Document of
The World Bank

Report No: ICR1915

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(TF056895 AND TF057749)

ON A

GRANT IN THE AMOUNT OF
US$15 MILLION

TO THE

REPUBLIC OF INDONESIA

FOR THE

AVIAN INFLUENZA SURVEILLANCE AND CONTROL PROJECT

October 29, 2011

Indonesia Sustainable Development Unit
Sustainable Development Department
East Asia and Pacific Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective 1 April 2011)

Currency Unit	=	Indonesian rupiah (IDR)
IDR 1.00	=	US$0.00012
US$1.00	=	IDR 8,665

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AHIF	Avian and Human Influenza Facility (funded by the EU)
AusAID	Australian Agency for International Development
DGLS	Directorate General of Livestock Services
Dinas	District services (livestock, agriculture etc.)
DSO	District Surveillance Officer
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GOI	Government of Indonesia
GOJ	Government of Japan
HPAI	Highly Pathogenic Avian Influenza
ICR	Implementation Completion and Result
IEC	Information and Education Campaign
ILRI	International Livestock Research Institute
Komnas FBPI	National Committee for Avian Influenza Control and Pandemic Influenza Preparedness
KVM	Community Vaccination Coordinators
LDCC	Local Disease Control Center
Menko Kesra	Coordinating Ministry for People's Welfare
M&E	Monitoring and Evaluation
MOA	Ministry of Agriculture
MOF	Ministry of Finance
OR	Operational Research
PDO	Project Development Objective
PDSR	Participatory Disease Surveillance and Response
PHRD	Policy and Human Resources Development – Trust fund of Government of Japan
USAID	United States Agency for International Development
VM	Community Vaccinators
WB	World Bank
WHO	World Health Organization

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Sector Manager:	Franz R. Drees-Gross, EASIS
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INDONESIA

THE AVIAN INFLUENZA SURVEILLANCE AND CONTROL PROJECT

CONTENTS

A. Basic Information

Country:	Indonesia	Project Name:	Indonesia-Avian and Human Influenza Control and Preparedness
Project ID:	P103654	L/C/TF Number(s):	TF-56895,TF-57749
ICR Date:	11/10/2011	ICR Type:	Core ICR
Lending Instrument:	ERL	Grantee:	GOVERNMENT OF INDONESIA
Original Total Commitment:	USD 15.00M	Disbursed Amount:	USD 3.75M
Revised Amount:	USD 3.75M		
Environmental Category: C			
Implementing Agencies: KOMNAS FBPI Ministry of Agriculture			
Cofinanciers and Other External Partners:			

B. Key Dates

Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	08/24/2006	Effectiveness:	09/06/2007	09/06/2007
Appraisal:		Restructuring(s):		
Approval:	12/15/2006	Mid-term Review:		
		Closing:	07/31/2009	12/31/2009

C. Ratings Summary

C.1 Performance Rating by ICR

Outcomes:	Unsatisfactory
Risk to Development Outcome:	Substantial
Bank Performance:	Unsatisfactory
Grantee Performance:	Unsatisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)

Bank	Ratings	Borrower	Ratings
Quality at Entry:	Moderately Unsatisfactory	Government:	Unsatisfactory
Quality of Supervision:	Unsatisfactory	Implementing Agency/Agencies:	Moderately Unsatisfactory
Overall Bank Performance:	Unsatisfactory	**Overall Borrower Performance:**	Unsatisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Implementation Performance	**Indicators**	**QAG Assessments (if any)**	**Rating**
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Moderately Unsatisfactory		

D. Sector and Theme Codes		
	Original	**Actual**
Sector Code (as % of total Bank financing)		
Animal production	80	80
Health	20	20
Theme Code (as % of total Bank financing)		
Natural disaster management	34	34
Other communicable diseases	33	33
Rural services and infrastructure	33	33

E. Bank Staff		
Positions	**At ICR**	**At Approval**
Vice President:	James W. Adams	Jemal-ud-din Kassum
Country Director:	Stefan G. Koeberle	Andrew D. Steer
Sector Manager:	Franz R. Drees-Gross	Rahul Raturi
Project Team Leader:	Shobha Shetty	Louise F. Scura
ICR Team Leader:	Shobha Shetty	
ICR Primary Author:	Takayuki Hagiwara	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document**)**
The Project Objective is to assist the Recipient in controlling the Highly Pathogenic Avian Influenza (HPAI) infection at the source in domestic poultry, reducing the amount of HPAI virus circulating in the environment, and thereby reducing the risks of human infection as well as possible mutation of the HPAI virus to a form which is more easily transmitted from human to human.

Revised Project Development Objectives (as approved by original approving authority)

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Participatory disease surveillance and response (PDS/R) system detected outbreaks in poultry (if any) in 12 districts			
Value quantitative or Qualitative)	Coverage and reliability of existing systems is uneven; continuity and sustainability of systems needs to be reinforced.	PDS/R systems reliably detect outbreaks of HPAI in about 12 high-priority target districts.		PDS/R systems strengthened in 70 lower-priority districts, with 140 PDS/R staff trained, and 21 confirmed HPAI cases detected
Date achieved	12/29/2006	07/31/2009		12/01/2009
Comments (incl. % achievement)	Target shifted after original districts covered by other donor. Outreach to 1,053 (8%) of the district villages detected 5 active cases, 16 under control, 87 under monitoring. Awareness improved, but detection of reliability not certain. Partially achieve			
Indicator 2 :	Communities trained and empowered to undertake quarterly vaccination of poultry in 6 districts			
Value quantitative or Qualitative)	Communities lack training, equipment, support, and vaccines to undertake regular vaccinations.	Six districts able to vaccinate their poultry on a quarterly basis.		40 community vaccinator coordinators and 640 community vaccinators trained; 270,000 chickens vaccinated in 10 districts
Date achieved	12/29/2006	12/31/2009		12/15/2009
Comments (incl. % achievement)	Vaccination was carried out as part of Operational Research (OR) in 12 high-risk districts later reduced to 10 due to late start of project. No baseline/target values. Partially achieved.			
Indicator 3 :	Culling compensation system re-designed and piloted in 6-9 districts			
Value quantitative or Qualitative)	No culling compensation Compensation is not systematic and more formal system needed to ensure early reporting and culling.	Compensation system redesigned and piloted in 6-9 districts.		Not implemented
Date achieved	12/29/2006	12/31/2009		01/12/2009
Comments (incl. %	Not acGovernment dropped component because (a) it appeared culling was taking place without compensation, (b) it did not want to set a precedent, and (c)			

achievement)	it was seen as too unwieldy for the small-scale producers targeted by the project. Not achieved.			
Indicator 4 :	Poultry sector restructuring options assessed.			
Value quantitative or Qualitative)	Better control and regulation of poultry sector required to reduce risk and spread of HPAI	Study to assess options for restructuring poultry sector completed.		Assessment not carried out.
Date achieved	12/29/2006	12/15/2009		12/01/2009
Comments (incl. % achievement)	Not achieved.			
Indicator 5 :	HPAI information and data management and coordination of HPAI-related actions improved.			
Value quantitative or Qualitative)	.Management and coordination between agencies and between different levels of government is weak.	Management and coordination between agencies and different levels of government improved.		More than 3,000 people trained to carry out Information and Education Campaign (IEC), but outcomes for coordination are mixed.
Date achieved	12/29/2006	12/31/2009		12/15/2009
Comments (incl. % achievement)	Partially achieved. Coordination between DSOs and PDS/R improved as also coordination with the Ministry of People's Welfare and KOMNAS-FBPI. However, no baseline and quantitative figures available. Partially achieved.			

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	TORs for culling compensation study developed and approved			
Value (quantitative or Qualitative)	No TORs available	TORs drafted and reviewed		
Date achieved	12/15/2006	08/15/2007		
Comments (incl. % achievement)	Was not achieved since GOI decided to drop the component.			

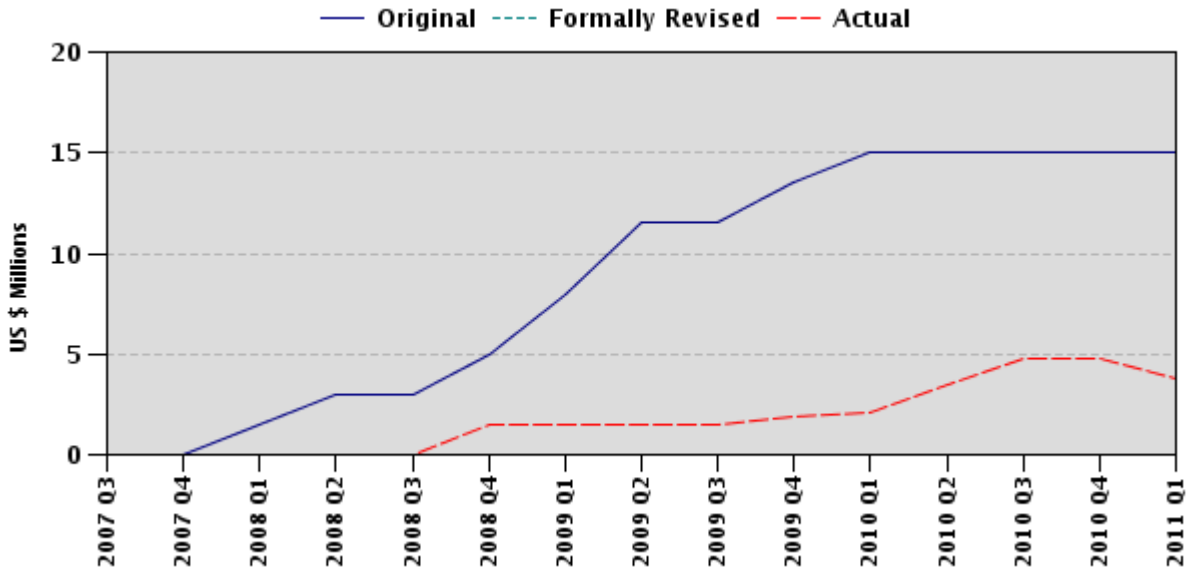
G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	06/26/2008	Satisfactory	Unsatisfactory	1.50
2	06/22/2009	Moderately Satisfactory	Moderately Unsatisfactory	1.59
3	06/25/2009	Moderately Unsatisfactory	Moderately Unsatisfactory	1.84

H. Restructuring (if any)

Not Applicable

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context

1.1.1 Across the 53 countries worldwide affected by Highly Pathogenic Avian Influenza (HPAI), Indonesia was thought to have among the highest HPAI risks and lowest capacity to respond to an HPAI emergency situation. Since the first recognized outbreak in Indonesia in August 2003, the H5N1 virus continued to spread progressively in poultry throughout the country, and HPAI was considered endemic in most provinces. At the request of the Government of Indonesia (GOI)/Ministry of Planning, BAPPENAS, project identification was initiated in March 2006 with a joint World Bank (Bank)-World Health Organization (WHO)-Food and Agriculture Organization (FAO) mission. At that time, it was estimated that sector 3 (small-scale commercial chicken producers) and sector 4 (back-yard chicken producers)[1] alone had more than 400 million poultry.[2] However, surveillance coverage for these two sectors was generally unreliable to detect outbreaks and assess the level of virus circulation among birds. Given such a high poultry and human population, the related human health risks were considered very high in Indonesia. During 2006 alone, nearly 50% of human cases (55 out of 111) and approximately 60% of human deaths (44 of 75) which were attributed to HPAI worldwide occurred in Indonesia.

1.1.2 In late 2005, the GOI prepared the "National Strategic Plan for Avian Influenza Control and Pandemic Influenza Preparedness 2006 – 2008." The plan became the key document to deal with HPAI and receive support from donors. The GOI presented the plan at the Avian and Human Influenza international pledging conference held in Beijing in January 2006,[3] requesting donor assistance in the order of US$900 million (US$300 million per year over three years). The donor response did not come close to meeting the GOI's expectations, providing about 10% of the requested assistance.

1.1.3 A joint Bank, Food and Agriculture Organization (FAO) and World Health Organization (WHO) assessment mission fielded in March 2006 in response to a request from the National Development Planning Agency (Bappenas) found the plan was weak in technical details and organizational arrangements for implementation and coordination. In addition, the mission found that the estimate of funding needs of US$900 million was reasonable given the size of Indonesia and the endemic nature of the virus, but there was a significant financial gap, as well as a mismatch between the stated priorities in the plan and allocation of GOI budget. Discussions were held between the Bank and GOI on the possibility of using International Development Association (IDA) financing to close the financing gap. The GOI declined to seek IDA financing because in their view controlling the virus was an international public good and therefore Indonesia should receive the level of international assistance needed for this purpose. As a result, the GOI and the Bank agreed to formulate this project financed by Government of Japan's (GOJ) Policy and Human Resources Development (PHRD) grant and European Union's (EU) Avian and Human Influenza Facility (AHIF) grant. However, there remained a significant financing gap

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1 The poultry industry is conceived to comprise of the four sectors adopted by FAO and OIE. Essentially sub-sector 3 is small-scale commercial producers; sub-sector 4 is back-yard producers. For more details of the definitions of each sector, see: http://www.fao.org/avianflu/en/poultryproduction.html.

2 It was estimated that there were 286 million native chickens, 98 million broiler chickens and 34 million ducks.

3 The Government of China together with the European Commission and the World Bank co-sponsored an International Pledging Conference on Avian and Human Influenza in Beijing on 17-18 January, 2006. The conference assessed the financing needs at the country, regional and global levels. During this event the international community pledged US$1.9billion in financial support and discussed coordination mechanisms.

which meant that not all elements of the plan could be fully implemented and not all geographic areas could be covered. To get the biggest impact from the donor funding available, the project design focused on funding a geographic slice of a coordinated program, which also was funded by other key donors (particularly USAID and AusAID).

1.1.4 The same year, the GOI installed the National Committee for Avian Influenza Control and Pandemic Influenza Preparedness (Komnas FBPI)[4] with an aim to implement the plan. It was established by a Presidential Decree and given a key role to coordinate GOI administration and create an effective chain of command ensuring coordination from the national to the village level. It is important to note that when established, Komnas FBPI did not have sufficient capacity to fully take on its intended leadership and coordination role.

1.1.5 While other donors including UN agencies were concentrating on technical development aspects, the rationale for Bank's assistance was justified by stressing importance of planning and policy development capacity in this sector, and the provision of funds for field operations both at the central and local government levels through the national budget system. In addition, none of donors were interested in working on culling compensation and poultry sector reform at the time of project preparation, in which the Bank had a comparative advantage. The Bank believed that due to lack of immediately available technical capacity in the country and the unprecedented animal-disease-control emergency that was being faced, it would be prudent to use a sole-source contracting option to recruit international organizations such as FAO and International Livestock Research Institute (ILRI) to work with the Government. To this end, it also put in place the co-implementing agreement with USAID to carry out the same project design for Components A, B and D to ensure no delays.

