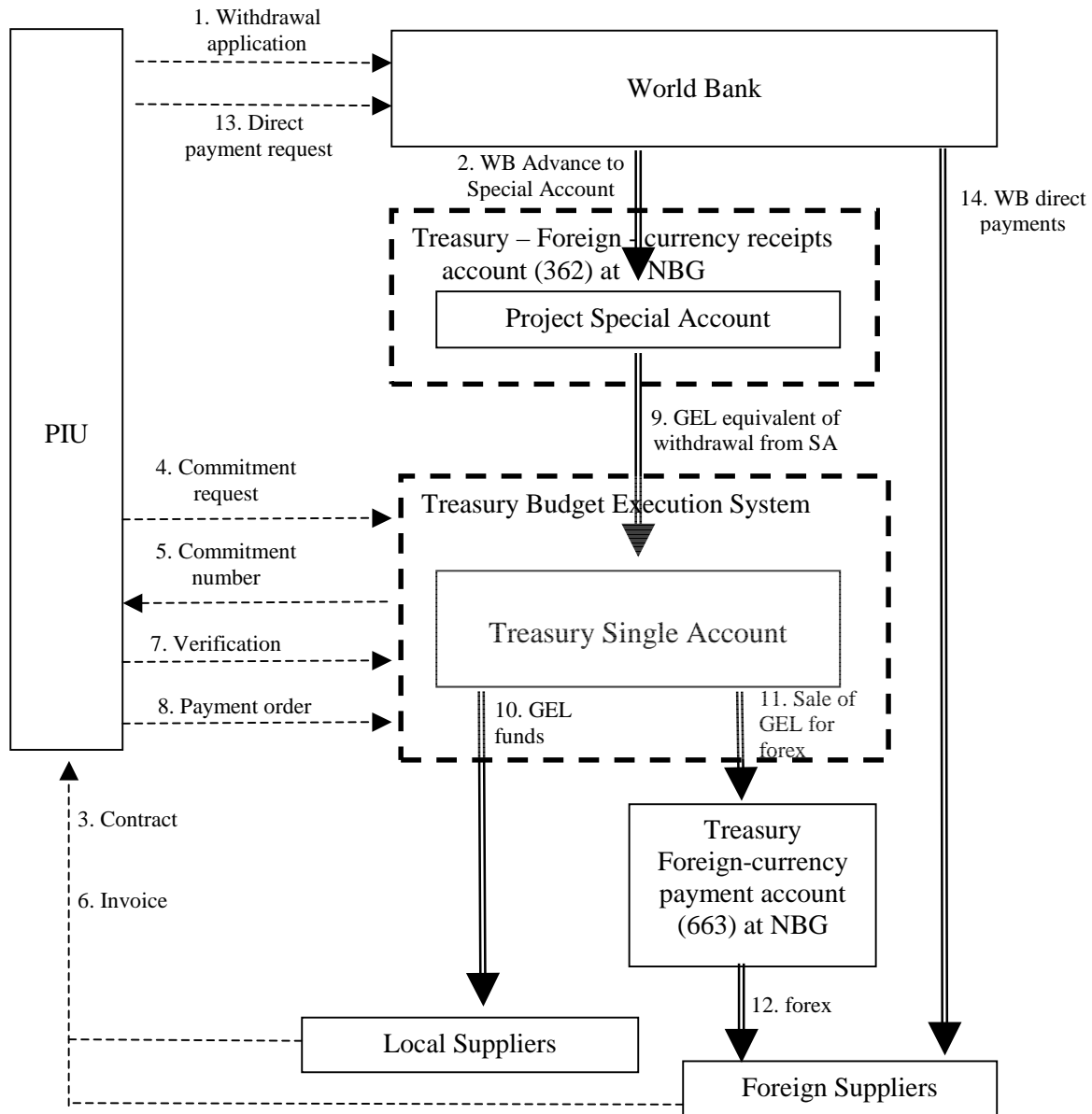
Supervision Plan

16. During project implementation, the Bank will supervise the project's financial management arrangements in two main ways: (i) review the project's quarterly unaudited financial reports (UAR) and six-monthly management reports as well as the project's annual audited financial statements and auditor's management letter; and (ii) during the Bank's supervision missions, review the project's financial

management and disbursement arrangements (including a review of a sample of SOEs and movements on the Dedicated Account) to ensure compliance with the Bank’s minimum requirements. As required by the Bank and ECA guidelines, the Country Financial Management Specialist for Armenia and Georgia will carry out regular annual FM supervisions of the project.

Sequence and Flow of Documents and Funds

17. This section describes the procedures followed, controls applied as well as the flow of funds and documents under all the components of the project, except the Compensation Fund sub-component.



Key:



Payments

18. The agreed project budget for both components is first divided into quarterly appropriations/limits in conjunction with Treasury. This effectively sets the maximum amount that may be paid on any single Budget line. Effecting payments through Treasury after the appropriation process will be a three-part process:

- i) *Commitment.* In order to initiate a payment under a specific contract, the PIU will complete a Commitment Document (see Form No. 1 in Appendix D) and submit the same to Treasury² for processing. Treasury will confirm that the requested commitment is within the approved appropriation³ and will then enter the requested commitment onto a daily database of requested commitments. Commitments for salaries are submitted quarterly (see Form No. 3-1 in Appendix D). Each evening, Treasury will submit a printout of the daily database of requested commitments to the MOF for approval. The MOF will confirm approval of the requested commitments by signing the printout. Treasury will thereafter assign a unique sequential number to all MOF-approved commitments. The whole commitment process should not take more than two working days. The PIU will contact Treasury by telephone or in person to obtain the assigned commitment number. The PIU will note the assigned commitment number on its copy of the Commitment Document.
- ii) *Verification.* Upon satisfactory receipt of the contracted goods, works or services and accompanying goods received note, Act of Acceptance or similar, the PIU will complete one of two types of expenditure verification⁴ to confirm the legitimacy of the prospective payment prior to actually effecting payment. The PIU will present the completed Verification Document (see Form No. 2 in Appendix D) to Treasury who in turn will record the verification in the Treasury system. Verifications for salaries are submitted using a different form (see Form No. 3 in Appendix D).
- iii) *Payment.* The PIU will present Treasury with a Payment Order for payment of a recorded verification. The format of a Payment Order is stipulated by the National Bank of Georgia⁵. It is usual for a Payment Order to be presented to Treasury together with the corresponding Verification Document. After processing a Payment Order, payment will be effected by the Treasury within one working day.

19. It has been agreed that when executing a Payment Order in respect of Bank-financed projects using Treasury rather than commercial banks to house the projects' Special Accounts, Treasury will first sell an appropriate amount of foreign currency from the relevant Special Account (i.e. from the project's sub-account in Treasury's Foreign-currency receipts account 362 at the NBG) and deposit the GEL equivalent (equal to the amount specified in the Payment Order) to the Single Treasury Account⁶ before remitting the GEL to the specified payee. For foreign currency payments GEL equivalent will be converted to the relevant foreign currency and paid (see below for details).

