FAO ECTAD INDONESIA

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

INDEX

ACKNOWLEDGEMENTS

The FAO Emergency Centre for Transboundary Animal Diseases (ECTAD) Programme works closely with the Government of Indonesia's Ministry of Agriculture, provincial and district Livestock Services; the National Commission for Zoonoses Control (KOMNAS Zoonosis); the United Nations country team, particularly the World Health Organization, the Office for the Coordination of Humanitarian Affairs and the United Nations Development Programme; the United States Department of Agriculture, the Australian Department of Agriculture, Fisheries and Forestry (DAFF), ASEAN, the US Centers for Disease Control, the Australian Centre for International Agricultural Research, the Japan International Cooperation Agency and non-government partners such as the Indonesian poultry veterinarians' association (ADPHI), the National Poultry Health Committee (KKUN), the Strategies Against Flu Emergence (SAFE) project, and the JSI Deliver project. In relation to rabies control, FAO works closely with the DGLAHS and Bali livestock services, and with DAFF, the World Society for the Protection of Animals (WSPA), the Global Alliance for Rabies Control (GARC) and the University of Glasgow, UK.

Collectively, donor organizations fund some 11 international and 70 national staff contracted to FAO in Jakarta and South Sulawesi. FAO staff are responsible for technical and administrative support to the HPAI Campaign Management Unit, Directorate of Animal Health, undertaking a range of activities in support of avian influenza control. Some staff members also provide strategic technical support on rabies control to the DAH and the Bali provincial and districts livestock services.

In 2011 the FAO ECTAD Programme in Indonesia was primarily funded by the United States Agency for International Development and the Australian Agency for International Development, with funding for some specific HPAI projects from the FAO Netherlands Trust Fund through the Indonesia Dutch Partnership avian influenza project. The rabies control programme was funded through an FAO Indonesia Technical Cooperation project, an AusAID funded project and a project funded by USAID. ECTAD Indonesia wishes to express its deep gratitude to our donors and acknowledgment of the support of our technical partners.

FOREWORD

Poultry production, and its associated activities, account for around one percent of Indonesia's gross domestic product and provide the majority of animal protein consumed by 232 million Indonesians. A complex array of poultry enterprises, ranging from intensive commercial enterprises, to small-scale semi-intensive broiler and layer enterprises, to small backyard flocks supply poultry meat and eggs to Indonesian consumers, predominantly through traditional markets countrywide. Some 60% of all Indonesian households keep poultry for food, additional income, entertainment and ceremonial purposes.

Since Highly Pathogenic Avian Influenza (HPAI) was detected in Indonesia in 2003, the disease has infected poultry in 32 out of 33 provinces, caused the deaths of millions of poultry, and disrupted the livelihoods of large numbers of people dependent on poultry keeping. Outbreaks continue to be reported regularly on islands with dense human and poultry populations, such as Java and Sumatra, and more sporadically in Sulawesi and Bali.

HPAI continues to present a major challenge to poultry production. An annualized poultry population of approximately 1.5 billion, a large culturally and ethnically diverse human population of around 232 million, a preference for purchasing poultry products from live bird markets, and a decentralized governance system, have all contributed to the persistence of the disease.

The FAO Emergency Centre for Transboundary Animal Diseases (ECTAD) Indonesia works to enhance the capacity and ability of the Government of Indonesia to implement its Avian Influenza Control Programme to sustainably control HPAI at village level, in the commercial poultry industry and along the market chain in order to help safeguard the health and livelihoods of the Indonesian population and reduce the global pandemic threat.

Rabies is endemic in several parts of Indonesia. Bali had been rabies free until rabies was first confirmed in humans on 23 November 2008 and in a dog on 28 November 2008. From November 2008 to the present, 139 human cases of rabies and 643 rabies cases in dogs have been reported. As Bali had been rabies free, there was a general low level of awareness and knowledge on management and control of the disease. This posed a substantial threat to the people living in Bali and the tourists that flock to the island every year, as well as a challenge to the local government animal and public health services. In February 2011 ECTAD Indonesia was requested by the Director General of Livestock and Animal Health Services to assist in developing a revised strategy for rabies control and to provide strategic support to the rabies control programme in Bali. FAO developed a Programme of three rabies projects with the DGLAHS, funded through the FAO Indonesia country programme, AusAID and USAID.

This 2011 Annual Report provides an overview of the activities carried out under the ECTAD Programme in collaboration with and in support of the Ministry of Agriculture and local government livestock services in Indonesia to control both HPAI and rabies. Achievements in HPAI control across the key theme areas of improving poultry health, public private partnerships, capacity building and strengthening veterinary services are presented. Activities related to the rabies programme are presented under the capacity building and strengthening veterinary services themes.

The activities and achievements described in this report were funded by many donors and their contribution and commitment are gratefully acknowledged.

THEME 1

IMPROVING POULTRY HEALTH

Traditionally, poultry play a very important role in the lives of the Indonesian people. Poultry provide a source of livelihood for some and a source of high nutrition food for others.
As a support to livelihoods, poultry are raised by nearly 21 million households across Indonesia, while at the same time contributing 60% of the national meat supply as a source of animal protein. The demand for animal protein in Indonesia is increasing every year, in parallel with the growing human population and an increased awareness of the importance of a nutritionally balanced diet. In support of the increased demand for animal protein, especially poultry meat, FAO ECTAD Indonesia continued to contribute to the improved health of poultry in Indonesia during 2011.

In conjunction with the OIE/FAO Network on Animal Influenza (OFFLU), the laboratory component of the ECTAD Programme further supported national animal health laboratories to increase their capacity to diagnose and monitor avian influenza viruses in 2011. The eight Disease Investigation Centres (DIC) of the MOA Directorate General of Livestock and Animal Health Services (DGLAHS) were supported to establish a network to monitor circulating H5N1 viruses and identify potential virus variants; to monitor efficacy of vaccines in use and to identify potential candidates for challenge/vaccine strains. Harmonized assays were introduced and biological specimens and data were shared, including data analysis. Improved knowledge was obtained of circulating H5N1 viruses to directly inform vaccine policy through the characterization and analysis of 244 viruses predominately circulating in village-based poultry.