1.2 Original Project Development Objectives (PDO) and Key Indicators

1.2.1 The objective of the project is to assist the Recipient in controlling the Highly Pathogenic Avian Influenza (HPAI) infection at the source in its domestic poultry, reducing the amount of HPAI virus circulating in the environment, and thereby reducing the risks of human infection as well as possible mutation of the HPAI virus to a form which is more easily transmitted from human to human.

1.2.2 The key performance indicators at the outcome level were as follows:

(i) Participatory disease surveillance and response (PDS/R) system detected outbreaks in poultry (if any) in the twelve districts;
(ii) Communities trained and empowered to undertake quarterly vaccination of poultry in the six districts;
(iii) Culling compensation system redesigned and piloted in six to nine districts;
(iv) Poultry sector restructuring options assessed; and
(v) HPAI information and data management and coordination of HPAI related actions improved.

These indicators were in the project documents prepared for the AHIF and PHRD grants and reflected in the grant agreements (see Section 2.1). No intermediate indicators were specified.

[4] Komnas is an acronym for Komite Nasional, which means National Committee in Indonesian. FBPI: Pengendalian Flu Burung Dan Kesiapsiagaan Menghadapi Pandemi Influenza.

1.3 Revised PDO and Key Indicators and Reasons/Justification

1.3.1 The PDO and Key Indicators were not revised.

1.4 Main Beneficiaries

1.4.1 The direct primary beneficiaries of this project were the approximately 30 million small-scale poultry producers who account for 20% of the 1.4 billion poultry population in Indonesia. The main intended benefit for these producers was reduced economic and health risks. The broader group of beneficiaries also included the larger immediate rural and peri-urban populations especially women. Women are relatively more economically affected than men by the HPAI crisis, since they are often the ones directly involved in the care and handling of poultry particularly in small-scale backyard production. All socio-economic groups may have faced difficulties in accessing information about the disease but the barriers were greatest for the poor and the women. Other beneficiaries included the national veterinary service, the district level officers and other animal health professionals. Indirect beneficiaries also include all persons who might be exposed to HPAI virus if mutation occurs and a more transmissible human-to-human form results.

1.5 Original Components

1.5.1 The project had six components. The Directorate General of Livestock Service (DGLS) under Ministry of Agriculture (MOA) was responsible for the implementation of components A, B, and D and Komnas FPBI for components C, E, and F. The three components under DGLS were implemented in coordination and in parallel with other donor funded activities, mainly by USAID, through this was not formally counted as project cofinancing. FAO provided technical assistance to component A and B under a sole-source contract, while International Livestock Research Institute (ILRI) was also hired under a sole-source contract for component D.

Component A: Participatory Animal Disease Surveillance and Response (US$3,010,000)

To reinforce the continuity and sustainability of PDS/R through the local disease control centers in about 12 districts through the provision of consultant services, goods, and operating support.

Component B: Community-based Preventive Vaccination (US$5,725,000)

To improve vaccination effectiveness by introducing a community-based approach to preventive vaccination of poultry through provision of required poultry vaccines, related equipment and operational support. Vaccines procured under this component were supposed to be used in the Operational Research (OR). Training for GOI staff and community vaccinators who participated in the community vaccination program of OR was undertaken under this component.

Component C: Culling Compensation System (US$2,779,500)

To undertake a comprehensive study for effective culling compensation mechanisms,[5] provide

[5] The purpose of culling is to break the virus transmission cycle by quickly eliminating infected, virus-shedding birds and reducing the susceptible bird population in the immediate vicinity of the outbreak. To promote early notification of suspected

compensation payments to affected poultry owners in the event of culling and evaluate said compensation mechanisms after the first year of implementation. Under this component, three activities were proposed including: (i) a comprehensive design study for an effective compensation system; (ii) paying compensation for poultry culled; and (iii) evaluation of the redesigned system based on the experiences gained from this activity.

Component D: Project Impact Monitoring and Evaluation (US$825,000)

To monitor and evaluate the epidemiological impact of the control interventions taken under the project and conducting targeted studies to address key epidemiological issues through provision of consultants' services, goods, and operational support. This component, which was commonly called Operational Research (OR), aimed to evaluate the feasibility and impact of the implementation of alternative control strategies for HPAI in village-based poultry in Indonesia. Despite the fact that this component was named "Project Impact Monitoring and Evaluation," it solely aimed to analyze outputs/outcomes of component A, B, and C as a research project; this component did not intend to provide M&E information for project management as M&E is normally used in other projects. OR was to evaluate the following four strategies agreed on following stakeholder consultation:

(i) PDS/R system with a preventive blanket vaccination program against HPAI;
(ii) PDS/R system with a preventive blanket vaccination program against HPAI and Newcastle Disease;
(iii) PDS/R system with immediate compensation and Control; and
(iv) PDS/R Program implemented as per the standard operating procedures that have been developed by MOA /FAO.

Component E: Poultry Sector Restructuring Options Study (US$240,000)

To conduct a comprehensive study of options for poultry sector restructuring through provision of consultants' services. This component also aimed to come up with a recommended strategy and action plan to reduce transmission risks, as well as to prepare a regulation for poultry movement.

Component F: Coordination of HPAI Control, Pandemic Influenza Preparedness, and Community-based Public Information Campaign (US$2,420,500)

To support the Komnas FBPI for its overall coordination of HPAI control, pandemic influenza preparedness, and community-based public information campaign through provision of consultants' services and operational support.

1.6 Revised Components

1.6.1 The components were not formally revised but during project implementation the geographic focus shifted and other elements of the project were realigned because of evolving conditions and priorities on the ground.

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outbreaks of HPAI and cooperation of households holding poultry, compensation for culled birds at an acceptable level of the birds' market value would be critical, especially for poor and vulnerable households.

1.7 Other Significant Changes

1.7.1 Component A aimed to cover 12 districts in the design, while actual PDS/R activities under the component were implemented in 70 districts of 9 provinces (Local Disease Control Centers: LDCCs). The vaccines to be used for component B and D were not procured because excess vaccines previously procured by USAID were used instead. Activities under component F were only partially implemented, including the Information and Education Campaign (IEC) and support of Komnas FBPI in its core role to coordinate HPAI-related activities. After an acceleration team was established by the Coordinating Ministry for Social Welfare (Menko Kesra[6]), it took charge of implementing Component F, instead of Komnas FBPI. A short closing date extension was granted to provide sufficient time to GOI to complete ongoing activities to the maximum extent possible based on the Action Plan provided at the time by DGLS and KOMNAS-FBPI. It took into account the fact that the budget year for GOI is the same as the calendar year.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

2.1.1 The government of Indonesia did not request a loan to support the activities under the project. The task team essentially prepared project documents to apply for funds under the AHIF and PHRD facilities. There were no counterpart funds associated with the project either. No Project Appraisal Document was prepared. The grant agreements were prepared on the basis of the applications to the AHIF and PHRD.

2.1.2 The project formulation responded to the global attention to HPAI, as well as the national strategic plan to reduce risks of HPAI outbreaks and human-to-human transmission following possible virus mutation. Based on a wide range of experiences from the Bank's previous operations in the country and available funding instruments, the rationale for Bank involvement was sound. It was also relevant to build GOI capacity, including that of local governments to respond effectively against the HPAI emergency situation by using the national budget system while ensuring transparency and accountability of the use of the funds. This approach was particularly welcomed by the GOI when other donors were mainly concentrating on building technical capacity and used direct implementation which bypassed the national budget procedures. The involvement of the Bank in the project preparation also strengthened the government's understanding that a national strategy to prevent and control HPAI would require building not only technical capacity but also GOI's planning and policy development capability. All these were well reflected to the Bank's comparative advantage. Given the weak technical capacity in-country and the rapidly evolving situation, the design laid out an option to work with technical agencies—FAO (Component A and B), and ILRI (Component D). This option was well coordinated with USAID, and the design intention to assure quality technical assistance inputs through sole-source contracts was valid, given that these two are uniquely qualified for the technical assistance in a complex and rapidly changing emergency situation.

2.1.3 However, the design overestimated the capacity of Komnas FBPI and DGLS and failed to suggest a sound implementation arrangement. While the project design clearly recognized risks to use the national budget system for an emergency project, the mitigation measures that were put in

[6] The abbreviation of the Ministry.

place included single source selection (SSS) of key contracts to reduce administrative overload on the implementing agencies and ensure that the activities were completed expeditiously, with attention to quality and with technically sound agencies. DGLS elected to request a SSS and sent a request to the Bank with the justification for SSS in line with the Bank's procurement guidelines. The justification was that the agencies were: (i) uniquely qualified provide the technical assistance in a complex and rapidly changing emergency situation; and (ii) the work was part of a larger program of activities funded by other donors with which this work needed to be coordinated. There were no substantial delays resulting from the use of SSS. Indeed, a competitive selection process would not have assured quality technical assistance and would have taken significantly more time.

The Project Operation Manual that includes the procedures for fund disbursement was prepared in December 2008, only six months before the original closing date. Furthermore, the condition given to the GOI for project effectiveness was only the appointment of senior officers at both Komnas FBPI and DGLS, which demonstrates that the Bank did not take better account of the potential risks identified.

2.1.4 Quality at Entry review was not conducted on this project.

2.2 Implementation

2.2.1 The Project was expected to play a key role at the initial stage to develop the HPAI prevention and control infrastructure in the 12 districts, by funding a geographic slice of a coordinated program also financed by other key donors, especially USAID. However, the project was inactive for about two years and its funds were not utilized by the GOI until the foundations were established largely with efforts financed by other donors. Project implementation improved dramatically during the final eight months from May 2009 until the project's completion on 31 December 2009 with an effort from both MOA and the acceleration team established by Menko Kesra. Over the 2.5 years duration of the project, however, implementation was generally unsatisfactory. Key factors that contributed to this included:

- **Missed timing to approve the project budget according to the national budget procedures:** The regular national budgetary operation follows the fiscal timetable: budget plans for the next year are prepared in June by government agencies, submitted to Ministry of Finance (MOF) in July, examined in the parliament from September to November, approved in December, and executed beginning in January of the following year. The grant agreements were signed in June and became effective in September 2007[7]: this meant unless the implementation agencies had included the project activities and financing in their respective budgets approved by the GOI or amended at mid-year to include the project activities and financing for 2007, the Project would not be able to implement any activity in 2007. Komnas FBPI failed to do so and as a result, the project remained idle during 2007. The more significant blow occurred when the budget deadlines were missed again for the 2008 budget and as a result the project was also idle for most of 2008. At the same time, the GOI reduced its own budget for HPAI in 2008, giving a clear indication of a reduced priority. A special task group to prepare a budget plan, in which the Bank team participated, was finally installed in DGLS in June 2008. It spent five months to prepare the 2009 budget plan with MOF, which was approved in

[7] The grant proposals were approved by EU in December 2006 and the GOJ in January 2007.

October 2008. The majority of grant funds started to flow in May 2009, only two months before the original closing date.

- **Unfamiliarity with Bank procedures:** Neither of the two agencies (Komnas FBPI and DGLS) directly involved in this project had any previous experience with implementing a project with the Bank. The lack of budget at the initial stage also meant that the project did not have any help from consultants in preparing and amending budgets, which created a vicious cycle of no budget expenditures.

- **Different level of priority for HPAI between national and global perceptions:** Prior to the Beijing conference, there was little apparent local initiative to prevent and control HPAI. Following the wide global publicity given to HPAI at that time, the disease was regarded as an ***"international"*** problem and one for which control should be funded from international sources. This is understandable, given the incidence of other serious infectious human (dengue, malaria, hepatitis, tuberculosis), and zoonotic (rabies, anthrax) diseases in Indonesia that claim far higher numbers of human lives than HPAI. In addition, the government's initial attitude was that HPAI was ***a national priority***, but ***not a national emergency***. The lack of an official declaration of emergency on HPAI made the project unable to speed up fund disbursements by bypassing the official budget procedures.

- **Lack of ownership/capacity issues in Komnas FBPI:** While Komnas FBPI and DGLS endorsed the project during a national workshop in August 2006, in a session jointly chaired by the Executive Secretary of Komnas FBPI and the Bank Country Director, subsequently the overall involvement of Komnas FBPI on the details of the project design was limited. This was also compounded by lack of capacity in KOMNAS-FBPI.

- **Change of domestic attitudes made the initial project design difficult for Komnas FBPI to implement:** While the project proposal was prepared and officially reviewed by the GOI, the Bank, the EU and the GOJ, local experiences and good practices to deal with HPAI were progressively built up in Indonesia. In parallel, Komnas FBPI started preparing "the Jakarta by-law on the raising and movement of poultry" in 2007, and the process of preparation of the by-law helped Komnas FBPI to build its knowledge through official and unofficial meetings with local experts, poultry industries, local government representatives, etc. Partly as a result of these consultations compounded by its own internal lack of capacity, two of the key activities to be implemented by Komnas FBPI—Redesign of the Culling Compensation System (Component C), and Poultry Sector Restructuring (Component E)—became politically very difficult for Komnas FBPI to manage. At the same time, the GOI increasingly viewed foreign criticism of their efforts in controlling HPAI as foreign interference in domestic affairs, and began taking a more selective approach to cooperation (e.g., suspension of reporting of HPAI human cases).

- **Decision to use GOI Budget:** Under the AHIF, the grants could have been implemented by UN agencies, as was done in other countries. However, the GOI insisted that the grant go through the national budget. When the funds became available to the GOI, bureaucratic inertia took over which delayed the preparation and approval of the budget.

- **Direct Funding Received Immediate Attention from the National Management:** At the time of implementation, numerous other donors (USAID, GOJ) were already assisting the Indonesian program to control HPAI with inputs, outputs and outcomes that were similar to those of the Bank project. As these funds were provided directly and did not have to go through the government's financial procedures, they were far easier to access and more immediately available. This easier access to grant funds inevitably resulted in local project managers having more incentives to deal with non-Bank donor projects because of the ease of access to funds and quick disbursement procedures. However, AusAID also had to wait over a year for their program document to be approved by GOI all the while under pressure from Menko Kesra to put the funds on budget.

2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

2.3.1 ***Design***: Komnas FBPI was supposed to be responsible for monitoring overall project progress, but specific staffing requirements and M&E systems were not defined. Plans were to be prepared through collaboration involving central and provincial level officers, while expenditures and activities would be monitored according to the plans of each implementer. This input and output data was part of the project's data management system, though it did not constitute a distinct and dedicated M&E system.

2.3.2 ***Implementation***: During implementation, no staff were assigned specifically for M&E and no project M&E system was installed. There is little evidence that the KPIs were measured during the short period of project implementation (last eight months of the project).The Bank team in Jakarta provided continual supervisory inputs to the DGLS and KOMNAS-FBPI teams to resolve technical and other implementation issues, but since the budget issue was the overriding issue, all attention was focused on getting that aspect functional first. The supervision provided by the Bank's Jakarta team was continuous during 2007-08, but much of this was not documented officially. All project related data including PDS/R and community vaccine activities were handled by responsible sections/officers in charge. Output data on component A and B are available from DGLS, while activities under component D were managed and monitored by ILRI. The acceleration team under Kesra followed up the effectiveness of IEC with a questioner-based scoring method and its findings are available.