² No copies of the contracts or other source documents are required by the Treasury. However, the Commitment Document needs to contain the reference to those supporting documents. Each contract requires a separate Commitment Document should be prepared for each contract

³ If a contract is to be paid over more than one quarter, separate commitments will need to be submitted in each of the quarters in which payments are to be made.

⁴ Verification may be either: (i) Ex post i.e. after receipt of the goods, works or services; or (ii) Advance i.e. for expenditures such as a business trips, expenditures for which advance payments need to be made prior to receipt of the goods, works or services

⁵ No copy included within this document.

⁶ Currently there is a Treasury Single Account into which all government revenues are collected.

Assessment of Treasury to satisfy WB criteria for Special Accounts

20. In terms of Treasury's capacity to provide the four services required of financial institutions holding Special Accounts as specified in the World Bank's Disbursement Handbook⁷:

- i) Execute foreign exchange and local currency transactions. Criterion satisfied. Foreign exchange transactions are executed as follows: upon presentation of a foreign currency payment order, Treasury instructs the NBG to calculate and withdraw the appropriate amount of GEL from a Treasury Single Account and deposit the appropriate amount of foreign currency in the Foreign-currency payment account (663). The NBG then transfers the foreign currency from the Foreign-currency payment account (663) to the recipient specified in the Payment Order. The withdrawal from the Treasury Single Account is shown as an expense of the specified Budget line. For local currency transactions, payments are made directly from the Treasury Single Account to the payee specified in the relevant Payment Order.
- ii) Open letters of credit. Criterion satisfied. Line ministries are already able to obtain LCs through Treasury as follows: the line ministry sends a formal request for a letter of credit to the Treasury; Treasury forwards the request to the NBG; the NBG opens the LC; the NBG informs Treasury; Treasury informs the line ministry. PIUs will be able to follow similar procedures.
- iii) Handle a large number of transactions promptly. Criterion satisfied.
- iv) Issue prompt and detailed monthly bank statements. Criterion satisfied. Treasury reconciles the sub-accounts in the Foreign-currency receipts account (362) on a daily basis and can send regular or *ad hoc* transaction listings by e-mail to any account holder (PIUs) confirming both the transactions on as well as the balance in the Special Account.

Other matters

Direct payments

21. Direct payments may be made in the normal manner with payments flowing directly from the WB directly to contractual parties' bank accounts. However, the extent of these direct payment transactions should be minimized to the maximum extent possible given that such transactions do not flow through Treasury and therefore do not: (a) make full use of country systems; and (b) permit Treasury to have immediate or up-to-date information on the cash flows relating to government operations i.e. Budget execution statements will be wrong and could be materially so. If direct payments are made, Treasury will need to be informed on a timely basis of these transactions in order that they may be properly accounted for in the Budget execution reports. PIUs will be required to provide the MOF and Treasury immediately of such direct payment transactions after confirmation from the WB Client Connection system. For control purposes, the PIUs will be obliged to reconcile Treasury's monthly Budget execution statements to the WB's disbursement records per the Client Connection system.

Budgeting

22. Projects' budgets are in any event incorporated into the Georgian annual Budget. The implementing PIUs agree on the project's annual project budget with the relevant line ministries, and the MOF in accordance with standard Georgian Budget formulation procedures. Each project's budget is shown in the Budget under the relevant entity (line ministry) on a single line (i.e. a unique sub-organizational code within the line ministry or LEPL) with the budget divided between two sources of funding (columns): one for government counterpart contributions and one for World Bank financing. The project's components budgets are not analyzed in any detail but are rather shown on a single economic

⁷ See paragraph 6.4 of The World Bank's *Disbursement Handbook*.

classification, “subsidiaries”⁸. It should be noted that a project’s components budgets are incorporated into the Georgian Budget in the manner described in this paragraph irrespective of where the project’s Special Account is held, at Treasury or in a commercial bank.

Transaction charges

23. The Treasury incurs no transactions charges from the NBG for acting as its fiscal agent. Accordingly, WB-financed projects will incur no charges for using Treasury to hold the Special Accounts.

Foreign exchange gains and losses

24. No foreign exchange gains and losses will be incurred in the execution of foreign currency payments through Treasury because: (i) the sale of foreign currency for GEL from the Special Account, deposit of the GEL in the Treasury Single Account, and sale of GEL for foreign currency will all happen on the same day; (ii) the exchange rates used for the selling and purchasing of foreign currency will be the official exchange rates of the NBG; and (iii) the NBG’s official purchase and sale exchange rates are the same. Accordingly, there is no financial gain or loss by having foreign currency payments flow through the Treasury Single Account as opposed to having these payments made directly from the Special Account. Of course there are more transactions and thus a greater risk of processing error but these may be mitigated by reconciliation controls.

Unutilized commitments

25. If a commitment is requested during any of the first three quarters of the year but is not used, the undisbursed committed amount will be fully transferred to subsequent quarters on a cumulative basis. No further approval of the MOF is required for expensing the accumulated commitments. Accordingly, PIUs may make plans and submit budgets based on optimistic scenarios in order to comply with the contractual requirements and would not be penalized by Treasury for doing so.

Advance payments

26. In the contracts with several payments, all payments except those which are supported by Goods Received Notes, Acts of Acceptance or other documentation confirming receipt of the goods, works or services, should be considered as advance payments. A contract requiring several on-account or advance payments will require several Advance Verification Documents indicating the different advances to be paid. Once a Goods Received Note, Act of Acceptance or other documentation confirming receipt of the goods, works or services have been received, a closing Verification Document in respect of the advance payments already made should be submitted.

Advances for business trips

27. Advance for business trips may be obtained by specifying as much on the Commitment Document and Advance Verification Document.

Revision of appropriations

28. Appropriations may be revised by the Budget Department of the MOF.

Government counterpart financing

29. Government counterpart financing is executed in the same as described above directly from the Treasury Single Account. No separate account will be maintained for government counterpart financing.

⁸ If LEPL PIUs are eventually liquidated and their project implementing functions transferred to integrated line ministry PIUs, projects’ budgets will need to be further analyzed by standard Georgian economic classifications.

Internet banking

30. For the time being there is no legislation in Georgia that allows recognition of electronic signatures. Accordingly, electronic Internet banking through Treasury is not permissible. The PIUs will need to visit Treasury in person in order to submit documents and execute transactions.

Interest income

31. Interest will not be accrued on balances held in the Special Account.

Bidding fees

32. Bidding fees are currently collected off-Budget by line ministries requiring such fees and thereafter either returned to the bidder or transferred to the Treasury Single Account. The PIUs will be expected to follow similar procedures.

Petty cash

33. Petty cash (i.e. cash in cash boxes) may be held up to the monthly petty cash expenditure limits as specified in Georgian legislation (currently GEL 1,000).

