Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No: T7678-TJ

TECHNICAL ANNEX

FOR A

PROPOSED GRANT

IN THE AMOUNT OF SDR 3.4 MILLION
(US$5.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF TAJIKISTAN

FOR AN

AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS
AND RESPONSE PROJECT

UNDER THE GLOBAL PROGRAM FOR AVIAN INFLUENZA (GPAI)

June 9, 2006

Environmentally and Socially Sustainable Development Sector Unit
Central Asia Country Unit
Europe and Central Asia Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.
CURRENCY EQUIVALENTS

(Exchange Rate Effective June 9, 2006)

Currency Unit = Tajikistan Somoni (TJS)
3,23 Somoni = US$1
US$1,49 = SDR 1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI</td>
<td>Avian Influenza</td>
</tr>
<tr>
<td>AHIF</td>
<td>Avian and Human Influenza Facility</td>
</tr>
<tr>
<td>APL</td>
<td>Adaptable Program Loan</td>
</tr>
<tr>
<td>CCSC</td>
<td>Community Culling Supervision Committee</td>
</tr>
<tr>
<td>CQ</td>
<td>Consultants’ Qualifications</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agricultural Organization</td>
</tr>
<tr>
<td>FMDI</td>
<td>Foot and Mouth Disease Institute</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GPAI</td>
<td>Global Program for Avian Influenza</td>
</tr>
<tr>
<td>HPAI</td>
<td>Highly Pathogenic Avian Influenza</td>
</tr>
<tr>
<td>ICB</td>
<td>International Competitive Bidding Association</td>
</tr>
<tr>
<td>IDA</td>
<td>International Development Association</td>
</tr>
<tr>
<td>MOA</td>
<td>Ministry of Agriculture</td>
</tr>
<tr>
<td>MOESCD</td>
<td>Ministry of Emergency Situations and Civil Defense</td>
</tr>
<tr>
<td>MOF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>NCB</td>
<td>National Competitive Bidding</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization Committee</td>
</tr>
<tr>
<td>NLSC</td>
<td>National Level Steering Committee</td>
</tr>
<tr>
<td>Oblast</td>
<td>Administrative Region “Organisation Internationale des Epizooties” World Organization for Animal Health</td>
</tr>
<tr>
<td>OIE</td>
<td></td>
</tr>
<tr>
<td>PMU</td>
<td>Project Management Unit</td>
</tr>
<tr>
<td>QCBS</td>
<td>Quality and Cost Based Selection</td>
</tr>
<tr>
<td>Rayon</td>
<td>Administrative district</td>
</tr>
<tr>
<td>SES</td>
<td>Sanitary-Epidemiological Service</td>
</tr>
<tr>
<td>SVD</td>
<td>State Veterinary Department</td>
</tr>
<tr>
<td>TA</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>TAB</td>
<td>Tajik Amanathbank</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children Fund</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>

Vice President: Shigeo Katsu
Country Director: Annette Dixon
Sector Manager: Jürgen Vögele
Task Team Leader: Eustacius Betubiza
# REPUBLIC OF TAJIKISTAN

Avian Influenza Control and Human Pandemic Preparedness and Response Project

**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. STRATEGIC CONTEXT AND RATIONALE</td>
<td>1</td>
</tr>
<tr>
<td>1. Country and Sector Background</td>
<td>1</td>
</tr>
<tr>
<td>2. Rationale for Bank Involvement</td>
<td>1</td>
</tr>
<tr>
<td>B. PROJECT DESCRIPTION</td>
<td>2</td>
</tr>
<tr>
<td>1. Project Development Objective and Key Indicators</td>
<td>2</td>
</tr>
<tr>
<td>2. Financing Instrument and Project Components</td>
<td>2</td>
</tr>
<tr>
<td>C. IMPLEMENTATION</td>
<td>3</td>
</tr>
<tr>
<td>1. Institutional and Implementation Arrangements</td>
<td>3</td>
</tr>
<tr>
<td>2. Monitoring and Evaluation of Outcomes/Results</td>
<td>5</td>
</tr>
<tr>
<td>3. Sustainability</td>
<td>6</td>
</tr>
<tr>
<td>4. Critical Risks</td>
<td>6</td>
</tr>
<tr>
<td>5. Controversial Aspects</td>
<td>8</td>
</tr>
<tr>
<td>6. Grant Conditions and Covenants</td>
<td>8</td>
</tr>
<tr>
<td>D. APPRAISAL SUMMARY</td>
<td>9</td>
</tr>
<tr>
<td>1. Economic and Financial Analyses</td>
<td>9</td>
</tr>
<tr>
<td>2. Technical</td>
<td>10</td>
</tr>
<tr>
<td>3. Fiduciary</td>
<td>10</td>
</tr>
<tr>
<td>4. Social</td>
<td>11</td>
</tr>
<tr>
<td>5. Environment</td>
<td>11</td>
</tr>
<tr>
<td>6. Safeguard policies</td>
<td>12</td>
</tr>
<tr>
<td>7. Policy Exceptions and Readiness</td>
<td>12</td>
</tr>
<tr>
<td>APPENDIX 1: Country and Sector Background</td>
<td>14</td>
</tr>
<tr>
<td>APPENDIX 2: Results Framework and Monitoring</td>
<td>21</td>
</tr>
<tr>
<td>APPENDIX 3a: Detailed Project Description</td>
<td>24</td>
</tr>
<tr>
<td>APPENDIX 3b: Compensation Plan</td>
<td>32</td>
</tr>
<tr>
<td>APPENDIX 3c: Economic and Financial Analysis</td>
<td>35</td>
</tr>
<tr>
<td>APPENDIX 4: Project Coordination and Implementation Arrangements</td>
<td>39</td>
</tr>
<tr>
<td>APPENDIX 5: Projects Costs and Financing</td>
<td>43</td>
</tr>
</tbody>
</table>
APPENDIX 7: Financial Management and Disbursement Arrangements........................................... 48
APPENDIX 8: Environmental and Social Analysis and Mitigation................................................. 57
TAJIKISTAN

AVIAN INFLUENZA CONTROL AND HUMAN PANDEMIC PREPAREDNESS
AND RESPONSE PROJECT

TECHNICAL ANNEX FOR NEW GPAI LOAN/CREDIT/GRANT

EUROPE AND CENTRAL ASIA

ESSD

Date: 06/01/2006
Country Director: Annette Dixon
Sector Manager/Director: Juergen Voegele
Lending instrument: Emergency Recovery
IDA Grant

Team Leader: Eustacius N. Betubiza
Sectors: General Agriculture, Fishing and Forestry
(50%), Health (50%)
Themes: Natural Disaster Management; Other
Communicable Diseases; Rural Policies and
Institutions, Strategic Communication
Environmental screening category: B-
Safeguard screening category: Partial Assessment

Financing Data:

<table>
<thead>
<tr>
<th>Project ID(s):</th>
<th>A. New Financing</th>
<th>B. Additional Financing</th>
<th>C. Existing Financing (restructuring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Local</td>
<td>Foreign</td>
<td>Total</td>
</tr>
<tr>
<td>Borrower</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>IDA</td>
<td>2.00</td>
<td>3.00</td>
<td>5.00</td>
</tr>
<tr>
<td>UNICEF</td>
<td>0.20</td>
<td>0.00</td>
<td>0.20</td>
</tr>
<tr>
<td>WHO</td>
<td>0.10</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>Trust Funds (Application Pending)</td>
<td>0.50</td>
<td>1.00</td>
<td>1.50</td>
</tr>
<tr>
<td>Total</td>
<td>2.80</td>
<td>4.00</td>
<td>6.80</td>
</tr>
</tbody>
</table>

Estimated disbursements (Bank FY/US$m.):

<table>
<thead>
<tr>
<th>Source</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total IDA</td>
<td>0.5</td>
<td>2.5</td>
<td>1.5</td>
<td>0.5</td>
</tr>
</tbody>
</table>


Does the project or new component require any exceptions from Bank policies? **Ref. Section D.7 of Guidelines**

Have these been approved by Bank management?

<table>
<thead>
<tr>
<th>Yes [X]</th>
<th>No [ ]</th>
</tr>
</thead>
</table>

Are there any critical risks rated “substantial” or “high”? **Ref. Section C.4 of Guidelines**

| [X] Yes ☑ | No [ ] |

Does the project (and/or new components, as applicable) meet the Regional criteria for readiness for implementation? **Ref. Section D.7**

| [X] Yes ☑ | No [ ] |

Development objective **Ref. Section B.2**

The overall objective of this Program is to minimize the threat in Tajikistan posed to humans by HPAI infection and other zoonoses, and to prepare for, control, and respond to influenza pandemics and other infectious disease emergencies in humans.

**Ref. PAD B.2**

**Component I Public Awareness and Information** – this component supports the development of a communication program aimed at minimizing the risk of an avian influenza outbreak and its spread, by ensuring that citizens understand the threat, and are aware of the symptoms, with a view to influencing their behaviors in order to protect themselves and their community.

**Component II Animal Health** – this component provides support for prevention, control and total eradication of HPAI through: (i) enhancing planning and coordination capability for HPAI prevention in the poultry population; (ii) strengthening field disease surveillance and laboratory diagnostic capacity; (iii) strengthening HPAI outbreak containment plans.

**Component III Human Health** – this component provides support for reduction of the impact of a pandemic influenza virus through: (i) enhancing public health program planning and coordination; (ii) strengthening of national public health surveillance systems; (iii) strengthening the health care system’s response capacity.

**Component IV Implementation Support and Monitoring and Evaluation** – this component supports the coordination and management of the planned activities, including arrangements for financial management, procurement, and monitoring and evaluation.

**Which safeguard policies are triggered, if any? Ref. Section D.6**

Only the Environment Assessment safeguard is triggered by the Project. Since the Project is being processed under emergency procedures and is assessed as a B-category project, Environmental Management Plans will be prepared during Project implementation under each component and implemented with Project support.

**Ref. Section C.5**

**Approval:**

| None |

**Grant Effectiveness:**

(a) NSC with the composition and terms of reference satisfactory to the Association has been established by the Recipient;

(b) project implementation coordinators have been designated in the Ministry of Health, Veterinary Department of the
Grant Effectiveness:

- Ministry of Agriculture, Institute of Foot and Mouth Disease, and Institute of Zoology and Parasitology of the Recipient;

  (c) a Communication Specialist, a Monitoring and Evaluation Specialist, an Assistant to the Chief Accountant, an Assistant to the Procurement Specialist, and the Compensation Fund Administrator, all acceptable to the Association, have been employed by Project Management Unit (PMU);

  (d) the Project Operational Manual, satisfactory to the Association, has been adopted by the Recipient; and

  (e) the EMP, satisfactory to the Association, has been adopted by the Recipient.
A. STRATEGIC CONTEXT AND RATIONALE

1. Country and Sector Background

1. Tajikistan is the poorest of the former Soviet republics and one of the poorest countries in the world. Three quarters of its 6.8 million people live in rural areas where they are mainly engaged in agriculture, with most of them owning small numbers of livestock that provide immediate cash for pressing needs as well as animal protein. It is estimated that seventy percent of the approximately 2.3 million chicken in the country is raised by such rural households in their backyards. Tajikistan has, so far, not had any recorded outbreaks of highly pathogenic avian flu (HPAI H5N1). However, cases of AI have been reported in China, Kazakhstan, Russia, Turkey, Iraq, India, and Afghanistan. There is a risk of an H5N1 outbreak among poultry in Tajikistan through waterfowl migration and/or the growing cross-border trade. The Government recently initiated random surveillance in the wetland habitats of waterfowl and imposed some poultry import restrictions. It has also drafted a Comprehensive Action Plan for Avian Influenza. Several donors (principally WHO, UNICEF and FAO) are currently supporting the Government’s HPAI strategy by providing technical assistance in refining the Comprehensive Action Plan for AI, as well as conducting some rapid situation assessments.

2. However, critical needs still remain in the areas of institutional strengthening to enhance preparedness planning and coordination, greater public awareness, surveillance and diagnostics, containment, and the health care system’s response capacity. Accordingly, the Government requested financial assistance from the World Bank for its efforts on February 23, 2006. Tajikistan meets the eligibility criteria for financing under the Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response (GPAI) as a country at risk with no outbreak, with 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, can support.1

2. Rationale for Bank Involvement

3. Globally, the World Bank has been playing a critical role in rallying international support to combat the threat posed by AI and in preparing for a possible human pandemic. Tajikistan has particularly weak capacity to deal with this threat, a threat that could potentially impose a severe burden of disease, loss of productivity and livelihoods on the country, thus rolling back some of its most recent economic gains. An AI outbreak in the country would also undermine the efforts to limit the global spread of HPAI. In Tajikistan, World Bank support will: (i) leverage its resources to galvanize a coalition of other agencies to the cause; (ii) bring to bear the Bank’s global experience in combating similar scourges around the world (e.g. HIV/AIDS); (iii) share its rich experience in multi-sectoral approaches, the kind that combating AI requires; (iv) ensure that this response is in harmony with existing or planned World Bank funded programs (and other donor-funded programs), particularly in health and agriculture, for maximum synergy; and (v) provide badly needed financial resources for minimum investments needed to combat this threat effectively.

---

1 See GPAI PAD p. 14.
B. PROJECT DESCRIPTION

1. Project Development Objective and Key Indicators

4. The project development objective is to minimize the threat HPAI infection and other zoonoses pose to humans and poultry in Tajikistan, and to prepare for, control and respond to influenza pandemics and other infectious disease emergencies in humans. The project will focus on three main areas: (i) preparedness and planning, (ii) prevention through public awareness and surveillance, and (iii) response and containment in case of an outbreak.

5. Key indicators include: (i) an effective and inter-sectoral surveillance system in place for HPAI and other zoonoses in both animals and humans; (ii) institutional mechanisms in place for the 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. Financing Instrument and Project Components

[For detail component description, please go to Appendix 3a; for financing breakdown, please go to Appendix 5]

6. As described in OP 8.50 for Emergency Recovery Assistance, in addition to 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. Given the threat posed by HPAI to the economic and social fabric of the country, as well as to the health of the population because of the risk of an influenza pandemic, the Project will be financed through an Emergency Recovery IDA Grant of US$5.0 million. The project falls under the aegis of the GPAI discussed by the Board on January 12, 2006. It will, therefore, be approved under streamlined, horizontal APL procedures.

7. Project activities are grouped into four components, namely: (i) Public Awareness and Information; (ii) Animal Health; (iii) Human Health; and (iv) Implementation Support and Monitoring and Evaluation.

8. **Component I – Public Awareness and Information (US$1.0 million IDA; US$0.2 million UNICEF).** This component supports the development of a communication program aimed at minimizing the risk of an avian influenza outbreak and its spread, by ensuring that citizens understand the threat, and are aware of AI symptoms, with a view to influencing their behaviors in order to protect themselves and their communities. The component will include (i) policy advocacy to heighten AI awareness among decision makers, and support to the government for crisis communication management; (ii) public education through mass media; and (iii) social mobilization through community/school-based targeted interventions. Specific activities to be financed under the component include: (i) opinion research and information campaigns, e.g. air-time and advertising space in mass-media outlets, reproduction and distribution of informational materials; (ii) training, seminars, workshops for stakeholders – Government staff involved in the project, teachers, health workers, community members, media, etc.

9. **Component II – Animal Health (US$ 1.9 million IDA; US$1.1 million AHIF).** This component provides support for prevention, control and total eradication of HPAI through: (i)
enhancing animal health planning and coordination capability for HPAI prevention; (ii) strengthening field disease surveillance and laboratory diagnostic capacity; and (iii) strengthening HPAI outbreak containment plans, including the establishment of a compensation fund. Specific activities to be financed under the component include: (i) recruitment of domestic and international consultants to – (a) review the legal and regulatory framework with a view to strengthening it in order to facilitate effective AI surveillance and outbreak containment, (b) elaborate and distribute standard operating procedures, (c) conduct training; etc. (iii) purchase and installation of laboratory equipment, purchase of laboratory reagents, vehicles, equipment for safe and sanitary poultry culling, including sprayers and protective gear, equipment for communication and data management, etc.; (iv) limited civil works for laboratory reconfiguration/rehabilitation; (v) operating costs; and (vi) a compensation fund for possible Government-mandated culling.

10. **Component III Human Health - (US$ 1.8 million IDA; US$0.1 million WHO; US$0.4 million AHIF).** This component provides support for reduction of the impact of a pandemic influenza virus through: (i) enhancing public health program planning and coordination; (ii) strengthening of national public health surveillance systems; and (iii) strengthening health care system's response capacity. Similar to Component II above, specific activities to be financed under this component include consultants, laboratory equipment and reagents, vehicles, and limited civil works for reconfiguration/rehabilitation of laboratory and hospital space for AI diagnosis and patient treatment. In addition, this component would finance a strategic supply of drugs and vaccines, and medical equipment.

11. **Component IV Implementation Support and Monitoring and Evaluation - (US$ 0.3 million IDA)** – this component supports the coordination and management of the planned activities, including arrangements for financial management and procurement. It also supports continuous monitoring of project implementation, including operational audits of the Compensation Fund. It further supports overall annual project audits, as well as periodic surveys on project outcome indicators.

12. **Emergency Imports** - In case of a declared influenza pandemic, some of the items in Components II and III above would be procured under emergency procedures. These imports are likely to include: (i) protective clothing and gear; (ii) pharmaceuticals and vaccines, (iii) medical and veterinary supplies and equipment, (iv) communication equipment and supplies; and (v) food and water containers. The Project would finance these emergency imports under a well-defined preparedness and response program to be prepared as part of project implementation. Disbursement under these emergency procedures would only be permitted when a national emergency on avian influenza has been declared by the Government and a well-defined emergency recovery program, satisfactory to the Association, has been adopted by the Government.

C. IMPLEMENTATION

1. **Institutional and Implementation Arrangements**

   For details, please go to Appendix 4

13. **Overall Policy Formulation and Oversight.** A National Steering Committee (NSC) will be established under the leadership of a Deputy Prime Minister to provide overall policy direction and implementation guidance. NSC members will consist of representatives from Ministry of Health (MOH), Ministry of Agriculture (MOA), Ministry of Finance (MOF), Ministry of
Emergency Situations and Civic Defense (MOESCD), Aid Coordination Unit, Academy of Science, Academy of Agricultural Sciences, and other concerned line agencies.