2.3.3 ***Utilization:*** There is a database at DGLS of HPAI reported cases by networking 31 LDCCs. DGLS is now able to provide monthly up-dates of HPAI cases across the 31 provinces. This database and system was largely supported by USAID/FAO. Contribution of the Bank to the establishment was limited to advice given by the FAO assigned Chief Technical Adviser during the assignment period. However, this was not set up in time to provide sufficient data for the baseline and targets under the project.The database, however, continues to be used by the Ministry of Agriculture and DGLS has sufficient capacity now to keep it updated and use it for regular monitoring.

2.4 Safeguard and Fiduciary Compliance

Safeguards

2.4.1 The project was classified as a Category C (no EA required) and did not trigger any safeguard policies.

Procurement

2.4.2 The project implementers followed GOI's procurement procedures, which were in accordance with the Bank's procurement guidelines and agreed between the GOI and Bank. The sole-source contracts given to FAO and ILRI were a first for the GOI. Such precedents made contracts proceed slowly, but they were eventually awarded as planned. No fiduciary issue related to procurement that could potentially trigger Bank's objection was observed during the implementation.

Financial Management

2.4.3 The financial management followed the agreement between the GOI and Bank. There was one GOI audit in 2009 and one in June 2010. The 2009 audit found no financial management issue but implementation issues. It pointed out (i) delay of budgeting preparation; (ii) delay of disbursement; and (iii) lack of technical inputs. With the submission of the June 2010 audit, the Bank found that fiduciary compliance was met during project implementation.

2.5 Post-Completion Operation/Next Phase

2.5.1 The Bank operation is only one element of an ongoing, overall program supported by the national government and other international donors. While Bank no further Bank activities are planned, there is a clear indication that a number of other donors will continue their support, and the GOI is committed to continue developing the current national program (especially PDS/R, targeted vaccination and IEC). Currently, DGLS has started further development of PDS/R to move from the HPAI specific to animal-health PDS/R. For vaccination in 2010, IDR 3 billion (US$330,000) was allocated to procure 10 million doses of HPAI vaccine for the second phase of intensified vaccination program (In-Vak) in 10 districts where the project provided support. While this represents only a tenth that was foreseen under the project, it does represent a promising step. The national budget for 2011 is expected to have IDR 6 billion (US$660,000) to procure 20 million doses for 20 districts including the project targeted 10 districts. DGLS's plan is to support In-Vak for three years until 2012 and shift to "self-reliance of vaccination" where DGLS will guide and supervise the targeted vaccination in high risk areas while the local government and individual poultry owners bear the costs of vaccination.

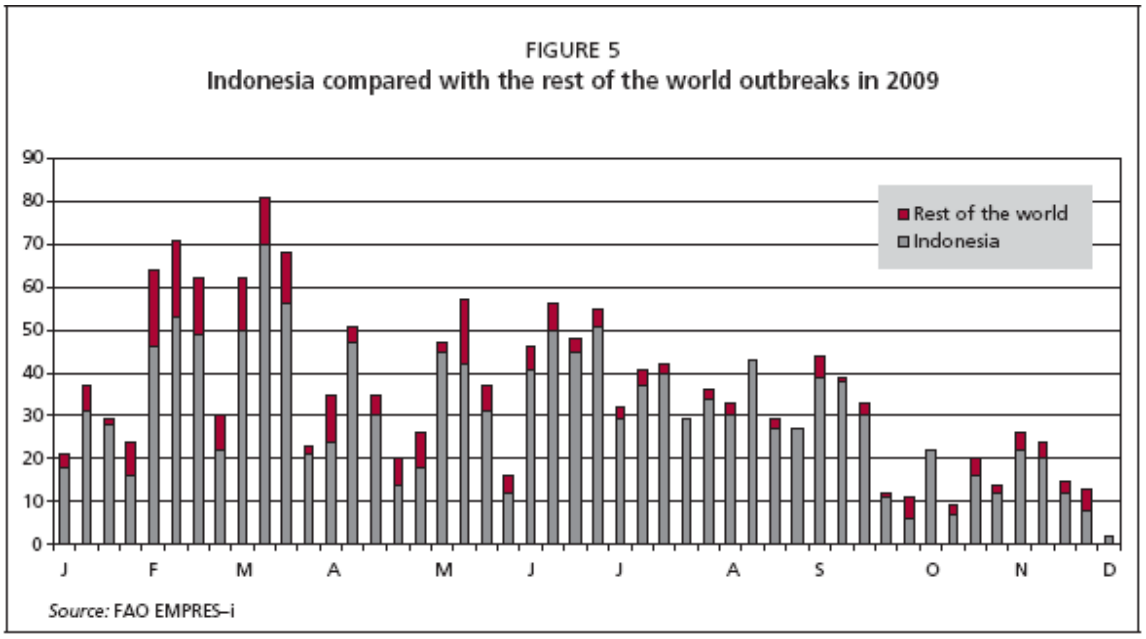
Overview of current HPAI Disease situation in Indonesia

2.5.2 HPAI was first suspected in August 2003 in a commercial layer flock and Indonesia submitted its first HPAI outbreak notification in January 2004. By December 2004 poultry deaths due to HPAI were estimated to be more than eight million in over 100 districts/cities. By the end of 2005, the disease had spread to 23 provinces covering 151 districts/cities and registered over 10.45 million poultry deaths. By June 2009, 31 of the country's 33 provinces had been affected. The disease is considered endemic in Java (especially DI Yogyakarta), Sumatra (Lampung), Sulawesi and probably Bali. No cases have been reported since January 2009 in Kalimantan, while Maluku, Papua and Nusa Tenggara have reported no cases since January 2008.

2.5.3 Indonesia continues to report a high number of H5N1 HPAI outbreaks in poultry associated with antigenic sub-type Clade 2.1 and the country reported more outbreaks than the rest of the world collectively. The high number of reports each month is partially explained by

the implementation of the PDS/R program that targets village poultry production systems (mainly backyard) and reports evidence of virus circulation in the village.

Figure: Outbreaks of HPAI in Indonesia (January –December 2009) compared with the rest of the world.



Source: GOI/ECTAD Indonesia as cited in FAO (2010) AIDE NEWS No. 65, April 2010

2.5.4 The first human influenza case from H5N1 was confirmed in June 2005. This and other cases in the ensuing months precipitated a heightened awareness and concern over the potential impacts of HPAI in Indonesia and beyond. As of December 2009, 155 human cases had been confirmed, with 129 fatalities. The absolute risk of humans becoming infected is low, but the relative risk when compared to other countries is high. The persistent spread and incidence of the disease in both animals and humans has been blamed on the complexity and size of the Indonesian poultry sector, the weak capacity of government agencies to deal with animal diseases, the relatively late recognition and support provided by donor partners and, ultimately, in the entrenched risky behavior limiting the success of prevention and intervention campaigns.

2.5.5 A recent survey assessed Indonesia's current capacity and remaining gaps and has particular relevance to current and future donors as shown the table below.

Table: Current status of six key activities for HPAI control in Indonesia.

Activity/Indicator	Assessment (as of December 09)	Evolution over the RP	FAO's contribution to this result		Legend
			Over the RP	Since 2004	
Preparedness	3	↗	NC	NC	**Level:** 1 = very poor; 2 = poor; 3 = fair; 4 = good; 5 = excellent
Surveillance	4	↗	S	S	**Contribution:** S = significant; C = collective (with other partners and or the country); NC = no contribution'
Response	2	→	C	S	
Laboratory capacity	4	→	C	C	**Evolution:** ↗ = capacity has increased; → = capacity remains unchanged; ↘ = capacity has decreased
Compensation	1	→	NC	S	
Biosecurity	2	→	NC	NC	

Source: FAO country survey

** no contribution, either because (i) Level is 5, no more work is required; or (ii) Level is < 5, because it is not a priority for the country.*

Source: FAO (2010) AIDE NEWS Number 65 for April 2010

2.5.6 The national HPAI program achieved significant progress on the prevention and control of HPAI and the Bank project did well to collaborate early on with USAID and FAO to ensure that activities on the ground were in place in accordance with the project design despite the delays in actual project implementation. However, there is no doubt that the problem of HPAI due to H5N1 will continue in Indonesia for some time. It must be understood that this is a continually changing situation, which would require a flexible response from GOI and donors to these ever-evolving changes.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

Relevance of Objective

3.1.1 Since the peak in 2006, the cases of HPAI and human deaths have declined significantly and increased awareness of HPAI risks has contributed to reducing the cases of human infections. However, the number of human fatalities (146 out of 178 reported) continues to be high. The mainstay of the Government's national strategy has been the vaccination program and the IECs have also helped in raising awareness. Nevertheless, there are still many challenges in preventing and controlling HPAI, and continuous public engagement is critical for the success of the national program. The risk of future outbreaks is still high in Indonesia where HPAI is endemic. The project objective remains **relevant** to the priorities of the GOI.

Relevance of Design

3.1.2 This project was prepared as an emergency pilot project in response to a quickly worsening situation, and therefore was not reflected in the Bank's Country Assistance Strategy nor based on a comprehensive sector strategy. The design intention to prepare an HPAI prevention and control framework was valid at the time of project preparation, but it was no longer relevant under the circumstances prevailing at the time of ICR. Given the fact that the

PDS/R system and a targeted vaccination program have become the central pillars of the new HPAI prevention and control strategy, these two elements of the design are still sound.

Relevance of Implementation

3.1.3 There have been Bank projects successfully implemented by national coordination committees with a structure similar to Komnas FBPI. However, the implementation structure that this project employed under Komnas FBPI did not work as envisioned in the project design. The lengthy financial procedures of the national budget system to implement this emergency project caused inordinate delays and the relevance of project implementation was diminished because many of the needs that it was designed to address were no longer there by the time the project got started.

3.1.4 The Bank's decision to strengthen national capacity for technical and management preparedness for HPAI control emergency situation at all levels is valid. This support to develop capacity in planning, policy making, and budgeting and procurement aspects reflected the comparative advantage of the Bank. However, Komnas FBPI, under which this project operated, was staffed by people with limited previous experience in implementing either Bank projects or similarly complex projects, which undermined the relevance of having the project coordinated by this new agency. In addition, lack of ownership of the project by Komnas FBPI exacerbated delays in project implementation.

3.2 Achievement of Project Development Objectives

3.2.1 As mentioned above (see para 3.1.1), this ICR recognizes that the National HPAI Prevention and Control Program as a whole has substantially strengthened GOI's capacity to deal with HPAI. To some extent, the project contributed to these successes, as noted in paragraph 3.2.12, at the end of this section. However, the project's contribution to the entire national program is considered limited, given the fact that the project was actively implemented for less than one year in the field and the GOI failed to use the Project when it was most needed right after the Project became effective. The following table summarizes the performance of each component.

Table 2. Summary of Each Component Performance

Component	Main Achievements	What was not implemented
A. Participatory Animal Disease Surveillance and Response	1. Helped to intensify PDS/R activities in 70 districts. 2. Helped to instill maintenance of PDS/R at both the central and local levels of government. 3. The processes have led to capacity building among staff members and increased awareness of the importance of PDS/R resulting in the development of a new strategy to use PDS/R with a wider focus to include other zoonoses.	1. It aimed to establish PDS/R in 12 HPAI high risk districts in Central Java. 2. Instead, it worked in 70 districts where HPAI risks were low and PDS/R had already been established. 3. With USAID funds, PDS/R in the 12 HPAI high risk areas were established.
B. Community-Based Preventive Vaccination	1. Trained 40 Community Vaccination Coordinators (KVM) and 680 Community Vaccinators (VM). 2. A 'pilot' program of In-Vak in small-scale layer flocks and intensively reared native chicken flocks.	1. Did not procure vaccines (approx. US$3 million)

	4. A total of around 287,000 chickens were vaccinated. 5. Socialization (community vaccination campaign) and profiling in the 10 districts.	
C. Improving Culling Compensation System	Not implemented	
D. Impact Monitoring and Evaluation of Control Strategies, and Targeted Epidemiological Studies	1. Implemented as planned with USAID funding. The project funding was used to reimburse the funds advanced to ILRI and FAO.	1. The study recommendations have not been integrated into the national strategy for preventing and controlling HPAI, which was the main aim of the study.
E. Poultry Sector Restructuring Option Study	Not implemented	
F. Coordination of AI Control and Pandemic Influenza Preparedness and Community-Based Public Information Campaign	1. More than 3,000 people were trained in IEC	1. Coordination improved between District Surveillance Officers and PDS/R, Ministries of health and agriculture, the Ministry of People's Welfare (Menko Kesra) and KOMNAS-FBPI. IEC results good, but coordination outcomes mixed.2. Inactivity of Komnas FBPI in preparing and processing the budget hindered all project activities.

3.2.3 **Participatory Animal Disease Surveillance and Response (Moderately Unsatisfactory):** The Bank played a key role to promote the concept and importance of PDS/R during the design stage, but its role in implementation became marginal due to the project implementing agencies inability to get the budget documents required by GOI procedures in place. Thus, the contract given to FAO for providing technical assistance to DGLS was not signed until December 2008. The late intervention meant a failure of demonstrating the Bank's comparative advantage and value-added for activities in high risk areas.[8]

3.2.4 The data provided by DGLS show that it is receiving reports of dead chickens regularly from communities in the 70 project districts, which implies the PDS/R system is working. However, Project's inputs were limited to intensify PDS/R activities, which had already been installed by DGLS and other donors, and therefore, it is unclear to what extent this outcome can be attributed to the Project.

3.2.5 **Community-Based Preventive Vaccination (Moderately Unsatisfactory)**: This component was implemented in 10 of 16 high risk districts in West Java, Central Java and Yogyakarta provinces, which had participated in OR. There was a total of four vaccination campaigns each consisting of an initial (USAID support) and 3 booster rounds (by the Project). It is important to note that the Bank funding (around US$3 million) was **not** used for procuring the vaccines (vaccines used in this component were purchased with the USAID funding). Project support was given only for the training of KVM and VM as well as the operation of In-Vak in the 10 districts. When the approval was given to procure vaccines in 2009, a new HPAI strain was found, and thus procurement of vaccines was dropped due to DGLS's decision to suspend further procurement of vaccines until a vaccine effective for the newly-mutated virus could be identified.

[8] Despite the fact that the project was inactive, DGLS was able to implement the same activities supposed to be carried out by the Project with USAID funding, which also provided a sole source contract to FAO. As a result, DGLS was able to achieve what needed to be achieved in the high risk areas under FAO's technical assistance.

3.2.6 Although DGLS now has a group of KVM and VM, it is uncertain to what extent their skills will be used due to the limited availability of vaccines and operational budget under the national budget. The majority of vaccines used in the In-Vak have been funded by donors so far, and the national budget allocated in 2010 to procure vaccines is IDR 3 billion (US$330,000) to provide only 10 million doses which is about one-tenth of the planned scale under the project, and the budget does not include operational costs (see para 2.5.2). Furthermore, the failure of vaccine procurement under the Project suggests that the lengthy national procurement procedure resulted in unsatisfactory procurement of the vaccines.