Payments of utilities

34. Utility payments do not require contracts and will be made based on the reference to the relevant invoices.

Appendix 8: Environmental and Social Issues

GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

1. The Georgia Avian Influenza (AI) Project has been assigned World Bank environmental category B, since it involves moderate environmental impacts that can be managed during implementation of the project. Although project activities supporting AI prevention, preparedness and planning, and response and containment are not expected to generate significant adverse environmental effects, they do present a moderate environmental risk from inadvertent spread of the AI virus and waste management. Overall the AI prevention and response-focused activities are expected to have a positive environmental impact, as the investments in facilities, equipment, and training for veterinary and public health service staff and laboratories will improve the effectiveness and safety over existing avian influenza handling and testing procedures by meeting international standards established by the World Organization for Animal Health (OIE) and the World Health Organization. This will be reinforced by the mainstreaming of environmental safeguards into protocols and procedures for the culling and disposal of animals during AI outbreaks.
2. This environmental management plan addresses the moderate adverse environmental effects of the Animal and Human Health Components. For the Animal component, the EMP addresses zoonotic disease containment and waste management as pertain to disposal of special waste, emissions and materials at laboratories, and training for veterinary services workers, to include procedures for safe handling of AI materials, safe culling of infected and at-risk poultry and disposal of carcasses. For the Human Health component, the EMP focuses on equipment, refurbishing and training for reference and regional diagnostic laboratories to include key environmental issues in zoonotic disease containment and waste management. The EMP provides mitigation plans and monitoring plans to ensure appropriate attention to environmental issues, and tracking progress or problems in their management.
3. The main areas of environmental risk from project activities are the inadvertent spread of the AI virus during culling, transport and disposal of carcasses, animal waste, litter, and used protective gear; contamination of surface and groundwater from use of disinfectants; and laboratory bio-safety and waste management. In addition, minor environmental disturbances may occur during renovation of laboratories. The project environmental mitigation plan is provided in Appendix 5 of the EMP.
4. **Animal Health:** Equipment, refurbishing and training for regional laboratories and border inspection to include key environmental issues in zoonotic disease containment and waste management as pertain to special waste, emissions and materials; training for veterinary services and poultry sector workers to include procedures for safe handling of AI materials; safe culling of infected and at-risk poultry and disposal of carcasses. Formal compensation for culled animals should target owners/primary beneficiaries (e.g., specifically including women where they are the primary backyard producers).
5. **Human Health:** Equipment, upgrading, refurbishing and training for national reference and regional diagnostic laboratories to include key environmental issues in zoonotic disease containment and waste management
6. **Strategic Communications:** No environmental issues, but an important component for design and delivery of communications tools for good hygiene, safe culling and disposal of animal carcasses, animal waste management.

Appendix 9: Economic and Financial Analysis

GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

1. The continuing outbreaks of the H5N1 strain of Highly Pathogenic Avian Influenza (HPAI) that began in late 2003 and early 2004 have been disastrous for the poultry industry in the world. By mid-2005, more than 140 million birds had died or have been destroyed, and losses to the poultry industry world-wide are estimated to be in excess of US\$10 billion. Despite control measures, the disease continues to spread, raising serious public health concerns at the global and national levels, and it has the potential for massive impact on human and animal health as well as an extensive socio-economic impact, especially on the poorest.

2. Estimation of the economic benefit, cost-effectiveness and distribution of benefits from the combined implementation of the project's suggested measures is the objective of this analysis. A standard practice of comparing the incremental stream of net benefits 'with project' to a 'without project' scenario is employed. The analysis considers virus transmission among animals and among humans both jointly and separately. At present, HPAI is mainly an animal health problem, although more than half of the registered 120 human cases (globally) so far have been fatal. Since it is widely believed that a global pandemic of human influenza is both overdue and likely, the analysis is extended to examine economic consequences of human-to-human transmission.

3. In addition to human and animal health concerns, a significant socio-economic damage could be caused to the country by an AI epidemic. The Government should take preventive measures to control and eradicate HPAI, so that possible losses in the economy are minimized as much as possible. Though it is difficult to estimate exactly the full extent of the damage, the preliminary estimates can be done by considering the estimated contribution of the poultry sector to the country's GDP. According to Georgia's national statistics, the estimated value-added by poultry sector in 2004 was around GEL\$ 80 million, or about 1.2 % of the GDP (GEL 6,035 million real GDP in 2004). The majority of poultry production in Georgia derives from smallholder production and represents, in particular for the poorer rural households, a significant income source and source of protein. Poultry is the most important and accessible source of meat and protein for poor rural households. Poultry products constituted 6% of the consumption basket in 2005.

4. Today in Georgia about 90% of poultry are owned by households, and the poultry production is a significant part of rural households' incomes. In addition, there are currently 13 large to medium commercial poultry farms producing both eggs and meat. However, the intensive coverage of the outbreaks in Turkey and speculation about its spread to Georgia already led to a considerable decline in sales that affected both household and commercial farms. Another way to assess the cost of an AI epidemic is to estimate the direct loss in poultry production and sales. At present, there are 10.6 million chickens reported in Georgia. If the whole poultry stock is culled, with an average farm gate price of a chicken before AI being GEL 4, the gross value of poultry lost during the crisis would come to some GEL 40 million.

5. The poultry processing enterprises already have faced a loss of the market and have started killing their birds. Three of the 13 commercial producers have already culled their flocks and stopped production in response to fears about the AI. Also importers of poultry products reports as much as a 98% reduction in their sales.

6. Poultry imports valued around US\$ 13.8 million in 2005 and comprised 18.6 thousand tons. Domestic production is estimated to be around 16.3 thousand tons. Also farmers in Georgia started killing their birds. Taking no further actions would result in the loss of a large share of the indigenous poultry stock in Georgia (chicken stock currently comprises around 10.6 million birds). Given that the majority of poultry is raised in backyard farming operations and a large share of the poor depend on poultry to bring in some cash income, effects of this overreactions already start to show in some regions. A poor household loses an estimated value of USD 100 through abandoning poultry meat and egg production (see table). This comprises to around 20% of the poverty line that applies to around 35% of rural households. The loss of this food and income source can therefore be considered substantial. The Government is in the process of combining various benefit programs into a poverty targeted program that might bring some relief to the hardest hit households.

Average flock of a rural household	Number	Value (USD)
Chicken	10	20
Turkey	3	30
Duck	1	2
Eggs	55 per chicken/year	55
<i>Total</i>		<i>107</i>

7. The poor would also suffer as a result of absence of poultry meat and eggs in the market followed by an increase in price of substitute products during this period. Although, there is a high probability that the red meat production would be advanced, and the prices for the substitute products could return to the pre AI-level, the possibilities of shortages and further price jumps should not be excluded. Poultry meat and eggs comprise a significant component of the aggregate food basket (6% in food basket), the ability of the poorest share of population to diversify through other substitute products is extremely limited.