A technique developed to characterise human influenza viruses and facilitate human vaccine strain selection for seasonal influenza viruses since 2002 (antigenic cartography) was pioneered for application to avian influenza viruses using avian antisera. Virus isolates were shared with international reference laboratories for advanced characterization, and approval in principal for release of sequence data to the public domain has been granted by the DGLAHS.

In the JABODETABEK metropolitan area, the Market Cleaning and Disinfection (C&D) programme conducted C&D activities for poultry trucks and transport crates at 47 collector yards / slaughterhouses and held market cleaning days at 22 live bird markets, in order to reduce the spread of virus between farms via the poultry market chain and to minimize the risk of human exposure to H5N1 via the market chain. The programme also conducted monitoring and evaluation of market chain cleaning and disinfection activities in the field by local animal health officials in order to improve C&D implementation.

In support of the above activities, the Epidemiology team conducted a Truck Cleaning Study in Jakarta. This study is expected to provide information on truck cleaning operations in Jakarta and about the effectiveness of different cleaning methods to reduce contamination. Based on the results, recommendations will be made on the modification of the cleaning and disinfection SOPs to optimize the efficiency, speed and cost effectiveness of the C&D process.
The study was conducted at 2 collector yards in East-Jakarta which have recently been equipped with truck cleaning stations to clean and disinfect exiting trucks and at 2 out of 40 collector yards which have been provided with high pressure washers and detergent.

Swab samples were taken from trucks and crates before and after washing and disinfection to assess the effectiveness of the procedures in the SOPs. A coliform count was used to determine the level of contamination. The reduction in coliform count will serve as a proxy for HPAI risk reduction through the cleaning and disinfection process. Questionnaires and checklist completion were used to collect additional information on the cleaning process.


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The Petugas Veteriner Unggas Komersial (PVUK) – commercial poultry veterinarian - pilot programme was designed in 2010 to address the role that the commercial sector plays in the maintenance and spread of HPAI within the market chain. The programme addresses not only HPAI in commercial flocks but also other diseases of economic importance, biosecurity and poultry farm management.

During 2011, the programme was established through the training of 40 PVUK veterinarians from pilot districts in four provinces Lampung (South and East Lampung Districts); West Java (Tasikmalaya Municipality; Tasikmalaya District); Central Java (Klaten, Boyolali, Karanganyar Districts); East Java (Kediri District).

The PVUK veterinarians were given training at three levels comprising of 6 days each on biosecurity, poultry health, farm management, vaccination and problem solving. They began working with the farming community from the second level of training and have developed a strong sense of trust with stakeholders in the commercial poultry sector. The Commercial Poultry Health and PVUK projects worked closely together in 2011 to develop and deliver high level technical training modules and to set up a support mechanism for PVUK officers.

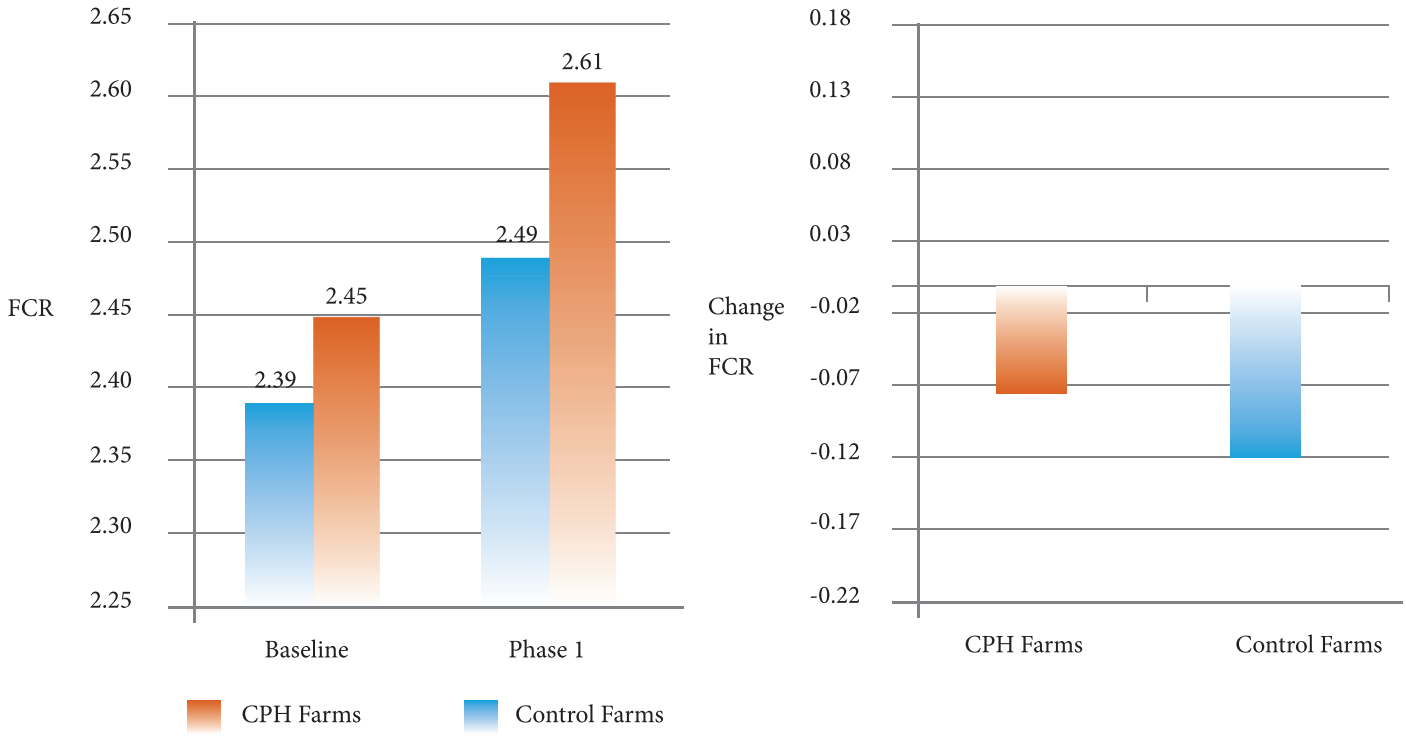
By the end of 2011, 1,000 farm visits had been carried out and PVUK veterinarians assisted farmers in problem solving, vaccination support and biosecurity review. One key skill that is being developed in PVUK is the ability to carry out short training courses with poultry farmers. They commenced by assisting farmers to improve their vaccine cold chain and improve their C&D activities through training sessions for small numbers of farmers during a farmer group meeting.