3.2.7 **Improving Culling Compensation System (Not Implemented)**: There are a couple of reasons for the non-implementation of this component, according to the former Komnas FBPI director. Culling compensation was seen as necessary during project preparation, but it was no longer the case after project approval. While the culling compensation proposal was being prepared and reviewed (April 2006 until July 2007), Komnas FBPI received (i) ample evidence that poultry owners culled their chickens without compensation; and (ii) resistance from the local government for the complex and expensive logistics and procedures to implement compensation (i.e. poultry owners usually demand immediate compensation, but GOI needed to have validated evidence of the value of birds that the poultry owners lost, which would usually take around six months). It was judged that this time-lag and the series of difficult and costly procedures would not be favored by both poultry owners and local governments, and as a result, a political decision not to carry out this component was made (the timing of the decision is unclear). In addition, there was little evidence that the GOI would continue paying compensation after the termination of the project. There was political pressure that the GOI should not create precedents that they are forced to follow after closure of donor projects. The ICR considers that the planned study at least should have been carried out to assess the impact of culling poultry without paying compensation.

3.2.8 **Impact Monitoring and Evaluation of Control Strategies, and Targeted Epidemiological Studies (Moderately Unsatisfactory)**: This component was entirely subcontracted to ILRI and carried out as planned under separate USAID and AusAID financing. The Bank project's involvement was limited during the design and the booster vaccination stages. There was a debate on the study design among the Bank, ILRI and FAO during the project preparation, and there is further debate between ILRI and FAO on the interpretation and conclusions emanating from the results of the study. This ICR neither judges the quality of study design nor interpretation of results but notes that the study recommendations have not been integrated into the national strategy for preventing and controlling HPAI. Unfortunately, this study was carried out by ILRI without involving any national research institute, and thus was not very useful for the capacity building of national institutions.

3.2.9 **Poultry Sector Restructuring Option Study (Not Implemented)**: According to the former Komnas FBPI director, this component had also become difficult to implement after the project became effective in 2007. The same year, GOI issued "The Jakarta By-law on the Raising and Movement of Poultry," with an aim to regulate the distribution, transportation, collection and marketing of poultry. Komnas FBPI felt that the study to examine options to prepare such laws was no longer necessary as the law had already become effective (see 2.2.1, fifth bullet point).

3.2.10 **Coordination of AI Control and Pandemic Influenza Preparedness and Community-Based Public Information Campaign (Moderately Unsatisfactory)**: There is little evidence that Komnas FBPI was committed to carrying out this project. Poor coordination and management of the project resulted in unsatisfactory performance of the Project. As a result of

this inactive role by Komnas FBPI, Menko Kesra replaced it with the acceleration team toward the end of the project. Under the limited circumstances given to this team, it did well but time was too short.

3.2.11 According to data provided by the project, more than 3,000 people were trained in to carry out IEC activities. Anecdotal evidence gathered during the ICR mission demonstrated that many District Surveillance Officers (DSOs) and Community Facilitators (unpaid volunteers) are active in preventing HPAI and keep communicating with poultry owners on basic hygiene issues, potential risks of HPAI and best practices in small-scale poultry management. The Information and Education Campaign (IEC) system is sound and the Project contributed to the maintenance of the system. As an isolated activity, the achievement of IEC is remarkable, but as seen in the context of the other components, it is uncertain to what extent the Project contributed to the achievement of the overall national IEC.

3.2.12 In terms of the overall PDO of (i) controlling the HPAI infection at the source in its domestic poultry sector; (ii) reducing HPAI circulating in the environment; and (iii) reducing risks of human infection and of a violent mutated virus, the project partially achieved its objectives especially (i) and (ii) through supporting GOI in its strategy through the following:

- Restructuring LDCCs to respond to HPAI quickly;
- Establishing effective PDS/R systems that respond to outbreaks quickly through a cadre of trained professionals;
- Building technical capacity among GOI staff members and community vaccinators in carrying out vaccination campaigns;
- Developing strategies to cope with HPAI as well as other zoonoses;
- Creating synergies between Ministry of Health and MOA through collaborative work between DSOs and PDS/R; and
- Implementing a community based HPAI-control IEC.

However, due to the fact that there were other donors whose activities in parallel were also supporting this project's objectives, makes it difficult to quantify exactly the contribution of this project.

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3.3 Efficiency

3.3.1 An economic rate of return was not estimated for the project at the time of appraisal, nor was it calculated after its closure. For the reasons explained in Annex 3, it is not possible either to carry out a formal ex-post economic analysis of the project based on the results obtained at the time of its closure. Therefore, the discussion of economic and financial/ fiscal aspects is mainly qualitative.

3.3.2 There is limited comprehensive data on the impacts of HPAI on the poultry sector in Indonesia especially in the backyard poultry (Sector 4) targeted by the project. The value of birds lost as such to HPAI during the 2003-04 HPAI crisis has been estimated at US$16-32 million, the total direct loss to the broiler and layer breeders and producers at US$171 million and, after adding indirect losses, the total goes up to US$387 million. However, these estimates do not account for the losses incurred by village/ backyard farmers, i.e. Sector 4 which consists of an

estimated 30 million households keeping 200 million chickens. In general, the cost of controlling HPAI is clearly justified even by simply comparing the estimated damages (above) incurred due to HPAI; far greater if secondary costs and risk to human life are included.

3.4 Justification of Overall Outcome Rating

Rating: Unsatisfactory

3.4.1 The overall outcome rating of the Project is **unsatisfactory**. It has been seen as a problematic project both by the GOI and Bank throughout project implementation. The Project's intention and technical design were sound at the time of the preparation, but it failed to build the institutional structure based on the Bank's experiences to work with the national budget system while elaborating detailed risk mitigation measures. Due to the late start-up of most of activities, the Project was unable to achieve the PDO, with shortcomings in all components. Fortunately, initiatives of other donors have substantially improved the technical aspects of HPAI prevention and control—in a way, the other donors' projects helped the GOI to achieve this Project PDO within their projects.

3.4.2 Unsatisfactory performance of this Project might imply that Bank's support to Indonesia through the national budget may not work in an emergency disease control which would require immediate actions. However, it is important to note that there are successful cases (i.e. Vietnam) supported by the Bank. The Bank sent a strong message to national policy makers that any emergency project should not only be limited to technical development but also to strengthen planning and policy capacity development. Unfortunately this Project failed to demonstrate such importance with its performance, but the Bank should not compromise this aspect.

3.4.3 The reasons given to forego using funds under Components C and E were interesting and perhaps valid from the Government's perspective. However, the proposed studies under these two components could have provided a useful discussion document for wider use among stakeholders. It could have also supported the policies for not providing culling compensation and the options regarding restructuring of the sector or otherwise. Considering no other donors were interested in such reforms, this was a lost opportunity to carry out solid, analytic work on the poultry sector/industry that would have been useful to GOI and other stakeholders.

3.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development

3.5.1 The Project was elaborated in an emergency situation and its design focused on the technical aspects of HPAI prevention and control. Poverty impacts, gender aspects and social development were not explicitly included in its objectives. The Project is nonetheless thought to have had an impact in these areas, due to the nature of its interventions. In the absence of specific M&E activities, the actual specific impacts of the Project (and, more generally, of the whole National Program for Control and Prevention of HPAI) on these aspects cannot be captured and measured.

Poverty Impacts

3.5.2 Poultry plays a vital role in many rural households in Indonesia. It is an asset of many households especially those who live on and below the poverty line. Poultry and poultry products are a key source of animal protein, in the form of meat or eggs, and thus contribute to family nutrition, particularly for children. They are sold or bartered for essential family needs such as seeking medical treatment or buying medicines and clothes, or paying school fees. Improvements in children's health have been linked to additional income earned by women in small-scale backyard poultry keeping.

3.5.3 Project design had an indirect poverty focus as it focused on backyard poultry production, which at the time was thought to be a main source of contamination and risks for human cases. The activities implemented under the Project for the control and prevention of HPAI contributed to reduce losses for this vulnerable group, as poor households rely relatively more on poultry as a source of income than do other sectors of the community.

Gender Aspects

3.5.5 A significant number of smallholder and village poultry are reared by women. Women are relatively more economically affected than men by the HPAI crisis, since they are often the ones directly involved in the care and handling of poultry particularly in small-scale backyard production. All socio-economic groups may have faced difficulties in accessing information about the disease but the barriers were greatest for the poor and the women. Women face particular problems and risks because of their direct contact with backyard poultry. The risk factor increases as women have generally less education than men and they are the ones who are usually exposed to the virus during cooking. The IEC has played an important role to reduce this gender gap.

3.5.6 Women are in the frontlines of defense against the disease. With their traditional roles as primary caretakers for backyard poultry, and for the health care of the family, their knowledge about HPAI can effectively make a difference in reducing risks for their children and family, and to society in general. Although no specific provision was made under the Project to conduct activities specially directed towards women, a significant and growing number of animal health specialists in the veterinary services are themselves women. Women have also been particularly active as community volunteers in IEC.

Social Development

3.5.7 Although there is no specific indicator available, it is thought that the Project contributed positively to social development, in particular through the PDS/R system. The communication campaigns, aimed at generating stronger social awareness regarding the risks of HPAI and the benefits of improved handling and poultry raising methods, added positively to this particular aspect. The Project also contributed to the development and training of a network of village vaccinators.

3.5.8 Under the PDS/R system, data are collected in the field through participatory methods, progressively taking a village-level approach to work with all poultry farmers, traders and community leaders within the village, to promote effective and efficient disease prevention and

control. The PDS/R activities also actively involve local governments and facilitate the links with the official veterinary services.

(b) Institutional Change/Strengthening

3.5.9 The Project contributed to the capacity of some relevant government agencies involved. In particular:

- The PDS/R approach—which has now been introduced in 9 provincial and 70 district livestock services (Dinas) in Kalimantan and Sulawesi, with USAID/FAO initially, and support of this Project for eight months in 2008 and early 2009—has strengthened the capacity of field animal health services in the Dinas. Most of the Dinas staff have seen their institutional reputation enhanced in the towns and villages served.

- The LDCCs, established under the national program with support of other donors, have enabled more effective communication and coordination between central and local governments within the highly decentralized Indonesian governance system.

3.5.10 There is, however, still a need to ensure the long-term sustainability of these positive developments, through increased budget funding from the central government and cost-sharing at the provincial and district government levels. The PDS/R system is also often viewed as an external project, partly because it receives much of its funding from external sources.

(c) Other Unintended Outcomes and Impacts

3.5.11 While the Project dealt only with HPAI, the scope of the animal health surveillance system supported by the Project could easily be enlarged to other zoonoses and epizooties of economic importance, which in fact has already started. This would also lead to higher potential benefits, as well as enhanced commitment from GOI and beneficiaries and hence improved prospects for sustainability.

3.5.12 Other positive outcomes would include the development of a network of village vaccinators whose services are paid by the beneficiaries.

4. Assessment of Risk to Development Outcome

Rating: Substantial

4.1 As this Project is an integral part of the National HPAI control program, the risks identified below are more from the National Program rather than from this specific Project. Vaccination is an important component of the current program while current marketing practices are regarded as the most important contributor to continuing outbreaks in poultry.

(a) **Vaccination**—the shift in government-funded and supported programs (i.e. free to poultry owners) to concentrate only on caged poultry in sectors 3 (and 4 where available) may exclude poor owners of village chickens who cannot afford housing. Even temporary (e.g. at night) containment would greatly facilitate the ability to vaccinate the majority of poultry in a village where the goal should be >80%. Risks

would be minimized by providing funding for materials so that these poorer poultry owners would be able to construct their own cages/enclosures.

(b) **Marketing**—there are thousands of traditional markets for the sale of poultry throughout Indonesia at the provincial, district, sub-district and village levels which employ tens of thousands of agents, transporters and traders. Due to the local consumer preference for live birds, they are the main commodity sold and are either slaughtered at the market or at home. Initial efforts have been made to ban live-bird markets but with limited success as customers need assurances that what they are buying is fresh and disease-free.

(c) **Continued government commitment**—given the continued high number, broad distribution, widespread prevalence and easily recognized importance of other infectious diseases of humans (dengue, malaria, hepatitis, tuberculosis), other zoonotic diseases (Rabies, Anthrax, SARS), other poultry diseases (Newcastle Disease, Fowl Cholera, Gumboro) and other livestock diseases (Haemorrhagic Septicaemia, PPR, classical swine fever) currently endemic in Indonesia, there is a real risk that HPAI will not be regarded as a high government priority.

5. Assessment of Bank and Borrower Performance

5.1 Bank

(a) Bank Performance in Ensuring Quality at Entry

Rating: Moderately Unsatisfactory

5.1 Bank performance in ensuring quality at entry is rated "**moderately unsatisfactory.**" Despite the positive aspects of the Bank's performance during project preparation—the design was built on best knowledge on HPAI at the time of project preparation—it failed to provide detailed mitigation plans based on lessons, especially on project implementation that the Bank had accumulated in Indonesia. It clearly anticipated risk factors, and listed these critical risks, but in fact, all of them materialized during implementation. In addition, the design did not look at the capacity of Komnas FBPI; which employed many freshly recruited college graduates, with little experience in planning and budgeting procedures that require a long bureaucratic exposure. In addition, it took more than 1.5 years after the Beijing conference to prepare the Project by which time the numbers of HPAI cases had substantially declined and the sense of emergency felt by the GOI in early 2006 had diminished. The lack of a formal preparation process even for an Emergency Recovery Loan and the lack of a proper Project Appraisal Document/Project Paper likely contributed to the subsequent problems in implementation.

(b) Quality of Supervision

Rating: Unsatisfactory

5.1.2 The ICR acknowledges the Bank team's frustration with the project's poor performance despite the team's efforts to move it forward. Since the team was based in the Country Office, it met with GOI staff and other donors on a regular basis, as well as with the FAO and ILRI advisors. Moreover, there were numerous communications to the GOI expressing concern over implementation issues, and indicating actions which needed to be taken. Nevertheless, very little

was achieved by such communications and as there was little, if any, initial activity: no formal supervision missions were undertaken since there was little to supervise although there was continual support being provided by the Jakarta-based Bank team. However, these active efforts by the team were not documented in formal Aide- Memoires/and or BTORs during project implementation and hence there was little documentation in the files.

5.1.2 There were discussions between the Bank team and the implementing agencies regarding possible extension of the project closing date. There were also discussions around restructuring during the EU-financed review mission of the AHIF projects in March/April 2009. However, it was dropped due to the following reasons:

- Restructuring of the grants would have required going back to the GOJ and EU for the PHRD and AHIF, respectively. This would have taken time, but would probably have been possible for the AHIF grant. It may not have been possible for the PHRD grant, since this grant was already a restructuring of funding that had been approved earlier by the GOJ.