14. **Fiduciary Management and Project Monitoring.** The project will use an already existing Project Management Unit, which is currently managing the “Rural Infrastructure Rehabilitation and the “Community Agriculture and Watershed Management” Projects. The PMU will act as a secretariat to the NSC as well as coordinate and facilitate project implementation. The PMU already has a Director, a Procurement Specialist, and a Financial Management Specialist, and support staff (secretaries, drivers, etc.). A Communication Specialist and a Monitoring and Evaluation Specialist will be added to the team. Given the demands imposed by the emergency nature of the operation (with front-loaded procurement and disbursement), as well as the presence of a compensation fund, this PMU staff strength will be augmented with a limited-term Procurement Consultant for the initial months of project implementation. An Assistant to the Chief Accountant will also be recruited and shall stay on the team for the entire duration of project implementation, as well as a Compensation Fund Administrator.

15. **Day-to-day Project Implementation.** Day-to-day implementation will be carried out by various Government Agencies, with support from Specialized International Organizations. Each Government agency will have a focal point who will lead the team responsible for all project activities implemented by that agency.

(i) **Government Agencies**

16. The Public Awareness and Information Component cuts across multiple agencies, with some aspects of it falling under MOH, other aspects under the State Veterinary Department, with yet other aspects (e.g. policy advocacy to heighten AI awareness among decision makers and support to the government for crisis communication management) not falling under any one particular agency. In order to avoid overlaps and ensure a cohesive communication strategy, this component will be overseen by a Communication Specialist in the Project Management Unit who will be responsible for its overall coordination as well as for acting as the key spokesperson on all AI issues in case of a crisis.

17. The Animal Health Component will be implemented by: (i) the State Veterinary Department which will be responsible for planning and coordination of the animal aspects of the AI response, as well as for poultry surveillance and outbreak containment; (ii) the Institute of Zoology and Parasitology with be responsible for wild bird surveillance; and (iii) the Foot and Mouth Disease Institute (FMDI) will be responsible for conducting laboratory diagnostics.

18. The Human Health Component will be implemented by: (i) MOH’s Sanitary and Epidemiological Surveillance Department for matters related to planning and coordination, field surveillance, and laboratory diagnostics; and (ii) MOH’s Medical Services Department which will also participate in planning and coordination, in addition to being responsible for treatment response.

19. In case of declared influenza pandemic, MOESCD would, by law, take charge for coordinating all emergency response activities. Consequently, MOESCD will closely work with other agencies participating in the project to ensure an effective response in case of an emergency.

(ii) **Specialized International Organizations**
First, this is an Emergency project that will be implemented at a rapid pace in order to pre-empt the AI threat that has already been cited in neighboring countries. Second, the project is dealing with a threat that is new to the country, where there is limited past experience on how to deal with it. Third, the multiple agencies involved in the project have limited planning and implementation capacity. Consequently, the project will work very closely with technical agencies that have a well-established experience in dealing with similar disease outbreaks elsewhere. In particular, within the UN family, UNICEF has the global mandate for Public Awareness/Communication regarding AI, as does WHO regarding the human health dimensions of AI, and FAO regarding animal health dimensions. As noted earlier, these three agencies are already assisting Government in refining its Preparedness Plan.

It is anticipated that these technical agencies will continue to offer this support during project implementation. Specifically, it is envisaged that UNICEF will enter into contract with the Government to assist with the implementation of the Communication Component. UNICEF has successfully implemented similar communication programs in Tajikistan and, on the issue of AI, has shown readiness to help the Government design and implement a communication program addressed to specific target audiences (veterinarians, farmers, health workers, decision-makers, etc.) as well as to the public at large. Similarly it is expected that WHO will enter into contract with the Government to assist with the implementation of the Technical Assistance aspects of the Human Health component.

The capacity of the two UN agencies to provide this kind of assistance has been assessed and found satisfactory. Moreover, these two agencies will co-finance the Public Awareness and Information Component (UNICEF) and the Human Health Component (WHO), largely through absorbing the overhead costs associated with managing these activities, but also financing some surveys and some of the capacity building activities. The agency for assisting in the implementation of the Animal Health component will be identified during the project implementation.

Inter-Agency Coordination Framework. In order to foster collaboration among the various Government agencies involved in project implementation, there shall be an Inter-Agency Working Group consisting of all the Focal Persons at each implementing agency, as well as representatives of the International Technical Agencies, the Director of the PMU, and representatives of other agencies or individuals as the PMU, in consultation with the IDA, shall from time to time decide. The purpose of such a forum is to create an opportunity for information sharing to ensure synergy among the various components. This Inter-Agency Working Group will meet at least once a month, or at such other greater frequency depending upon the need, particularly in the early months of the project, in order to ensure effective collaboration. It will be chaired by the PMU Director.

Monitoring and Evaluation of Outcomes/Results
[For details, please go to Appendix 2]

A detailed results framework and the associated arrangements for monitoring are presented in Appendix 2. These arrangements are broadly consistent with GPAI standards and expectations. Overall responsibility for monitoring and evaluation will be with the Monitoring and Evaluation Specialist in the PMU. This expert will consolidate information provided by the different implementing agencies highlighted above. The monitoring will cover physical implementation progress, use of project funds, project outputs, and project outcomes. This will
involve quantitative and qualitative information gathered from project files, progress reports from implementing agencies, as well as periodic surveys.

3. Sustainability

25. A series of measures have been undertaken to ensure institutional, technical, and fiscal sustainability of project activities and outcomes beyond the implementation phase. First, the project is firmly anchored in the country’s national preparedness plan for avian influenza, and project preparation was carried out under the aegis of the Government’s inter-agency working group for avian influenza, in order to ensure maximum ownership. Second, project investments and project activities have benefits that go beyond avian influenza, thanks to the multi-disease nature of the surveillance and diagnostic activities, and the comprehensiveness (i.e. multi-disease nature) of the habit transforming, public awareness message. Consequently, there is an abiding interest by the various stakeholders to safeguard these investments and sustain these activities. Third, except for some aspects of the public awareness component (e.g. policy advocacy), all other project activities will be streamlined into the existing government agencies as part of their regular mandates, thus avoiding the creation of new unsustainable structures (note that the PMU’s role is largely fiduciary, a function that lapses after the project implementation phase). The capacity of these agencies is being strengthened to continue the surveillance, diagnostics and treatment beyond project implementation as described in Appendix 3a. Fourth, whereas there will be an initial high upfront investment in public awareness, laboratory equipment, etc., the sustaining costs are expected to be low and fiscally manageable by targeting the high risk areas (resting sites of migratory birds, border posts due to risks from cross-border trade, etc…) and using existing staff. Thus, overall, the project’s sustainability at appraisal is rated “likely”.

4. Critical Risks

<table>
<thead>
<tr>
<th>RISK</th>
<th>RATING</th>
<th>MITIGATION MEASURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Outputs to Objective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) <em>Decline in political commitment</em> to Avian Influenza by, for example, slackening mass education and/or domestic surveillance, and exhibiting laxity in enforcing border control measures, particularly if the threat is perceived to be increasingly remote.</td>
<td>M</td>
<td>- emphasize the multipurpose nature of the investments and the multi-faceted nature of the benefits;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- support/encourage inter-country information exchanges and dialogue to monitor threat levels;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- provide international threat updates from World Organization for Animal Health (OIE), WHO, etc.</td>
</tr>
<tr>
<td>2) <em>Intervention activities ineffective</em> in containing the spread of Avian Influenza from birds to the human population.</td>
<td>M</td>
<td>- continuously assess the efficacy of the proposed measures and take corrective action as needed;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- continuously study emerging experiences elsewhere in the world to preempt errors before they occur;</td>
</tr>
</tbody>
</table>
From Components to Outputs

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) <strong>Inadequate public sector institutional capacity</strong> to manage project and perform effectively due to: (i) weak planning and coordination; (ii) weak procurement and financial management (including belated disbursements at the grassroots); (iii) inadequate surveillance and diagnostics</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>- training and technical assistance is envisaged under the project; use of M&amp;E system to reinforce and target training/retraining;</td>
</tr>
<tr>
<td></td>
<td>- international agencies (WHO, UNICEF, etc) have been integrated into the project to offer technical advice;</td>
</tr>
<tr>
<td></td>
<td>- rapid disbursement procedures and simplified public sector procurement in accordance with OP 8.50 for emergency operations will be used;</td>
</tr>
<tr>
<td></td>
<td>- the PMU will be staffed with qualified personnel;</td>
</tr>
<tr>
<td>2) <strong>Inadequate multi-agency collaboration.</strong></td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>- instating a Technical Working Group constituted of all implementing agencies which will meet regularly to resolve interagency issues and ensure synergy;</td>
</tr>
<tr>
<td></td>
<td>- instituting standard operating procedures to minimize grey areas;</td>
</tr>
<tr>
<td></td>
<td>- strict monitoring;</td>
</tr>
<tr>
<td>3) <strong>Lack of transparency in managing project funds, particularly the Compensation Fund</strong></td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>- no disbursements to occur until satisfactory criteria and procedures have been put in place;</td>
</tr>
<tr>
<td></td>
<td>- close monitoring;</td>
</tr>
<tr>
<td></td>
<td>- requiring operational audits of the project and special audits of compensation claims and payments;</td>
</tr>
<tr>
<td></td>
<td>- publication of audit results;</td>
</tr>
<tr>
<td></td>
<td>- transparency in decision making and resource allocation;</td>
</tr>
<tr>
<td>4) <strong>Inadequate private sector capacity</strong>, resulting in belated and unpredictable access to expert advice and technical support</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>- inbuilt support from leading multilateral agencies such as UNICEF and WHO to play a critical role in sourcing international, regional, and local talent in the respective fields;</td>
</tr>
<tr>
<td>5) <strong>Misuse of the Compensation Fund facility</strong></td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>- incorporate strong features of transparency in the implementation arrangements for the Compensation Fund;</td>
</tr>
<tr>
<td></td>
<td>- promote community involvement; and</td>
</tr>
<tr>
<td></td>
<td>- conduct ex-ante and ex-post checks which have been found effective in the country under other projects.</td>
</tr>
</tbody>
</table>

Overall Risk Rating: S

26. Corruption is acknowledged as a major issue in the public sector, and the project will be implemented in an environment of high perceived corruption. In addition to the risk mitigation measures highlighted below, the Project will place strong emphasis on disclosure and transparency and on strengthened complaint handling mechanisms coupled with specific remedial measures. A summary of measures is provided below in the context of fiduciary risk mitigation. The corollary benefits regarding good governance are self-evident. The following measures are incorporated in project design to minimize the possible misuse of funds.

- **Ex-ante controls.** Appropriate ex-ante internal controls in the poultry culling and compensation program (outlined in Annexes 3b and 7) will be implemented before any disbursement of IDA resources from the Compensation Fund, and ex-ante checks will be carried out before any compensation payments are made.
• **Annual operational reviews.** To supplement the annual project audit, an annual operational review will be carried out by external reviewers, acceptable to IDA, who will review the internal control framework and procedures, especially for the Compensation Fund, and the inventories of drugs, vaccines, medical and veterinary equipment, and other sensitive and/or expensive assets.

• **Prior review of procurement.** Project procurement will be subject to prior-review in accordance with the Bank’s procurement guidelines and with threshold levels indicated in Annex 6. Intensive and close supervision including majority of the contracts will be conducted by the Bank.

• **Post review of procurement.** One of five contracts will be post reviewed.

• **Complaint mechanisms.** A strengthened complaint handling mechanism, especially for the Compensation Fund, will be put in place to handle complaints regarding alleged misuse of funds. All complaints by bidders will be diligently addressed and monitored in consultation with the RPM office.

• **Transparency and public information.** Information about project activities will be continually posted on a Project website. All publications of advertisement and contracts including results of awards will be monitored as per the Bank Procurement Guidelines.

• **Training:** Project launch workshop and intensive procurement training for the involved ministries staff will be conducted periodically

• **Intensive supervision by IDA.** The project, including procurement and financial management activities, will be intensively supervised by Bank staff in the Country Office and by periodic, at least biannual, supervision missions.

• **Evaluation Committee:** The IDA will review and comments on the qualifications and experiences of evaluation committee members selected by the PMU for each project activities to ensure that only the persons with appropriate qualifications are selected with no conflict of interest.

• **Contractors, Suppliers and Consultants Payment:** Payment to contractors, suppliers and consultants will be monitored to ensure timely payment.

5. Controversial Aspects

27. There are no controversial aspects regarding this project. It is consistent with the Government’s strategy and the project is fully consistent with the Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response.

6. Grant Conditions and Covenants

28. Conditions for **effectiveness** of the Grant are:

1. NSC with the composition and terms of reference satisfactory to the Association has been established by the Recipient;

2. project implementation coordinators have been designated in the Ministry of Health, Veterinary Department of the Ministry of Agriculture, Foot and Mouth Disease Institute, and Institute of Zoology and Parasitology of the Recipient;

3. a Communication Specialist, a Monitoring and Evaluation Specialist, an Assistant to the Chief Accountant, an Assistant to the Procurement Specialist, and the Compensation Fund Administrator, all acceptable to the Association, have been employed by PMU;
4. the Project Operational Manual, satisfactory to the Association, has been adopted by the Recipient; and

5. the EMP, satisfactory to the Association, has been adopted by the Recipient.

29. Conditions for disbursements are:

1. Disbursements from the Compensation Fund will occur only when Compensation Fund implementation arrangements satisfactory to IDA have been put in place, including adoption of a satisfactory Compensation Fund Operational Manual.

2. Disbursement for Emergency Imports will only be permitted when a national emergency on avian influenza has been declared by the Government and a well-defined emergency recovery program, satisfactory to the Association, has been adopted by the Government.

30. Financial Management Arrangements. As indicated earlier, this project will be managed by the PMU currently responsible for the implementation of the Rural Infrastructure Rehabilitation (RIR) and Community Agriculture and Watershed Management (CAWM) Projects. The Financial Management team of RIR will maintain financial management systems acceptable to the Bank. The project financial statements, summary reports and the designated account will be audited by independent auditors acceptable to the Bank on terms of reference acceptable to the Bank. The annual audited statements and audit report will be provided to the Bank within six months of the end of each fiscal year. The audits will be conducted in accordance with International Standards on Auditing (ISA) as issued by the IFAC and on terms of reference acceptable to the Bank.

31. The PMU will appoint an acceptable firm of auditors under terms of reference acceptable to the Bank to carry out operational review of the compensation payment system.

D. APPRAISAL SUMMARY

1. Economic and Financial Analyses
[For details, please go to Appendix 3c]

32. There are several benefits, some of which cannot be priced (e.g. human lives saved). Quantifiable economic benefits will mainly stem from the potential poultry losses avoided thanks to the project's intervention. The standard practice of comparing the incremental stream of net benefits of the 'with project' to the 'without project' scenario was applied. The incremental benefits and costs of the project were evaluated for a period of 15 years, with a discount rate of 12 percent. The calculation took into account potential losses in the poultry market, gains of other meat sectors, and capital loss in the poultry sector. In the with-project scenario, a 30% reduction in the likelihood of a larger outbreak was assumed. The analysis derived a net present value of US$ 3.1 million and an internal rate of return of 21.3%. A reduction in the capital loss in the poultry sector of 20% (as opposed to 40% in the base case) would reduce the IRR to 6%. Similarly, a value added loss in the poultry sector of 50% in the catastrophic event year and 20% in the long term (as opposed to the base values) would result in an IRR of 1%.
2. Technical

33. So far, no avian influenza case has been reported in the country, although it is impossible at this point to know if this is due to zero incidence or inability to detect such incidences. Therefore, the project strategy is based primarily on preventing the entry of HPAI, and introducing rapid and effective containment procedures should an outbreak occur. Project design is consistent with this strategy. The project focuses on high risk areas, most notably the areas surrounding resting sites for migratory birds, as well as border crossings due to poultry imports. It recognizes the weak implementation capacity of Government agencies, and has, therefore, provided for strong capacity building, public-private sector partnerships, as well as support from/close collaboration with key international organizations (UNICEF, WHO, FAO, etc...). It will also strengthen coordination among the various public agencies. In purchasing laboratory and other equipment, arrangements will be put in place (through training and servicing contracts) to ensure their servicing in a cost-effective and timely manner.

3. Fiduciary

Procurement

[For details, please go to Appendix 6]

34. The World Bank published a Country Procurement Assessment Report for Tajikistan in December 2003. According to the assessment, the environment for conducting public procurement in the Republic of Tajikistan is rated as “high risk”. The major focus of the resulting action plan was on legislative reform, procurement procedures and practices, increased accountability, organizational reform, and administrative capacity building. Implementation of the proposed recommendations is expected to help the Government of Tajikistan to 1) improve procurement oversight and supervision; 2) limit unreasonably vast authorities of the Procurement Agency; 3) improve procedures and practices; 4) empower the procuring entities through delegation of procurement responsibility; and 5) improve the accountability of public officials by building their capacities. Procurement for this project will be handled by the Procurement Specialist in the PMU. This specialist has been successfully handling procurement for the Farm Privatization Support, the Rural Infrastructure Rehabilitation, and Community Agriculture and Watershed Management Projects, and her performance is judged satisfactory. Moreover, as indicated earlier, a consultant will be hired to support the Procurement Specialist in the initial months of Project implementation.

Financial management

[For details, please go to Appendices 3(b) and 7]

35. The financial management arrangements of the project are acceptable to the Bank. The overall FM risk for the project is moderate except for the compensation fund that is considered to be high risk. However adequate mitigation measures and internal controls are required prior to the disbursement of funds and some of the key controls are included below (appendices 3b and 7).

36. The financial management arrangements of the PMU currently responsible for the implementation of two Bank projects (RIRP and CAWMP) has been assessed and continuously monitored as part of project supervision, and has been found to have a good financial management system. The RIRP is closing in December 2006, whereas the proposed AI Project is expected to be effective starting in September 2006. There will, therefore, be a period of overlap of these two projects, although the RIRP team would eventually be able to focus fully on the proposed AI Project. Consequently, the financial management team will initially be expanded
with a local financial consultant for maximum one year to support current FM team. The RIR Chief Accountant has obtained extensive knowledge of World Bank procedures and policies during the last 8 years as a Chief Accountant of Bank financed projects in Tajikistan. The internal control and flow of funds arrangements are yet to be finalized for the compensation fund sub-component, but the basic control procedures will be documented in a Compensation Fund Operational Manual acceptable to the Bank. The flow of funds under the compensation fund sub-component will only begin after appropriate internal control and fund flow procedures have been documented in the financial manual that will be part of the Project Operational Manual and after the Bank has assessed the internal control arrangements as satisfactory. Appropriate flow of funds mechanisms is a condition of disbursement for this sub-component. Detailed financial management arrangements are described in Appendix 7.