8. In the event of a larger outbreak, culling would comprise a significant expenditures to the Government (estimated at GEL 3.5 million) to pay for temporary labor for culling and clean-up crews, overtime police and other officials in the rural areas, and for transportation and purchase of imported materials. In addition, the essential compensation scheme to kick in in the event of an outbreak comprises an additional cost to Government. These costs can be kept low through early detection and immediate action of the relevant authorities to contain the outbreak to a limited area. Using this approach and calculating all above mentioned losses, the total economic cost for outbreak has been estimated at 1% of GDP.

Indirect Costs

9. In case of animal-to-human and human-to-human transmissions, there would be expenses to be undertaken by the health sector, such as cost of hospitalization, etc. Cost of injections to humans and birds should be also taken into account. It is assumed that health disabilities would lead to the loss of labor force, and hence there would be loss to the overall economic activity.

10. The loss of tax revenues through the almost complete standstill of poultry products imported into the country amounts to around US\$ 5 million with a potential impact on financing of public services.

Benefits of the Project

11. In response to these concerns, Georgia has prepared a National Action Plan, to be supported by the Project. The project is targeted to support three major areas: (i) prevention, (ii) preparedness and planning and (iii) response and containment. The project will have a three-tiered approach and will address three critical gaps, which are (i) animal health, (ii) human health, and (iii) strategic communications. Economic benefit and cost-effectiveness of the project can be measured by using a “with project” and a “without project” approach. The incremental benefits and costs for each of projections scenarios were evaluated for a period of 15 years, with a discount rate 12 percent. The calculation takes into account the losses in the poultry market, gains of other meat sectors, loss of capital in the poultry sector. With the with project scenario assuming a 20% reduction in the likelihood of a larger outbreak. The analysis considered all projects costs, but does not consider monthly monitoring costs of the state veterinary services. However, given that these costs are rather low for Government, they are not assumed to have a significant impact on the project returns. The following table summarizes base case assumptions on key parameters. 2004 GDP values and statistical data were used. An exchange rate of GEL 1.8/USD was used for currency conversion. The period of the analysis has been set for fifteen years. An annual discount rate of 12% has been used for the calculation of the NPV. The assumed parameters are as follows:

Parameter	Value
Annual probability of catastrophic event (CE) occurring in first year of w/out project scenario (2006)	10%
Annual increase in probability of CE occurring	1%
Probability reduction factor due to the project	20%
Decrease of poultry sector added value due to CE in year of CE / in long term new market equilibrium	60%/20%
One time loss of capital in poultry sector	40%
Increase in value added of red meat and fish sectors, in year of CE and in long term new market equilibrium	10%, 5%

12. Without Project Scenario. In this scenario, the main costs to the economy of multiple, simultaneous outbreaks that cannot be contained properly due to insufficient public and private sector capacity is defined as the net cost incurred as a result of significant decrease in demand for poultry products, including meat and eggs. The net cost represents cost to the poultry sector and the positive impact on alternative protein sources, notably the red meat sub-sector.

13. It is assumed that in the year in which the CE occurs, the impact on the poultry sector is a 60% decrease in the value added of production of meat and eggs. This assumption is based on the immediate market reaction observed earlier this year when cases in Turkey increased and observations in other countries with regards to price and demand drops after outbreaks. In the subsequent three years, the value added in the poultry sector is assumed to regain 60% of the pre-CE level.

14. A further, one-time cost to the poultry sector occurs in the form of abandoned capital production assets as a result of the permanent decrease in demand and poultry stock that has to be culled in response to the outbreaks. This loss is estimated at 40% of the capital stock. The value of the poultry sector capital stock itself is assumed to be equal to three times the value of annual production in the poultry sector. The assumption has been based on the strong reaction of the poultry sector to the potential threat of an outbreak.

15. Gains to the red meat sub-sector that is an alternative source of protein to a limited number of the population and is therefore assumed to be 10% of the value added in the year in which the CE occurs, gradually decreasing to 5% over the following 3 years.

16. The Government and the private sector would also incur incremental cost associated to the administration of monitoring and containing outbreaks. However, these costs are extremely difficult to estimate and are hence not included in this analysis. As discussed above, there is a significant loss of consumer surplus resulting from the perceived risk associated with poultry product consumption. These losses are not captured in the GDP data uses since the latter focuses on production values. In addition, shortage of data makes it impossible to quantify this loss. However, as discussed above the impact on the poorer segment of the population can be assumed higher.

17. The stream of total annual costs due to a CE in a particular year thus obtained is summarized in the form on present value as of the year of the CE. This value is then multiplied with the probability of the CE occurring in a particular year to arrive at the expected cost. In the without project scenario, the probability of the CE occurring is assumed to be 10% in 2006, increasing annually at a rate of 1.0% due to increasing presence of the virus in the environment. This process results in an increase of expected costs for the period 2006 – 2020, as presented in the following Table.

Cost Stream w/out and with Project (in million US\$)

Year	2006	2007	2008	2009	2010	...	2016	2017	2018	2019	2020
Costs due to CE (in NPV terms)											
Costs w/out project scenario	22	24	25	27	28		37	37	37	37	37
Costs with project scenario	(5)	(2)	(1)	7	12		27	27	27	27	27
Probability of CE occurring											
(%) in the w/out project scenario	15	16	17	18	19		25	25	25	25	25
(%) in the with project scenario	15	16	17	13.6	11		7	7	7	7	7
Expenses costs in the with project scenario											
Expected costs averted due to project	0	0	0	7	12		27	27	27	27	27
Project cost	4.6	1.8	1.3								

18. With Project Scenario. It has been assumed that the impact of the project will fully come into play in year four after project start. Therefore, the probability of the full impact of a catastrophic event being felt is assumed to be the same as under the without project scenario for the first three project years. From year 4, the likelihood of a catastrophic outbreak is assumed to reduce by 20%. The stream of expected costs in this scenario are calculated by multiplying these probabilities with respective NPVs of costs and presented in the Table above. The total project costs are estimated at US\$ 8 million disbursed over three years.

Results of the Analysis

19. Based on the above assumptions, the analysis yields an NPV of US\$ 149 million and an internal rate of return of 70.8 %.

Sensitivity Analysis

20. A sensitivity analysis was carried out to analyze the impact of varying assumptions on the results of internal rate of return of the project. The analysis indicates that the model is robust as substantial changes in the assumptions used result in the IRR to decrease to 24%:

- ③ Holding all other values constant, assuming a reduction of capital loss in the poultry sector of 10% (as opposed to the base case 40%) – resulting in an IRR of 60%;
- ③ Holding all other values constant, assuming a value added loss in the poultry sector to 40% in the CE year and 10% in the long term (as opposed to the base values) resulting in an IRR of 27.6%;
- ③ Reducing the losses sustained by the poultry sector in terms of value added loss (to 10% in the CE year and to 5% in the long term), the capital loss to 10%, while also reducing the gain in the red meat and fisheries sectors (to 1% in the first year and to 0% in the long run) and reducing the probability of a CE in 2006 to 0.5 %; resulting in an IRR of 19.1%.