- However, restructuring would not have helped in 2008, since the GOI again failed to have the grants included in the budget documents, and implementation of any kind was paralyzed. There was an option to cancel the grants completely at end 2007, when this became apparent. However, Bank management was reluctant to withdraw the grants from the most severely affected country in the world.

- At the time of the discussions in 2009, it was understood (perhaps incorrectly) that the closing date of the HPAI grant could not be extended, which would have defeated the purpose of a restructuring or project extension. At a later point arrangements were made for a very limited extension to complete ongoing activities and close down the project in an orderly fashion.

- The Bank received another request for extending the closing date of the project through 2010. However, due to the fact that the first extension (already granted as an exception when the project was in Unsatisfactory status) failed to yield the required actions on the part of the Government in a timely manner. It was also unclear if the second extension would actually provide enough time for the necessary vaccines to be procured and DGLS were unable to provide a firm commitment that this would be completed. The lack of capacity in KOMNAS-FBPI/Kesra and DGLS continued to be an issue that did not generate confidence. In view of these factors, the request for the second extension of the closing date was denied by Bank management.

5.1.3 Although Grant Reporting and Monitoring (GRM) reports were regularly submitted, the initial ISR was not archived until 18 months after project approval. While it correctly rated overall implementation progress as unsatisfactory, the DO rating and all six components were rated satisfactory, which contradicted the IP rating, reflected a failure to base ratings on actual rather than anticipated conditions, and did not incorporate consideration of other factors, such as relevance of the objectives and project design.

(c) Justification of Rating for Overall Bank Performance

Rating: Unsatisfactory

5.1.4 Despite the fact that risks that materialized during project implementation were all identified in the project design, the Bank compounded these risks with its own poor performance and was not able to take corrective actions, restructure, or cancel the Project. Together with the lack of active or regular supervision and reporting during implementation, overall Bank performance is unsatisfactory.

5.2 Borrower Performance

(a) Government Performance

Rating: Unsatisfactory

5.2.1 The Government performance in supporting the Project is rated **"unsatisfactory**". As the number of fatal human cases remained low compared to other infectious diseases in Indonesia, the GOI downgraded its priority against HPAI to a regular disease status. When the project stood still after the effective date, no effective measures were put in place to ensure that the implementing agencies, especially DGLS could use the grant funds expeditiously by putting the budget on the fast track.

(b) Implementing Agency Performance

Rating: Moderately Unsatisfactory

5.2.2 There are two implementing agencies, Komnas FBPI (component C, E, and F) and (ii) DGLS (component A, B, and D). Komnas FBPI was given an overall responsibility and coordinating role as well as to prepare the budget and oversee implementation progress. It did play a key role in the overall national program, but there is little evidence that Komnas FBPI provided sufficient support to project implementation. The work given to DGLS was inevitably affected by the slow response and poor performance of Komnas FBPI. The overall performance of the two implementing agencies is rated as **"moderately unsatisfactory,"** merited by the intensified final efforts of DGLS and Menko Kesra in achieving during the short final time period. The results of the acceleration included: increased campaigns on avian influenza (AI) in rural areas and strengthening institutions related to AI. The evaluation of the financial disbursement by the Controlling Financial and Development Body (BPKP) for components C, E, and F was satisfactory.

(c) Justification of Rating for Overall Borrower Performance

Rating: Unsatisfactory

5.2.3 The GOI's initial commitment to control HPAI led to the establishment of Komnas FBPI in 2006 and the preparation of the national plan. However, such a high level of commitment diminished during the implementation of the Project. Although DGLS and Menko Kesra accelerated project activities toward the end of the project period, it was too difficult for the two agencies to recover what had been lost during the initial stages of the Project. The GOI insisted on using the national budget system in project implementation but the results of the decision were not properly followed up by the implementers, and failed to deliver the PDO. As such, an overall rating of unsatisfactory is justified.

6. Lessons Learned

Indonesia-specific

6.1 **Closer coordination with MOF is critical during project preparation.** The Bank has a long history of having problems working with the national budget system in Indonesia and unsurprisingly, this project faced the same problem. In addition, the Project was designed to have four special accounts, which was unusual for MOF and this problem persisted for a long period of time. All of budget related issues could have been avoided if there had been greater coordination with MOF during project preparation.

6.2 **Multiplicity of implementing agencies is detrimental to speedy implementation**. The key factor that led to major delays in implementation was the fact that three agencies were involved—the Ministry of Agriculture, KOMNAS FBPI, and the Coordinating Ministry of People's Welfare (Kemenko Kesra)—and their coordination was weak. This was compounded by the fact that KOMNAS FBPI was not a line agency and hence budget releases proved to be even more cumbersome. Given the fact that the project focused mainly on animal health, the project objectives may have been better served by having just the DGLS/Ministry of Agriculture as the sole implementing agency, especially given the emergency nature of the Project.

6.3 **Lack of experience in implementing agencies:** The multiplicity of implementing agencies was compounded by the fact that none of these agencies had any familiarity with Bank procedures and processes. Training in advance for key project management staff in Bank fiduciary procedures could have helped in accelerating project implementation. The implementing agencies also need to have a clear understanding of fund disbursement mechanisms and requirements under their own national and Bank procedures if there is no prior experience within the implementing agencies.

6.4 **Operational Research (OR) carried out under the project has been implemented by ILRI largely in isolation**. OR did not involve any national research institute. Instead, it did use the field veterinary staff as mere enumerators. It would have been desirable to involve national research institutes in research design and interpretation, in order to ensure efficiency and sustainability of the research efforts that will continue to be needed for the analysis of HPAI control strategies.

6.5 Lack of technical capacity to ensure adequate supervision. Despite the limited time that the project was actually operational, it would have been useful for both the Bank and GOI to include sufficient technical expertise in the Bank team to carry out official supervision missions and a mid-term review mission.

General lessons on animal disease control and the Bank's response

6.6 **Move away from specific disease interventions:** As seen in the use of PDS/R for the animal health surveillance system, this trend should be well recognized to create a system of One Animal-Health Concept for the Bank's future interventions in this sector. Similarly, the Bank should recognize and support the transition toward a broader surveillance and control strategy of transboundary animal diseases.

6.7 **Selection of best match financial instruments according to the situation of the recipient countries and other donors' responses.** Because of the initially perceived threat of a potential global human pandemic outbreak of influenza, the project was regarded as an emergency but this was a mismatch for the Bank's modality to integrate the grants into the national budget system without the nationally recognized emergency status of HPAI in the country. While other donors were better situated to respond more quickly, GOI staff, especially managers, became saturated with the work implemented by other donors. The Bank project that required cumbersome procedures to receive funds was understandably given lower priority by the managers. When the Bank sees that other donors are pouring their direct funding under an emergency, the Bank needs to choose carefully financial instruments and a modality based on an institutional analysis of possible time allocations by the implementers.

6.8 **Does the Bank need to be present in an emergency situation when the issues require a specific technical framework at first? Or should the Bank wait to see how such a framework is being established and can be scaled-up, while preparing a project?** Once the budget issues were solved, the Project played an important role in expansion (PDS/R in 70 districts and intensification of In-Vak). The donor community was also able to demonstrate its ability to work together to address a perceived emergency under the entire program, whose framework was built by the proactive role played by the Bank for sharing the project design. Such coordination was essential where a number of individual specific projects funded by bilateral donors or UN special agencies were quickly responding to the situation. This coordination must be handled carefully to prevent any overlap in services, contradiction of inputs, and the infringement of professional or national interests. But at the same time, donors' pledges must also be met with the same speed to ensure that there are no disruptions in the national program. Based on the experience gained in this project, the Bank needs to examine its role in HPAI operation throughout the region and revise its modality for supporting animal-related disease control and preparedness accordingly.

7. Comments on Issues Raised by Borrower/Implementing Agency Partners

The GOI was advised of its responsibility for preparing a Borrower's Completion Report by both the Bank supervision team and the ICR team, but did not provide the Bank with its own completion report. The Coordinating Ministry of People's Welfare and the Ministry of Agriculture provided comments on an earlier draft of the Bank's ICR and a specific mention was made of the the proposed HU rating for Government performance. The Bank team subsequently discussed the ratings and decided to upgrade the rating slightly to U. Annex 7 provides a full text of the comments received.

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in US$ equivalent)

Components	Appraisal Estimate (US$M)	Actual /Latest Estimate (US$M)	Percentage of Appraisal
A. Participatory Animal Disease Surveillance and Response	3.01	1.03	34%
B. Community-based Preventive Vaccination	5.73	1.29	23%

C. Culling Compensation System	2.95	0	0%
D. Project Impact Monitoring and Evaluation	0.83	0.79	96%
E. Poultry Sector Restructuring Options Study	0.24	0	0%
F. Coordination of HPAI control, Pandemic Influenza Preparedness, and Community-based Public Information Campaign	2.25	0.64	29%
Total Project Costs	**15.00**	**3.75**	**25%**

(b) Financing

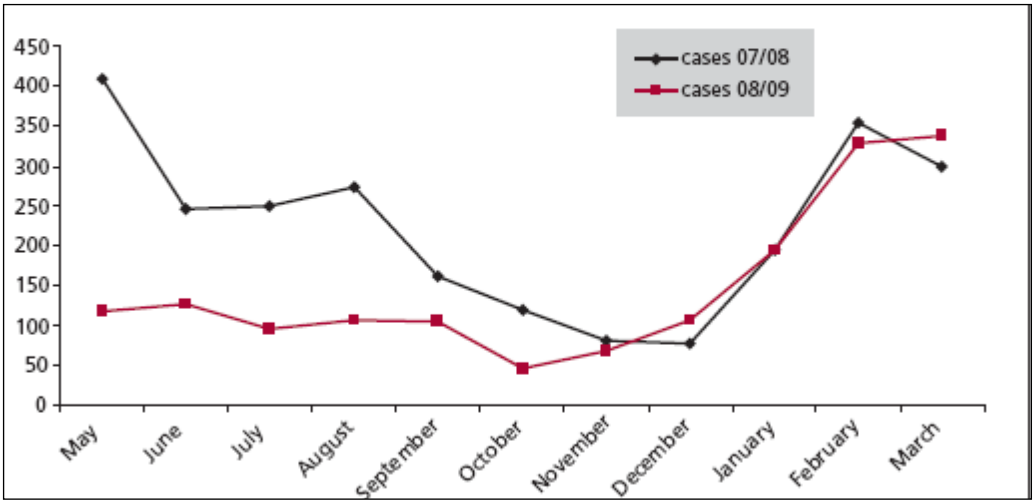
Source of Funds	Type of Financing	Appraisal Estimate (US$M)	Actual/Latest Estimate (US$M)	Percentage of Appraisal
Avian and Human Influenza Facility (EU)	WB-administered TF	10.00	1.81	18%
Population and Human Resources Development Fund (Japan)	WB-administered TF	5.00	1.94	39%
Total		15.00	3.75	25%

Annex 2: Outputs by Components

1. Component A: Participatory Animal Disease Surveillance and Response (Estimate: US$3,010,000, Actual US$1,034,017: 34%)

1.1 This component commenced in May 2009 and continued until end of project on 31st December 2009. The main purpose of this component was to establish PDS/R[9] in 12 high risk districts. As planned, FAO was contracted to provide technical guidance, operational support and the employment of technical staff, while DGLS disbursed project funds through its national budget system. The project design intended to cover 12 districts in high risk areas, but it resulted to work with 70 districts (kabupatens) in Kalimantan (Banjarbaru, Palangkaraya, Pontianak, Samarinda), Sulawesi (Gorontalo, Kendari, Manado, Palu) and Nusa Tengarra Barat (Mataram, Lombok). Due to its late start-up, its activities were to take over and intensify activities that were initially developed by other projects. A total of 140 PDS/R staff were trained and supported to undertake active surveillance for HPAI in 70 districts. During the life of the project, 1,053 villages were visited, from a total of 12,587 (8% of the total). Of these, 5 were confirmed as being infected, 16 as under control, 87 under monitoring and 945 as apparently free of HPAI. The table below shows PDS/R HPAI cases detected nationwide.

Figure 1: PDSR HPAI Surveillance case numbers – 07/08 (old database), 08/09 (new data base)



Cited from FAO (2010) AIDE NEWS Number 65 for April 2010

1.2 During their village visits, the PDSR teams increased awareness, knowledge and understanding of HPAI of the village communities, established close working relations with the local animal health posts (pusat kesehatan hewan) and provincial HPAI control centres (LDCCs) and improved communication on disease status between all levels of government. Anecdotal evidence show, however, many of community members are still not aware of PDS/R and some mentioned that they do not report to the government when they find dead chickens even in an

[9] Indonesia's PDS/R has recently been recorded in the prestigious international journal dedicated to avian health "Avian Diseases" Vol 54 (2010): pages 749-753 in a paper entitled "Participatory Disease Surveillance and Response in Indonesia: Strengthening Veterinary Services and Empowering Communities to Prevent and Control Highly Pathogenic Avian Influenza" by M.Azhar, Ade S Lubis, Elly Sawitri Siregar, Robyn G Alders, Eric Brum, James McGrane, Ian Morgan and Peter Roeder with specific acknowledgement of World Bank support.

HPAI free district. On the other hand, they seem to understand risks associated to HPAI and knowledge of not-to-touch dead chickens appeared well shared among community members.

1.3 Establishment of PDS/R has been one of the major highlights of not only this project but also others initiated by FAO through funding from USAID and AusAID. The institutionalisation of PDS/R activities, within the DGLS, provincial and district livestock offices, is having enormous benefits for the control of not only HPAI but also all other infectious diseases of poultry and livestock. It would be strongly advisable for this activity to continue for both the early detection of disease or, alternatively, for the provision of evidence that the disease is indeed absent in specific areas. During field visits undertaken by the mission it was obvious that local government at both the provincial and district levels were keen to maintain PDS/R activities utilising their own funds.

2. Component B: Community-based Preventative Vaccination (Estimate: US$5,725,000, Actual US$1,290,771 : 23%)

2.1 Given the prevalence of HPAI due to H5N1 and the complexity of poultry production systems in Indonesia, vaccination has become an important component of the national disease control programme. The project supported two specific vaccination activities, the Operational Research (see under Component D below) from January 2008 until July 2009) and Intensive Vaccination (In-Vak) from August 2009 until December 2009. Expenditure was directed at field operations of three booster rounds for about 270,000 chickens, but no vaccine was procured; the latter coming from USAID. Under this component, the project also trained 40 KVM and 640 VM.

2.2 There are currently 20 HPAI vaccines registered for use in poultry in Indonesia. The current preference is for Legok, manufactured by Medion, a private company in Bandung. Recently, a variant strain of H5N1 has been identified in commercial poultry. The prevalence of this variant in poultry in sectors 3 & 4 is unknown but there is evidence of continuous genetic drift in indigenous isolates of H5N1. Given the current situation of HPAI in Indonesia, government authorities prefer to use this strain in all future vaccination programmes. It is understood that a foreign operative has adapted this strain to produce a seed isolate which is currently ready for vaccine production and an offer has evidently been made to GOI to make this available to a local vaccine producer. The Campaign Management Unit , set up in the DGLS to coordinate the overall HPAI program, advised the mission that such a vaccine could be available for local use by August 2010.