Over the year, there has been an increase in demand for PVUK services. Farmers are inviting PVUK to visit their farms to share problems and have arranged 8 training sessions with 150 participants in pilot districts. In 4 of the trainings the farmers cost-shared the activity by providing refreshments. Moreover, 11 stakeholder meetings were conducted with 198 participants including commercial farmers and farm input suppliers, such as poultry shops.

The Indonesia Commercial Poultry Health programme (IndoCPH) carried out semi-structured interviews and farm assessments as the baseline identification phase on six chicken layer farms. Non-biosecurity related gaps were identified on farm management, vaccination practices, disease control and monitoring. Written and signed agreements were made to address these identified gaps with the six farmers.

In the period between February and July 2011 the agreed production management changes were implemented during Phase I of the study. Implementation of the agreed management changes was about 80% successful on the six farms in the study. As a measure of production performance improvement, average weekly egg laying rate per hen (ELR) and average feed conversion rate (FCR) were compared between farms and between the study farms and the control farms. The results of these comparisons are shown in Figure 1 and Figure 2 for FCR and ELR respectively.

Figure 1



The average FCR of the CPH farms was 2.39 in the baseline phase and 2.49 in phase I, showing an increase of 0.1 in FCR. Compared to study farms the control farms recorded FCRs of 2.45 and 2.61 in the baseline and phase I periods, an increase of 0.16. This shows that on all farms more feed was needed in phase I to produce the same weight of eggs but the control farms needed more feed than the six study farms to produce the same weight in eggs between the baseline phase and phase I.

Figure 2 shows a similar trend in ELR. There was a decrease in egg laying rate from 5.28 to 5.22 in the study farms and from a high 5.61 to 5.17 in the control farms. Although all farms performed worse between the baseline and phase I, the CPH farms did much better than farms that did not implement changes with the help of IndoCPH. The provision of specialized technical support to selected layer farmers to enhance production efficiency and quality of layer vaccination by the programme resulted in this better performance by the study farms.

Incidentally during the phase I period, a correlation was noticed between clean farms, depicted by lower total bacterial counts in drinkers and feeders and FCR in the study farms. The results of these findings are shown in figure 3.

Figure 2

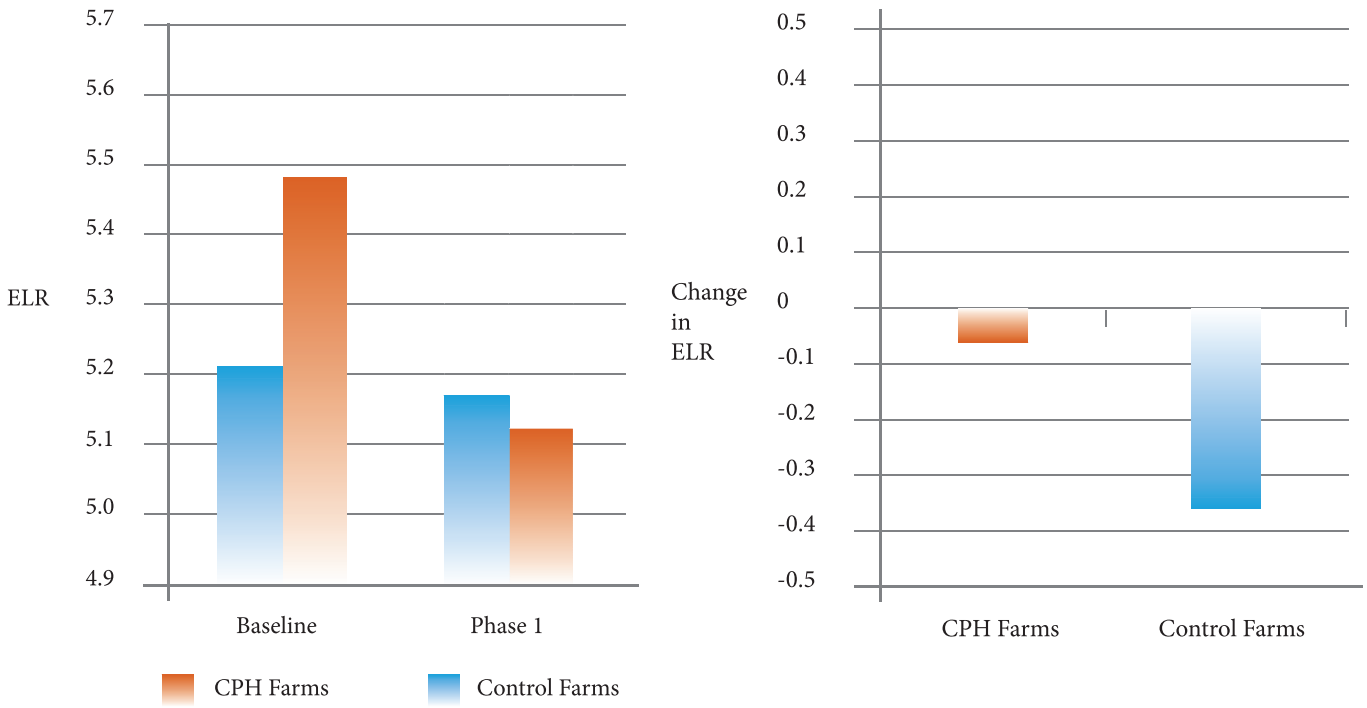
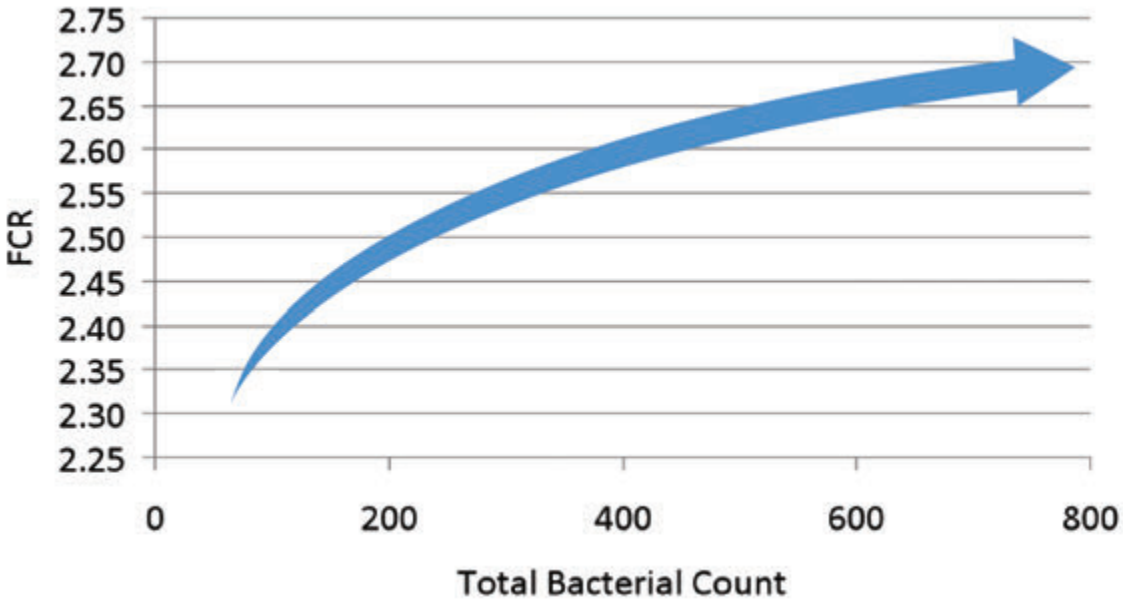