Appendix 10: Results Framework and Monitoring
GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

Results Framework

PDO	Project Outcome Indicators	Use of Project Outcome Information
To minimize the threat in Georgia posed to humans by HPAI infection and other zoonoses in domestic poultry and prepare for the control and response to an influenza pandemic and other infectious disease emergencies in humans.	<ul style="list-style-type: none"> • Evidence of an effective and intersectoral surveillance system in place for both animals and humans for HPAI and other zoonoses; • Evidence of institutional mechanisms in place for effective implementation of a contingency plan for endemic preparedness; • Contained outbreaks in poultry with no demonstrated transmission from birds to humans. 	Mid YR2: review of program approaches at MTR End YR3: assess impact of project components at completion
Intermediate Results	Results Indicators for Each Component	Use of Results Monitoring
Component 1 - Animal Health		
Component 1 A - Strengthening National HPIA Preparedness and Prevention Capability		
Component A.1: Strengthening the Regulatory and Institutional Environment –effective regulatory framework for disease prevention, detection, containment and eradication in accordance with OIE standards and guidelines.	Component A.1: <ul style="list-style-type: none"> • National AI Strategy developed and adopted by government. • Key regulatory changes agreed • Capacity of newly established Food Safety Agency strengthened. • Procedures and standards upgraded and staff trained in their use 	Component A.1: Review progress and adjust approach if necessary
Component A.2: National Action and Contingency Plan – Contingency plans that detail required activities on all levels including necessary implementation guidelines and manuals for all relevant agencies and services.	Component A.2: <ul style="list-style-type: none"> • Certification of readiness rating obtained from FAO/OIE; • Self-assessment of the veterinary services executed; • Pre-screening capacity at the field strengthened; • Strengthening of regional and rayon veterinary services accomplished. 	Component A.2: Review progress and adjust approach if necessary .
Component A.3: Establishment of a National Compensation Policy and Fund - Implementation arrangements developed and key players are sufficiently trained in conducting the compensation payments on the local level.	Component A.3: <ul style="list-style-type: none"> • Compensation Fund established with clear operating modalities; • Key players fully instructed on procedures; • Compensation resources available for quick disbursement; • Public informed about compensation procedures. 	Component A.3: Review design, fine-tune approach and obtain full approval of compensation policy
Component 1B - Strengthening Disease Surveillance, Diagnostic and Containment Capacity		
Component B.1: Strengthening the Disease Monitoring and Containment System - Public veterinary services strengthened to bring them in line with OIE standards.	Component B.1 <ul style="list-style-type: none"> • Emergency supplies procured and available at strategic locations in the field; • Border control and customs services capacity for control and protection upgraded. 	Component B.1 Review at MTR, YR 3 re-enforce measures
Component B.2: Strengthening Diagnostic Capacity - Diagnostic capacity strengthened that feeds into the surveillance system.	Component B.2 <ul style="list-style-type: none"> • Regional laboratories, rayon veterinary inspection and veterinary local levels sufficiently equipped for adequate surveillance. 	Component B.2 Review progress
Component B.3: Strengthening Animal Disease Information Systems - Efficient disease information system developed in full compliance with the obligations of membership in the OIE.	Component B.3 <ul style="list-style-type: none"> • Linking of the National Veterinary Reference laboratory to the WAHIS. 	Component B.3 To verify satisfactory and timely progress

Component 2 - Human Health		
Component 2 A: Enhancing Program Planning and Coordination		
Component A.1: <i>Enhancing Public Health Program Planning and Coordination</i> – effective regulatory framework for National Pandemic Influenza Action Plan (NPIAP) as well as contingency plans that detail required activities on all levels including implementation guidelines and manuals for all relevant agencies and services	<ul style="list-style-type: none"> ③ NPIAP including contingency plans developed and adopted by the government ③ Key regulatory changes agreed and enacted ③ Procedures and standards upgraded and staff trained in their use 	Component A 1: To verify satisfactory and timely progress and adjust approach if necessary
Component 2 B: Strengthening of National Public Health Surveillance System		
Component B.1: <i>Improvement of Laboratory Networks</i> – National strategic plans for improvement of public health surveillance and disease control systems prepared according to WHO recommendations, approved and fully resourced for implementation	Component B.1: <ul style="list-style-type: none"> ③ Increased surveillance and outbreak investigation capacity; ③ % of specimens tested positive and sub-typed; ③ % of positive tests confirmed by reference laboratory; ③ Biweekly report from NRL through MOH to Regional health departments on compiled results of national surveillance (ILIs and confirmed cases) introduced as feedback mechanism 	Component B 1: To verify satisfactory and timely progress and adjust approach if necessary
Component B.2: <i>Improvement of Health Information and Telecommunication Systems</i>	Component B.2: <ul style="list-style-type: none"> ③ Number of regional /district public health divisions with a computerized information and telecommunications systems in place and operational; 	Component B 2: To verify satisfactory and timely progress and adjust approach if necessary
Component B.3: <i>Training</i> – of all staff on all levels and services	Component B.3: <ul style="list-style-type: none"> ③ Number of health personnel trained in influenza virus surveillance and control; 	Component B 3: To verify satisfactory and timely progress and adjust approach if necessary
Component 2 C. Strengthening Healthcare System Response Capacity		
Component C 1: <i>Social Distancing Measures</i> - "Social distancing measures" such as quarantine, bans on mass gatherings, and travel restrictions, were developed and implemented backed up by a communication strategy.	Component C.1: <ul style="list-style-type: none"> ③ Social Distancing Measures defined; ③ Enabling legal framework established ③ Staff of responsible agencies trained 	Component C 1: To verify satisfactory and timely progress and adjust approach if necessary
Component C 2: <i>Vaccination support</i> – strategy for effective influenza vaccination	Component C.2: <ul style="list-style-type: none"> ③ Strategy for access to human influenza vaccine on the basis of well-defined criteria developed; ③ Strategy for access to and appropriate use of anti-virals (e.g., stockpiling and standard treatment protocol) developed; ③ A contingency plan for procurement of AI vaccine for humans is developed should one become available and needed; 	Component C 2: To verify satisfactory and timely progress and adjust approach if necessary
Component C 3: <i>Medical Services</i> - Critical medical care networks strengthened and readied to cope with increased demand for services, and to prevent the spread	Component C.3: <ul style="list-style-type: none"> ③ Number of professionals and support personnel trained for active surveillance, case finding, and proper diagnosis, treatment and care to contain outbreaks and 	Component C 3: To verify satisfactory and timely progress and adjust approach if necessary