2.3 In-Vak has concentrated on parent stock and layer flocks surrounding infected premises (both small holders and villages). Practical problems identified during the campaign included the difficulties in capturing unrestricted scavenging village chickens and the stressing of quail during the procedure. One positive outcome from the project was the understanding and implementation of an effective cold chain for the distribution of vaccine from central to provincial and district disease control centres. The project procured refrigerators and polystyrene cold boxes to support this activity. This output will obviously have broader benefits for the storage and distribution of other vaccines used in the control of other diseases of poultry and livestock. Local authorities in one district visited advised that, following an intensive HPAI vaccination campaign, there was an observable increase in the number of poultry owners, the number of poultry/owner, the number of poultry confined in cages, and the amount of poultry meat and eggs consumed. At the same time, the price of chickens under vaccination could fetch higher prices than non-vaccinated.

2.4 Along with other interventions, specific targeted vaccination will continue to be an important component of the Indonesian national disease control programme for some time. Given the well recognised genetic instability of influenza viruses, it is absolutely necessary for the disease control authorities and decision makers in Indonesia to be aware of the antigenic characteristics of H5N1 (and other) influenza strains circulating in the poultry populations to ensure that vaccines used are appropriate to ensure adequate protection from infection. In addition, current vaccines are highly heat labile necessitating an effective cold chain and having a relatively short shelf-life thus requiring regular procurement of smallish quantities. Funding specifically allocated for vaccine procurement from this project was not utilised for a number of reasons, including adequate supplies received from other donor projects and genetic drift of indigenous viruses. It is apparent that Indonesia is about to require significant quantities of vaccine specifically targeted against the recently recognised variant strain. Follow-up measure should be serious consideration to providing adequate funding for regular vaccine procurements at least over the next 3 years.

3. Component C: Culling Compensation System
(Estimate: US$2,950,000, Actual US$0: 0%)

3.1 Culling and disposal of poultry affected by H5N1 virus and those assessed to be at high-risk of infection, is an important component of the national HPAI control programme and will continue to be for some time. As such actions are for the "common good" and are detrimental and of obvious cost to the affected poultry owner, many other countries have traditionally practiced compensation to farmers who have had their poultry destroyed with the understanding that this will encourage early notification of disease outbreaks to ensure rapid containment and control.

3.2 Initially in the current HPAI outbreak, the GOI apparently paid some degree of compensation to affected farmers but this became extremely difficult, unwieldy and unacceptable to both poultry owners and local governments. The government thus decided to cease payment of compensation. As a result, this component of the project was not implemented nor expenditure committed (see para 3.2.7 of the main text).

3.3 The mission was advised that this has had little, if any, impact on the notification of outbreaks by poultry owners as the latter are more concerned with the health and well-being of their families and communities. PDS/R teams persuade affected farmers to cull infected and exposed poultry for the social benefit of the community and the population understands the important zoonotic implications of H5N1. Given that this WB project is concentrating on sectors 3 (small holders) and 4 (back-yard) producers, this concern is of particular relevance and compensation for culled birds is of less significance when dealing with a zoonotic disease.

4. Component D: Impact Monitoring and Evaluation of Control Strategies and Targeted Epidemiological Studies
(Estimate: US$825,000, Actual US$787,974: 96%)

4.1 The major part of this component was an *"Operational Research Project in Indonesia for more Effective Control of Highly Pathogenic Avian Influenza" (ORIHPAI).* This activity was originally conceived by DGLS, USAID and the World Bank in 2006 in response to the lack of any apparent reduction in the prevalence of HPAI in Indonesia up to that time. The program was originally to "evaluate suites of control responses implemented as on-going field activities to suppress HPAI" and the expected outcome was a "field response that led to suppression of virus

circulation in a verifiable manner". The component was implemented through a research contract with the International Livestock Research Institute (ILRI). ILRI was requested to design the overall program, supervise data collection and analyse results; FAO was responsible for supporting the GOI to implement control strategies; John Snow International (USAID) was responsible for the provision of procurement and logistical support; this WB project was responsible for funding the analyses and reporting. The actual design was subsequently changed, became more restricted, concentrating mainly on an evaluation of vaccination strategies rather than assessing the impact of other interventions and control measures being undertaken at that time (eg quarantine, confinement, culling, disinfection, bio-security, movement control, etc.). The final report of results and conclusions, running to a total of 780 pages, was strongly criticised by collaborating organisations and considered unsuitable and of limited value for the decision makers in Indonesia. Unfortunately, the OR did not involve a collaborative research institute in Indonesia (eg Balitvet) and field operatives interviewed by this mission appeared to have little understanding of the project's design. Furthermore, the mission became aware of friction between the two major operatives which would have seriously restricted the beneficial aspects of this project.

5. Component E: Poultry Sector Restructuring Options Study
(Estimate: US$240,000, Actual US$0: 0%)

5.1 The mission was advised that this component was included in the original project design to specifically study the situation of poultry production and marketing. Before the project became operational, the Jakarta administration had passed a law to ban free-range chicken production and wet markets in Jakarta. So, in effect, the law was passed before the study to justify it was undertaken, thus making this component of the project redundant. Therefore, this component was not implemented and there was no financial expenditure nor commitment.***

5.2 The government's revised strategy is to concentrate on sectors 3 (smallholder) and 4 (backyard) of the national poultry production systems while sectors 1 (highly intensive, vertically integrated) and 2 (highly intensive, privately owned) in the private sector are largely left to their own devices. To assist in control of HPAI (and other infectious diseases of poultry), the government is encouraging confinement of poultry in cages or pens within the village. In addition, it is universally recognized throughout the country that marketing and movement of live poultry is a significant contributor to the continued presence of the disease.

6. Component F: Coordination of HPAI control, Pandemic Influenza Preparedness, and Community-based Public Information Campaign
(Estimate: US$2,250,000, Actual US$641,892: 29%)

6.1 Other than the expenditure for Komnas FBPI's coordination activities, all activity under this component was directed at IEC programs. Field visits undertaken by the mission revealed an active and comprehensive public information campaign. However, there were still many poultry owners unaware of potential risks of HPAI due to their poor management of poultry. According to data provided by the project, the project trained more than 3,000 people in two-day training sessions conducted in districts and municipalities.

6.2 The implementation of this, in addition to other donor HPAI projects, appears to have assisted with overall coordination of HPAI control under the National Programme. There is good evidence of strong cooperative and coordinated activities between human and animal health

authorities at the subdistrict, district and provincial levels. Thus information on outbreaks in poultry detected by livestock staff is rapidly shared with their counterparts in the human health sectors and vice-versa for detected human cases.

6.3 Unlike other countries affected by H5N1, the (Human) Health Ministry was not involved in this WB project and presumably receives adequate support from other sources. The mission was advised that, similarly, a National Preparedness Plan for Pandemic Preparedness has been developed by others with coordination from Komnas FBPI.

Annex 3. Economic and Financial Analysis

1. Background – the Highly Pathogenic Avian Influenza Crisis

1.1 The outbreaks of highly pathogenic avian influenza (HPAI), which began in late 2003 in several Southeast Asian countries and occurred thereafter in Europe, have had an important negative impact on the poultry industry in these two regions and have raised serious global public health concerns, including fears over the potential emergence of a human pandemic that might have devastating effects on human health and livelihoods.

1.2 At the same time, there are many uncertainties about whether and when a pandemic might occur, as well as about its potential impact. In the 20th century, influenza pandemics occurred in 1918, 1957 and 1968. It is impossible to anticipate when the next influenza pandemic may occur or how severe its consequences might be. Humans are highly sensitive to the Asian H5N1 strain (high mortality rates), but not very susceptible to infection. Current fears over a possible influenza pandemic are fueled largely by the persistence of this highly virulent strain of avian influenza in Asia and its potential capacity to mutate in ways that would allow sustained human-to-human transmission.

1.3 Studies of the economic impact of the HPAI crisis have shown that the countries of East and Southeast Asia have been especially hard hit. Losses have not only been sustained by farmers but also by others in the value chain, including traders and feed suppliers. Poor poultry keepers have been most affected. The total losses accruing from the damaged poultry sector in Asia is estimated at around US$10 billion.[10] From late 2003 to mid-March 2009, WHO reported 411 human cases in the world (including 327 in Asia) of which 256 were fatal (221 in Asia). H5N1 infection in humans remains relatively rare, but when it occurs such infections have been frequently fatal, with a case/fatality rate well over 60%.

2. HPAI Control and Prevention Measures

2.1 The HPAI virus is transmitted by direct contact with feces or secretions of infected birds or by consumption of (or contact with) contaminated meat or eggs, or indirectly via contaminated feed, water, or materials. Highly pathogenic strains like H5N1, which has spread across Asia, are transmitted between birds by direct contact and are also transmissible from birds to humans. As yet, there are no documented cases of direct human-to-human transmission of H5N1. However, a mutation of the virus and ultimate person-to-person infection could trigger a global pandemic.

2.2 The measures available to prevent, control and eliminate the HPAI virus are:

- Effective disease surveillance for early detection of outbreaks in poultry.
- Enhanced biosecurity of poultry farms and associated premises.
- Control of movement of birds.
- Changes to industry practices (production, marketing) to reduce risk.

[10] Source: World Bank. This is calculated on the basis of over 150 million poultry destroyed as the result of the 2003 and 2004 Asian HPAI outbreaks. It includes direct and indirect economic impact and trade losses for the region as a whole.

- Rapid destruction of infected poultry (culling).
- Disposal of carcasses in a biosecure and environmentally acceptable manner.
- The proper use of vaccination.

2.3 Countries can institute some of these measures, such as enhancing surveillance and biosecurity and changing industry practices, over the **medium to long term** to prevent the disease and soften its long-range impact, or eradicate the virus from the population if the infection is already present.

2.4 The tools available to combat the disease in the **short term** are destruction of stock (and control of poultry movement) and vaccination.

2.5 One choice that countries have to make in their HPAI control plans and strategies is whether or not to use **vaccination** as an additional tool to support stamping out. The use of vaccines has been limited by fears that the disease could spread further through trade, and the banning of entry of poultry from vaccinating countries. On the other hand, it is very difficult and very expensive to control an HPAI outbreak solely by stamping out stock in high bird density regions, since so much of the bird population would have to be slaughtered. Consequently, countries have been exploring more effective vaccination options, though export ban issues have yet to be resolved and are of particular concern to exporting countries.

2.6 It has often been argued that for HPAI **stamping out** programs to work, they must be coupled with a compensation scheme to pay poultry farmers a specified sum for each infected bird that is culled. If producers know that they will be compensated for lost stock, they are more likely to report infected birds rather than sell them to cut their losses when faced with HPAI symptoms. Compensation would then play a critical role in early detection and eradication of outbreaks.

2.7 The success of vaccination and stamping-out as HPAI control measures depend on another set of medium- to long-term measures that cannot be improvised after an outbreak, as they take time and require pre-crisis investment. These longer-range measures, when properly implemented, heighten the effectiveness of control measures like vaccination and stamping-out. They include mainly:

- Strengthening of animal disease surveillance systems.
- Improved coordination of prevention planning and preparedness between agricultural and public human health institutions.
- Strengthening of tools and measures to control and manage HPAI outbreaks.

3. Economic Analysis of HPAI Control and Prevention

3.1 *Ex-ante* analyses of HPAI control and prevention measures have been carried out in the wake of the 2003-04 crisis. Usually, these analyses have considered the full set of comprehensive measures to be taken by a country, i.e. the overall national HPAI control and prevention plan, since these various measures are in general complementary and need to be implemented all together in order to be effective in the medium to long term.

3.2 In these analyses, the costs of control and prevention measures are compared with the corresponding economic benefits, i.e. the reduction in economic losses (or costs) from the disease that is obtained as a result of these measures.

3.3 Some of these analyses do take into account the **hypothetical costs of a possible human pandemic**. The most direct impact of such a pandemic would be through the impact of increased illness and mortality on the size and productivity of the human labor force. Another significant set of indirect economic impact would result from the uncoordinated efforts of private individuals to avoid becoming infected or to survive the results of an infection (resulting in a demand shock for services sectors such as tourism, mass transportation, retail sales, and increased business costs due to workplace absenteeism, disruption of production processes and shifts to more costly procedures). A last set of economic impacts are those associated with government's policy efforts to prevent the epidemic, contain it, and mitigate its harmful effects on the population.

3.4 Often, it is recognized that containing and eradicating the virus would be a desirable objective even if the problem were restricted to one of animal health in a given country. So far, the HPAI crisis has remained **mainly an animal health crisis**. *Economic costs* that need to be considered in this regard include:

- Death of poultry due to the disease and to culling, with losses affecting not only farmers but also upstream and downstream sectors such as poultry traders, feed mills, breeding farms etc.
- Costs to the government of containing the disease outbreak, including hiring workers for culling and cleanup, surveillance and diagnosis, hire of transportation and purchase of poultry vaccines, medications, etc.
- Secondary or indirect effects especially due to the fear of human transmission resulting, for example, in a reduction of consumer demand for poultry products, trading bans and/or a negative impact on activities such as tourism.

Distributional and social impacts also need to be evaluated. Relevant factors include:

- The structure of the poultry industry and the relative importance of smallholder versus large scale industrial production. In the former case many households will experience losses, but the effect may be cushioned by their having other sources of income. Nevertheless, poor households may still be hurt more if they derive more of their income from poultry or if poultry losses force them below key subsistence margins.
- Distributional consequences of higher prices paid by consumer for poultry, eggs and their substitutes.
- The nature of the government's policy (or lack of policy) for compensation of poultry owners whose birds are culled.

3.5 Whenever a quantitative economic analysis is carried out – i.e. calculation of Internal Economic Rate of Return (IERR) or Net Present Value (NPV) of investments made for HPAI prevention and control – a main assumption consists in **assessing the probability of occurrence of specific events and their impact** on the animal (and possibly human) population and production. Typically, several scenarios are presented in the analysis, corresponding to low, medium or high impact. For instance, estimates are made of the average poultry mortality and culling rates "with" and "without" the HPAI control measures supported by the project or plan. Alternatively, the costs of an AI outbreak are estimated on the basis of experience from the 2003-

04 crisis, and the economic analysis is based on "guesses" about the probability of such an HPAI outbreak "with" and "without" the project. These guesses are not estimates based on scientific methods, simply because statistics on the HPAI or similar diseases do not exist.

3.6 In reality, the dynamics of the rapid spread and persistence of HPAI virus, as well as the magnitude of its possible impact on poultry stocks and production, remain most unclear. Therefore the assumptions made under the various economic analysis scenarios are highly arbitrary and speculative, even when the analysis is limited to animal health aspects based on experience from the 2003-04 crisis. When estimates are made about the costs and probabilities of a possible human pandemic, parameters become totally imaginary.