Figure 3



This graph shows that the lower the bacterial counts on the feeders and drinkers, the lower the FCR thus showing better production performance. This finding emphasizes and provides evidence for the need to clean and sanitize drinkers on poultry farms. This evidence-based best management practice has been adopted and farmers have been provided with SOPs on drinker and feeder equipment cleaning. Further sampling and analysis of production data will be carried out to further confirm this best management practice during the next phase of the study.

The final phase of the biosecurity cost-effectiveness study has the following research objectives:

- To identify profitable biosecurity interventions on commercial layer chicken farms
- To quantify the cost-benefit ratio of biosecurity interventions on commercial layer chicken farms
- To quantify the HPAI risk reduction of biosecurity interventions on commercial layer chicken farms

This implementation phase will be carried out between June and September 2012 and will focus on biosecurity improvement efforts, both structural and operational, on each of the participating farms.

THEME 2

PUBLIC PRIVATE PARTNERSHIP

IndoCPH is a part of the FAO ECTAD Indonesia Programme that is focused on improving HPAI prevention and control in the commercial poultry sector by working directly in partnership with farmers. Six high-risk layer farms with a population range of 15,000 - 80,000 birds were identified in Central Java. Programme activities being carried out are as follows:

• Provide specialized technical support to selected layer farmers to enhance production efficiency and quality of layer vaccination and biosecurity measures.
• Evaluate effectiveness of biosecurity measures implemented by poultry producers

An agreement was made between the farmers and FAO affirming the farmer's commitment to implement the jointly identified changes to their production management and biosecurity practices. Additionally three other farms were selected as control farms to be used in the biosecurity effectiveness study.

The PVUK programme has developed relationships not only with Sector 3 commercial poultry farmers but also with the Technical Services departments of commercial poultry companies, feed companies and vaccine suppliers. These representatives of private industry join the meetings and trainings held by PVUK and provide extra technical information to the farmers.

The Market C&D programme supported slaughterhouses and Live Bird Markets in the Jabodetabek area with cleaning and disinfection stations and market rehabilitation. Two (2) cleaning and disinfection stations were built at Barokah Pitikku slaughterhouse in Bekasi city and at a private truck washing station in Ciseeng, Bogor district. Rehabilitation was conducted in five (5) Live Bird Markets: Anyar and Parung Panjang markets in Bogor, Kranggan market in Bekasi, and Anyar and Bonang markets in Tangerang. Rehabilitation was also conducted at the small scale slaughtering facilities at Rawa Kepiting slaughterhouse.

To support the DKI Jakarta Marine and Agriculture Services in its ayam ASUH or healthy poultry meat programme, the FAO Market programme conducted market activation and promotion of healthy meat (daging ayam ASUH) from relocation centres to healthy meat outlets/markets in Jakarta in collaboration with existing local NGOs and poultry business actors (private sector).

In the efforts to reduce the risk of HPAI virus transmission, the government of DKI Jakarta and local government enterprise Dharma Jaya has built four (4) slaughterhouses in the DKI Jakarta area. With the support of the ECTAD Market programme through negotiation and training, some of the poultry business actors in Jakarta have already started to operate their own slaughtering activities in the government built relocation centres. Communication forums and related discussion groups with key actors and stakeholders were established to promote additional relocation centres in line with the recommendations made by the Governor. As a result, some poultry business actors agreed to build additional slaughterhouses using their own funds in line with the government's SOP.

The ECTAD laboratory programme supported strengthened communication between industry and government. This helped to develop mechanisms for working together and encouraged data sharing and improved knowledge of circulating H5N1 viruses to directly inform vaccine and vaccination policy.