of infection among high-risk populations and health care workers	reduce occurrence and case fatality during both pre-epidemic and pan-endemic phases ; ③ % change in the AI case fatality rate.	
Component 3 - Strategic Communication		
<p>Coordinated communications process involving MOA, MOH, addressing information /communication needs of priority audiences, during pre-pandemic and pandemic A-I phases;</p> <p>Informed at-risk communities adopting safe health practices, reporting, and contributing to outbreak control actions;</p> <p>Educated citizenry, aware of the impact and social containment measures needed if AI escalates across pandemic phases.</p>	<p>Component 3:</p> <ul style="list-style-type: none"> • Political and civic leadership organized around a national strategic risk communication plan; • Research-based risk communication strategies and products developed, responding to the needs of priority audiences; • Awareness-raising and behavior change interventions with population at risk using appropriate communications channels consistent; • 50% improvement in reported hygiene and sanitation behaviors; • Communications strategies and products developed and used highlighting the actions and investments of participating ministries and the mobilization of group resources to contain the epidemic, generating social trust and credibility; • Evidence existent of consistent communication and information technologies, to promote reporting of outbreaks, fast response and an uninterrupted social dialogue; • Informational products developed and disseminated that educate priority audiences about possible scenarios and mitigation and control actions to be undertaken. 	<p>Component 3:</p> <p>To verify satisfactory and timely progress Review at MTR and after outbreaks to adjust approach if necessary.</p>

Arrangements for Results Monitoring

Project Outcome Indicators	Baseline	Target Values				Data Collection and Reporting		
		2006	2007	2008	2009	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Evidence of an effective and intersectoral surveillance system in place for both animals and humans for HPAI and other zoonoses;	No human AI cases as of February 1, 2006 No human pandemic		Contain spread and number of cases No human pandemic	Contain spread and number of cases No human pandemic	Contain spread and number of cases No human pandemic	Semi-annual progress reports	Progress reports	MOA, MoLHSA
Evidence of institutional mechanisms in place for effective implementation of a contingency plan for endemic preparedness;	Mechanisms not fully in place		Fully developed mechanisms and rapid response to outbreaks		Sustainable mechanisms with demonstrated capacity to respond to outbreak	WHO/FAO assessment	WHO/FAO review missions	MOA, MoLHSA, PIT
Contained outbreaks in poultry with no demonstrated transmission from birds to humans.	Moderate readiness	Advanced readiness	Surveillance, diagnostics and containment system fully operational			WHO, FAO assessment	WHO, FAO, WB mission reports	FAO/WHO mission reports, Bank spn. missions
Intermediate Outcome Indicators								
Component 1. Animal Health								
Component A.1: National AI Strategy developed and adopted by government	National AI Strategy in draft	National AI Strategy completed and approved	National AI Strategy operational			Progress reports and strategy document		PIT, MOA, MoLHSA
Key regulatory changes agreed	Veterinary legislation inconsistent with newly established structures	Regulatory revisions required identified	Regulatory revisions approved		Veterinary legislation in line with international standards	Semi-annual reports, regulations	Progress reports	PIT, MOA
Capacity of newly established Food Safety Agency strengthened	Food safety agency not established	Food safety agency structure	Food safety agency structure	Adequate staff fully trained	System assessed and found	Semi-annual reports	Progress reports	PIT, MOA

Project Outcome Indicators	Baseline	Target Values				Data Collection and Reporting		
		2006	2007	2008	2009	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
		established	operational		satisfactory according to international standards			
Procedures and standards upgraded and staff trained in their use	Procedures inadequate		Procedures upgraded and 50% of staff trained		Procedures in line with international standards and all staff trained	Semi-annual reports	Progress reports	PIT, MOA
Component A.2: Certification of readiness rating obtained from FAO/OIE;	Not obtained		Partially obtained		Fully obtained	FAO assessment	Assessment report	FAO
Self-assessment of the veterinary services executed;	No self-assessment	50% complete	100% complete			Assessment	Assessment format	Veterinary service, PIT
Pre-screening capacity at the field strengthened.	Inadequate		50% of field staff able to pre-screen adequately		100% of staff able to pre-screen adequately	FAO	Preparedness assessment	FAO, PIT
Strengthening of regional and rayon veterinary service accomplished.	Not well equipped, manuals lacking		Well equipped, manuals in place		Sustained quality service	Technical expert review	Assessment	MOA, PIT
Component A.3: Compensation Fund established with clear operating modalities; Key players fully instructed on procedures; Compensation resources available for quick disbursement;	No compensation fund	Procedures and funding in place				Following outbreak	Survey	MOA, PIT
Public informed about compensation procedures.		Public awareness of compensation procedures	Farmers satisfied with compensation procedures and payments			Annually	Survey and compensation feedback mechanism	PIT
Component B.1: Emergency supplies procured and available at strategic locations in the field;	Partially equipped		8 regional and 56 rayon food agency units equipped according to			Annually	Progress report	Food Safety Agency, MOA, PIT

Project Outcome Indicators	Baseline	Target Values				Data Collection and Reporting		
		2006	2007	2008	2009	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
			plan					
Border control and customs services capacity for control and protection upgraded	Partially equipped		Fully equipped and trained		Effective Control of zoonosis at border points ensured	Progress reports, annually	Assessment	FAO, MOA, PIT
Component B.2: Regional laboratories, rayon veterinary inspection and veterinary local levels sufficiently equipped for adequate surveillance	Not well equipped	Training for high risk rayon offices and regional offices completed		Reminder of offices equipped and trained		Annual progress report	Review	FAO, MOA, PIT
Component B.3: Linking of the National Veterinary Reference laboratory to the WAHIS maintained by the General Directorate for Protection and Control.	Data system not in place		Data system links established		Data system links fully operational and inclusive	Annual progress report	Progress update report	MOA, Central laboratory
Component 2 - Human Health								
Component A.1: National Pandemic Action Plan developed and adopted by government	NPAIP in draft	NPAIP completed and approved	NPIAP operational			Progress reports and NPIAP document		PIT, MoLHSA
Key regulatory changes agreed	Legislation inconsistent with newly established structures	Regulatory revisions required identified	Regulatory revisions approved		Legislation in line with international standards	Semi-annual reports, regulations	Progress reports	PIT, MoLHSA
Procedures and standards upgraded and staff trained in their use	Procedures inadequate	Procedures upgraded	Procedures upgraded and 50% of staff trained		Procedures in line with international standards and all staff trained	Semi-annual reports	Progress reports	PIT, MoLHSA
Component B 1: Increased surveillance and outbreak investigation capacity;	NA	50% of regions w/ capacity	80% of regions w/ capacity		100% of regions w/ capacity	Semi-annual reports	Progress reports	PIT, MoLHSA
Increased laboratory capacity to collect and analyze specimens per	30/day	60/day	80/day		100/day	Semi-annual reports	Bi-weekly or monthly	PIT, MoLHSA

