1. Country and Sector Background

Bangladesh is a high risk country as far as Highly Pathogenic Avian Influenza (HPAI), especially the H5N1 strain, is concerned. Some 50% of the national poultry flock (a total of about 185 million) is backyard poultry, with minimal bio-security. It has a large duck population (37 million). Bangladesh is visited annually by 21 species of migratory birds in the winter months that can carry the virus. Traditionally, it has imported a large number of day old chicks (d.o.c) and it has porous borders with neighboring countries (India and Myanmar) that have had outbreaks. To date, however, there have been no recorded outbreaks of H5N1 in the country.

Poultry disease surveillance in Bangladesh at present is almost entirely limited to clinical surveillance based on trigger points or indicators (mortality). The Department of Livestock Services (DLS), within the Ministry of Fisheries & Livestock (MOFL), is responsible for a Central Disease Investigation Laboratory (CDIL) in Dhaka, and a national network of 7 Field Disease Investigation Laboratories (FDILs). All these laboratories are in very poor condition with almost no equipment or staff trained in avian influenza diagnosis. In each of the 470 Upazilas (sub-districts) of the country, there are at least two DLS Officers (one veterinarian and one livestock officer) and support staff who are responsible for disease surveillance and provision of basic veterinary services. However, many of the staff positions are vacant and very few have reliable transport facilities or operational funding to enable them to undertake routine disease surveillance. The DLS has received limited donor assistance in the past to strengthen its
veterinary services. The MOFL is also the parent ministry of the Bangladesh Livestock Research Institute (BLRI) at Savar, just outside Dhaka. The BLRI is essentially a research facility and is currently recognized to have the National Reference Laboratory for Avian Influenza (AI) diagnosis (but not H5N1 strain). The diagnostic capability of the laboratories at BLRI has received some support from Danida and JICA. However, no assistance has been provided for the central and field investigation laboratories or to enable veterinary officers to undertake regular surveillance. The commercial poultry sector (sectors 1, 2 and 3), while accounts for another 50% of the national flock, has little interaction with the public veterinary services.

Some observers have attributed the lack of detection of HPAI in poultry in Bangladesh to the country’s very limited diagnostic capacity. However, HPAI has such high mortality (50% or more) that it is unlikely that a serious outbreak could occur and not be reported. Under the circumstances, it seems probable that the country has been fortunate with no virus introduction to date, or that any introduction (most probably from migratory birds) has not spread as a result of the special ecological features of the country. The main resting places for migratory birds are in the coastal areas where there is relatively little poultry production. If the former is the case, then it is almost certain that it is a matter of time before HPAI arrives in the country, and steps need to be taken urgently to prepare for such an eventuality. If the special features of the country are providing some protection this needs to be investigated as part of the global epidemiological study of the disease.

Health care in Bangladesh is provided by both the government and the private sector. The Ministry of Health and Family Welfare (MOHFW) leads a large sector-wide program called the Health Nutrition and Population Sector Program (HNPSP). The IDA support to HNPSP was approved in 2005. Government health services are provided almost free, whilst charges are levied for private sector services. There is very little linkage or exchange of information between the public and private health care providers. The public sector consists of a network of national, district and Upazila health complexes with basic facilities and staffing. There is at least one, 30/50 bed, health complex in each Upazila. In their present state, these hospitals are not well prepared for case management and would have difficulty handling even a modest outbreak of HPAI influenza in humans. Similarly, the larger hospitals in the urban areas, that are most likely to be needed in the event of a human pandemic, are also poorly equipped. Some steps have been taken at the central level to purchase limited supplies of personnel protective equipment (PPE) for health workers, anti-viral medication (oseltamivir), and influenza vaccine. A number of sensitization training courses for medical staff have also been undertaken.

Bangladesh has a relatively weak public health surveillance and response system. The MOHFW has an extensive network of local, district, and regional institutions, but the quality and accuracy of information about reported diseases is low. Most information comes from the public sector, while high rates of illness are seen in the private sector. In addition to passive, reportable disease data, the Institute of Epidemiology, Disease Control, and Research (IEDCR), the agency responsible for national disease surveillance, recently established a network of sentinel surveillance sites at the Upazila level in rural areas. Review of data from these sites suggests low sensitivity for capturing routine diagnoses like acute upper respiratory infections (Influenza-like illness (ILI) and pneumonias). The International Center for Diarrheal Disease Research, Bangladesh (ICDDR,B) has well-established active surveillance sites and has been monitoring
influenza-like illness. Until adequate national level systems are developed, IEDCR will have to continue to collaborate with ICDDR,B and other relevant non-governmental agencies to assure some level of surveillance.