37. The current external audit arrangements for the existing project are acceptable to the Bank. The project financial statements have been audited under block audit arrangements for the last several years and acceptable audit reports have been provided to the Bank on time. The annual audited statements and audit reports for the proposed project will be provided to the Bank within six months of the end of each fiscal year. The audits will be conducted by a firm acceptable to Bank in accordance with International Standards on Auditing (ISA) as issued by the IFAC and on terms of reference acceptable to the Bank.

4. Social

38. Family poultry in Tajikistan has a long tradition of supplying rural households with protein, as well as providing additional income, especially for women. These backyard flocks are largely tended to by women with the help of children. Such backyard flocks have limited access to veterinary care and vaccinations, making them susceptible to various disease outbreaks, e.g. Newcastle disease which is more prevalent. Their scavenging nature also makes them highly susceptible to avian HPAI. Due to the involvement of children in managing domestic birds (feeding, egg collection, herding, etc.), awareness and educational efforts need to ensure that children are effectively reached through the schools and provided with appropriately designed information on Avian Influenza. Reaching women with critical HPAI awareness information will also require specific targeting and use of suitable dissemination and outreach channels. It will also be important to build farmers’ trust and encourage their participation in surveillance for the Avian Influenza and in culling when that becomes necessary. Farmers will be hesitant to report sick birds if they do not fully understand the containment strategy, and particularly if they do not expect to receive compensation. Thus, the local surveillance and compensation arrangements will involve local community members. In addition, care will be taken to ensure that female poultry owners receive their due compensation. This will be addressed in the Compensation Fund Operational Manual and monitored continuously as well as through annual surveys.

5. Environment

[For details, please go to Appendix 8]

39. Activities under AI projects have limited adverse environmental impacts as they are focused largely on public sector capacity building and improved readiness for dealing with outbreaks of AI in domestic poultry. These prevention-focused activities are expected to have positive environmental impacts as project investments in facilities, equipment, laboratories, and training will improve the effectiveness and safety of existing AI handling and testing procedures by meeting international standards established by the OIE. This would be reinforced by the mainstreaming of environmental safeguards into the protocols and procedures for culling and
disposal of animals during AI outbreaks, decontamination of production facilities, and instilling laboratory bio-safety.

6. Safeguard policies

<table>
<thead>
<tr>
<th>Safeguard Policies Triggered by the Project</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment (OP/BP/GP 4.01)</td>
<td>[X]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Natural Habitats (OP/BP 4.04)</td>
<td></td>
<td>[X]</td>
</tr>
<tr>
<td>Pest Management (OP 4.09)</td>
<td></td>
<td>[X]</td>
</tr>
<tr>
<td>Cultural Property (OPN 11.03, being revised as OP 4.11)</td>
<td>[ ]</td>
<td>[X]</td>
</tr>
<tr>
<td>Involuntary Resettlement (OP/BP 4.12)</td>
<td></td>
<td>[X]</td>
</tr>
<tr>
<td>Indigenous Peoples (OD 4.20, being revised as OP 4.10)</td>
<td>[ ]</td>
<td>[X]</td>
</tr>
<tr>
<td>Forests (OP/BP 4.36)</td>
<td></td>
<td>[X]</td>
</tr>
<tr>
<td>Safety of Dams (OP/BP 4.37)</td>
<td></td>
<td>[X]</td>
</tr>
<tr>
<td>Projects in Disputed Areas (OP/BP/GP 7.60)*</td>
<td></td>
<td>[X]</td>
</tr>
<tr>
<td>Projects on International Waterways (OP/BP/GP 7.50)</td>
<td></td>
<td>[X]</td>
</tr>
</tbody>
</table>

7. Policy Exceptions and Readiness

40. The only policy exception requested has a waiver for completing the EA and EMP after Board Presentation, in accordance with paragraph 12 of OP 4.01, which has been granted. The project meets the regional criteria for readiness for implementation.

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

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

1. Country and sector background
2. Results framework and monitoring
3. a) Detailed project description
   b) Compensation Plan
   c) Economic and Financial Analysis
4. Project coordination and implementation arrangements
5. Project costs and financing
6. Procurement arrangements
7. Financial management and disbursement arrangements
8. Environmental and Social Issues and Safeguards Checklist
APPENDIX 1: Country and Sector Background

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

Country and Agriculture Sector Background

41. Throughout the Soviet era, Tajikistan had one of the lowest GDP per capita. Therefore, of the fifteen Soviet republics, Tajikistan received the highest transfers from the central budget and the country was also dependent on the other republics for food imports, mainly in exchange for cotton and aluminum. After the collapse of the Soviet Union, these transfers and subsidized imports ceased and, at the time of independence, the country's already weak economy was disrupted by 1992-1997 civil war.

42. Since 2002-2005 the Government has pursued sound macroeconomic management policy and strong fiscal discipline. Through successful macroeconomic reforms, Tajikistan has been able to reduce inflation from 30-40% percent during 1998-2001 to below 10% since 2004. Revenues have increased from 14% of GDP in 2000 to an estimated 20% of GDP in 2005. Rural poverty has fallen significantly in response to these trends; with 64% of rural people below the poverty line (US$2.15 day PPP) in 2003, compared to 82% in 1999. Two-thirds of the population completely depend on agriculture for their livelihoods. Indeed, the agricultural sector continues to be an important part of Tajikistan's economy contributing 24% of the country's GDP, 66% of employment, 26% of exports, and 39% of tax revenue. This includes the small but important poultry sector.

Poultry Sector Background

43. After independence and during the civil war, the number of hens and turkeys declined sharply. From the reported 6.6 million hens and turkeys in 1991, about 675,000 were left by 1998. The number has increased slowly since then, reaching about 2.3 million or one third of the 1991 population by 2004. During the Soviet era, intensive poultry production was concentrated on state farms where about 90% of poultry (and turkeys) were raised. Most production took place in Regions of Republican Subordination Oblast with 47%, followed by Sughd Oblast with 38%. Statistics from the Official State Statistical Committee (SSC) and FAO suggest the increase in poultry production since 2000 to have taken place in Khatlon and Regions of Republican Subordination Oblasts equally (both with 35% of production) with Sughd Oblast at 25% of production ranking next. Dushanbe city and GBAO produce roughly five percent of poultry between them.

<table>
<thead>
<tr>
<th>Region/District</th>
<th>State</th>
<th>Dekhan</th>
<th>Private</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total in Tajikistan</td>
<td>575,739</td>
<td>56,399</td>
<td>1,725,530</td>
<td>2,357,668</td>
<td>100</td>
</tr>
<tr>
<td>GBAO region</td>
<td>182</td>
<td></td>
<td></td>
<td>91,678</td>
<td>4</td>
</tr>
<tr>
<td>Sughd region</td>
<td>170,033</td>
<td>14,237</td>
<td>388,298</td>
<td>572,568</td>
<td>24</td>
</tr>
<tr>
<td>Khatlon region</td>
<td>40,490</td>
<td>38,663</td>
<td>736,510</td>
<td>815,663</td>
<td>35</td>
</tr>
<tr>
<td>Regions of Republican Subordination</td>
<td>365,034</td>
<td>3,499</td>
<td>447,614</td>
<td>816,147</td>
<td>35</td>
</tr>
<tr>
<td>Dushanbe city</td>
<td></td>
<td></td>
<td>61,430</td>
<td>61,430</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: FAO/State Statistical Committee - Annual Guideline
44. **Backyard poultry** has an enduring tradition in Tajikistan and most rural families own some, keeping them in flocks of up to twenty birds. Such small, extensively raised units mainly comprise chicken but they can include turkeys as well as quail and pigeons. Most of the chicken are native birds raised on household scraps and scavenged feed. Few improved poultry are raised at village-level. While small, these flocks are important in the production of eggs and chicken meat, much of which is home-consumed. Some sales of live hens are made directly to weekly livestock markets, or to visiting traders who on-sell them in the more than 200 such markets operating throughout the country. The producer price of eggs ranges between 0.20 and 0.30 somoni each, and retailed for 0.25 to 0.35 somoni. Meat birds are also sold live. Some households in Khatlon also raise turkeys, buying young birds and feeding them for about six months on boiled chicken eggs initially, then on maize and wheat produced on their own small farms. The finished birds are sold on the road-side, with a cleaned turkey fetching between 40 and 50 somoni, resulting a net household income of about 200 to 300 somoni per month.

45. **The commercial poultry sector** is comparatively small. Two large broiler plants supplied the whole of the Republic but stopped operating in the early nineties, and no commercial broiler units have been in operation since. Several small, *circa* 500 – 1,000 bird layer farms are reported as having operated in Sughd until 2003 but went out of business with the importation of cheap eggs and poultry meat from Iran. MOA reports one state-owned layer unit and 17 layer units in the private sector having a combined annual output capacity of 150 million eggs. Eight of these units are presently operating, but at only one third of potential. MOA reports their total combined output at 48 million eggs for the year 2004.

<table>
<thead>
<tr>
<th>Unit size</th>
<th>Units</th>
<th>Laying birds</th>
<th>laying %</th>
<th>Annual (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>1</td>
<td>150,000</td>
<td>60</td>
<td>33</td>
</tr>
<tr>
<td>Small</td>
<td>7</td>
<td>10,000</td>
<td>60</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: MOA data 2005. Reported farm performance

46. The largest poultry farm is a privatized, Soviet-era layer unit in Shakhrinav rayon, which produces eggs from 160,000 birds based on day-old-chicks from Russia and compounded feed from Kazakhstan, culling its layers at 18 months after two cycles. Three smaller, 40,000 bird capacity egg production units operate in Shakhrinav also. Performance on these farms is determined almost entirely by the cost and availability of feed which mostly is imported from Kazakhstan. High quality protein concentrates upon which local feed manufacture might be possible are not available. Thus, when quality feed is intermittently unavailable from Kazakhstan local substitution of high quality fish meal with local soybean meal in local rations has resulted in dramatic and deleterious effects on production. The hi-bred Russian birds are much too sensitive to feed quality, so that egg output may double or halve, depending on which type of feed is used.

47. Official data on the poultry production and consumption since 1991 are not disaggregated according to traditional or commercial sectors and there are some discrepancies. The most recent SSC figures indicate the production of 23.4 million eggs in 2000 increasing threefold to 77.6 million in 2004. MOA reports 100 million eggs to have been imported each year over the same period. Per-capita consumption was 30 eggs for 2004 (SSC data) which suggests that 111 million eggs were imported for 2004 in addition to the 77.6 million eggs produced locally. The price of poultry meat and eggs has increased by 50% and 70% over the last five years respectively, and egg consumption has increased by about 25% over the same period (MOA). The increasing
demand for eggs has mostly been supplied by Iran (80%) and Russia (20%). About 5,800 tons of chicken meat was imported from Iran in 2004. Boxed chicken meat from the USA and Canada is marketed in Tajikistan also. FAO statistics for 2002 indicate an average consumption of poultry meat of 0.4 kg and 8 eggs per person per year. The effective consumption of poultry products is probably higher than this as these figures do not incorporate the amount of backyard poultry production consumed informally.

Status of Veterinary Services

48. The State Veterinary Department (SVD) has been an organization in transition since independence. Post-independence veterinary legislation defining the roles and responsibilities of SVD was adopted in 1993 and SVD became an independent budgetary unit within the Ministry of Agriculture in late 2002. Veterinary regulations prescribing the organization of SVD and providing basic veterinary and sanitary regulations, and regulations for quality control and assigning government the control over infectious diseases including zoonoses, were introduced in 1995. The SVD was again restructured in October 2002 when the Main Veterinary Department and State Veterinary Inspection were assigned independent budgetary status within the Ministry.

49. SVD has retained outdated strategies and infrastructure with respect to its national responsibilities for disease control and many of the policies and regulations intended for the veterinary services have not been prepared in detail. SVD also remains profoundly under-resourced and poorly organized at all levels. Therefore in attempting to reorganize the SVD, Government committed to fully privatizing its curative veterinary services and limiting the role of SVD to regulatory and national disease control functions. As a result, but with no clear strategy, timeframe or funding, SVD proposed to release 70 percent of the 1,500 state veterinarians from government service during 2005/6. It is generally accepted however, that this initiative will not take place over the near term.

50. The Minister of Agriculture appoints the SVD Chief to direct the heads of the sub-departments and functional units dealing with animal health. Those which handle livestock diseases directly include the Republican Epizootological Expedition which comprises a cadre of about 60 technical personnel in the central offices and laboratories and smaller units in each oblast, whose task it is to move quickly to the field in response to sudden and unexpected animal disease outbreaks. The longer-term and more routine address of animal health issues is handled separately by a small cadre of epidemiologists within the Republican Epizootological Expedition, whose task it is in theory to plan and amend the design of ongoing (mainly ruminant) vaccination programs. This should be done according to reported changes in the dynamics of any of the five livestock disease for which SVD has been responsible. However, SVD has a centrally-driven vaccination plan which favors the state and dekhan farms, rather than a pragmatic epidemiologically-based program dealing with livestock across the sub-sector. Outside of the commercial farms which mostly employ their own veterinarians, there is very little support for poultry. Foot and mouth disease is endemic among ruminants and a major outbreak occurred in 2002 which led to a government-ordered slaughter of infected animals. No outbreaks have been officially reported since. Out of the total allotment of US$ 420,000 for epidemic disease control for 2004 however, 60% or US$ 252,000 was allocated to vaccinating against foot and mouth disease alone.

Only eight of the SVD offices in 65 rayons are equipped with motor vehicles.

FMD, Brucellosis, Tuberculosis, Rinderpest, Anthrax. The Department is proposing to substitute PPR for Rinderpest.
51. Information on disease normally passes from the veterinarians in the kishlaks (villages) who occupy the few clinics in every rayon, thence through the Chiefs of the Veterinary Departments in the rayons and oblasts to the epidemiologists in VEE. The planned response passes in turn from the central epidemiologists to the Chief of SVD who formally decides on a course of action. Funds permitting, the agreed plan is transmitted as a field program to the Chiefs in the sub-central offices for implementation. However, SVD needs to be much more pro-active and considered in the surveillance and control of diseases than it has been. This is because much of the livestock population outside of the state sector is still at risk from epidemic diseases within the country and across its borders.

52. Diagnostic work is done by the State Republican Laboratory (SRL), as well as the myriad subordinate laboratories the SVD veterinarians from the kishlaks or in some cases farmers, submit samples directly to for diagnosis. The layout, staff training and capacity of the SRL precludes its utility as a diagnostic laboratory for AI virology. The Foot and Mouth Disease Institute however, is much better suited to this function. FMDI was established during the Soviet era specifically for Virological tests. It still conducts some virology diagnostic work and has better trained staff in virology, and it is also a better laid out laboratory. FMDI is outside the aegis of SVD, but there is a working relationship between FMDI and SVD in respect of foot and mouth disease virology which FMDI does at the request of SVD.

53. The Department of Border Control has the formal role of protecting Tajikistan from the ingress of disease, maintaining twenty-one monitoring and control points at airports, border crossings and railway stations which are manned by staff attached to the relevant rayon or oblast-level offices. The Department also has a supervisory role in respect of the health status of animals passing through livestock markets, but the extent to which the Department enacts its movement control prerogative effectively is not known. Other departments supporting, but less directly involved in animal health, include the Department of Veterinary and Sanitary Expertise the State Laboratory on Standardization and Testing of Veterinary Medicines, and the Department of Planning and Finance.

54. The national departmental structure is replicated in the oblasts and rayons, and staff numbers for SVD substantially increase at every administrative level. The Department has 64 Rayon-level veterinary offices and 286 veterinary clinics, thus the SVD Chief in each of the oblasts typically has eight to ten staff and there are 13 – 25 rayons per oblast with between ten and fifteen persons each. Some rayons have up to forty veterinarians located at kishlak level, bringing the number of veterinarians employed in government field service, to about 1,500 persons with some overlap with the ‘privatized’ veterinarians. They are the field resource upon which SVD must rely to conduct disease investigative measures or to deal with outbreaks, but these field personnel are not well supported.

55. There are ten institutes subordinated to the Academy of Agricultural Science of the Ministry of Agriculture which are engaged in research activities for the sector as a whole. Of relevance to animal health are the Foot and Mouth Disease Institute and the Veterinary Research Institute. These formerly conducted research and manufactured vaccines and biologicals, but are reduced to diagnostic laboratories now.

---

4 three regional laboratories, one zonal laboratory, 10 inter-district laboratories, 15 district laboratories and 75 market-place laboratories.
Report on Outbreaks in the Neighboring Countries and Potential Risks for Tajikistan

56. To date, Tajikistan has not had any recorded outbreaks of highly pathogenic avian flu (HPAI H5N1). However, according to media reports, there have been recent outbreaks in the nearby countries of China and Kazakhstan as well as more distant neighborhood countries such as Russia, Azerbaijan, Turkey, Iraq and India. The H5N1 strain of avian influenza was confirmed in neighboring Afghanistan on March 16, 2006 from samples taken from birds in the Dasht-e-Barchi district of Kabul, from Jalalabad City and Khogani City. The collapse of veterinary health services caused by the 1992-1997 civil war and the recent increase in trans-boundary trade is increasing the threat of an outbreak of HPAI in Tajikistan. There is also some risk that the spread of H5N1 to poultry in Tajikistan will take place during waterfowl migration or through trade in live-bird markets and the movement of infected domestic fowl.