Project Outcome Indicators	Baseline	Target Values				Data Collection and Reporting		
		2006	2007	2008	2009	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
day for viral typing, sub-typing and isolation in times of surged specimen load;							reporting by labs	
% of positive tests confirmed by reference laboratory;	---%	---%	---%			Semi-annual reports	Bi-weekly or monthly reporting by labs	PIT, MoLHSA
% of positive tests confirmed by reference laboratory;	0	60%	80%		100%	Semi-annual reports	Reference lab reports	PIT, MoLHSA
Component B 2: Number of provincial public health departments with a computerized information and telecommunications systems in place and operational;	NA	40%	70%		100%	Semi-annual reports	MOLHSA progress reports,	PIT, MOLHSA
Component C 1: Social Distancing measures developed and staff trained	Not available	Social Distancing measures developed and approved	50% staff trained		100% staff trained	Semi-annual reports	MOLHSA progress reports	PIT, MOLHSA
Component C 2: Seasonal influenza vaccination implemented in the risk groups	Population in Tbilisi and Batumi					Semi-annual reports	MOLHSA biweekly reporting	MOLHSA, PIU, spn missions
Component C 3: Number of professionals and support personnel trained for active surveillance, case finding, and proper diagnosis, treatment and care to contain outbreaks and reduce disease occurrence and case fatality during both pre-epidemic and pan-endemic phases;	0%	20% increase	70% increase		100%	Semi-annual reports	MOLHSA biweekly feedback reporting	MOLHSA, PIU, spn missions
% change in AI case fatality rate.	0% fatality rate	0% fatality rate	0% fatality rate			Semi-annual reports	MOLHSA biweekly feedback	MOLHSA, PIU, spn missions

Project Outcome Indicators	Baseline	Target Values				Data Collection and Reporting		
		2006	2007	2008	2009	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Component 3 – Strategic Communication								
Political and civic leadership organized around a national strategic risk communication plan;	AI Contingency Plan revised to include a National Strategic Risk Communication Plan (NSRCP) 10% complete	100% complete				Quarterly reports in 1 st year; semiannual reports thereafter	NSRCP document, semiannual reports	Crisis National Center and Communications Officer
Research-based risk communication strategies and products developed, responding to the needs of priority audiences, are developed;	NSRCP and priority audience communication needs assessment 0% implemented	50% complete	75% complete	100% complete		3 assessments of priority audiences and communication products per semester	Priority audience needs assessment and dissemination reports; media plans; subcontractor report	Crisis and NC Communications Officers
Awareness-raising and behavior change interventions made with population at risk using appropriate communications channels consistent;	Knowledge, attitude and practices studies and design of communications products 25% implemented	50% complete	75% complete	100% complete		3-4 research studies and communication products designed per semester	Research studies, dissemination reports and media plans	National Crisis Center Communications Officer and MOH Communicable Diseases Directorate
50 % improvement in reported hygiene and sanitation behaviors	NA	40% of surveyed pop report hand washing after toileting and before eating	60% of surveyed pop report hand washing after toileting and before eating	90% of surveyed pop report hand washing after toileting and before eating		Semi-annual reports	Household surveys	MOH Communicable Diseases Directorate

Project Outcome Indicators	Baseline	Target Values				Data Collection and Reporting		
		2006	2007	2008	2009	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Communications strategies and products developed highlighting the actions and investments of participating ministries and the mobilization of group resources to contain the epidemic, generating social trust and credibility;	NSRCP 10% complete	80% complete	90% complete	100% complete		Semi-annual reports	Informational products and dissemination reports of subcontractors	National Crisis Center and Communications Officers
Evidence existent of consistent communication and information technologies, to promote reporting of outbreaks, fast response and an uninterrupted social dialogue;	Secretariat Information Center operational at 50% of demand	100% complete				Semi-annual reports	Weekly reports and call-ins	National Crisis Center Communications Officer
Informational products developed and disseminated that educate priority audiences about possible scenarios and mitigation and pandemic control actions to be undertaken.	NSRCP 10% complete	50% complete	100% complete			Semi-annual reports	Informational products and dissemination reports of subcontractors	National Crisis Center and Communications Officers

Appendix 11: Documents in the Project File
**GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPAREDNESS AND RESPONSE PROJECT**

A. BANK

- Guidance notes to country teams on responding to AI
- Minutes of Project Concept Review Meeting
- WB mission reports
- EMP

B. OTHER DONORS

- A global strategy for the progressive control of HPAI – FAO/OIE in collaboration with WHO – May 2005
- FAO's response to the avian influenza crisis – September 19, 2005
- Technical Cooperation Program – Project descriptions for East Africa, West Africa, Europe and Central Asia, North Africa, and the Middle East – WHO 2005
- FAO's assessment of Georgia's AI preparedness
- OIE's assessment of Georgia's AI preparedness

C. PUBLIC HEALTH RELATED

- Global avian influenza information from WHO Web site at www.who.int/csr/disease/avian_influenza
- Information on U.S. influenza preparedness available at: www.hhs.gov/nvpo/pandemics/dhhs.html and www.cdc.gov/flu/avian
- WHO. 2005. Responding to the avian influenza pandemic threat. Recommended strategic actions. Geneva.
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- Neustadt, R.E., Fineberg H.V. 1982. The Epidemic That Never Was. Policy Making and the Swine Flue Scare. Vintage Books.

D. ANIMAL HEALTH RELATED

OIE website on Avian Flu Official reporting, Scientific information, Standards, Guidelines, and Recommendations (www.oie.int)

FAO website on Avian Flu General information, Communication, Publications, Projects proposals and reports (www.fao.org)

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FAO/OIE/WHO. February, 2004. *FAO/OIE/WHO Technical Consultation on the Control of Avian Influenza, 3-4 February, 2004: Conclusions and Recommendations*.

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OIE/ASEAN. August 2005. *The Southeast Asia Foot and Mouth Disease Campaign: Business Plan for Phase III (2006-2008)*.

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E. BIBLIOGRAPHY OF RECENT REPORTS & OTHER DOCUMENTS

Bell, Clive and Maureen Lewis. October 2004. *The Economic Implications of Epidemics Old and New*. Working Paper Number 54, Center for Global Development. Washington, DC. (see also Powerpoint presentation, "Economic Implications of Epidemics Old and New").

OIE. 2004. *Emerging Zoonoses and Pathogens of Public Health Concern*. Rev. sci. tech. Off. int. Epiz., 2004, **23** (2).