In response to concerns about HPAI, the Government of Bangladesh (GOB), with assistance from the World Health Organization (WHO) and the Food and Agriculture Organization (FAO), has prepared a *National Avian Influenza and Human Pandemic Influenza Preparedness Plan* (NAIP). This Plan, which conforms to the general standards for such plans set by FAO, WHO, and the World Organization for Animal Health (OIE), provides for specific strategies, institutional arrangements, and activities to be undertaken by concerned ministries to prepare for, prevent, contain and respond to HPAI outbreaks in poultry and humans. It also identifies the additional facilities and staff training needed to implement the plan. The NAIP was approved by the Office of the Prime Minister in mid-April 2006.

A National Advisory Committee (NAC), comprising the Ministers of the participating Ministries, is the apex coordinating body for the NAIP. Beneath the NAC, there is a National Multi-Sectoral Task Force (NMTF) with representation from a wide range of public and private sector agencies. In addition, intra-ministerial national technical committees are being established within the three main participating ministries (MOFL, MOHFW, and the Ministry of Environment and Forest (MOEF) that is responsible *inter alia* for monitoring migratory birds. According to the NAIP, during the pre-pandemic phase (phase 1) of HPAI, MOFL will have primary responsibility for implementation of the Plan. During the alert phase (phase 2 i.e. post pre-pandemic phase) responsibility will transfer to MOHFW. In the pandemic phase (phase 3) the Office of the Prime Minister will take responsibility for implementation of the Plan.

2. Objectives

The overall objective of the Project is to minimize the global threat posed by HPAI to humans by controlling such infections in domestic poultry, and preparing for, controlling, and responding to possible human infections, especially an influenza epidemic and related emergencies. Though the objective is specific to HPAI, the interventions are expected to contribute to the control of other zoonotic diseases and other types of infectious diseases, in terms of building overall response capacity in the country. The objective will be achieved through three types of interventions: (i) prevention, (ii) preparedness and planning, and (iii) response and containment. The Project will thus support the implementation of the *National Avian Influenza and Human Pandemic Influenza Preparedness and Response Plan* (NAIP) prepared by the GOB, in collaboration with FAO and WHO.

3. Rationale for Bank Involvement

The outbreaks of H5N1 in early 2006 in the neighboring countries of India and Myanmar have highlighted the fact that Bangladesh is a high risk country as far as HPAI is concerned. Given the risks of an outbreak, the present weakness of the national veterinary services and limited national resources, there is an urgent need for assistance to help the government strengthen its veterinary services and related aspects, including surveillance, diagnostic capabilities, laboratory facilities, communication/public awareness and compensation policy. There is also an urgent need to strengthen some sections of the human medical services as there
is very limited trained capacity and limited facilities dedicated to handling HPAI from
surveillance, diagnosis through to curative care. Few development partners are providing some
assistance to the government for HPAI activities. However, available resources are not adequate
to meet the basic needs of the veterinary services and facilities related to avian influenza, and
there is a strong case for the provision of resources from the World Bank Global Program for
Avian Influenza (GPAI). There is also a global public goods argument in favor of assisting
Bangladesh to strengthen its AI response capacity as part of a coordinated international and
regional initiatives to minimize the risk of the spread of any outbreak to neighboring countries
and beyond.

Furthermore, Bangladesh meets all the eligibility criteria for having access to funds under
the Adaptable Program Loan (APL) in support of the Global Program for Avian Influenza
(GPAI). The Government of Bangladesh (GOB) has already prepared a National Avian
Influenza and Human Pandemic Influenza Preparedness and Response Plan (the Plan). This
plan was approved by the Prime Minister in April 2006. As a follow up to this Plan, GOB has
also prepared (i) a draft Avian Influenza Prevention Program; and (ii) a draft National
Communication Strategy and Action Plan for Avian Influenza and Human Pandemic Influenza.
The GOB has also provided additional budgetary resources to improve AI surveillance and
diagnosis. This clearly demonstrates Government’s commitment and readiness to implement
early detection and rapid response measures. While there is a commitment, the country lacks
financial resources, has very weak capacity and faces a very high risk of HPAI.