Daging Ayam
yang
ASUH


Daging Ayam
yang
ASUH

THEME 3

CAPACITY BUILDING

With approximately 2400 PDSR trained local government officers working in Indonesia, there is a huge task to support and train them and FAO is setting up a network of Master Trainers across the country to carry out trainings at the provincial and district level. The PDSR programme continues to develop the training skills of Master Trainers who had been trained in previous years. In 2011, 10 of these Master Trainers were given extra skills in participatory training through the Adult Training course in addition to valuable field experience. Several now have the ability to develop a training curriculum and modules based on key competencies. These Master Trainers have been key in the development and implementation of training modules for PDSR, PVUK and NVS (rabies). At the end of 2011, nine new Master Trainers were selected and brought to Jakarta for training to improve their training skills.

In 2011, 51 new PDSR officers were trained in the "Intro" module for PDSR and a further 45 were given Continuing Education Training. As part of the PDSR refresher training, 29 were given Participatory Community Engagement (PCE) training to improve communication with the community. Two provinces (5 districts in Papua and 10 districts in East Kalimantan) and 1 district in West Bandung were able to fund 71 PDSR officers using local government funds.

During 2011, the PDSR programme was reviewed with FAO and CMU and simplified approaches were designed for a revised and streamlined PDSR system to become operational in 2012.

The ECTAD laboratory programme increased the diagnostic capacity of Indonesian laboratories through collaborative efforts between OFFLU and the Australian Animal Health Laboratory (AAHL) to conduct antigenic and genetic characterization of AI viruses as well as analyze, report, and share results.

The implementation of antigenic cartography for avian viruses as a new tool for assessment of antigenic differences between vaccine strains and circulating viruses has improved the understanding of avian influenza evolution in Indonesia. With the nomination of DIC Wates as the focal point for antigenic cartography and Pusvetma as one of the focal points for genetic characterization, a series of consultations, working groups and workshops has contributed significantly to transferring this technology from the international reference laboratories to the Indonesian focal point laboratories. Capacity building and transfer of technology through a series of antigenic and molecular training sessions was conducted from March 2011 to January 2012.

The Alat Preskrin pre-screening software, which enables all DIC laboratories to send the HI results to the antigenic cartography focal point, was developed to build up an appropriate scientific data management system.
The programme also increased the technical capacity of a National Reference Laboratory to produce standardized reagents for antigenic characterization activities and AI sero-surveillance in Indonesia.

To build capacity in C&D activities, the Market programme conducted training of trainers (TOT) and advanced training on C&D activities for local government livestock service officials. C&D introductory and refresher trainings for cleaning workers/owners of selected collection yards, slaughterhouses and Live Bird Markets in the Jabodetabek area were also conducted in order to improve their knowledge and skills on the principles of hygiene and sanitation. In addition to training, the programme also provided supporting materials and equipment to 47 collector yards/slaughterhouses and 22 live bird markets in Jabodetabek.

In collaboration with WHO, the programme conducted C&D trainings at 10 pilot LBMs in Gunung Kidul-DI Yogyakarta, Payakumbuh-West Sumatra, Malang-East Java, Pekalongan-Central Java, Metro City-Lampung, Sragen-Central Java, Bontang-East Kalimantan, Gianyar-Bali, Mataram-NTB, and Cibubur-DKI Jakarta.

To raise stakeholders' awareness on HPAI prevention and control along the poultry market chain, the programme conducted many trainings and focus group discussions with related stakeholders. The awareness trainings and discussions were followed up by technical assistance on capacity building for slaughterers, relocation centre slaughterhouse managers and relevant local government officials on proper slaughtering processes, slaughterhouse management, and operation of hygiene and sanitation activities.

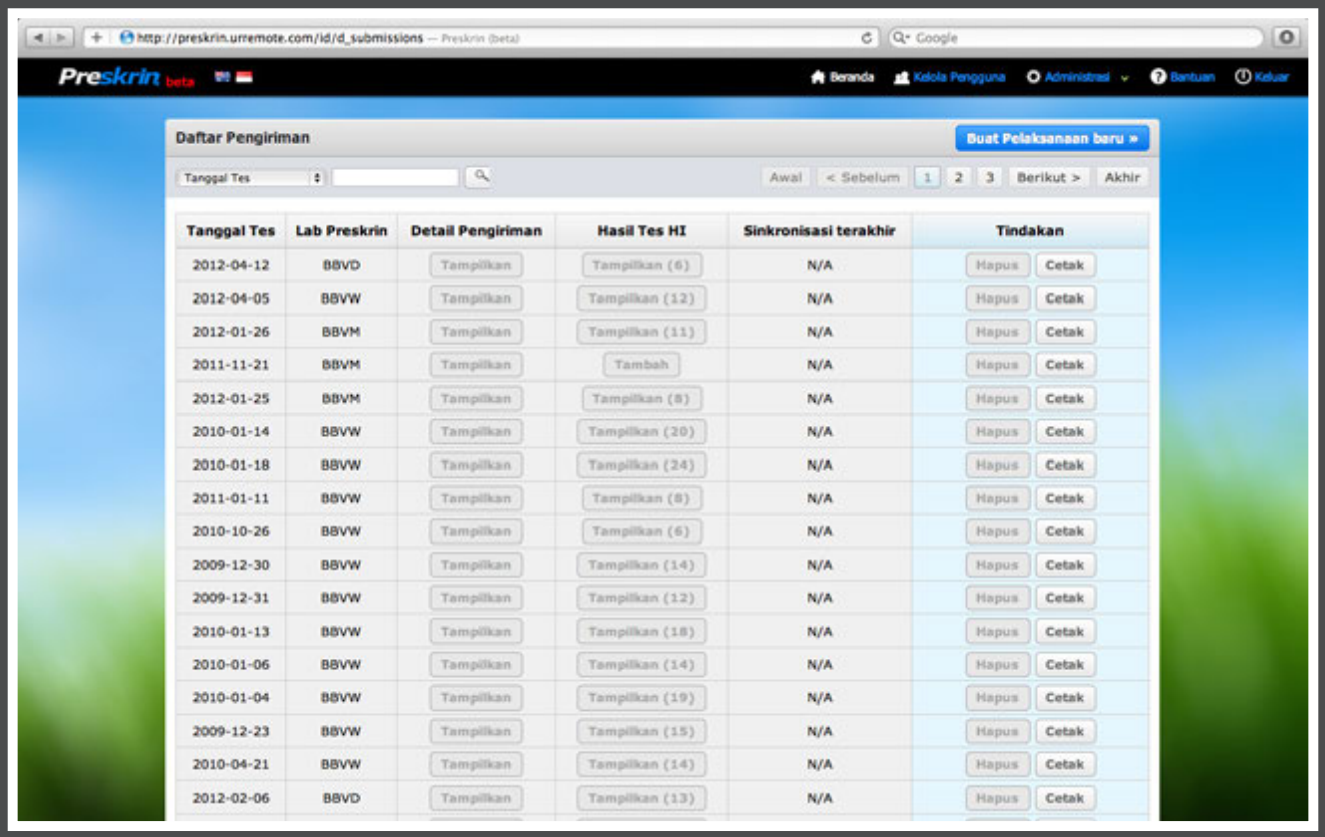
As further support for the DKI Jakarta ayam ASUH programme, technical assistance on cold chain systems for healthy poultry meat (daging ayam ASUH) processing, delivery and storage was provided at selected markets and slaughterhouses in the Jakarta area. Technical assistance on the control of food safety through joint inspection with relevant authorities at selected traditional markets in Jakarta was also provided.