Migratory bird flyways and habitats

57. Migratory birds crossing Tajikistan from the north of Central Asia to the southern areas of Afghanistan and Iran use a small number of principal flyways in their fall/spring migrations. Some species use these simply as over-fly routes without settling, but others alight along the way on the watercourses these routes mostly follow. The primary route between Uzbekistan and northern Afghanistan runs roughly northeast/southwest over Tajikistan and passes over Dushanbe at its southern end. The other main route runs roughly north/south between Uzbekistan and Afghanistan passing along the Fergana valley in the north. Both of these routes intersect in the area of Dushanbe. Some secondary flyways follow the main river valleys along the Whakhan corridor on the Pakistan/Tajikistan border and along the many valleys in Tajikistan’s centre/south. These feeders terminate at their southern end in the 53,000 square km marsh area on the border with Afghanistan known as the Tiger Jungle, with one other important route also running northeast/southwest along the Fergana valley.

58. These routes are associated with the several lakes, rivers and reservoirs inside Tajikistan which serve as important wintering habitats for both wild and migratory birds. The Tiger Jungle adjacent to the border with now HPAI-infected Afghanistan is one, but other important locations include the Kayrakkum Reservoir in Asht Rayon in the north, the Iskanderkul Lake in Aini rayon on the central-western border and the Nurek Water Reservoir in Nurek Rayon in Tajikistan’s centre. The risk of HPAI virus transferring from birds utilizing the resting places, flyways and their crossover points therefore extends over the entire western part of the country and encompasses most of the rayons raising relatively important numbers of poultry. Wild birds using the Kayrakkum Reservoir habitat therefore threaten poultry in at least eleven rayons in RRS, the Iskanderkul Lake habitat threatens at least eight in Sughd in the central west, and twelve rayons in Khatlom province have proximity to birds using the Tiger Jungle in the south. These movements and habitats are of enormous importance in the design of HPAI surveillance.

Human Health Sector

59. Tajikistan’s health system has a number of structural weaknesses, most of which are common to post-Soviet and transition economies. There are significant capacity gaps in health policy, planning and management, both at the central level and among oblast, rayon and facility health administrators. Essential public health functions such as disease surveillance, human resource development and health promotion are carried out poorly, if at all. Outbreak investigation capacity is very limited with significant technical and methodological deficiencies. Infectious disease surveillance system, sanitary inspection control and health promotion are carried out by Sanitary Epidemiological and Surveillance Center (SES). The institutional
arrangements for disease control through 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. System for collection of specimens from the field is inadequate and there are no facilities available for dry ice production in the country. However, arrangements for customs clearance of the shipment of specimens to international designated laboratories are in place.

60. The structure of the health delivery system inherited from the Soviet Union is a highly complex and hierarchical system. Outpatient services are provided at polyclinics that are segmented into separate clinics for adults, children, and women's reproductive health, Family Medicine Centers, and through specialized dispensaries, that address specific diseases such as tuberculosis, oncology, endocrinology, and others. There are also health posts attached to schools, public enterprises, and other institutions. The rural outpatient services are also provided through the Medical Houses, Rural Physician Ambulatory Facilities (SVA) and Rural Hospitals (SUB). The health system contained a large number of hospitals, with a separate hierarchy of hospitals at the national, Oblast, City, District and village levels, and a large number of specialties. Currently, Tajikistan has a total of 448 hospitals ranging in sizes from facilities with 20 beds to over 500 beds. From an international perspective, there is very small number of population served per facility, even adjusting for the fact that the country is dominated by sparsely population rural regions. Most of the facilities are not suitable for patients. Equipment has deteriorated due to lack of maintenance or is completely missing; sanitary facilities seldom work and are in generally in poor condition; isolation boxes of infectious diseases clinics are outdated and in need of major renovation; laboratory services are rarely used and are generally in poor conditions. The number of hospital beds in Tajikistan has decreased steadily and in the early 1990s, there was a deliberate effort to reduce the number of hospital beds by about 30 percent as part of the rationalization program. Unfortunately, this reduction in beds also resulted in a reduction of the health budget, which is linked to number of beds rather than to services. The decrease in hospital beds was intended to be replaced by an increase in primary care services, but due to lack of resources progress has been slow in this area. Official statistics indicated that the hospital admission rates have decreased. The reduction in utilization of hospital services would seem to be attributable to inadequate financing, absence of necessary medicines, and decline in hospital quality services, rather than on improvements in the primary care health sector. The average length of stay has stayed around 13 days, while bed occupancy rate has dropped to below 50 percent, indicating significant inefficiencies in the system.

61. The impact of the resource constraint is evident in the very low quality of services as reflected in low utilization and access to health services. It is estimated that in 2003 around half of those who reported acute illnesses did not use health services, for a variety of reasons related to inadequate supply, poor access and low demand for health care. Financial barriers are cited most often as a reason for not accessing health services. Physical barriers are most acute in the remote mountainous regions, where road conditions are poor, means of transport limited, and many communities are totally cut off for months during winter season. Geographic variations in the availability of health services also appear to be a result of unequal distribution of government financing.

62. With inadequacy of government support for basic health services, many communities in Tajikistan are beginning to take action to address these problems on their own, and the number of community-based activities has been increasing over the past decade.
International donor assistance

63. Animal health. With three main thrusts, FAO has provided most support for the sub-sector by far. With Swedish assistance in April 1999 FAO financed a progressively larger network of veterinarians in what is essentially a privatized system of veterinary service delivery. In this role they have provided a disease sentinel function throughout Tajikistan as well as vaccinating during SVD programs. More than 437 veterinarians were operational by mid 2005. Building on its brucellosis survey conducted during May 2003, FAO introduced a national approach to controlling brucellosis in Tajikistan’s high risk regions. The National Brucellosis Control Program began in Khatlon in 2004 and together with improvements to the diagnostic and monitoring structure for important livestock diseases, was expanded in the winter of 2004/5 to extend brucellosis vaccination to a further eight Rayons in the Rasht Valley. Early in 2005 FAO began a three year project to address the principal trans-boundary animal diseases in seven of the region’s countries, in which SVD staff was trained in data collection, diagnostic techniques and the development outbreak contingency plans. The project also co-financed the preparation and distribution of awareness material for Avian Influenza.

64. Under its TACIS Policy Advice Program, the European Union is also supporting the development of national veterinary livestock and animal disease control policy as part of an 8 million Euro grant for 2005/6. This program supports policy reform in several ministries, MOA included. The policy for animal health was to have been drafted and approved by MOA by December 2005. Additional support for the sector comes from CARE International which offers limited assistance to animal health by distributing livestock production information, establishing and equipping veterinary centers and financing a small number of veterinary field units.

65. German Agro Action offers some foot and mouth disease vaccinations and training in livestock keeping, and limited repayment-in-kind livestock credit in the Zarashan Valley. AKRSP provides some livestock distribution in the Rasht Valley also. Mercy Corps International (MCI) is operating in most of Sughd Oblast, the Rasht Valley and Tavildara rayon, as well as in several rayons in Tajikistan's southwestern corner. Both German Agro Action and MCI have a substantial field presence, each having between 150 and 200 local staff and several technical experts. MCI provides micro-credit for livestock as well as food security programs and market linkages through its seven widely-spread field offices throughout the country.

66. Human Health. The international community plays an important role in the supporting response to protect human health from AI, especially as there is a need to develop an overall framework to guide a national action plan that is the basis for government and donor support and ensure effective implementation. Capacity gaps in health policy, planning and management, both at the central level and among oblast, rayon and facility health administrators and weak implementation of essential public health functions such as disease surveillance, human resource development and health promotion, necessitates strong support from international community in combating AI. This project document and the associated documents which detail the description of activities under the broader program developed by the Government of Tajikistan and partners are an example of a move in this direction. WHO is coordinating the global response to human cases of H5N1 avian influenza and monitoring the corresponding threat of an influenza pandemic. UNICEF is working closely with governments, UN organizations and other partners through the UN Country Teams and other partners to arm families with the knowledge and practices they need to protect themselves and their birds from avian influenza and to be ready to respond to the emergence of a pandemic.
## APPENDIX 2: Results Framework and Monitoring

### TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

<table>
<thead>
<tr>
<th>PDO</th>
<th>Project Outcome Indicators</th>
<th>Use of Project Outcome Information</th>
</tr>
</thead>
</table>
| The project's objective is to minimize the threat in Tajikistan posed to humans by HPAI infection and other zoonoses to prepare for, control, and respond to influenza outbreaks and other infectious disease emergencies in humans. | - Contained outbreaks in poultry with no demonstrated transmission from birds to humans;  
- An intersectoral surveillance system in place for both animals | Mid YR2: Review of program approaches at MTR  
End YR3: assess impact of project component at completion |

### Intermediate Outcomes

<table>
<thead>
<tr>
<th>Intermediate Outcome Indicators</th>
<th>Use of Intermediate Outcome Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component I – Public Awareness and Information</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Subcomponent A. Advocacy**  
Rallying official support to deal with HPAI;  
Training journalists on AI;  
Setting up a crisis communication mechanism | - Key regulatory changes enacted where necessary;  
- National Steering Committee established and functioning;  
- Improved coverage of AI issues by media | |
| **Subcomponent B. Public Education**  
Mass media campaigns | - Public more aware of the risks of AI and measures to mitigate it;  
- Opinion research study carried out | |
| **Subcomponent C – Social Mobilization** | - Networks of teachers, community donors, nurses, mobilized | |

### Component II – Animal Health

#### A. Strengthening the Institutional Environment

| **Subcomponent A1**  
**Strengthening the institutional environment** -a regulatory framework aligned with the functions of the SVD. Standard Operating Procedures written for all HPAI control activities at all administrative levels | - Key regulatory changes enacted where necessary;  
- Standard Operating Procedures developed and written for all administrative levels | Verify appropriate implementation approach and quality of expert assistance and revise if necessary |
| **Subcomponent A.2. The National Action and Contingency Plan** | - National Action Plan prepared and agreed to by involved agencies;  
Standard Operating Procedures embedded in National Action Plan. | Verify responsibilities of individual ministries and agencies  
Assess performance of project administrators and revise functions if needed |
| **Subcomponent A.3. Establish a National Compensation Policy and Fund** | - Funds allocated and administrative procedures finalized  
- Compensation mechanism and schedule finalized and agreed  
- Post-culling payments made and recorded | To provide the basis for monitoring fund performance, equity of payments and appropriateness of fund size relative to overall compensation needs |
### (B) Strengthening the Disease Surveillance Diagnostic and Containment Capacity

<table>
<thead>
<tr>
<th>Subcomponent B.1.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengthening the Disease Monitoring and Containment System</strong></td>
</tr>
<tr>
<td>- National surveillance program prepared and participants aware of roles</td>
</tr>
<tr>
<td>- Rayon and Oblast vets equipped and made fully capable of effective surveillance and HPAI reporting</td>
</tr>
<tr>
<td>- Outbreak response procedures and responsibilities defined and equipment prepared</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subcomponent B.2.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengthening National Diagnostic Capacity</strong></td>
</tr>
<tr>
<td>- FMDI upgraded to Biosecurity Level 2 and operationalized for RT-PCR function</td>
</tr>
<tr>
<td>- Protocols for sample collection, submission and diagnostic work prepared and understood by all parties</td>
</tr>
<tr>
<td>- Number of diagnostic tests performed to satisfactory levels and output quality</td>
</tr>
<tr>
<td>- Subordinate laboratories made operational and sample submission flow working</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subcomponent B.3.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengthening the Animal Disease Information System</strong></td>
</tr>
<tr>
<td>- Computerized Database established at VEE Epidemiology Unit and staff trained</td>
</tr>
<tr>
<td>- Input data processed and used to adjust field surveillance</td>
</tr>
<tr>
<td>- International organizations and regional veterinary services updated on Tajikistan HPAI status</td>
</tr>
<tr>
<td>- Data from wild bird HPAI survey input when available</td>
</tr>
</tbody>
</table>

- Assess monitoring performance relative to overall survey requirements.
- Identify cause/s of survey shortfall and adjust program as necessary.
- Reallocate equipment and mobility if needed.

- To verify if sample throughput is timely and matches sample submission.
- To verify submission process field to FMDI satisfactory and adjust as necessary.

- Verify that:
  - data input to system as generated
  - data is used to adjust surveillance over time
  - local HPAI data made available internationally

### Component II – Human Health

#### A. Enhancing Program Planning and Coordination

<table>
<thead>
<tr>
<th>Subcomponent A.1: Enhancing Public Health Program Planning and Coordination – effective regulatory framework for National Pandemic Influenza Action Plan (NPIAP) as well as SPO that detail required activities on all levels including implementation guidelines and manuals for all relevant agencies and services. Rapid investigation teams in place.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Standard Operating Procedures developed for all levels;</td>
</tr>
<tr>
<td>- Key regulatory changes agreed and enacted staff trained in procedures and standards;</td>
</tr>
<tr>
<td>- Rapid investigation teams established, trained and performing field investigation work</td>
</tr>
</tbody>
</table>

- To verify satisfactory and timely progress and adjust approach if necessary.

### B. Strengthening the National Public Health Surveillance System

<table>
<thead>
<tr>
<th>Subcomponent B 1: Improvement of Laboratory Networks – National strategic plans for improvement of public health surveillance and disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Samples received from the field are adequately transported;</td>
</tr>
<tr>
<td>- Results from testing meet quality control standards;</td>
</tr>
<tr>
<td>- Number of tests performed</td>
</tr>
</tbody>
</table>

- To verify satisfactory and timely progress and adjust approach if necessary.
control systems prepared according to WHO recommendations, approved and fully resourced for implementation  

**Subcomponent B2: Improvement of Health Information and Telecommunication Systems**
- Number of regional/district public health divisions with a computerized information systems in place and operational;
- Hot-line established and available to general public

**C. Strengthening Healthcare System Response Capacity**

**Subcomponent C1. Social Distancing Measures** – “Social distancing measures” such as quarantine, bans on mass gatherings, and travel restrictions, were developed and implemented backed up by a communication strategy.
- Social Distancing Measures defined;
- Enabling legal framework established;
- Staff of responsible agencies trained

**Subcomponent C2: Vaccination support** – strategy for effective influenza vaccination
- Strategy for, procurement of and access to human influenza vaccine on the basis of well-defined criteria developed;
- High risk workers received seasonal influenza vaccine;
- Strategy for access to and appropriate to and appropriate use of anti-virals (e.g., stockpiling and standard treatment protocol) developed and procured;
- A contingency plan for procurement of AI vaccines for humans is developed should one become available and needed

**Subcomponent C3: Medical Services** – Critical medical care network strengthened and readied to cope with increased demand for services, and to prevent the spread of infection among high-risk populations and health care workers
- Number of professionals and support personnel trained for treatment and proper diagnosis, treatment and care to contain outbreaks and reduce occurrence and case fatality during both pre-epidemic and pan-endemic phases;
- Hospitals infections, waste management and admission procedures in place for all referral centers;
- Drugs for AI patients available

To verify satisfactory and timely progress and adjust approach if necessary
APPENDIX 3a: Detailed Project Description

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

67. The project will consist of the following four major components: (i) Public Preparedness and Information Component, (ii) Human Health, (iii) Animal Health, and (iv) Implementation Support and Monitoring and Evaluation Component.

I. Public Awareness and Information Component

68. The objective of this component will be to minimize the risk of avian influenza spreading throughout the country by ensuring that citizens understand the threat are aware of the symptoms and are willing and able to engage in behaviors to protect themselves and their community. The component will support the implementation of a communication program to address key aspects of prevention, preparedness and response in Tajikistan. This program will be based on a comprehensive communication strategy and accompanying action plan. It is expected that UNICEF will take the lead in helping the Government implement this program.

69. The communication response, which will have three sub-components, will have three planned stages in:
   i. A series of pre-outbreak campaigns to promote safe and responsible behavior to reduce risks to children, families, households and communities;
   ii. An intensive communication campaign during an epidemic alert, to begin immediately if and when human infection is confirmed.
   iii. Post epidemic communication support to promote recovery and to help those who need it.

(i) Avian Influenza Advocacy Sub-Component.

70. This first sub-component will aim at putting the AI on the agenda of decision-makers with the understanding that unless government officials at all levels, members of Parliament, the media, business community and others are aware of the threats posed by the disease and the role that they themselves can play to prevent it, this initiative will not be successful. Activities under this sub-component will include workshops, study tour(s), training of journalists, development of a newsletter, etc. This sub-component will also include setting up a crisis communication mechanism within the Government.

(ii) Public Education through Mass Media Sub-Component.

71. The second sub-component will entail the design and implementation of several mass media campaigns aimed at the public at large. The sub-component will start by carrying out an opinion research study to gauge the level of knowledge, understanding and practices of the population on issues related to avian flu (from keeping birds to behaviors when sick with flu). The sub-component will also include the production of print and audiovisual materials (brochures, booklets, Public Service Announcements – PSAs) as well as the adaptation to the Tajik context of TV/radio programs produced internationally.
(iii) Social Mobilization Sub-Component.

72. The third sub-component will be a series of activities aimed at mobilizing the population through the various networks, public and private, that have strong presence in the rural areas. From the system of school teachers, a vast group of established professionals working through Tajikistan and often enjoying the trust of the rural populations, to the networks of veterinaries or community health workers etc., these are communities that can easily be tapped into and mobilized as vectors of the communication effort. Training on AI, information materials should be provided to them, and as well as specific coaching on the important role they could play in this initiative.

II. Animal Health Component

73. The project would support a national program to develop and implement HPAI prevention, containment and control and eradication activities. This Component would specifically strengthen the Government’s preparedness for conducting surveillance, diagnosis and response to an outbreak of Avian Influenza among domestic commercial and household-raised poultry. The component has two main sub-components:

(i) Strengthening the National HPAI Preparedness and Prevention Capability Sub-Component

74. Strengthening the Institutional Environment. The project would support initiatives to ensure the legal and regulatory and operational framework for disease prevention, detection, containment and eradication is effective, and in accordance with standards which OIE and FAO have established for dealing with animal diseases generally. The project provides Technical Assistance to review the current veterinary legislative framework and assure its alignment with the functions of the State Veterinary Department and its address of AI in particular. This review would involve the technical assistance of experts in veterinary legislation and regulation, veterinary staff of MOA and legal representatives. The review would have particular focus on regulations related to the control of notifiable animal diseases, the responsibilities of the present public and private veterinary services in an outbreak of AI, and provisions for compensating poultry owners if this became necessary in the event of mandatory culling. Institutionally, the resources, training and disposition of the State Veterinary Department (SVD) prevent it from responding to the increased demand for information, diagnostic capability and prompt response capability the threat of AI entering Tajikistan now poses. The SVD needs assistance in developing these capabilities, particularly if it is to comply with the international standards of OIE and the recommendations FAO has developed for countries dealing with AI.