While the new project (Avian Influenza Preparedness and Response Project (AIPRP))
would finance AI activities related to animal health, the existing project (HNPSP) would finance
AI activities related to human health. HNPSP is a very large (US$4.3 billion), multi-year
program financed by the GOB, the World Bank and development partners. The World Bank
administrs about US$760 million of these pooled resources -- consisting of US$300 million
IDA credit and the US$460 million of grant financing from other bilateral and multilateral
development partners. The main reasons for using funds from HNPSP, for the Avian Influenza
Component, are (a) it makes logical sense to tap into a human health program that is already
under implementation; (b) HNPSP covers the whole health sector with appropriate
implementation arrangements and is equipped to manage project funds; and (c) it can start
funding AI activities almost immediately. HNPSP already makes a specific provision for
funding new and emerging human health challenges such as HPAI.

4. Description

As has been indicated above, the GOB has already prepared the Avian Influenza Plan
entitled the National Avian Influenza and Pandemic Influenza Preparedness and Response Plan
(2006-2008) which is known as NAIP or the Plan. The Plan provides a strategic national
framework to control and contain any outbreak of HPAI in Bangladesh. At the request of GOB,
the World Bank has agreed to finance the Avian influenza Program. The AI Program further
consists of two parts: (a) the Avian Influenza Preparedness and Response Project (AIPRP, a new
project that deals with animal health); and (b) Avian Influenza Component of HNPSP, an on-
going project that deals with human health. These two parts of the proposed AI Program will be
closely linked and carefully coordinated by appropriate national agencies dealing with HPAI in
Bangladesh.
The AIPRP project would be financed by IDA credit under the GPAI Adaptable Program Loan (APL), with contributions from the GOB. Technical assistance and training under the project, to the extent possible, would be financed by the grant funds from the Avian Human Influenza Trust Fund (AHITF), which is being administered by the World Bank. The proposed AIPRP has three components: (i) animal health, (ii) public awareness and information, and (iii) implementation support and monitoring & evaluation.

On the other hand, the AI Component of HNPSP would be financed from the on-going HNPSP and this agreement to finance has already been endorsed by all the HNPSP partners. Financing for avian influenza activities from HNPSP (which runs through December 2010) has been initiated under the Communicable Disease Operational Plan which has a specific component for supporting new emerging diseases. Furthermore, the project aims at building and consolidating all GOB and donor initiatives related to HPAI in order to avoid any duplication and make the best use of scarce resources.

In both the animal health and human health, short and long-term actions need to be taken and an appropriate balance struck between the two. Immediate action is needed in a number of areas, but there is also a long-term agenda to build the capacity and address other shortcomings with respect to veterinary services and core public health functions. Work on both the short-and long-term fronts, therefore, needs to proceed in parallel. Efforts will be made to ensure that short-term responses are consistent with and contribute to the proposed longer-term interventions. Setting priorities in both cases is essential. By concentrating the efforts on these, dual-use investments would generate benefits during normal times and in a pandemic.

5. Financing

<table>
<thead>
<tr>
<th>Source:</th>
<th>AIPRP</th>
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<tbody>
<tr>
<td>A: AIPRP</td>
<td>1. Borrower/Recipient (GOB)</td>
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<td>2. International Development Association (IDA)</td>
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<td></td>
<td>3. Avian Health Influenza Trust Fund (AHITF)</td>
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<td>B. AI Component of HNPSP</td>
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<tr>
<td></td>
<td>1. From HNPSP</td>
<td>16</td>
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<tr>
<td>C. AI Program</td>
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</table>

6. Implementation

The Avian Influenza Program for Bangladesh consists of two parts (a) Avian Influenza Preparedness and Response Project (AIPRP, a new project); and (b) Avian Influenza Component of HNPSP. The supervision of the Avian Influenza Program will include both the animal health
(AIPRP) and the human health (Avian Influenza Component of HNPSP) aspects of the avian influenza. The public health expert, provided under the AIPRP, but based in DGHS, will serve as the link between these two parts of the AI program. The AI Component of HNPSP will be implemented by MOHFW, using all the existing procurement and financial management arrangements.