As part of animal health management, the Epidemiology team conducted training for South Kalimantan Province Livestock Dinas on poultry farm profiling and HPAI surveillance in poultry. This was followed by GPS Refresher Training (basic) to enhance the local government capacity in the use of geographic information systems to support farm profiling and surveillance activities.

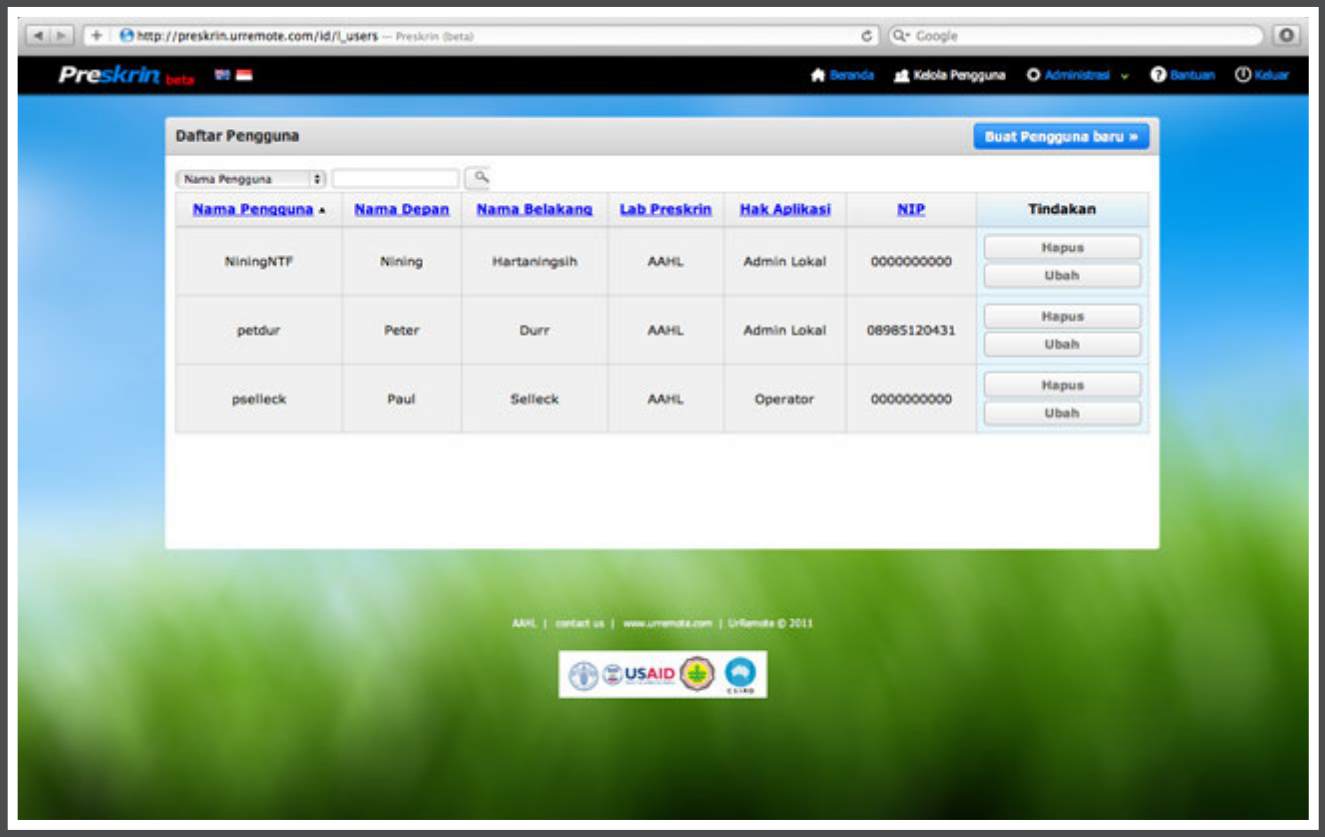
In relation to the Market C&D programme, the Epidemiology team conducted technical training for Balai Kesehatan Hewan & Ikan (DKI animal health laboratory) staff on the use of quick swabs and petri film to conduct bacterial culture and bacterial colony counting for the Truck Cleaning Study in Jabodetabek.

Following a massive HPAI outbreak in July 2011 in South Sulawesi, which later was spread into West Sulawesi, a Training of Trainers (TOT) on bio-security was conducted for PDSR officers and District Animal Health officers from affected areas. These trainers then trained a total of 346 commercial farmers in the affected areas on bio-security practices.