75. TA would be provided also to review the existing operating procedures and protocols of SVD, and to assist with the drafting of detailed implementation guidelines and manuals for use by SVD staff at all levels. This assistance would also ensure that these operating guidelines are compatible with the requirements of an effective, national AI program.

76. The National Action and Contingency Plan. Government has already taken some limited short-term measures – wild bird and poultry sampling - to deal with the threat that the presence of AI in Iran and Afghanistan now represents and has prepared a draft National Preparedness Plan - the Comprehensive Plan of MOH and MOA. The Plan requires considerably more detail and greater clarity in respect of the policies and objectives needed to drive the program if it is to be useful. The project would provide technical assistance to more fully prepare the plan to ensure it as a national AI contingency plan, by focusing on developing the procedures for outbreak
planning and incorporating the detail of outbreak response – the surveillance procedures, roles and responsibilities, communication protocols particularly with respect to MOH, movement controls, testing procedures, culling programs, compensation procedures and restocking. The specialists responsible for this would work with the SVD epidemiology and field staff, the laboratory personnel both in the SVD and the FMDI facilities, private veterinarians in the rayons and agencies particularly FAO, involved in trans-boundary animal disease control.

Support would also be provided for the participation of SVD personnel in regional information exchanges and to attend FAO or OIE-hosted conferences on AI. The project would also provide for simulation exercises in each Oblast to test the plan and familiarize participants at all levels with their roles as soon as practicable after the plan is finalized. Crucial to the Plan are the Standard Operating Procedures which implementers at all levels would use, and developing these and the sampling and diagnostic protocols would be the other main focus of the technical assistance.

Establishing a National Compensation Policy and Fund. Early detection and reporting of a possible AI event depends entirely on incentives to owners to quickly report any sick or dead poultry. In the event of an enforced poultry cull, adequate arrangements for compensation have proven essential if this is to happen. There are no veterinary laws which prescribe arrangements for compensation nor is there a recent history in Tajikistan of compensation being paid for livestock destroyed under State compulsion. The project will (i) establish an entirely new compensation fund and (ii) provide expert technical assistance to identify workable implementation arrangements for it. These would include the management and financing arrangements of the fund itself, eligibility criteria, payment arrangements and the flow of funds. No compensation payments would be made from the fund until these arrangements have been satisfactorily finalized and operating procedures prepared and laid down as operating procedures.

Strengthening the Disease Surveillance, Diagnostic and Containment Capacity Sub-Component

Support would be provided to bring the SVD into line with OIE standards. It would include (i) technical assistance, (ii) training for central-level and field staff, (iii) field mobility and communications, (iv) sampling equipment and (v) equipment and materials for culling and disposal. Training in surveillance for the country’s 21 border and airport inspection posts would be included. The project would use expert technical assistance in veterinary epidemiology to train and assist an Epidemiology Unit in the design and implementation of an effective national AI surveillance program. The project would also finance support for field sampling, by training SVD field surveillance staff in the 3 oblast and 65 rayon offices in (i) surveillance methodology, (ii) AI recognition, (iii) sample collection, (iv) sample submission and (v) reporting. Offices at these levels would also be supplied with motorcycles and communication and sampling equipment.

Training would also target the owners of large commercial private poultry farms and their veterinarians in (i) the conduct of passive surveillance and (ii) the application of appropriate bio-security measures to be used on commercial farms at risk. The Republican Epizootic Expedition in Dushanbe would be supplied a motor vehicle to improve its ability to mount a rapid outbreak response in support of the field veterinarians.

Expert technical assistance would be used to establish an animal disease data-base based on TADINFO or similar software, and the Epidemiology Unit at SVD headquarters would be supplied the computer equipment, software and training necessary. This capability would allow
outbreak and sampling data and the downstream information on virus identification to be input to the TADINFO system and GIS mapped. The Epidemiological Unit would then have the ability to adjust the surveillance program in light of information input to the data base over time. The main border crossing points for poultry movement would be supported with protective equipment, sprayers and disinfectant.

82. Wild and migratory birds are a known and significant threat to domestic poultry and there are several identified high-risk locations associated with them. The changing environment in the countries these birds use at each end of their transit means that existing data on source and destination, as well as the species and numbers using known flight paths and local habitats, is not as reliable as it was. Updating this information would permit a more accurate assessment of the threat they pose at specific locations and crossover points. The Institute of Zoology would be contracted to survey wild and migratory birds over the three years, so as to relate the HPAI virus to bird species, numbers and movement. This information would also flow into the Epidemiological Unit information database and provide another important data source upon which the surveillance program would be adjusted.

83. Strengthening National Diagnostic Capacity. The layout and capability of the SVD Republican Laboratory precludes its utility as a diagnostic laboratory for AI virology. FMDI established during the Soviet era specifically for Virological tests, provides a much better basis upon which to conduct HPAI virology. FMDI is outside the aegis of SVD, but the project will substantially renovate part of its building. Technical assistance would be used in redesigning the lab and its layout and establishing RT-PCR capability. High volume sample preparation and other equipment will handle the substantial number of samples that FMDI is expected to receive. No sample screening would be done at the SVD laboratories in the oblasts. Instead, these will be renovated and equipped, and used as hubs where samples from the rayons can be held and dispatched to FMDI. These holding laboratories will be supplied vehicles and cold storage equipment. The FMDI lab will perform generic PCR as an initial screening function. Positive samples will be virus typed and the results of these procedures will be passed to the Epidemiological Unit and the MOH, as well as to the OIE. Staff will be trained overseas in PCR technique and two staff will also be trained overseas specifically in the laboratory diagnosis of Avian Viral Diseases.

84. Strengthening the Animal Disease Information Systems. Key to the success of the surveillance and reaction program is an effective animal disease information system. Project assistance would be provided to improve the reporting of animal health information from the field and its flow between SVD, the MOH and OIE. This capability would be established at the Republican Epizootological Expedition, the repository for the central-level epidemiology and reactive capability of SVD. The project would supply (i) technical assistance, (ii) epidemiology training for central and subordinate-level staff, (iii) computer equipment and (iv) a TADINFO database. The system would be linked to fast, standardized methods of surveillance data analysis. This would demonstrate any important changes in the H5N1 situation over time, to be used in amending the surveillance program as necessary. The other main function of an efficient disease information system is to enable SVD to participate in global disease information sharing.
III. Human Health Component

85. The component will support a national program to implement HPIA prevention, preparedness and planning, response and containment activities in the human health sector specific to the needs of the Tajikistan in the short, medium and longer term. These activities reflect an assessment of the particular risks, conditions, constraints, needs and possibilities in the country, including a rapid assessment of the health services undertaken by the appraisal team supported by WHO and UNICEF.

86. To prevent an outbreak among humans, initial support under this project would concentrate on a few key areas, including activities for: (i) enhancing public health program planning and coordination; (ii) strengthening of the national public health surveillance system; and (iii) strengthening the health system response capacity. The interventions under the component are based on the Tajikistan epidemiological and programmatic needs, and well-assessed options for meeting them. They will be grouped in three broad sub-components:

(i) Enhancing Public Health Program Planning and Coordination Sub-Component

87. Under this sub-component, funding would be available for: (i) establishing inter-sectoral command and control system structures and development of their institutional capacity, including public, private, civil society organizations; (ii) identifying crucial gaps in infrastructure and other resources, as well as laws and/or statutes which, if not corrected, may interfere with an effective response; (iii) defining operational priorities, such as a mass immunization campaign during an infectious disease emergency; (iv) ensuring coordination among all stakeholders; and (v) establishing central field investigation teams.

88. When outbreaks in animals occur, active human case detection should be carried out by a joint veterinarian and health team from central level. This would require the development of epidemiologic intelligence capacity to assess and verify events and rumors, dispatch teams to investigate, and assist regional and local levels in infectious control measures. The sub-component would finance the development of Standard Operating Procedures and training of staff at different levels of the health system in detection, testing, clinical management, epidemiology, reporting and laboratory bio-safety of relevance to influenza-like illnesses and other relevant infectious diseases. It would also finance short courses on applied epidemiology to strengthen surveillance. To improve coordination between the public health agencies and the veterinary departments, joint training activities would be supported involving epidemiologists, clinicians, laboratory staff, and veterinarians. The sub-component would support development of standard case definitions, active clinical and virological surveillance criteria and reporting protocols/systems for influenza-like illnesses, fevers of unknown origin and other relevant infectious diseases.

89. Additionally, support would be provided for health preparedness and response plan preparation, and to finance a simulation exercise at national level involving regional and local levels, as well as supranational levels. These plans would include activities to protect healthcare workers and other personnel.
To assess risks to public health and guide protective measures, information is needed on the extent of influenza infection in animals and humans and on circulating viruses, as well as other priority infectious diseases. The national surveillance systems must be improved.

The detection of novel influenza strains is done through clinical and virological surveillance of human and animal influenza disease. There are four main national surveillance areas that need to be strengthened: (i) virologic surveillance to report the number of clinical specimens tested for influenza and other priority infectious diseases and the number of positive results by virus type and sub-type (this is crucial for proper vaccine seed strain); (ii) surveillance for influenza-like illness and other priority infectious diseases to report on the number of patient visits for influenza-like illness and other priority infectious diseases by age group and the total number of patient visits each week; (iii) surveillance for influenza and pneumonia, as well as for other priority infectious diseases to report the total deaths related to influenza and other priority infectious diseases; and (iv) oblast and rayon epidemiologists to assesses and report influenza and other priority infectious diseases activity levels in their respective localities. 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, project would support:

Improvements of Laboratory Networks. The Republican Sanitary and Epidemiological Surveillance Laboratory (SES) serves as the national reference laboratory for Tajikistan. Its main role is analysis of environmental samples (sanitary and quality assurance for food), but it also function as a bacterial reference laboratory for Tajikistan. Laboratory gets only few samples for diagnosis directly from hospitals. However, due to the lack of funding, routine diagnostic is often not available.

The SES has allocated 5 rooms for a molecular diagnosis and serology laboratory for AI. However, these rooms require extensive renovations in order to meet the requirements for bio-safety level 2, which is mandatory for handling AI diagnostic specimens according to international and WHO guidelines. Furthermore these rooms need to be fully equipped and designated personnel have to undergo bio-safety/bio-security, virological and molecular training before work on HPAI virus can start. Staff will be trained overseas in PCR technique and two staff will also be trained overseas specifically in the laboratory diagnosis of Avian Viral Diseases. Further more support will be provided for appropriate waste disposal, and packaging of diagnostic samples for international shipping to the Influenza reference laboratory in England.

Improvement of Health Information and Telecommunication Systems. This sub-component would finance rapid adaptation and strengthening of existing health information systems and processes to improve the timely and effective reporting of influenza-like illnesses and other priority infectious diseases of direct relevance to a potential epidemic of Avian Influenza. The sub-component would provide funds for technical assistance, training and IT equipment to strengthen the areas of surveillance, communications, and information technology at the different levels of the health care system. The focus would be on supporting the country’s preparedness and capacity to respond to avian influenza and other infectious disease outbreaks through reduction of reporting time and time required for analysis of the epidemiological situation. The technical assistance would develop guidelines for essential procedures for each level of health system on continuous surveillance for influenza-like illness and reporting mechanism and protocols for routine reporting using IT and designate telephone hot-line. Printed materials with strict guidelines for each level and each facility will be produced and follow up
workshops would be organized at regional levels to disseminate the information. Mechanism for reporting of infectious diseases will be strengthened including introduction of software for reporting of infectious diseases from at least rayon level.

(iii) Strengthening Health System Response Capacity Sub-Component

95. Social Distancing Measures. The most effective measure to prevent contracting avian influenza would be to limit, as much as possible, contact of suspect cases or people from infected areas with the general public. This sub-component would finance development of a detailed implementation plan for so-called “social distancing” measures to be activated in case of an epidemic and backed up with a well-designed communication action plan and materials. Social distancing measures would typically be activated on advice from health professionals/institutions, though these would not be the enforcing group. The implementation plan would, therefore, explicitly define institutional responsibilities for activation and enforcement of social distancing measures and for inter-agency and inter-ministerial coordination. Support would be provided for the review and/or preparation of statutory provisions regarding quarantine laws and how they apply in a public health emergency, laws and procedures for closing businesses or schools and suspending public meetings during a declared state of emergency; medical volunteer licensure, liability, and compensation for retired and non-medical volunteers and workman’s compensation laws as they apply to health care workers and other essential workers who have taken anti-viral drugs for prophylaxis. Training would be provided to “enforcers” such as the police and military in safe, efficient implementation of social distancing measures in ways that do not invoke panic. Additional preventive actions that would complement social distancing (such as personal hygiene promotion through various communication channels, including hand-washing and proper cooking, and distribution and use of masks) would also be supported.

96. Vaccination and Drug Therapy. This sub-component would help launch and expand regular seasonal flu vaccination as a vital step to prevent an outbreak among humans, building on the existing immunization system in Tajikistan rather than establishing a parallel system. It would finance the development of a detailed logistical (procurement and distribution) plan for mass vaccination should an AI vaccine become available. In case of an avian influenza pandemic, when a vaccine becomes available, funding would 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 would 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.

97. When a pandemic first strikes, vaccine will likely not be ready for distribution. The therapeutic use of anti-viral drugs would be part of the strategy to contain an avian influenza pandemic and to reduce morbidity and mortality. 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 would 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. Governments and international agencies, such as WHO, are stockpiling anti-viral drugs. Support would be provided for the purchase and distribution of anti-viral drugs in accordance with WHO guidelines to avoid inappropriate use, to limit the development of antiviral resistance and ensure that this limited resource is used effectively. Support would also be provided to monitor patient compliance with treatment regimes and the onset of resistance to anti-viral drugs.
98. Given the current worldwide shortage of the drug and the limited stock available to the countries, priority would be given to population groups most exposed to immediate risk. Taking into account the situation observed today, the project would support the use of the anti-viral drugs for: (i) post-exposure – at an early stage, when isolated cases or small outbreaks are occurring, anti-viral drugs can be given to persons known to have been in close and unprotected contact with suspected or confirmed cases, and workers at risk of occupational exposure; and (ii) treatment – in symptomatic patients suspected of having avian influenza.

99. Medical Services. In coordination with the ongoing interventions financed by donor agencies, equipment, supplies, technical assistance and training would be provided to the health care system for preparedness planning to provide optimal medical care and maintain essential community services. To this end, support would be provided for establishment/renovation of specialized hospital AI referral units in selected four geographical parts of the country. Equipment for these units would include ventilators, monitors, and respirators, and personal protection equipment. Guidelines would 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 would be provided for the development and/or updating of treatment guidelines and hospital infection control guidelines and measures, building antibiotic stocks and other drugs for optimal medical care, mobilization of additional health personnel, training of health personnel, and provision of equipment, drugs, vaccines, and other medical inputs.

IV. Implementation Support and Monitoring and Evaluation Component
[See Appendix 4 for details]

100. This component will include two subcomponents:

- Coordinating the day to day implementation of the project, particularly with regard to procurement and financial management.

- Monitoring and evaluation sub-component would support capacities and activities at all administrative levels, and will develop an action plan for monitoring and evaluation. This action plan will include baseline studies, ongoing participatory monitoring and evaluation, and a final project evaluation. Specific surveys may be conducted to obtain data for this purpose. Project evaluation will include both quantitative and qualitative aspects and be conducted on a yearly basis.
101. Early detection and reporting as well as rapid response depend critically on the incentives for poultry owners to report quickly any sick and dead poultry to their veterinarians. Without adequate compensation arrangements in place, poultry owners have no incentive to do so. The project will, therefore, support the establishment of a compensation fund to facilitate culling and elimination of infected and at-risk poultry. No compensation payments will be made from the fund until satisfactory operating procedures have been finalized. These procedures will include the funds’ management arrangements, eligibility criteria, payment arrangements and the flow of funds. The Compensation Fund will be financed by an IDA grant of $0.8 million exclusively earmarked for HPAI outbreaks. It will be a condition of disbursement for this subcomponent that the modalities for operating the Fund have been established and have been approved by IDA.

102. The information below briefly describes broad contours for the Compensation Fund’s operational procedures. However, a separate Compensation Fund Operational Manual will be elaborated, which will contain detailed legal, institutional and operational information and procedures, including various forms (e.g. Owner’s Culling Certificate, Village Poultry Culling Record, Village Culling Summary Report, Enterprise Poultry Culling Record, etc.), as well as instructions for Operational Controls, Reviews and Audits. These measures are intended to curb possible misappropriation of the compensation funds and to ensure that the grant funds are used for the intended purpose and directed to the intended beneficiaries.

Culling

103. The project will provide the technical and logistical means to contain an HPIA outbreak through location quarantining and culling of the affected animals and those in the surrounding risk area. Culling and carcass disposal will be done under the supervision of the State Veterinary Department (SVD) or of SVD-contracted private veterinarians. Appropriate equipment and materials will be provided for efficient and humane animal culling as well as for the safe disposal of carcasses and contaminated materials. Protective clothing and other gear will be procured and kept in ready supply, to be issued to all staff and workers involved in containing an outbreak. Accurate lists will be kept of all animals culled, so as to provide the basis for subsequent compensation to their owners.

Village and Backyard Poultry Culling

104. For village and backyard poultry operations, the culling will be done in the presence and under the technical and social supervision of a small local ad-hoc committee, the Community Culling Supervision Committee (CCSC). The CCSC will comprise of one official from a rayon administration, the rayon SVD veterinarian and two respected members of the village community (of which one at least should be a woman), and two Non-Governmental Organizations (NGO) representatives. The CCSC will verify the number of birds culled and their owners, so as to ensure a correct count and full transparency for subsequent compensation payments.

105. At the time of culling, each individual poultry owner will receive a culling certificate noting the date and the type and number of his/her birds culled. Each certificate will be signed by all the members of the CCSC and countersigned by the poultry owner. The certificate will be
completed in four copies. One copy will be retained by the poultry owner, one copy will be submitted to the SVD, the third copy will be sent to rayon administration and the last copy will be submitted to PMU. The signed copy will be the basis for payment to farmers. Certificates not signed by all CCSC members and the poultry owner will be declared invalid.