The World Bank supported AIPRP is under the Global Program for the Avian Influenza and Human Pandemic Preparedness and Response (GPAI). The AIPRP, an emergency project, is designed to provide assistance for avian influenza within the overall framework of the GOB’s national Plan. The project would be implemented over a period of 5 years. A PCU would be established in the DLS under the Ministry of Fisheries and Livestock (MOFL) to implement and coordinate the project activities, including communication, procurement, financial management, monitoring and reporting.

The PCU in the DLS will be headed by the Project Director and will be responsible for the overall coordination of the project related activities. The PCU will be supervised by the National Steering Committee (NSC) and would share information with DLS, MOFL, MOEF, MOHFW, MOI and the development partners, on a periodic basis. The PCU will monitor the implementation progress of AIPRP during implementation and will produce progress/special reports. The PCU would be staffed by a senior officer and a limited number of additional staff and consultants for overall administration, coordination, procurement, financial management and internal M&E.

The project would provide support for national and international experts to assist with implementation, coordination and management. Most, not all, of the consultants would be on a short-term basis. The project would also provide support for the incremental staffing needs of the PCU, including M&E staff, and operational cost for the PCU.

7. **Sustainability**

Project sustainability depends on (i) continuous ownership of the HPAI initiative by various stakeholders; (ii) strong political support at various levels; and (iii) adequate flow of financial resources to carry out activities after the project closes. During implementation, the project would facilitate sustainability by: (i) strengthening programs to provide information and maintain public awareness of the threat of HPAI; (ii) sustained HPAI surveillance, diagnosis, prevention and control activities, particularly in high risk areas; (iii) strengthening capacity of national institutions to manage the risk factors associated with the spread of HPAI; (iv) improving effectiveness of programs to control the spread of HPAI from birds to the general population in Bangladesh; and (iv) strengthening the medical care network to cope with the increased demand and to prevent spread of infection.

8. **Lessons Learned from Past Operations in the Country/Sector**

The main recommendations and lessons arising from implementation of similar projects (particularly Vietnam, which became effective on November 9, 2004) have been taken into consideration in the design of the project:
(a) Preparedness is a key factor and there is an urgent need to organize an effective national response.

(b) A two-pronged strategy is recommended which comprises: (i) the control of avian influenza at the source in high-risk regions, and (ii) simultaneously prepared short and medium-term measures to minimize the risks to humans and prepare for an eventual pandemic.

(c) To ensure effective implementation, it is important to have a high-level coordination structure which is empowered with multi-sectoral responsibilities.

(d) An effective compensation framework is essential to obtain real cooperation from affected stakeholders (farmers/producers).

(e) The importance of strengthening the technical, scientific and operational capacity of the relevant participating agencies should not be overlooked.

(f) It is extremely important to raise awareness in the public and private sectors from the beginning and to strengthen effective coordination mechanisms for the implementation of the necessary technical responses, involving the Government, the donor community, the private sector and civil society.

(g) Attention needs to be given to support the integration of country activities into a regional and global framework for the control of HPAI.

Some important lessons learned from the response to the HIV/AIDS epidemic have already been incorporated in the design of the GPAI program, which forms the basis for the proposed project. These lessons include:

(h) The need for high level political commitment and leadership.

(i) The need for a comprehensive multi-sectoral approach of prevention, treatment, care and support services.

(j) Monitoring and evaluation is critical in the scaling-up of a national response.

(k) Recognition of all stakeholders is crucial, since all key stakeholders, both at the country and international level are important in dealing with the HPAI threat.

(l) Building a strong fiduciary architecture (financial management, accounting, and procurement) is essential.

9. Safeguard Policies (including public consultation)

<table>
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<tr>
<th>Safeguard Policies Triggered by the Project</th>
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<td>Environmental Assessment (OP/BP/GP 4.01)</td>
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<td>Natural Habitats (OP/BP 4.04)</td>
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<td>Safety of Dams (OP/BP 4.37)</td>
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<td>Projects in Disputed Areas (OP/BP/GP 7.60)</td>
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<td>[x]</td>
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<tr>
<td>Projects on International Waterways (OP/BP/GP 7.50)</td>
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7
An Environmental Management Framework outlining the environmental safeguards applicable to the project and an Environmental Management Plan which includes detailed environmental mitigation measures to be taken in the event of a HPAI outbreak has been prepared.

10. **List of Factual Technical Documents**

4. Environment Management Plan (EMP) as part of the Environmental and Social Safeguards Framework (ESSMF) for Avian Influenza Preparedness and Response Project, 2006.

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