PETA KAB. ACEH



Tanggal Tes	Lab Preskrin	Detail Pengiriman	Hasil Tes HI	Sinkronisasi terakhir	Tindakan
2012-04-12	BBVD	Tampilkan	Tampilkan (6)	N/A	Hapus Cetak
2012-04-05	BBVW	Tampilkan	Tampilkan (12)	N/A	Hapus Cetak
2012-01-26	BBVM	Tampilkan	Tampilkan (11)	N/A	Hapus Cetak
2011-11-21	BBVM	Tampilkan	Tambah	N/A	Hapus Cetak
2012-01-25	BBVM	Tampilkan	Tampilkan (8)	N/A	Hapus Cetak
2010-01-14	BBVW	Tampilkan	Tampilkan (20)	N/A	Hapus Cetak
2010-01-18	BBVW	Tampilkan	Tampilkan (24)	N/A	Hapus Cetak
2011-01-11	BBVW	Tampilkan	Tampilkan (8)	N/A	Hapus Cetak
2010-10-26	BBVW	Tampilkan	Tampilkan (6)	N/A	Hapus Cetak
2009-12-30	BBVW	Tampilkan	Tampilkan (14)	N/A	Hapus Cetak
2009-12-31	BBVW	Tampilkan	Tampilkan (12)	N/A	Hapus Cetak
2010-01-13	BBVW	Tampilkan	Tampilkan (18)	N/A	Hapus Cetak
2010-01-06	BBVW	Tampilkan	Tampilkan (14)	N/A	Hapus Cetak
2010-01-04	BBVW	Tampilkan	Tampilkan (19)	N/A	Hapus Cetak
2009-12-23	BBVW	Tampilkan	Tampilkan (15)	N/A	Hapus Cetak
2010-04-21	BBVW	Tampilkan	Tampilkan (14)	N/A	Hapus Cetak
2012-02-06	BBVD	Tampilkan	Tampilkan (13)	N/A	Hapus Cetak



Nama Pengguna	Nama Depan	Nama Belakang	Lab Preskrin	Hak Aplikasi	NIP	Tindakan
NiningNTF	Nining	Hartaningsih	AAHL	Admin Lokal	0000000000	Hapus Ubah
petdur	Peter	Durr	AAHL	Admin Lokal	08985120431	Hapus Ubah
pselleck	Paul	Selleck	AAHL	Operator	0000000000	Hapus Ubah


MCA

THEME 4

STRENGHTENING VETERINARY SERVICES

In collaboration with FAO, the National Veterinary Services (NVS) Guidelines, which was proposed as a Joint Ministerial Decree between the Minister of Agriculture and the Minister of Internal Affairs, have been discussed with the Ministry of Internal Affairs. The content has been agreed in principle. However, since processing of the Joint Ministerial Decree was time consuming, the NVS Guidelines were temporarily published as a Decree of the Director General of Livestock and Animal Health Services on 22 November 2011, in order to enable implementation of the programme in the selected pilot provinces.

On 28 November 2011 further discussion of the DGLAHS NVS Guidelines was conducted with all heads of Provincial Livestock Services throughout Indonesia in Bali. The Decree was then distributed to all districts throughout the country. Three (3) provinces have been selected for pilot implementation of the Guidelines. The DGLAHS has communicated with the three provinces, namely Bali, West Sumatra and Riau, to request one (1) district in each province as a pilot area. Commitment and financial support from the Local Government, the number of veterinarians and paravets, the number of Puskeswan (Sub District Animal Health Centre), and the performance of PDSR staff have been selected as the criteria for inclusion of a pilot district.

As part of the development of training modules for the NVS, to be implemented in 2012, modules on the recognition and control of hog cholera were developed and piloted in Papua Province for 21 participants. The NVS will pay special attention to the five livestock diseases of national importance (HPAI, rabies, hog cholera, brucellosis and anthrax).

To develop training skills embedded in the provincial and district governments in Indonesia, a network of Master Trainers has been developed to carry out a range of training. With skills in the control of a larger number of diseases, PDSR officers and MTs are becoming more competent veterinarians and are developing sustainability for the future.

Within the PDSR programme, two LDCC coordination meetings were held to discuss issues relevant to the future of PDSR such as the implications of reductions in donor funding and the development of the new streamlined PDSR system. A total of 57 participants attended the two meetings. A National Coordination Meeting was held to discuss HPAI at the national level and included LDCC coordinators.

The PCE modules, developed in 2010 to introduce concepts of participation and communication to government staff, have been used to train 40 PVUK veterinarians and several modules were also used in rabies control activities in Bali for 72 Rapid Response officers, and 60 sub-district extension staff.

Trainings were carried out on rabies control in Bali where 700 government staff were trained to carry out mass vaccination of dogs, estimation of vaccination coverage and rapid responses to assess the status of dogs when people have been bitten. During the second round of mass dog vaccination in Bali, 240,000 dogs were vaccinated with a long acting vaccine. Rapid response teams were trained to follow up on reports of suspect rabid dogs and to assess the risk that the dog may be rabid. Their activities include the humane euthanasia of high-risk animals and sending the dog's head to the laboratory for diagnosis. Diagnostic results are usually available within two days.


World Rabies Day 2011
USAID INDONESIA

To support the rabies eradication programme and mass dog vaccination in Bali, awareness materials such as posters, fact sheets and pocket cards were developed and distributed to the public. Training for extension workers was conducted to help spread information messages and knowledge to the community using the developed communication tools. To enhance and encourage reports on suspect rabies cases and enquiries from the community, a Rabies Hotline was established to receive calls 24 hours a day.

Innovative linkages were developed between livestock health and human health field staff so that a joint investigation of bite cases was carried out to enable rapid analysis of the status of the biting animal. The impact of the mass dog vaccination programme has been to consistently reduce human deaths from rabies from 11 per month in October 2010 to one per month in December 2011.

During 2011, the Indonesian ECTAD office participated in a regional programme to develop five (5) Risk Communication modules to pass information on germ theory, hygiene and analysing risks. The modules were tested with community members and found to be suitable for village cadres who are responsible for passing health messages to the community. The modules will be used to train farmers in germ theory in PVUK.