106. Based on the individual poultry owner certificates, the CCSC will then compile a summary record of the culling in the village. Blank pre-numbered **village poultry culling records** will be provided to the rayon administration by the Compensation Fund; the numbers will be stored in the Compensation Fund’s database. The village summary culling record will be the official record that establishes the poultry owner’s right to compensation from the Compensation Fund.

107. The rayon administration will compile a Summary Report on the basis of all village summary poultry culling records, listing all villages and for each village the total number of different poultry culled. Blank pre-numbered **Rayon Summary Report forms** will be provided to the rayon administration by the Compensation Fund; the numbers will be stored in the Compensation Fund’s database.

108. Payments will be done through the money transfers in local currency through Tajik Amanatbank of the rayon (TAB) to the poultry owner upon submission of the individual’s culling certificate. TAB will be the agent bank for PMU to disburse compensation money. TAB has been selected because it has branches in every rayon in the country and has experience of disbursing one-time privatization grants to small households under the World Bank Farm Privatization Support Project. This arrangement was effective in transferring small amounts of money to rural households, and its checks and balances were adequate.

109. TAB Rayon branch will: (i) open an account and deposit the amount received from PMU into the savings books of the designated recipient within seven days from the date of the release of the compensation funds by the PMU; (ii) submit the list of accounts and amounts deposited and dates of deposit to PMU and to the Director of SVD. PMU will provide the Government and IDA with periodic reports on the status of the provision of grants in the reporting format as agreed with IDA.

**Commercial Poultry Culling**

110. At commercial poultry enterprises or large producers, the culling will be done in the presence of the owner, by the CCSC team. All will sign a culling certificate in four copies. One copy will be retained by the poultry producer, one copy will be submitted to the SVD, the third copy will be sent to the rayon administration, and the last copy will be submitted to PMU. In addition, an audit firm acceptable to IDA will be required to monitor the culling and to certify the culling report and culling payments. Compensation amounts will be paid through TAB through wire transfers. The certificates will be pre-numbered.

**Compensation Formula**

111. For smallholders (owning up to 200 birds), payment per bird will be at 75% of the market price of laying hens as reported by the competent rayon authority during the preceding the month in which culling took place or (ii) 75% of the average price during the previous year, adjusted for inflation. For poultry owners/producers with more than 200 birds, compensation will be based on a reasonable replacement cost – i.e., for birds less than 3 months old at the cost of one-day
chicks, and for birds older than 3 months at the cost of 3-months-old birds, as reported by the competent rayon authority during the preceding month in which the culling took place.

Role of Tajik Amanathbank (TAB)

112. TAB will function as an agent bank for PMU under an agency agreement. Thus, will not take the foreign exchange risks, which will be borne by Government. The main functions of TAB as an agent bank will be to disburse the compensation amount to the farmers. This would consist of: (i) opening a savings account in the rayon branch closest and convenient to the household/farm family receiving the grant; (ii) transferring the compensation amount to the eligible individuals within 7 (seven) calendar days upon notification by the PMU; and making available to the farm family household as and when demanded; (iii) providing a list of the recipient of the compensation along with the account number to the Project Management Unit as stipulated in the agency agreement; and (iv) maintaining proper accounts, and separate from its own accounts, which would be subject to audit at least once a year by an auditor acceptable to IDA. TAB shall receive a consolidated fee from the PMU not exceeding 2% of the disbursed amounts from project funds by the PMU. This fee structure will be subject to review by PMU at the end of the first year and revised, as needed, in consultation with IDA. Signing an agency agreement between the PMU and TAB shall be disbursement condition the Compensation Fund.

Forms and Database

All forms will be provided by the Compensation Fund. They will be printed in booklets and will be pre-numbered. The Fund will maintain a database containing, inter alia, the numbers of all forms provided to each CCSC. All unused forms, as well as any invalid or incorrectly completed forms, must be returned to the Compensation Fund when the culling records are submitted.

The Compensation Fund will establish and maintain a database to facilitate record keeping, monitoring and auditing. This database will include all communities. It will also include all commercial poultry enterprises or large producers. As mandatory culling orders are issued, the affected communities will be tagged accordingly. Once culling reports are received from CCSC, the information from the Rayon Summary Reports and the attached VCCSC Summary Culling Lists will be entered into the database. The database will also contain a record of all pre-numbered forms provided to CCSC, so as to allow subsequent cross-checking of forms submitted or returned.

Dispute Resolution

113. In case of disputes concerning the amount of grant, eligibility criteria, procedures, or any other concerns, the households/farm families shall have the right to appeal to the PMU, who shall make a final decision within seven calendar days from the date of appeal to the PMU, and convey the further step that would be adopted for the resolution of the dispute.
APPENDIX 3c: Economic and Financial Analysis

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

Project Benefits

114. 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 had been destroyed, and losses to the poultry industry world-wide are estimated to be in the 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 has the potential for massive impact on human and animal health as well as an extensive socio-economic impact, especially on the poorest.

115. The analysis considers virus transmission among animals only. Although more than half of the registered 120 human cases globally so far have been fatal, at present HPAI is mainly an animal health problem. Therefore, and due to the difficulties in making justifiable assumptions and quantification, the analysis doesn’t examine economic consequences of human-to-human transmission.

116. In addition to human and animal health concerns, significant socio-economic damage could be caused to the country by an AI epidemic. 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. Based on statistical data, the estimated value-added by the poultry sector in 2004 was around TJS 19 million, or about 0.8% of the agricultural GDP (TJS 2,260 million real AgGDP in 2004). Domestic production was estimated at around 2 thousand tons of meat and 77.7 million of eggs. Poultry imports were valued at around US$ 15 million in 2004 and comprised 5.8 thousand tons of meat and 63.3 million of eggs.

117. Another way to assess the cost of an AI epidemic is to estimate the direct loss in poultry capital. At present, there are about 2.3 million birds reported in Tajikistan. If the whole poultry stock is culled, with an average farm gate price of a bird before AI of TJS 6, the gross value of poultry lost during the crisis would come to some TJS 14 million. Taking no further actions would result in the loss of a large share of the indigenous poultry stock in Tajikistan.

118. Today in Tajikistan about 70% of poultry are owned by households. Therefore, the majority of poultry production in Tajikistan derives from smallholder production and represents, in particular for the poorer rural households, a significant income source and source of protein. Given that the majority of poultry is raised in backyard farming, loses per poor household are estimated at US$60-80 through abandoning poultry meat and egg production. The loss of this food and income source can therefore be considered substantial.

119. The poor would also suffer as a result of absence of poultry meat and eggs in the market followed by an increase in the price of substitute products during this period. Although, there is a high probability that red meat production would be advanced, and that 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; the ability of the poorest share of population to diversify through 
other substitute products is extremely limited.

120. In the event of a larger outbreak, culling would comprise a significant expenditure to 
the Government 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 respond 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.

Indirect costs

121. 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.

122. The loss of tax revenues through the almost complete standstill of poultry products 
imported into the country amounts to around US$ 3 million with a potential impact on 
financing of public services.

Economic Analysis of the Project

123. In response to these concerns, Tajikistan has prepared a National Action Plan, to be 
supported by the project. The project will have a three-tiered approach: (i) public awareness 
and information, (ii) animal health, (iii) human health, and (iv) implementation support and 
monitoring and evaluation. The objective of this analysis is the estimation of the economic 
benefits from the implementation of the proposed activities relative to the estimated cost of the 
project (cost-benefit analysis). The standard practice of comparing the incremental stream of 
et benefits ‘with project’ to a ‘without project’ scenario was applied. The incremental benefits 
and costs of the project 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, and loss of capital in the poultry sector. In the with project scenario a 30% 
reduction in the likelihood of a larger outbreak was assumed. 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 assumed not to have a 
significant impact on the project returns. GDP values and statistical data for 2004 were used. 
An exchange rate of TJS 2.97/USD was applied for currency conversion (average for 2004). 
The following table summarizes base case assumptions on the key parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual probability of catastrophic event in first year of w/ou project scenario (2006)</td>
<td>15%</td>
</tr>
<tr>
<td>Annual increase in probability of catastrophic event occurring</td>
<td>1%</td>
</tr>
<tr>
<td>Probability reduction factor due to the project</td>
<td>30%</td>
</tr>
<tr>
<td>Decrease of poultry sector added value due to catastrophic event in year of catastrophic event / in long term new market equilibrium</td>
<td>60%/40%</td>
</tr>
<tr>
<td>One time loss of capital in the poultry sector</td>
<td>40%</td>
</tr>
<tr>
<td>Increase in value added of red meat and fish sectors, in year of catastrophic event and in long term new market equilibrium</td>
<td>10%, 5%</td>
</tr>
</tbody>
</table>
124. **Without Project.** The main costs to the economy of multiple, simultaneous outbreaks that cannot be controlled properly due to insufficient public and private sector capacity is defined as the net cost incurred from a 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, in particular the red meat sub-sector.

(i) It is assumed that in the year of the catastrophic event, the impact on the poultry sector is a 60% decrease in the value added of meat and egg production. This assumption is based on the observations in other countries with regard to price and demand reductions after outbreaks. In the subsequent three years, the value added in the poultry sector is assumed to regain 60% of the pre-catastrophic event level. 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 in other countries to the potential threat of an outbreak.

(ii) Gains to the red meat sub-sector which 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 catastrophic event occurs, gradually decreasing to 5% over the following 3 years.

125. The Government and the private sector would also incur incremental costs associated with the administration of monitoring and containing outbreaks. However, these costs are difficult to estimate and are therefore not included in the analysis. As mentioned previously, there is a significant loss of consumer incomes resulting from the perceived risk associated with poultry product consumption. Lack of data makes it problematical to quantify this loss. However, as discussed above the impact on the poorer segment of the population can be assumed to be even higher.

126. The stream of total costs due to a catastrophic event is calculated in the form of present value. This value is then multiplied with the probability of the catastrophic event occurring in a particular year to arrive at the expected loss in that year. In the without project scenario, the probability of the catastrophic event occurring is assumed to be 15% in year 1, increasing annually at a rate of 1.0% due to increasing presence of the virus in the environment. This process results in an increase in the expected costs for the analyzed period of 15 years, as presented in the table below.

<table>
<thead>
<tr>
<th>Cost Stream without and with the Project (in million US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td>Costs due to catastrophic event (in Net Present Value terms):</td>
</tr>
<tr>
<td>- Costs w/out project scenario</td>
</tr>
<tr>
<td>- Costs w/ project scenario</td>
</tr>
<tr>
<td>Probability of catastrophic event occurring:</td>
</tr>
<tr>
<td>- (%) in the w/out project</td>
</tr>
</tbody>
</table>
127. With Project. It was presumed that the impact of the project would be fully observed in year 4 after project start. Therefore, the probability of the full impact of a catastrophic event is assumed to be the same as under the without project scenario for the first three project years. From year 4, the likelihood of a catastrophic outbreak is assumed to reduce by 30%. The stream of expected costs is also calculated by multiplying the above Net Present Value with these probabilities and presented in the table above. The total project costs are estimated at US$ 5 million disbursed over three years.

Results of the Analysis

128. Based on the above assumptions, the analysis derives at an Net Present Value of US$ 3.1 million and an internal rate of return of 21.3%.

Sensitivity Analysis

129. A sensitivity analysis was carried out to analyze the impact of varying assumptions on the results of internal rate of return of the project:

- Holding all other values constant, assuming a reduction of capital loss in the poultry sector of 20% (as opposed to the base case 40%) – results in an Internal Rate of Return of 6%.
- Holding all other values constant, assuming a value added loss in the poultry sector to 50% in the catastrophic event year and 20% in the long term (as opposed to the base values) results in an Internal Rate of Return of 1%.
APPENDIX 4: Project Coordination and Implementation Arrangements

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

130. The Project will be implemented by line agencies of the governmental institutions and primarily by the Ministry of Agriculture – State Veterinary Department; Ministry of Health; Ministry of Emergency Situations and Civil Defense and Academy of Science, Academy of Agricultural Science. However, other governmental agencies and non-governmental organizations and service providers (e.g., the Rural Advisory Service, private veterinarians, NGOs both national and international, community-based organizations, etc.) will all be involved in a variety of functions.

131. **Project management:** The project management is designed as a three-tier administrative system: (i) National level Steering Committee at the highest level; (ii) Project Management Unit (PMU) for day to day functions of Project Coordination; and (iii) Focal Points and their teams in line agencies, who are directly responsible for day to day Project Implementation. These project management arrangements will be contained in a Project Operational Manual satisfactory to IDA, whose preparation is a Condition of Effectiveness.

132. **National Steering Committee.** Given the national importance and cross-sectoral nature of this Avian Influenza Control and Human Pandemic Preparedness and Response Project, overall responsibility for overseeing and coordinating institutional and implementation arrangements at the national level will be vested with a National Steering Committee (NSC) chaired by a Deputy Prime Minister. Other members of the NSC will include representatives from MOH, MOA, Veterinary Department, MOESCD, Academy of Sciences, Academy of Agricultural Sciences, MOF, Aid Coordination Unit, Ministry of Education, and Ministry of Communications and other agencies as deemed necessary. NSC will be responsible for ensuring coordination and linkages across relevant Ministries and Agencies and for guiding and monitoring the implementation of the project at the national level. NSC would also be responsible for reviewing and approving the work program and budget, initially biannually during the first year of the project and subsequently annually in order to ensure overall successful project implementation.

133. **Project Management Unit (PMU).** The PMU will be responsible for: (i) overall coordination of project implementation which is carried out by the line agencies; (ii) procurement, disbursement, accounts, audit, monitoring and evaluation, and reporting; (iii) acting as a secretariat to the NSC, including convening the meetings and following up on the decisions made; (iv) interacting regularly with the Donor community working in Tajikistan; (v) organizing national awareness seminars and national press briefs for updates on the avian influenza; (vi) submitting quarterly financial monitoring reports and progress reports on project implementation status to the Government, Aid Coordination Unit, and IDA; (vii) consolidating the annual Work Programs (WPs) and budgets for submission to the implementing agencies, and IDA.

134. The project will use the existing PMU currently responsible for the implementation of the Rural Infrastructure Rehabilitation and Community Agriculture and Watershed Management Projects. The key advantage offered by this choice is the fact that the staff is already familiar with managing a World Bank funded project, which would allow for a quick start to project implementation.

135. The PMU already has a Director, a Procurement Specialist, a Financial Management Specialist, and support staff (secretaries, drivers, etc.). A Communication Specialist will be
added to the team. Given the demands imposed by the emergency nature of the operation (with front-loaded procurement and disbursement), as well as the presence of a compensation fund, this PMU staff strength will be augmented with a limited-term procurement consultant for the initial months of project implementation. An Assistant to the Chief Accountant and a Compensation Fund Administrator will also be recruited and both shall stay on the team for the entire duration of project implementation.

136. **Project Teams for Day-to-Day Project Implementation.** Day-to-day implementation will be carried out by various Government Agencies. Each Agency will have a focal point who will lead the team responsible for all project activities implemented by that agency. A high ranking person of the rank not lower that a Head of Department would lead the teams. This focal point will assist the PMU director in coordinating the respective agencies component or sub-component. The person will coordinate and oversee the implementation of project component activities within the respective agency as well as its subordinate/associated institutions up to the grassroots level. The person will also be responsible for coordinating with other relevant government agencies and departments so as to ensure effective inter-agency collaboration. The person will be responsible for the preparation of Annual Work Programs and Budgets for the respective agency, as well as for providing inputs to the quarterly and annual progress reports and financial monitoring reports to the PMU. The person will be assisted by staff and, as necessary, consultants who will support the planning and implementation of activities as well as M&E of project activities.

137. At the oblast, rayon and Jamoat levels, (Municipalities, Micro-rayon and Mohalla level in Urban areas) implementation will be the direct responsibility of the respective oblast and rayon agencies. Small inter-agency coordination units will have to be managed by the general Oblast and Rayon level Hukumats as established by the Normal Administrative mechanism in effect, and is closely monitored by the respective focal persons through their respective Oblast and Rayon technical arms who work under the supervision and guidance of the Local Government.

*Implementation Arrangements by Component*

138. **The Public Awareness and Information Component** cuts across multiple agencies, with some aspects of it falling under MOH, other aspects under the State Veterinary Department, with yet other aspects (e.g. policy advocacy and support to the government for crisis communication management) not falling under any one particular agency. In order to avoid overlaps and ensure a cohesive communication strategy, this component will be overseen by a Communication Specialist in the Project Implementation Unit who will be responsible for its overall coordination as well as for crisis communication.

139. **The Animal Health Component** will be implemented by: (i) the State Veterinary Department which will be responsible for planning and coordination of the animal aspects of the AI response, as well as for poultry surveillance and outbreak containment; (ii) the Institute of Zoology and Parasitology with be responsible for wild bird surveillance; and (iii) the Foot and Mouth Disease Institute will be responsible for conducting laboratory diagnostics.

140. **The Human Health Component** will be implemented by: (i) MOH’s Sanitary and Epidemiological Surveillance Department for matters related to planning and coordination, field surveillance, and laboratory diagnostics; and (ii) MOH’s Medical Services Department which will also participate in planning and coordination, in addition to being responsible for treatment response.
141. In case of declared influenza pandemic, MOESCD would, by law, take charge for coordinating all emergency response activities. Consequently, MOESCD will closely work with other agencies participating in the project to ensure an effective response in case of an emergency.

Role of Specialized International Organizations

142. First, this is an Emergency project that will be implemented at a rapid pace in order to pre-empt the AI threat that has already been cited in neighboring countries. Second, the project is dealing with a threat that is new to the country, where there is limited past experience on how to deal with it. Third, the multiple agencies involved in the project have limited planning and implementation capacity. Consequently, the project will work very closely with technical agencies that have a well-established experience in dealing with similar disease outbreaks elsewhere. In particular, within the UN family, UNICEF has the global mandate for Public Awareness/Communication regarding AI, as does WHO regarding the human health dimensions of AI, and FAO regarding animal health dimensions. As noted earlier, these three agencies are already assisting Government in refining its Preparedness Plan.