3.7 Another basic underlying assumption of the *ex-ante* economic analyses of HPAI is that for any level of expenditure on disease prevention and control, that expenditure is undertaken in a way that maximizes economic benefits. To ensure this, however, is often not an easy task. For instance, the effectiveness and hence actual benefits of stamping out or a vaccination campaign depend on factors such as timeliness, acceptance or adoption by a sufficient number of farmers, etc. Similarly, the actual need for a compensation system to support culling measures may depend on a number of cultural and other factors including the degree of awareness and sensitivity of poultry owners towards the risk for human transmission of the disease to their family. Unless these parameters are monitored and true costs assessed on the basis of experience in a given country, the economic analysis of HPAI prevention and control measures may be based on purely theoretical (and potentially illusory) assessment of actual benefits derived from these measures.

3.8 In general, even when confining the analysis to the effects solely on animal production, the *ex-ante* economic analyses carried out so far indicate that **economic benefits would exceed costs by a very large margin**. In some scenarios taking into account the impact of a possible human pandemic, the benefits of HPAI prevention and control are estimated to exceed the costs by a factor of over 100.

3.9 In these circumstances, a traditional economic analysis of the project costs and benefits is not particularly useful. .The most useful economic analysis would consist in **assessing the relative cost-efficiency of alternative measures** to prevent or control an HPAI outbreak and a possible pandemic, with a view to identifying least-cost measures to achieve the objective of HPAI control and prevention.

3.10 A main related issue is the **financial/ fiscal sustainability** of HPAI control and prevention measures. These measures are often costly and involve significant recurrent costs which are expected to be covered by national governments. As governments are faced with other conflicting priorities – including other concrete animal and human health issues that are of much more pressing and actual concern both to governments and rural producers – their commitment and ability to effectively meet the recurrent costs of HPAI prevention and control measures are sometimes questionable. While awareness was heightened during 2003-04 crisis, since then "HPAI fatigue" has started creeping over the years. The issue is then to reduce the overall costs of HPAI prevention and control in a sustainable way in the long term.

4. Poultry sector in Indonesia

4.1 Indonesia has a dynamic and diverse set of poultry enterprises, ranging from the highly industrial, through the small scale semi-intensive broiler and layer enterprises, to the scavenging backyard poultry. These often interconnected enterprises play a very important role in providing protein of animal origin to the diet of Indonesians.

4.2 Based on the type of business and the level of bio-security, the poultry sector in Indonesia has been divided into 4 categories. ***Sector 1*** is a highly organised industrial poultry system. This sector of the poultry industry group reportedly implements a high level of biosecurity and its products are sold in urban areas and some are exported. ***Sector 2*** comprises poultry business groups that enter the commercial poultry production system and implement mid- to high-levels of biosecurity. Their products are sold in both urban and rural areas. ***Sector 3*** is the group of poultry farm businesses which are very similar to those in sector 2, but have a weaker financial base, and as a consequence a low level of biosecurity which is less regularly applied; producers in this sector often have lower and more variable levels of other inputs. ***Sector 4*** is the backyard keeping of poultry, often done as a subsistence or hobby enterprise, with little if any in the way of inputs, and no biosecurity. This type of poultry keeping is usually found in rural villages and in peri-urban and urban residential areas; it is often a side-business for extra income or for home consumption of poultry.

4.3 In 2008, total poultry population in Indonesia was estimated at 1.522 billion head, of which 70.7%, 19.1%, 7.7% and 2.4% were broilers, village chickens (almost 300 million head), layers and ducks. In the years of 2006, 2007 and 2008, there has been a consistent continuous growth (7-15% annually) in the poultry population.

4.4 About 80,000 poultry farms, holding 60 percent of the total national commercial broiler and layer production are located in Java, followed in number by Sumatra. Since most of the poultry infrastructure (comprising feed mills, abattoirs, cold storage and urban markets) is located on these two islands, the industry has shown little incentive to move to outlying regions, to which it transports eggs and live birds. Consequently, most H5N1 influenza cases in both animals and human have been concentrated in these two islands.

5. Economic impact of the HPAI crisis in Indonesia

5.1 Even though Indonesia submitted its first avian influenza outbreak notification in January 2004, HPAI was suspected in August 2003 in a commercial layer flock. By December 2004 poultry deaths were estimated to be more than 8 million in over 100 districts/cities. By the end of 2005, the disease had spread to 23 provinces covering 151 districts/cities and registered over 10.45 million poultry deaths. By June 2009, 31 of the country's 33 provinces had been affected.

5.2 In Indonesia, the first human influenza case from H5N1 was confirmed in June 2005. This and other cases in the ensuing months precipitated a heightened awareness and concern of the potential impacts of HPAI in Indonesia and beyond. By December 2005, 20 human cases were confirmed with 13 fatalities. As of December 2009, 155 human cases have been confirmed with 129 fatalities (i.e. the highest case fatality rate in the world). The absolute risk of humans becoming infected is low, but the relative risk when compared to other countries is high.

5.3 In 2009, Indonesia reported more than one thousand outbreaks in domestic poultry, qualifying the country as the most infected country in the world.[11] The disease is considered endemic in Java, Sumatra, Sulawesi and Bali (i.e. provinces where active cases have been reported in the last six months). No cases have been reported since January 2009 in Kalimantan, while Maluku, Papua and Nusa Tenggara have reported no cases since January 2008.

5.4 There is limited comprehensive data on the impacts of HPAI on the poultry sector in Indonesia especially in Sector 4. An FAO survey indicates that in the most seriously affected parts of Indonesia more than 20 percent of permanent industrial and commercial farm workers lost their jobs. The Indonesian Poultry Information Centre estimated the value of birds lost as such to HPAI during the crisis at US$16-32 million, the total direct loss to the broiler and layer breeders and producers at US$171 million and, when indirect losses are added, the total goes up to US$387 million or a factor of two.

5.5 These estimates do not account for the losses incurred by village/ backyard farmers, i.e. Sector 4 which consists of an estimated 30 million households keeping 200 million chickens. Small commercial and backyard producers lost the least in absolute terms, but the most relative to their assets and income.

6. International support for HPAI prevention and control in Indonesia

6.1 FAO is by far the most active agency supporting the Government of Indonesia in controlling HPAI. Its activities are funded by USAID, AusAID, Japan and the Netherlands. Agencies such as UNICEF (funded by Japan and Canada), ILRI (funded by USAID and the World Bank), CBAIC (funded by USAID), ACIAR (funded by the Government of Australia), US$A and the Indonesian Dutch Partnership (funded by the Netherlands) also have programs supporting HPAI control in Indonesia.

6.2 The AHIF (funded largely by the EU) and PHRD (Japan) grants managed by the World Bank have been implemented by government agencies (DLGS, KONMAS), FAO and ILRI. Disbursements for a total of about US$3.8 million have taken place mainly in 2009. This accounts for less than 10% of total international assistance on HPAI in Indonesia over the period 2005-09.

Annual delivery in Indonesia by project (2005- May 2009) – FAO (US$)

Funded by	2005	2006	2007	2008	May 2009	Grand Total
OSRO/RAS/505/USA	31,054	803,455				834,509
GCP/INS/077/AUL		488,372	1,167,652	5,079		1,661,103
OSRO/INS/701/AUL			723,867	2,349,203	1,655,841	4,728,911
OSRO/INS/604/USA		1,028,067	6,784,231	9,258,510	4,191,282	21,262,090
OSRO/RAS/602/JPN		616,000	1,193,608	37,400		1,847,008
OSRO/INS/703/USA				449,718	86,807	536,525
OSRO/INS/501/NET		17,000	105,867	30,000		152,867
Grand Total	**31,054**	**2,952,894**	**9,975,225**	**12,129,910**	**5,933,930**	**31,023,013**

[11] However, caution is required as the recording system differs from other countries. In Indonesia, since the introduction of PDSR programme in 2006 (with revisions in 2008), data are collated at farm or sub–village level.

7. Economic and financial analysis of the Avian Influenza Surveillance and Control Project (AHIF and PHRD grants managed by the World Bank)

7.1 Control and eradication of HPAI are complicated tasks that can only be achieved using a combination of measures. No single measure is likely to be appropriate and effective. The composition of measures must be chosen and adapted according to the conditions in the country and its disease status, and must therefore be phased and based on a careful monitoring of their actual impact.

7.2 It is not possible to carry out a formal quantified economic analysis of the project in a meaningful way, for the following main reasons:

- The AHIF/PHRD project managed by the World Bank is quite a small project (US$15 million total allocation, of which only about US$3.8 million has actually been disbursed) especially in relation to the size of the country, and it tackles only a very limited part of the full set of complementary activities that are required for effective AHI surveillance and control.
- Other complementary activities funded by different donors are outside of this project and cannot be costed in detail in the context of this ICRR, although they are at least equally – and even more – important to enable the project benefits to materialize. For FAO alone, this amount to over US$31 million actually disbursed over the period 2005-09.
- The initial project duration was limited to two years. In actual fact, even after a six-month extension, the project was effectively implemented only for about a year due to very slow start-up. Only 25% of the original allocations were effectively disbursed.
- Many activities implemented under this project have been, in reality, at least partly (if not entirely) funded by other donors, mainly due to delays in making the funds managed by the WB available in the field.
- Some activities originally included in the project (e.g. compensation system for culling) have not been carried out at all, although they might be essential for an effective HPAI control and prevention strategy.[12]
- Partly due to its limited size, the WB project is essentially of a "pilot" nature. Its benefits could actually be reaped only through scaling-up and generalizing surveillance and control measures on a country-wide or at least island-wide scale. Therefore the economic analysis would require to take into account also the costs (hypothetical) of scaling-up, which are not yet really known at this stage.
- A *bona fide* system of monitoring and evaluation is still lacking, both for this project and, more generally, the whole National Program for Control of HPAI. As a result, there is only anecdotal evidence of the actual outcomes and impacts of most HPAI control measures implemented so far in the field, which would make quantification of benefits hazardous. One exception is the mass vaccination program carried out as part of the Operational Research implemented by ILRI under the project. However, results of this research remain very controversial.

[12] It is generally thought that a well-designed "compensation framework" is an essential element to obtain real cooperation from affected stakeholders (farmers/ producers) and to ensure the efficacy of the surveillance and diagnosis mechanism.

- Another important factor is the limited time during which the Project has actually been implemented (less than a year). Some activities, such as the targeted vaccination program (InVac), really started only in the last few months of Project implementation. These activities are still ongoing and, even if a detailed monitoring system were in place, no data would be available yet to assess the actual outcomes and impacts.

7.3 As a result of these factors, even if an ERR could be calculated – which is always a speculative endeavour for investments in control and prevention of AHI, as explained in the above section 4 – in this particular case, due to the limited scope and pilot nature of the project, it would have to relate to a full set of investments that are mostly beyond the project and largely exceed it. Benefits would also have to be estimated mostly on an *ex-ante* (and not *ex-post*) basis, due to the lack of actual data on outcomes and impacts of the investments made so far. In the end, such analysis would not provide any meaningful information on the actual economic impact of this particular project.

7.4 Nonetheless, the **economic and financial/ fiscal benefits** that can be specifically attributed to the project can still be analyzed in a qualitative manner. As explained above in section 4, a key concern is to ensure a minimum cost composition of HPAI prevention and control measures. The main impacts and outcomes of the project and their corresponding economic and financial implications are described below qualitatively.

7.5 Through its pilot nature and Operational Research component (component D), the project aimed mainly to clarify the effectiveness and respective benefits of various HPAI control and prevention strategies in the backyard poultry of Sector 4. A main thrust of the original project design was to carry out a range of activities on a pilot scale – Participatory Animal Disease Surveillance and Response (component A), mass village chicken vaccination (component B), culling compensation system (component C) – and to monitor and evaluate their impact through "Operational Research" (Component D) carried out by ILRI.

7.6 The project thus clearly aimed to assess the relative cost-efficiency of alternative measures, and hence to improve cost effectiveness of HPAI control and prevention in Indonesia through identification of the most appropriate measures. In this way, the national HPAI control and prevention program would be guided by relevant and timely locally produced evidence and rigorous analytical work.

7.7 The results of Operational Research have been somewhat disappointing, mainly because only one set of measures (i.e. mass vaccination of backyard village chicken) was actually assessed. This shortcoming resulted in part from the fact that other components of the project were not all implemented as planned.

7.8 The principal finding of the Operational Research is that it is logistically feasible to mount a mass vaccination campaign against HPAI in backyard poultry. The study also concludes that such mass vaccination would actually reduce HPAI outbreaks in backyard poultry – a conclusion that has raised controversy from other partners such as FAO, who have criticized the study design and its scientific validity. Regardless of this controversy, however, the Operational Research study conducted by ILRI also concludes that, while mass vaccination in Sector 4 is technically and logistically feasible, it is not feasible from an institutional or economic perspective. Such mass vaccination in the backyard poultry of Sector 4 entails substantial recurrent costs that are not sustainable.

7.9 Even before the Operational Research was actually conducted, the national HPAI program started to move towards a targeted vaccination program (InVac) focused on small scale commercial poultry production situated at the limit between Sector 3 and Sector 4.

7.10 The Operational Research carried out under the project did not provide the breadth of analysis (i.e. different control measures) initially expected and, at best, contributed only indirectly to the evolving HPAI vaccination strategy in Indonesia. Nonetheless, it has contributed to fuel the debate about the need for appropriate analysis of alternative control strategies which should be based on field experience and local evidence.

7.11 Other direct benefits from the project include its contributions to:

- improving access to information for small poultry farmers through the Information, Education and Communication (IEC) campaigns conducted under component F; and
- strengthening the capacity of relevant government agencies involved in the project, in particular the field veterinary services which have been strengthened through the training received under the project and the introduction of the Participatory Animal Disease Surveillance and Response (PDSR) approach.

7.12 Jointly with other projects for the control and prevention of HPAI in Indonesia, the project has contributed to lay the foundations for an effective surveillance system that could be applied as well to other rapidly spreading infectious diseases. While the project dealt only with HPAI, the scope of the animal health surveillance system supported by the project (and other projects/ donors) could easily be enlarged to other zoonoses and epizooties of economic importance. This would also lead to higher potential benefits, as well as enhanced commitment from GOI and beneficiaries and hence improved prospects for sustainability.