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Appendix 12: Statement of Loans and Credits
**GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPARDNESS AND RESPONSE PROJECT**

Project ID	FY	Purpose	Original Amount in US\$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P098850	2006	INFRA PRE-INVEST FACILITY	0.00	0.00	0.00	0.00	0.00	5.04	0.00	0.00
P063081	2006	PUBLIC SECTOR FINANCIAL MANAGEMENT REF	0.00	0.00	0.00	0.00	0.00	3.01	0.00	0.00
P078544	2005	RURAL DEVT	0.00	10.00	0.00	0.00	0.00	8.99	1.00	0.00
P086277	2004	SEC/LOC ROADS	0.00	20.00	0.00	0.00	0.00	18.29	2.41	0.00
P077368	2003	MUNI DEVT & DECENTRLZN 2	0.00	19.41	0.00	0.00	0.00	8.07	3.48	1.20
P074361	2003	SIF 2	0.00	15.00	0.00	0.00	0.00	9.73	6.28	0.00
P040555	2003	PRIM HEALTH CARE DEVT	0.00	20.30	0.00	0.00	0.00	18.31	12.85	0.05
P044800	2003	FORESTRY	0.00	15.70	0.00	0.00	0.00	12.32	1.74	0.00
P048791	2001	PROT AREAS DEV (GEF)	0.00	0.00	0.00	8.70	0.00	5.51	4.27	-0.06
P054886	2001	ELEC MRKT SUPPORT	0.00	27.37	0.00	0.00	0.00	25.18	18.62	17.84
P055068	2001	IRR/DRAIN REHAB (APL #1)	0.00	27.00	0.00	0.00	0.00	26.94	8.55	-2.49
P055173	2001	EDUC I (APL)	0.00	25.90	0.00	0.00	0.00	8.21	5.73	-1.25
P072394	2001	ENERGY TRANSIT INST BLDG	0.00	9.63	0.00	0.00	0.00	3.49	2.25	0.00
P065715	2000	AGR RES EXT & TRG	0.00	7.60	0.00	0.00	0.00	2.27	2.10	0.69
P064091	2000	AGRIC RES EXT TRG (GEF)	0.00	0.00	0.00	2.48	0.00	0.41	0.41	0.08
P052154	1999	STRUCT REF SUPPORT	0.00	16.50	0.00	0.00	0.00	4.75	4.54	4.00
P050911	1999	INTGD COASTAL MGMT	0.00	4.40	0.00	1.30	0.00	1.02	0.72	0.42
P057813	1999	JUDICIAL REFORM	0.00	13.40	0.00	0.00	0.00	0.10	0.13	0.00
P060009	1999	INTGD COASTAL MGMT (GEF)	0.00	0.00	0.00	1.30	0.00	0.62	0.55	0.38
P008416	1999	ENT REHAB	0.00	15.00	0.00	0.00	0.00	0.32	0.22	0.00
P039929	1998	SIF	0.00	20.00	0.00	0.00	0.00	0.43	-4.25	0.00
Total:			0.00	267.21	0.00	13.78	0.00	163.01	71.60	20.86

GEORGIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2000	Bank of Georgia	0.80	0.00	0.00	0.00	0.80	0.00	0.00	0.00
2003	Bank of Georgia	4.55	0.00	0.00	0.00	4.55	0.00	0.00	0.00
1998	Ksani	4.92	0.00	2.50	0.00	4.92	0.00	2.50	0.00
1999	ProCredit GEO	0.00	0.48	0.00	0.00	0.00	0.48	0.00	0.00
2001	ProCredit GEO	0.00	0.29	0.00	0.00	0.00	0.29	0.00	0.00
2002	ProCredit GEO	4.29	0.74	0.00	0.00	4.29	0.74	0.00	0.00
2004	ProCredit GEO	3.50	0.67	0.00	0.00	3.50	0.67	0.00	0.00
1998	TBC Bank	0.00	0.86	0.00	0.00	0.00	0.86	0.00	0.00
2002	TBC Bank	1.91	0.00	0.00	0.00	1.91	0.00	0.00	0.00
2004	TBC Bank	0.50	0.00	4.00	0.00	0.04	0.00	4.00	0.00
2006	TBC Bank	0.00	8.75	0.00	0.00	0.00	8.73	0.00	0.00
2005	TBC Leasing	3.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00
Total portfolio:		23.47	11.79	6.50	0.00	23.01	11.77	6.50	0.00

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.

Appendix 13: Country at a Glance

GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS AND RESPONSE PROJECT

	Georgia	Europe & Central Asia	Lower-middle-income			
POVERTY and SOCIAL						
2004						
Population, mid-year (millions)	4.5	472	2,430			
GNI per capita (Atlas method, US\$)	1,030	3,290	1,580			
GNI (Atlas method, US\$ billions)	4.7	1,553	3,847			
Average annual growth, 1998-04						
Population (%)	-1.2	-0.1	1.0			
Labor force (%)	-0.1	-0.5	0.7			
Most recent estimate (latest year available, 1998-04)						
Poverty (% of population below national poverty line)			
Urban population (% of total population)	52	64	49			
Life expectancy at birth (years)	73	68	70			
Infant mortality (per 1,000 live births)	41	29	33			
Child malnutrition (% of children under 5)	3	..	11			
Access to an improved water source (% of population)	76	91	81			
Literacy (% of population age 15+)	..	97	90			
Gross primary enrollment (% of school-age population)	90	101	114			
Male	91	103	115			
Female	90	101	113			
KEY ECONOMIC RATIOS and LONG-TERM TRENDS						
	1984	1994	2003	2004		
GDP (US\$ billions)	..	2.5	4.0	5.1		
Gross capital formation/GDP	32.8	2.6	24.4	..		
Exports of goods and services/GDP	..	57.8	31.8	..		
Gross domestic savings/GDP	35.3	-48.7	9.7	..		
Gross national savings/GDP	..	-29.4	12.1	..		
Current account balance/GDP	..	-11.1	-9.8	-8.5		
Interest payments/GDP	..	0.2	1.0	..		
Total debt/GDP	..	57.7	48.4	..		
Total debt service/exports	..	1.2	11.8	..		
Present value of debt/GDP	38.0	..		
Present value of debt/exports	99.5	..		
	1984-94	1994-04	2003	2004	2004-08	
(average annual growth)						
GDP	-14.5	5.7	11.1	8.5	4.9	
GDP per capita	-14.4	7.0	12.3	9.6	4.2	
Exports of goods and services	..	10.8	4.8	

STRUCTURE of the ECONOMY

	1984	1994	2003	2004		
(% of GDP)						
Agriculture	25.7	51.7	20.5	..		
Industry	36.0	19.7	25.5	..		
Manufacturing	27.8	14.8	18.8	..		
Services	38.3	28.6	54.1	..		
Household final consumption expenditure	52.8	138.9	81.4	..		
General gov't final consumption expenditure	11.9	9.8	8.9	..		
Imports of goods and services	..	109.1	46.4	..		
	1984-94	1994-04	2003	2004		
(average annual growth)						
Agriculture	..	-0.2	10.5	..		
Industry	..	8.2	15.1	..		
Manufacturing	..	2.4	6.9	..		
Services	..	12.0	13.1	..		
Household final consumption expenditure	..	4.5	7.5	..		
General gov't final consumption expenditure	..	2.4	4.9	2.2		
Gross capital formation	..	12.9	28.0	..		
Imports of goods and services	..	7.5	3.6	..		

Note: 2004 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

Appendix 14: Map

**GEORGIA: AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC
PREPARDNESS AND RESPONSE PROJECT**