143. It is anticipated that these technical agencies will continue to offer this support during project implementation. Specifically, it is envisaged that UNICEF will enter into contract with the Government to manage the Communication Component. UNICEF has successfully implemented similar communication programs in Tajikistan and, on the issue of AI, has shown readiness to help the Government design and implement a communication program addressed to specific target audiences (veterinarians, farmers, health workers, decision-makers, etc.) as well as to the public at large. Similarly it is expected that WHO will enter into contract with the Government to manage the Technical Assistance aspects of the Human Health component.

144. The capacity of the two UN agencies to provide this kind of assistance has been assessed and found satisfactory. Moreover, these two agencies will co-finance the Public Awareness and Information Component (UNICEF) and the Human Health Component (WHO), largely through absorbing the overhead costs associated with managing these activities, but also financing some surveys and some of the capacity building activities. The agency for assisting in the implementation of the Animal Health component will be identified during the project implementation.

Inter-Agency Coordination Framework

145. In order to foster collaboration among the various agencies, there shall be an Inter-Agency Working Group consisting of all the focal personal at each implementing agency, as well as representatives of the International Technical Agencies, and the Director of the PMU. The purpose of such a forum is to create an opportunity for information sharing to ensure synergy among the various components. This Inter-Agency Working Group will meet at least once a month, or at such other greater frequency, particularly in the early months of the project, in order to ensure effective collaboration. It will be chaired by the PMU Director.
Figure 1. Organigram for the Project Implementation

National Steering Committee (NLSC)
Chair: Deputy Prime Minister
Members: MOH, MOA, MOESCD, MOF, etc.

PMU

MOH

SES
Diagnostics
Surveillance

Hospitals
Treatment

Communication TA

MOA

Agricult.
Academy

Academy

Dept of Vet
Services
Surveillance

FMD
Institute
Diagnosti
cs

Institute of
Zoology
Research

Animal
Health TA

Human
Health TA

OBLAST LEVEL

RAYON LEVEL

OBLAST LEVEL

RAYON LEVEL
APPENDIX 5: Projects Costs and Financing

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

<table>
<thead>
<tr>
<th>US$ million*</th>
<th>IDA</th>
<th>WHO</th>
<th>UNICEF</th>
<th>AHIF**</th>
<th>Project total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Preparation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component 1 – Public Awareness and Information</td>
<td>1.0</td>
<td>0.2</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component 2 – Animal Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Coordination, Surveillance, Diagnostics</td>
<td>1.6</td>
<td>0.6</td>
<td>2.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Compensation Fund</td>
<td>0.3</td>
<td>0.5</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component 3 – Human Health</td>
<td>1.8</td>
<td>0.1</td>
<td>0.4</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Component 4 – Implementation</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Support and Monitoring Evaluation Contingency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project total:</td>
<td>5.0</td>
<td>0.1</td>
<td>0.2</td>
<td>1.5</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Total Financing Required

* Allocations for the Emergency Imports component of the Project are included in the allocations for the other four components.
** Funds from the Avian and Human Influenza Facility (AHIF) are expected, but have not yet been approved.

Currently, there are firm commitments US$ 5.3 million pending approval by the respective agencies, namely IDA for US$5.0 million, UNICEF for $0.2 million, and WHO for $0.1 million. However, the project needs at least US$6.8 million for effective surveillance and readiness in case of an AI outbreak. This financing gap is expected to be covered from the AHIF to the tune of $1.5 million when this trust becomes operational, which is expected to happen by the end of June 2006. An application is being prepared to that effect.
APPENDIX 6: Procurement Arrangements

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

Introduction

147. 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, and “Guidelines: Selection and Employment of Consultants by World Bank Borrowers” dated May 2004, and with the provisions stipulated in the Financing Agreement. Agreements covering procurement methods, thresholds, and other conditionality will be consistent with the OP 8.50-Emergency Recovery Assistance and determined for the Republic of Tajikistan according to its capacity and experience with Bank procurement.

148. The activities covered under the Project will be implemented on the basis of annual work plans to allow for needed flexibility in adjusting activities to account for in-country experience and the lessons from implementation by other countries participating in the multi-country GPAI. Accordingly, the following approach to procurement will be adopted.

149. Implementing Agency Assessment. All procurement under the project will be carried out by the Project Implementation Unit that currently manages the Rural Infrastructure Rehabilitation and Community Agriculture and Watershed Management Projects. Procurement staff in the PMU is experienced with procurement following World Bank guidelines, including with all the procurement methods to be included under the Project. Procurement under the ongoing the RIRP and CAWDP has worked well. The same qualified staff will be responsible for procurement under this Project. However, given the country conditions, the Project has been classified in category “C”, signifying high risk (where A is low risk, B is medium risk, and C is high risk). The annual procurement plan will define thresholds for prior review appropriate to the category; these thresholds will be determined so as to minimize prior review as appropriate to the level of risk.

150. Risk Assessment

The project may face the following potential risks during implementation:

(i) There is lack of transparency in conducting the procurement in accordance with the current procurement regulations which creates possibilities for corruption, collusion and fraud;

(ii) Government officials, who would be involved in project procurement through Tender Committees may not be familiar with procurement procedures;

(iii) Suppliers and contractors, and goods and works required for the project in the current country conditions, especially in remote region may not be available. As a result, there may be inadequate competition resulting in higher prices for goods, works and services.

(iv) High government officials may interfere with the procurement process.
151. **Recommendations**

Action Plan to strengthen the PMU capacity: Based on the analysis made, the following actions are recommended:

- To provide higher transparency of the project implementation it would be recommended to create the project website or use the official website of the MOA to publish the project implementation data – advertisements, funding proposals, contract awards, the progress reports from the implementing entities there or in another publicly accessible website. All the consulting contracts costing above US$100,000, ICB and NCB contracts for goods and works shall be published in the UNDB and DgMarket also in accordance with the Bank Guidelines.

- Procurement Consultant shall be hired to help the GKS to implement the procurement under the Bank’s Guidelines, particularly at the beginning of the project.

- The Bank should organize a one day project launch workshop, including a detailed explanation of the procurement requirements, for the staff of the MOA, MOH and MOC, who shall coordinate the appropriate components.

- The PMU should prepare an inventory of suppliers of the required goods, construction contractors and consultants (firms and individuals, as well as an inventory of the available goods in the remote regions). This will help to determine the suppliers and expedite procurement.

- The Bank staff will review the efficiency of procurement arrangements under the project after six months from the date of the grant effectiveness.

152. **Procurement Plan.** A procurement plan covering the initial twelve-month period of project implementation has been prepared. The updated procurement plan for each subsequent year will be submitted to the Bank for approval before the end of the previous year and will use a pre-defined standard format which will, as a minimum, list: (i) goods and services to be procured during the following calendar year, (ii) their value; (iii) the method of procurement; and (iv) the timetable for carrying out the procurement. At the time of approving the annual work program, IDA will agree on the consistency with the application of the Bank procurement guidelines to the specific procurement lots expected during the year and their methods of procurement. If needed, the plan will be revised and re-submitted.

153. **Procurement Methods and Thresholds.** The Financing Agreement defines the appropriate methods for International Competitive Bidding (ICB), National Competitive Bidding (NCB), Limited International Bidding (LIB), or Shopping in accordance with the OP 8.50-Emergency Recovery Assessment guidelines. Thresholds for project procurement methods and prior review requirements have been indicated below on the basis of the Bank’s assessment of the capacity of the PMU which will be responsible for procurement, the estimated risks of corruption in the country, and the country’s capacity of construction and manufacturing industries.
<table>
<thead>
<tr>
<th>Procurement Method</th>
<th>Threshold</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICB: Goods</td>
<td>&gt;US$100,000</td>
<td></td>
</tr>
<tr>
<td>Shopping: Goods</td>
<td>&lt;US$100,000</td>
<td></td>
</tr>
<tr>
<td>LIB: Goods</td>
<td></td>
<td>For specialized items, in agreement with the Bank</td>
</tr>
<tr>
<td>Direct Contracting</td>
<td></td>
<td>Goods and works which meet the requirements of the Procurement Guidelines and to be agreed with the Bank before starting the procurement process.</td>
</tr>
<tr>
<td>ICB: Works</td>
<td>&gt;US$1,000,000</td>
<td></td>
</tr>
<tr>
<td>Shopping (Works)</td>
<td>&lt;US$100,000</td>
<td></td>
</tr>
<tr>
<td>Quality and Cost Based Selection (QCBS) for Consultant Services</td>
<td>&gt;US$100,000</td>
<td></td>
</tr>
<tr>
<td>Selection Based on Consultants’ Qualifications</td>
<td>&lt;US$100,000</td>
<td></td>
</tr>
<tr>
<td>Individual Consultants</td>
<td></td>
<td>Services for assignments that meet the requirements set forth in the first sentence of para. 5.1 of the Consultant Guidelines.</td>
</tr>
<tr>
<td>Single-Source Selection</td>
<td></td>
<td>Services for tasks in circumstances which meet the requirements of para. 3.10 of the Consultant Guidelines, with the Bank’s prior agreement.</td>
</tr>
</tbody>
</table>

154. **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. One in five contracts will be post reviewed.

155. **Advertisement.** The General Procurement Notice (GPN) shall be published in the on-line edition of Development Business in August 2006. Special Procurement Notices (SPN) for all ICB goods contracts and Requests for Expression of Interest for consulting assignments with firms exceeding the value of US$100,000 equivalent shall be published in the Public Procurement Bulletin, a local newspaper of wide circulation, and the on-line edition of the UNDB, and the Market. All publications of advertisement and contacts including results of awards will be monitored per the Bank Procurement Guidelines.

156. The PMU will follow the Bank’s anti-corruption measures and will not engage services of firms and individuals debarred by the Bank. The listing of debarred firms and individuals is located at: [http://www.worldbank.org/html/opr/procure/debarr.html](http://www.worldbank.org/html/opr/procure/debarr.html)

157. **UN Agencies as Procurement Agents.** For several years, 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 will be part of the Project’s procurement arrangements. In accordance with the Procurement Guidelines Section 3.9, the Project will include the 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), following their own procedures of procurement. In addition, it is foreseen under the Project to use the UNDP as
procurement agent. The use of UN Agencies as agents will have to meet the requirements of Sections 3.10 and 3.15 of the Procurement Guidelines. The procurement agents will follow the Bank’s Procurement Guidelines under the standard agreement between the Bank and the respective agency.

158. **Procurement under Emergency Assistance Provisions.** Following Emergency Recovery Assistance procedures, the Project is likely to include financing for items included on a positive list of imports identified as necessary under a well-defined preparedness and response program to be prepared as part of project implementation. In case of a declared global influenza pandemic, which will trigger disbursement conditions for critical imports, support will be provided under the Project for the procurement of a positive list of critical imports. These may be procured under Modified International Competitive Bidding (MICB), according to paragraphs 2.66 and 2.67 of the Procurement Guidelines. Also, commonly traded commodities may be procured through organized international commodity markets or other channels of competitive procurement acceptable to the Bank.

159. The positive list of critical inputs to be prepared by the Government of Tajikistan or to be purchased by the Borrower from the private sector, based on historical imports during national emergencies, will include:

- Pharmaceuticals and vaccines
- Medical and veterinary supplies and equipment
- Communication equipment, supplies, and public awareness campaigns
- Food and water containers
- Protective clothing and gear

160. Disbursements for items procured under emergency assistance provisions can be made for up to 100 percent of import costs. No more than 20 percent of the Grant proceeds may be used for retroactive financing of expenditures, and the payments must have been made after the appraisal mission.

161. **Procurement Audits.** The Bank shall conduct biannual supervision mission of the project and conduct the regular post review of the appropriate contracts concluded by that time. Because the Project has a strong element of decentralized implementation, and to help IDA carry out post-reviews of procurement actions, consultants will be contracted (as a cost to the Project) to carry out annual procurement audits of a sample of contracts, under Terms of Reference acceptable to the Bank.
APPENDIX 7: Financial Management and Disbursement Arrangements

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

B. FINANCIAL MANAGEMENT ARRANGEMENTS

Executive Summary

162. On May 27 2006, financial management arrangements for the proposed AI Project were assessed to determine whether the financial management capacity of the implementing agency, PMU for RIRP and CAWMP, are acceptable to the Bank. The assessment also evaluated PMU financial management system (FMS) in terms of its readiness for the implementation of the proposed project.

Conclusion.

163. Taking into consideration the assessment of the financial management systems and processes and the assessment of risks and mitigating measures, the financial management arrangements for the proposed AI Project are capable of satisfactorily recording all transactions and balances, supporting the preparation of regular and reliable financial statements, safeguarding the Project assets, and are subject to auditing arrangements acceptable to the Bank. Systems and procedures to be established for compensation fund, as broadly outlined in Appendix 3b, will be reviewed when ready and will be subject to a disbursement condition.

Country Issues

164. Country Financial Accountability Assessment (CFAA) for Tajikistan was completed in 2003. The conclusion of the CFAA is that there is a high risk to public funds due to extremely weak public sector financial management including budgeting, accounting and auditing. CFAA notes that the system of public accountability functions poorly and there is a lack of transparency at all levels of government. While legislative reforms have been introduced in the Treasury, budget processes and control agencies are undermined due to human and technological capacity constraints. Some of the main risks include fragmented budgets, poor cash management and execution control, lack of transparency in the operations of State Owned Enterprises and inadequate checks and balances in the Executive and Legislature. These risks affect the overall quality and credibility of governance in Tajikistan.

A summary of the risk ratings is as follows:

<table>
<thead>
<tr>
<th>Financial Management Assessment</th>
<th>Risk Rating</th>
<th>Risk mitigation measures incorporated into Project Design</th>
<th>Conditions of Negotiations, Board or Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inherent Risk</td>
<td>S</td>
<td>There is a high risk to public funds due to extremely weak public sector financial management and perceived corruption (CFAA 2004)</td>
<td>N</td>
</tr>
<tr>
<td>Country level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entity</td>
<td>S</td>
<td>PMU under MOA is a Government entity, PMU has valuable experience in managing</td>
<td>N</td>
</tr>
<tr>
<td>Level</td>
<td>Bank financed Projects. Weaknesses mentioned in CFAA are relevant to all Government agencies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Level</td>
<td>S Project is small, but there is a high risk with Compensation fund. Additional internal controls applicable to CF will reduce the risk.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Risk</td>
<td>Budgeting M Budgeting for existing WB project and annual State budget preparation experiences help to manage budgeting process efficiently.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accounting M Upgrading of existing IC software is required to cope with AI project needs.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal Controls S Updating of existing PIP is required, additional measures to manage CF is critical for project success.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Funds Flow M Special Account with a commercial Bank acceptable to Bank, MOF representative or PMU Director will sign Withdrawal Applications.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Reporting M Financial reporting is maintained using Excel spreadsheets, acceptable quarterly financial reports are sent to Bank</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auditing M Audit is part of Block audit organized by Aid Coordination Unit.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>S Overall financial management risk is Substantial, due to project specific issues like Compensation Fund management and high level perceived corruption in TJ. The project risks will be monitored by FMS regularly.</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

165. The PMU will be responsible for coordination and for financial management under the Project. It will be responsible for ensuring that the Project establishes and maintains: (i) adequate accounting systems and procedures; (ii) flow-of-funds mechanisms facilitating timely disbursement of funds and timely payments for goods, works and services; (iii) regular reporting on the use of funds; and (iv) appropriate arrangements for regular financial audits. These responsibilities will be described in detail in a manual of financial procedures and summarized in the Financing Agreement. The PMU has experience with financial management under Bank-financed projects and has established sound internal control mechanisms on the application and use of funds. However, additional internal control procedures for the operation of the Compensation Fund, consistent will the internal control procedures will be developed to respond to the specific risks associated with the flow-of-funds mechanism envisaged under the project.

**Strengths and Weaknesses.**

166. PMU experience in the implementation of the existing projects and a good accounting system supported by well maintained accounting software are major strengths of the implementing agency. The closure of the existing RIR Project, Development of Project Operational Manual, including procedures for Compensation Fund, controlling Compensation...
Fund effectively and the coordination of different line ministries and agencies involved in implementation are main challenges that need to be managed by PMU.

167. **Financial Management Action Plan.** Financial management arrangements of the PMU are generally adequate, but a number of actions are required to ensure that arrangements are fully satisfactory for the project, with its specific financial management needs, especially with respect to the Compensation Fund. 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.

<table>
<thead>
<tr>
<th>Significant Weaknesses</th>
<th>Action</th>
<th>Responsibility</th>
<th>Completion Date/remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems and procedures for Compensation Fund are yet to be established</td>
<td>Implementation of appropriate internal control procedures and fund flow arrangements for the Compensation Fund and its documentation in the operational manual</td>
<td>PMU</td>
<td>Disbursement Condition for the Compensation Fund sub-component The Compensation Fund sub-component will be disbursed after the PMU has implemented appropriate and satisfactory to IDA internal control and fund flow procedures.</td>
</tr>
<tr>
<td>Staffing of the Financial Management Team</td>
<td>Recruitment of short term local FM consultant for the period up to one year.</td>
<td>PMU</td>
<td>To be ready before project implementation</td>
</tr>
<tr>
<td>Existing PIP does not meet current requirements to Project Operational Manual.</td>
<td><strong>Financial Management Procedures Manual.</strong> Develop a manual to fully document the procedures for accounting and internal control, including disbursement and flow of funds (including flow chart), financial reporting, including IFR, annual reports and audit. This is only an action for capacity building and not a Financial Management condition.</td>
<td>PMU</td>
<td>To be ready before project implementation. A PIP already exists and will require significant updates to reflect the characteristics of the project, including flow of funds and accountability for cash grants/compensation fund.</td>
</tr>
<tr>
<td>Existing IC accounting software needs to be upgraded to cope with AI needs</td>
<td><strong>Project Accounting and Financial Reporting System.</strong> Upgrade existing accounting software, to reflect requirements of the new project, including capacity to generate IFRs without manual summarization in Excel; test the accounting and reporting</td>
<td>PMU</td>
<td>To be ready before project implementation. Sample reports, based on activities under the RIRP, will be reviewed by</td>
</tr>
</tbody>
</table>
system by producing sample IFRs for submission to the Bank for review and comments. This is only an action for capacity building and not a Financial Management condition.