7.13 Other positive outcomes of this and other projects for HPAI control in Indonesia, which are not related solely to the main focus on HPAI but can be of broader use and benefit, include: (i) the development of a network of village vaccinators whose services are paid by the beneficiaries; (ii) the establishment of the cold chain and logistics system for handling of vaccines; and, specifically related to the Bank supported AI project, (iii) the testing of modalities to transfer funds from the central government to local governments to carry out animal disease surveillance and other activities that need to be sustained after external funding will cease.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending/Grant Preparation			
Louise Scura	Lead Natural Resources Mgmt Specialist	EASIS	TTL
Supervision/ICR			
Louise Scura	Lead Natural Resources Mgmt Specialist	EASIS	Previous TTL/Rural Development
Shobha Shetty	Sr. Economist	EASER	TTL/Rural Development
Bisma Husen	Senior Procurement Specialist	EAPPR	Procurement
Laurent Msellati	Operations Adviser	EAPCO	Animal health
Erman A. Rahman	Operations Officer	EASIS	Project Management
Claudia Rokx	Lead Health Specialist	EASHH	Human health
Isono Sadoko	Consultant	EASIS	Social safeguards
Unggul Suprayitno	Sr Financial Management Specialist	EAPFM	Financial Management

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY07	8	59.04
FY08		0.00
Total:	8	59.04
Supervision/ICR		
FY07		0.03
FY08	6	36.83
FY09	12	73.66
Total:	18	110.52

Annex 5. Beneficiary Survey Results (if any)

N.A.

Annex 6. Stakeholder Workshop Report and Results (if any)

N.A.

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

(a) Borrower's Completion Report

The GOI was advised of its responsibility to prepare a Borrower Completion Report by both the Bank supervision team and the ICR team, but did not provide the Bank with its own completion report.

(b) Borrower Comments on the Bank ICR

Note: The Coordinating Ministry of People's Welfare and the Ministry of Agriculture (DGLS) provided comments on an earlier draft of the Bank's ICR (received August 2010) in which a key point was made that the Government performance rating of Highly Unsatisfactory was not warranted. The Bank team subsequently discussed the ratings and decided to upgrade the rating slightly to Unsatisfactory. The comments by the government on the draft ICR are presented below.

Comments from DGLS, Ministry of Agriculture:

Thank you for your letter dated 25 June 2010 sending a copy of the draft ICR of the Avian Influenza Surveillance and Control Project for our comments. I would like to apologize for the long delay of responding due to our hectic schedule in-country.

With regard to the draft ICR of the Avian Influenza Surveillance and Control Project, herewith our comments as follows :

I. Participatory Animal Disease Surveillance and Response :

It was the original plan that the World Bank's fund will be used to enhance LDCC and PDSR programme in 12 districts in Java island. However, due to late implementation of the project the amount of fund for this component was too big to finance LDCC and PDSR only in 12 districts. During series of discussion with the FAO HPAI Programme and Directorate of Animal Health, it was then decided the WB's fund be used to support LDCC and PDSR programme in Kalimantan and Sulawesi islands as well as NTB where FAO was about to terminate the support to those LDCCs and PDSRs. As the disease situation in those islands was low and sporadic, the support from the WB was expected that surveillance on AI could be sustained to gain freedom from AI. The WB's support was also aimed to strengthen local government veterinary services through series of capacity building for PDSR officers.

It was expected that the WB's fund could contribute significantly and fill the gap whilst the local governments were not ready in providing local budget. It was unfortunate that the length of the support was too-short. Nevertheless, the support has been enhanced the LDCC and PDSR capacity in the location.

The population of backyard poultry (sector 4) in villages within 9 provinces in Kalimantan, Sulawesi and NTB was 50,687,880.

2. Community-Based Preventive Vaccination

Procurement of AI vaccine using WB's funding was suspended due to the recommendation of the Animal Health Expert Commission in March 2009 which stated that a new AI vaccine has to be produced as the AI virus in the field has experienced an evolution which caused the available AI vaccines are not effective. It was expected that a new vaccine could be produced within the project timeline, however it was beyond our control that the process towards production new AI vaccine was needed such complex steps. Up to the project ended, new AI vaccine had not been produced.

During the In-Vak activity, 1,287,000 birds in 10 districts were vaccinated, 40 KVM and 680 VM (both ex. OR programme) have also trained. Considering to the beneficial of In-Vak activity and to utilize the availability of KVM and VM, an extension has been approved up to December 2010 using vaccines assisted by USAID. It is our expectation that in the next years the Government of Indonesia (GOI) will be able to continue the activity with possible replication in other districts and using vaccines through national procurement.

3. Impact Monitoring and Evaluation of Control Strategies, and Targeted Epidemiological Studies

The GOI has responded to the draft of final report of the OR in March 2010, commented on few findings. None of the study was useless but it needed to have more coordination and communication on the design and implementation of the study in order to make the result more useful to support the GOI in the decision making process. However, it was true that the study was carried out by ILRI without involvement of national counterparts so that it was more ILRI's project. Nevertheless, within the OR programme in 16 districts in 3 provinces around 23 million birds were vaccinated, 64 KVM and 1,088 VM have trained.

I therefore would like to extend our gratitude to the World Bank for the support given, and apology for any miscommunication made which cause the aim of the project unsatisfactorily achieved while the project was intended to assist us in controlling AI.

Thank you for your attention.

Yours sincerely,

Heppy D. Soedjana
Director General

Comments from Menko Kesra:

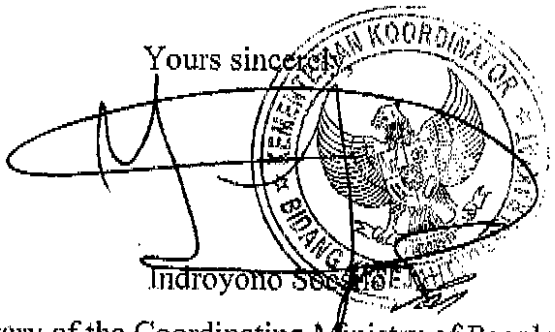
Thank you for your letter on July 16, 2010 in relation to the aboved subject. After examining the report of document, we have several comments below, and detailed comments are given in the attachment.

1. We regret that rate of the general result of the program was not satisfactory, although as it was the case.
2. As you know, two of the government institutions: Komnas FB and DGLS of Ministry of Agriculture were directly implementing the project, while Kemenko Kesra provided coordination and integration of the program. These two institution have specific reasons the way they implemented the projects.
3. At the end of the Project, Kemenko Kesra conducted several efforts to accelerate the project, and it seemed, it gave very good result, although we have very limited of time. We also requested to extend and proposed restructured program, however, it was rejected by the World Bank (WB) and the Donors.
4. Please consider our comments and suggestions to be shown specifically in the WB's report as given in attachment.

We do very much appreciate for considering our comments, and thank you very much for your good cooperation.

With best regards,

Yours sincerely,



Indroyono Soesilo

Secretary of the Coordinating Ministry of People's Welfare

POINTS SUGGESTED TO BE SHOWN SPECIFICALLY IN THE WORLD BANK REPORT

A. Needed Shown and Included in the Report

1. The acceleration work conducted by the Kemenko Kesra, in the second semester 2009, was to faster the program although it had limited time. In the original WB's report, it shown only in supporting sentences.
2. The results of the accelerated work as above such as: campaigning the Avian Influenza (AI) to the rural people, strengthening the institution relate to AI, and forming the task force in the rural to increase awareness of the dungarees of AI. Extensive reports have been made by the team for these acceleration work.
3. The evaluation financial disbursement by the Controlling Financial and Development Body (BPKP) for the component C, E and F results in satisfactory without any note/complain.
4. The proposal from GOI (Kemenko Kesra) asking to extend and restructure the project are for: supporting and developing local chicken poultry which high resistant from AI, strengthening domestic research on chicken and related human, and increasing capacity building for human resources, although this proposal was rejected.

B. Comments to be Considered in the Report

1. At point 5.2.1, the government performance in supporting the project, rate given was **"highly unsatisfactory"**, it seems over-stated (too strong). The reason is that government body consists of many units and spread over to lower regions, some of them contribute good others may not. Moreover, evidence of infectious disease of AI in Indonesia was

dramatically reduced until now. If it was the case, the rate performance of government maybe not so bad as above, probably low satisfactory.

2. Indicator 5 in page iv saying that Information and Data Management and Coordination related actions improved were **"Not able to measure"**, probably it can be judge and measure qualitatively saying that it improved.
3. Para 2.2 Implementation may be need more explanation of Key Factors contributed unsatisfactory in implementing the program. It needs additional stressing:
   a. Administration of financial procedure took more than 1 year to allow funds can be used effectively. MoU was signed on June 2007 but the funds ready be used on October 2008 waiting budget revision from ministry of Finance, and it was flowing on May 2009 waiting the disbursement manual approved by World Bank and Ministry of Finance.
   b. The project has pre-request of having consultants of management and finance before field operation. These two consultants were chosen on January 2009
   c. Procedure of obtaining field consultants needs NOL (No Objection Letter) required several months. The process in obtaining the NOL roundabout among World Bank, Kesra and Komnas to get clarification. Two months before project terminated the final NOL finally obtained.

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

N/A

Annex 9. List of Supporting Documents

1. DGLS (2007) Participatory Disease Surveillance and Response, A Review, January 2006 – May 2007
2. DGLS (2008) Annual Report of Implementation Activity 2008
3. DGLS (2008) National Strategic Work Plan for the Progressive Control of Highly Pathogenic Avian Influenza in Animals, Proposal for Phase II for Implementation 2009 to 2011
4. DGLS (2009) Progress Report, Indonesia Avian Influenza Surveillance and Control Project, Quarterly I, January – April 2009
5. DGLS (2010) A letter to ILRI on the Operational Research, 22 March 2010, Ref. 22063/PD.620/F/03/2010
6. DGLS and FAO (2008) Agreement between DGLS and FAO Concerning the Carrying out of Consultant's Services Financed by the World Bank
7. EU (2009) Mid-Term Review of the Contribution of the European Commission to the Avian and Human Influenza Facility in East and Southeast Asia, Final Report
8. EU (2010) Outcome and Impact Assessment of the Global Response to the Avian Influenza Crisis
9. FAO (2008) Annual Report, Avian Influenza Control Programme in Indonesia
10. FAO (2010) FAO Regional Strategy for Highly Pathogenic Avian Influenza and other Emerging Infectious Diseases of Animals in Asia and the Pacific
11. FAO (2010) Third Report (October 2008 – December 2009) Global Programme for the Prevention and Control of Highly Pathogenic Avian Influenza
12. FAO (2010) AIDE NEWS Number 65 for April 2010
13. FAO/World Bank (2006) Rapid Assessment of the Highly Pathogenic Avian Influenza Compensation Scheme in Indonesia
14. Kesra (2010) Final Report on Indonesia Avian Influenza Surveillance and Control Project, World Bank Grant
15. Komnas FBPI (2010) Building A Plane While Flying It. 2006 – 2010
16. Komnas FBPI (2010) Avian Influenza Surveillance and Pandemic Influenza Preparedness Information and Education and Communication Training
17. Ministry of Agriculture (2005) National Strategic Work Plan for the Progressive Control of Highly Pathogenic Avian Influenza in Animals, Avian Influenza Control Campaign 2006 – 2008, Indicative Outline
18. OIE and FAO (2008) The Global Strategy for Prevention and Control of H5N1 Highly Pathogenic Avian Influenza
19. Republic of Indonesia (2005) National Strategic Plan for Avian Influenza Control and Pandemic Influenza Preparedness 2006 – 2008
20. United Nations and World Bank (2010) Animal and Pandemic Influenza: A Framework for Sustaining Momentum (Draft) International Ministerial Conference on Animal and Pandemic Influenza, 20 – 21 April 2010, Hanoi, Vietnam

21. World Bank (2006) Aide Memoire 27 March – 7 April 2006

22. World Bank (2007) Implementation Completion and Results Report (IDA 39690 JPN 54219) to The Socialist Republic of Vietnam for The Avian Influenza Emergency Recovery Project

23. World Bank (2007) Japan PHRD Co-financing Grant Agreement

24. Avian and Human Influenza Facility Grant Agreement

25. World Bank, Implementation Status and Result Reports (ISRs) # 1-3 Archived

26. World Bank, Grant Reporting and Monitoring (GRM) Report, PHRD: Reporting period (07/01/2007 to 06/30/2008, and 07/01/2008 to 06/30/2009) and AHIF: Reporting period (06/13/2007 to 12/31/2009

27. World Bank/FAO/IFPRI/OIE (2006) Enhancing Control of Highly Pathogenic Avian Influenza in Developing Countries through Compensation, Issues and Good Practice


INDONESIA
SELECTED CITIES AND TOWNS
PROVINCE CAPITALS
NATIONAL CAPITAL
RIVERS
MAIN ROADS
RAILROADS
PROVINCE BOUNDARIES
INTERNATIONAL BOUNDARIES
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PROVINCES:
1 NANGGROE ACEH DARUSSALAM
2 SUMATERA UTARA
3 RIAU
4 SUMATERA BARAT
5 JAMBI
6 BENGKULU
7 SUMATERA SELATAN
8 LAMPUNG
9 BANGKA-BELITUNG
10 BANTEN
11 D.K.I. JAKARTA
12 JAWA BARAT
13 JAWA TENGAH
14 D.I. YOGYAKARTA
15 JAWA TIMUR
16 BALI
17 NUSA TENGGARA BARAT
18 NUSA TENGGARA TIMUR
19 RIAU KEPULAUAN
20 KALIMANTAN BARAT
21 KALIMANTAN TENGAH
22 KALIMANTAN SELATAN
23 KALIMANTAN TIMUR
24 SULAWESI UTARA
25 GORONTALO
26 SULAWESI TENGAH
27 SULAWESI BARAT
28 SULAWESI SELATAN
29 SULAWESI TENGGARA
30 MALUKU UTARA
31 MALUKU
32 PAPUA BARAT
33 PAPUA
Banda Aceh
Medan
Pematangsiantar
Simeulue
Nias
Pekanbaru
Tanjungpinang
Padang
Siberut
Jambi
Pangkalpinang
Palembang
Bengkulu
Bandar Lampung
Serang
JAKARTA
Bandung
Semarang
Surabaya
Yogyakarta
Denpasar
Mataram
Waingapu
Kupang
Timor
Lombok
Sumbawa
Flores
Sumba
Bali
Madura
Enggano
Belitung
Bangka
Lingga
Natuna Besar
Mentawai Is.
Pontianak
Tarakan
Samarinda
Balikpapan
Palangkaraya
Bandjarmasin
Mamuju
Parepare
Makassar
Palu
Gorontalo
Manado
Kendari
Baubau
Muna
Ambon
Ternate
Halmahera
Morotai
Talaud Is.
Sula Is.
Taliabu
Peleng
Obi
Buru
Ceram
Amahai
Waigeo
Misool
Sorong
Manokwari
Fakfak
Biak
Yapen
Jayapura
Timika
Puncak Jaya (5030 m)
Merauke
Kai Is.
Aru Is.
Tanimbar Is.
Wetar
Alor
Moa
Babar
Ende
Raba
SINGAPORE
BRUNEI
MALAYSIA
VIETNAM
PHILIPPINES
Sulu Sea
Celebes Sea
Java Sea
Banda Sea
Arafura Sea
PACIFIC OCEAN
INDIAN OCEAN
AUSTRALIA
TIMOR-LESTE
PAPUA NEW GUINEA
KALIMANTAN
SUMATERA
SULAWESI
JAWA
0 200 400 Kilometers
0 100 200 300 400 Miles
AUGUST 2008
IBRD 33420R2