Budgeting

168. Annual budgeting process will be coordinated by Chief Accountant. He/She will need to liaise with all project component coordinators in respective line ministries/agencies and collect initial budget proposals for the planning period. The Chief Accountant will then consolidate project expenditure categories by components after discussions with appropriate line ministries and agencies. The consolidated budget, after its approval by the NSC, will then be agreed with the Bank before the start of the financial year of the PMU. The format and content of the annual budget reports will be agreed with the Bank.

Accounting system

169. Accounts and records for the project will be maintained by PMU which will operate and maintain a financial management system (FMS) capable of generating Interim Un-audited Financial Reports (IFR, formerly “financial monitoring reports”) in accordance with formats to be agreed with the World Bank. The Chief Accountant will be responsible for overall project financial management, maintenance of books and accounts for the project, preparation and dissemination of financial statements and IFR, and timely audits of the project. The Chief Accountant will be supported by a local consultant for up to one year from project effectiveness to manage workload during existing RIR project closure and AI project initial phase when activities for prevention and preparation for outbreak undertaken. Funds will be transferred from the Designated accounts to pay for eligible expenditures in accordance with instructions contained in the Disbursement letter to be issued upon loan approval. The PMU will also maintain appropriate financial records and reports in accordance with existing government financial regulations and project specific procedures established in the Project Implementation Plan.

Accounting policies and Procedures

170. Existing PIP is based on old Bank policies and procedures and needs to be updated significantly to take into account current local and Bank policies and Procedures. Therefore, Project Operational Manual which will describe procedures on internal controls, Government Accounting Policies and Procedures, budgeting and Budgetary control, Disbursement Procedures, Travel Procedures, accounting system Payroll, Fixed Assets, Financial Reporting, Internal Audit, External Audit will be developed and agreed with the Bank instead of updating current PIP. The completion of development of the Project Operational Manual is expected before actual start of the implementation and it is capacity building activity rather than FM condition.

Information system

171. 1C accounting software that was installed to record and report existing project activities has been well maintained and used for recording and reporting project financial activities. Upgrading of Computerized accounting software is required in order to cope with proposed AI project needs.
172. **Staffing.** The Project will be implemented by the existing PMU RIRP and CAWMP. This PMU also has a qualified financial management specialists for both projects under implementation. Experienced finance team of the RIR project consisted of Chief Accountant and cashier will be responsible for financial management arrangements of the proposed AI project. However, due to the emergency nature of the new project, with front-loaded procurement and the attendant financial management requirements, the finance team could be overwhelmed in the initial months of project implementation. Additionally, it is expected that existing RIR project will be closed during the period when AI project will have its active phase of implementation. Consequently, an local financial management consultant will be hired for up to one year to support the FM team of the AI Project. His/her recruitment is a condition of effectiveness. In addition, a compensation fund administrator will also be hired to conduct periodic visits to the village level to review the implementation of the Compensation Fund and would report to the Chief Accountant. Similarly, his/her condition is a condition of effectiveness.

173. **Financial Reporting.** For project monitoring purposes, quarterly interim un-audited financial reports (IFRs) (previously called financial monitoring reports) will be required. The PMU will be responsible for designing appropriate IFRs to include: (a) Project Sources and Uses of Funds, (b) Uses of Funds by Project Activity, (c) Special Account/Local Bank 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 IFRs will be submitted after the end of the first full quarter following the initial disbursement. Formats of the annual financial statements and the IFRs will be incorporated in the Project Operational Manual. The accounting software currently used by the PMU will need to be upgraded to have the capacity to prepare IFRs incorporating all components, sub-components and expenditure categories, as may be appropriate.

174. **Disbursement and Funds Flow Arrangements.** The Recipient will establish a Designated Account with a ceiling of US$ 350,000 in a commercial bank, acceptable to IDA. Disbursements from the IDA Grant will follow the transaction-based method, i.e., traditional Bank procedures: Statements of Expenditure (SOEs), Direct Payments, Special Commitments. For certain payments, above the minimum application size of US$50,000 equivalent as specified in the Disbursement Letter, the PMU will submit withdrawal applications to the IDA for payments to suppliers and consultants directly from the Grant Account. The PMU Chief Accountant will ensure completeness and accuracy of all withdrawal applications and will append her/his signature as part of the internal control procedures additionally to MOF representative or PMU Director’s signature. Procedures for the withdrawal of grant funds are described in the Disbursement Letter; all supporting documentation evidencing project expenditure will be retained by the PMU for up to 2 years after the receipt of the final audit of the project and to make these available for audit and supervision.

175. **Quick Disbursable Funds.** In the event of a global influenza pandemic, the Recipient could obtain quick disbursing funds. These funds would be disbursed against a positive list of imports, identified as critical following emergency events. The declaration of a national emergency will be a disbursement condition for this element of the project. Upon declaration of an emergency, the Government will submit to IDA an initial recovery plan documenting the disaster declaration, the related budget appropriation and the proposed use of the funds. The PMU will keep IDA informed of updates in the recovery plan as the emergency response operations unfold.
176. **Internal Controls.** With the exception of the Compensation Fund component, for which the PMU does not have previous experience, the PMU has maintained an effective internal control system to ensure that project expenditures are properly authorized, supporting documents are maintained; accounts are reconciled periodically; project assets, including cash, are safeguarded, and cash compensation grants are properly accounted for. Although project accounting will be on a cash basis, detailed asset/inventories register will be maintained as part of the project internal control procedures. The PMU 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. One of the strengths in the internal control arrangements for this project is that the contracts will be executed at the line ministries/agencies level whereas payments will take place at the PMU level, where the invoices will be checked independently. Respective line ministries and government agencies responsible for implementation of the project components will submit reviewed and approved payment documents to PMU for further processing and final payment.

177. **Compensation Fund.** The Government will establish a national Compensation Fund from which the owners of animals culled will be compensated (see Annex 3b). The necessary legal, institutional and operational details will be developed and agreed upon during the first months of project implementation and will be included in the Operational Plan.

178. As a condition of disbursement of funds under the Compensation Fund sub-component, the PMU will implement appropriate internal control procedures and flow-of-funds arrangements acceptable to the Bank and documented in the operational/financial manual. The Project will provide US$0.8 million to finance and operate this Fund. US$100,000 will be disbursed into a specially established account, so as to provide sufficient resources for immediate needs. The remaining US$0.7 million will be retained as a contingency and will be disbursed only in the event of actual need.

179. **Internal Control Arrangements for the Compensation Fund.** Annex 3b sets forth the procedures for recording poultry culled under government orders and for establishing and recording poultry owner's claims for compensation payments. A number of minimum internal control procedures and risk mitigation measures will be implemented with respect to recording and verifying poultry culling and claims for compensation payment before any flow of funds is initiated.

- The financial and operational manuals will detail the internal control mechanisms, as described in Annex 3b, for identifying those eligible for compensation payments, ensuring that there will be no multiple claims. A Compensation Fund database will be maintained by the Project to facilitate record keeping, claim verification, payment facilitation, monitoring and auditing.
- In the event of government-ordered culling of poultry, the culling and the preparation and processing of culling records and compensation claims will be done in accordance with the procedures detailed in Annex 3b.
- All forms to be used to record poultry culling and compensation claims will provided by the Project. They will be pre-numbered and recorded in the database of the Compensation Fund. All unused forms, as well as any invalid or incorrectly completed forms, must be returned to the Compensation Fund when the culling records are submitted. In addition, an audit firm acceptable to IDA will be required to monitor the culling for commercial (large scale) poultry farmers and to certify the culling report.
• The compensation payments will be done through bank transfers in local currency through Tajik Amanathbank of the rayon (TAB) to the poultry owner upon submission of the individual’s culling certificate. There will be no vouchers or animal replacements. Payment will be made within four weeks from the date of culling.

180. **Reviews and Audits for the Compensation Fund.** The PMU will carry out, or will arrange to have carried out, additional checks to ensure that the eligible poultry owners, and only they, are paid and are paid in full. This will include, but not be limited to, periodic operational reviews, under TORs acceptable to IDA, to confirm the validity and legitimacy of the compensation payments made. The reviewers will be required to verify compensation claims and payments made in randomly selected samples of this verification will include: checking against the database maintained by the Compensation Fund, collecting and verifying information available and obtained at the village level, checking with individual poultry owners, checking forms and reports, etc. Any significant weaknesses identified will be promptly rectified in close consultation with IDA. In addition, the external independent auditors will be asked to provide an opinion on the reasonableness of the accounting, reporting and internal controls in respect of the operations of the Compensation Fund, and the audit TORs (acceptable to IDA) will include these specific requirements. All ineligible claims will be refunded to the Compensation Fund and to IDA. Such a requirement for operational reviews is included in the Compensation Procedures Manual.

181. **Financial Audits.** There will be annual audits of the project financial statements, covering all aspects of the project, including specific requirements for the Compensation Fund. 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’ TOR will be prepared by the PMU and cleared by the Bank before the engagement of the auditor. They will include both the audit of financial transactions, an assessment of the internal control, funds flow mechanisms, and the reasonableness of the accounting, reporting and internal controls in respect of the Compensation Fund. The annual audit reports will consist of a single opinion on the financial statements of the project, incorporating the project accounts, including Special Account Reconciliation, and SOE Withdrawal Schedule, 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 Grant. The PMU 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.

182. The current external audit arrangements for the existing RIR project are acceptable to the Bank. Clean audit reports together with no single management letter recommendation for the year ended December 31, 2004 were sent to the Bank on time. It is expected that clean Audit reports for the year ended December 31 2005 will be sent to the Bank for review on time also.

**Supervision Plan**

183. The reports of the progress of the project implementation will be monitored in detail during supervision missions. The IFRs will be reviewed on a regular basis by the field-based FMS and the results or issues followed up during supervision missions. Annual audited project financial statements and management letters will be reviewed and issues identified will be followed up with PMU.
184. The FM supervision missions will include a review of the project’s financial management and disbursement arrangements (and may include a review of a sample of SOEs and movements on the Designated accounts for each funding source) to ensure compliance with the Bank's minimum requirements. It is envisaged that the FM supervision missions will be carried out every six months.
## Allocation of IDA Grant Proceeds

<table>
<thead>
<tr>
<th>Expenditure Category</th>
<th>Amount in US$ million</th>
<th>Financing Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Works, Goods, Technical Assistance, Services, Training, Audits</td>
<td>3.6</td>
<td>100%</td>
</tr>
<tr>
<td>(2) Compensation Fund</td>
<td>0.3</td>
<td>100%</td>
</tr>
<tr>
<td>(3) Eligible Imported Goods and Commodities</td>
<td>0.7</td>
<td>100%</td>
</tr>
<tr>
<td>(4) Operating Costs</td>
<td>0.4</td>
<td>100%</td>
</tr>
<tr>
<td><strong>TOTAL AMOUNT</strong></td>
<td><strong>5.00</strong></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 8: Environmental and Social Analysis and Mitigation

TAJIKISTAN: Avian Influenza Control and Human Pandemic Preparedness and Response Project

(i) Has an environmental analysis been done? Yes [ ] No [X].

185. Activities under the Project are not expected to generate significant adverse environmental effects as they are focused largely on public sector capacity building and improved readiness for dealing with outbreaks of avian influenza in domestic poultry and human health. These prevention-focused activities are expected to have a positive environmental impact as the Project's investments in facilities, equipment, and training for laboratories will improve the effectiveness and safety over existing avian influenza handling and testing procedures by meeting international standards established by the WHO and OIE.

186. There are two environment-related issues that the project will address: the procedures put in place for culling and disposal of poultry; and the handling of medical waste generated by laboratories and health care facilities.

Culling and disposal of poultry:

187. The environmental considerations for carcass disposal typically have the potential for one or more of the following environmental impacts: health and safety hazards for the workers and the public; soil and water pollution from leakages of the carcass waste; excavation of materials and disposal of surplus soil/earth and other materials, risks to environmentally sensitive areas, flora and fauna; vicinity of the disposal site to the busy areas like national road, health centers, markets, schools or natural reserves or historic sites; site location (avoiding flooded, eroded or sliding areas).

Handling of medical waste:

188. Impacts associated with the handling of medical waste can be minor but still it is particularly important that wastes generated are addressed during project implementation and also monitored during operation.

Mitigation

189. These potential hazards will be avoided by employing international best practice guidelines in the culling and disposal of carcasses and handling of medical waste. Mitigation measures will include: i) careful citing, alignment and timing of works; ii) the careful selection of disposal areas and methods iii) protection of sensitive areas within or close to the site and incorporation of safety and environmental requirements in contract documents; iv) immediately halting work in vicinity of discoveries, pending instructions from relevant authorities; v) providing appropriate drainage and soil stabilization.

190. Since the Project supports investments in carcass disposal for culled poultry and investments in laboratories and hospitals it receives a B category for environmental screening. The Project Operations Manual (a condition of effectiveness) will include an environmental

5 Albania AI project (the example is given for your information)
assessment (EA) and environmental management plan (EMP) to address these issues. A waiver for the requirement to complete the EA and EMP during project preparation per paragraph 12 of OP 4.01 has been sought and obtained.

191. The following are the potential adverse environmental presented by component:

(a) **Animal Health Component:**

(i) *Improving HPAI prevention and control planning.* There are no foreseen potential adverse effects as emphasis is on country preparedness. Country’s Emergency Contingency Plan to include all institutional, financial and human resources and arrangements to deal with adverse environmental impacts from prevention and control activities;

(ii) *Strengthening of veterinary services.* Training of veterinary workers to include: procedures for safe handling of AI materials and construction and refurbishing of reference and regional diagnostic laboratories and veterinary clinics, key environmental issues related to zoonotic disease containment, and laboratory waste management practices; and investments in improved bio-security;

(iii) *Safe culling and transport of infected and at-risk birds:* The current policy in the management of AI outbreaks is stamping out by imposing a quarantine area, slaughter of infected and potentially exposed birds, and decontamination of poultry houses, sheds and contaminated areas. Improper transport of contaminated birds, bird products or waste (eggs, manure and feathers) and equipment (for example in open containers) may pose environmental and public health risks; and

(iv) *Safe disposal of carcasses.* A practical and sanitary system for disposing of dead birds will help prevent the spread of disease and protect air and water quality. Within the limits set by the local regulatory agencies, each country project may select the disposal method(s) that best fits its needs.

(b) **Human Health Component:** Construction, refurbishing of reference and regional diagnostic laboratories; construction, refurbishing of referral hospitals and health clinics; and training of staff to include key environmental issues related to zoonotic disease prevention and special waste management (laboratories, clinics and hospitals).

(c) **Public Awareness and Coordination Support Component:** No environmental issues, but an important component for design and delivery of communications tools for good hygiene, safe culling and disposal of animal carcasses and animal waste management.

(d) **Implementation Support and Critical Imports (if applicable):** No environmental issues.

58
Answer the following questions with a yes or no. If yes, please specify and explain how the negative impact will be mitigated.

<table>
<thead>
<tr>
<th>Safeguard Policies Triggered by the Project</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment (OP/BP/GP 4.01)</td>
<td>[X ]</td>
<td></td>
</tr>
<tr>
<td>Natural Habitats (OP/BP 4.04)</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Pest Management (OP 4.09)</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Cultural Property (OPN 11.03, being revised as OP 4.11)</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Involuntary Resettlement (OP/BP 4.12)</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Indigenous Peoples (OD 4.20, being revised as OP 4.10)</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Forests (OP/BP 4.36)</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Safety of Dams (OP/BP 4.37)</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Projects in Disputed Areas (OP/BP/GP 7.60)*</td>
<td></td>
<td>[X ]</td>
</tr>
<tr>
<td>Projects on International Waterways (OP/BP/GP 7.50)</td>
<td></td>
<td>[X ]</td>
</tr>
</tbody>
</table>

(ii) Does the project affect the natural habitats of certain rare fauna and flora species? Yes [ ] or No [X].

(iii) Does the project involve an increase in the use of pesticides? Yes [ ] or No [X].

(iv) Does the project encroach upon forests? Yes [ ] or No [X].

(v) Does the project affect other environmentally sensitive areas (beaches, coastal wetlands, other)? Yes [ ] or No [X].

Social Analysis

(i) The main beneficiaries of the project. Who are they? How many? Poor, non-poor?

192. The main project beneficiaries are smallholder poultry owners, most of whom live in rural areas and who are the most threatened by an HPAI outbreak. Such families are disproportionately likely to be in the lower income category. An estimated 65% of people living in rural areas are below the poverty line (US$2.15 PPP). In addition, poultry is mainly looked after by women and children. The project public awareness and information will particularly target these groups.

(ii) Have the beneficiaries been consulted on the project? Please describe.

193. The mission met with a broad range of stakeholders and discussed different aspects of the project with them. The most critical issue arising from these consultations relates to compensation mechanisms for owners of culled poultry, should that occur. In this regard arrangements, a compensation procedures manual, with adequate safeguards will be developed through a consultative process prior to disbursement of the compensation funds.

* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas
(iii) Has the civil society concerned with the project been consulted? Please describe.

194. Consultation with civil society was undertaken during project preparation, and will continue during project implementation. These consultations influenced various aspects of project design, including the project’s surveillance activities, the contours for the proposed compensation fund, and the public awareness and information campaigns.

(iv) Will the beneficiaries and NGO be consulted or involved in the implementation of the project? Please explain.

195. Beneficiaries and NGO will play a key role in project implementation, monitoring, and evaluation. Beneficiaries will be members of the Community Culling Supervision Committees. Each committee will comprise of one official from a rayon administration, a veterinarian and two respected members of the village community (of which one at least should be a woman), and two NGO representatives. The committee will verify the number of birds culled and their owners, so as to ensure a correct count and full transparency for subsequent compensation payments. NGOs will also play a key in disseminating information to local communities under the Public Awareness and Information Component.

(v) Does the project require that people have to be resettled to other areas or is their livelihood affected negatively by the project? Yes [ ] or No [X]. If yes, please explain.

(vi) Does the project affect the livelihoods of indigenous peoples? Yes [ ] or No [X]. If yes, please explain.

Other Safeguards

(i) Does the project have a negative impact on cultural property? Yes [ ] or No [X]. If yes, please explain.

(ii) Does the project affect the safety of dams? Yes [ ] or No [X]. If yes, please explain.

(iii) Does the project affect international waterways? Yes [ ] or No [X]. If yes, please explain.

(iv) Is the project carried out in Disputed Areas? No
MAP SECTION