Activities in support of the veterinary services by the Market programme include conducting surveillance for H5N1 virus in poultry markets and targeted surveillance for HPAI in poultry collector yards in order to develop the market chain profiling and surveillance database for both central and local government in the Jabodetabek area; conducting training on integrated epidemiology following positive human cases in East Jakarta as part of collaborative activities between MOA and MOH for the East Jakarta Enhanced Surveillance project; providing technical assistance for DIC Subang and the Jakarta Provincial animal health laboratory (BKHI) on technical aspects of LBM surveillance sample testing to improve the efficiency of sample testing and the reporting system; conducting meetings with the local government of Surakarta city to obtain their commitment on local budget allocation for

market rehabilitation, surveillance and C&D interventions at the Semanggi collection yard; conducting meetings with the Jakarta local government to obtain their commitment on local budget allocation for the market restructuring programme; and conducting slaughterhouse management training for veterinarians specifically on proper ante mortem and post mortem examination.

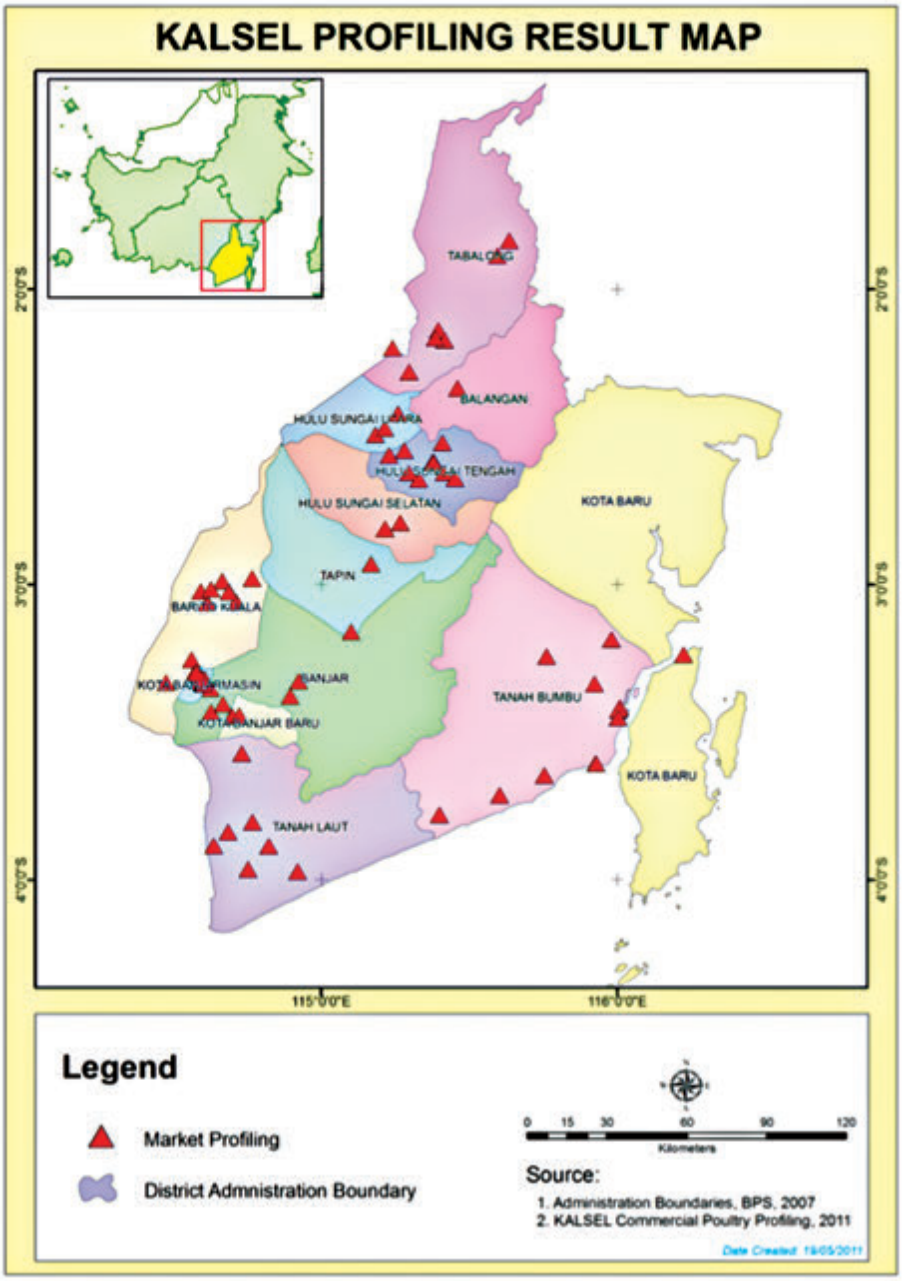
Technical recommendations were made to provide a foundation upon which a comprehensive national HPAI vaccines and vaccination strategy can be developed by the DAH. To support strategy development, the influenza virus monitoring (IVM) network was established to monitor circulating influenza viruses, and share biological specimens and data, including data analysis. A roundtable discussion between DAH and international scientists in November 2011 recommended continuing IVM efforts to improve understanding of the epidemiology of the virus and to ensure the relevance of challenge strains used to test poultry vaccines in the field. Establishment of an expert panel of national and international experts was also recommended in order to review field data to determine if challenge strains are appropriate for evaluating avian influenza vaccine registration. This should be done every 2-3 years.

In support of the government's effort in strengthening national veterinary services, the Epidemiology team conducted Market Profiling in South Kalimantan Province to collect information about poultry markets and their activities. Data was collected on market location, type of poultry traded, volume of poultry transactions, and source of poultry.

District/City	Number of markets
Balangan	1
Banjar	4
Barito Kuala	11
HSS	2
HST	11
HSU	3
Banjarbaru	2
Banjarmasin	7
Kota baru	3
Tabalong	7
Tanah Bumbu	10
Tanah Laut	7
Tapin	3
Total	**71**

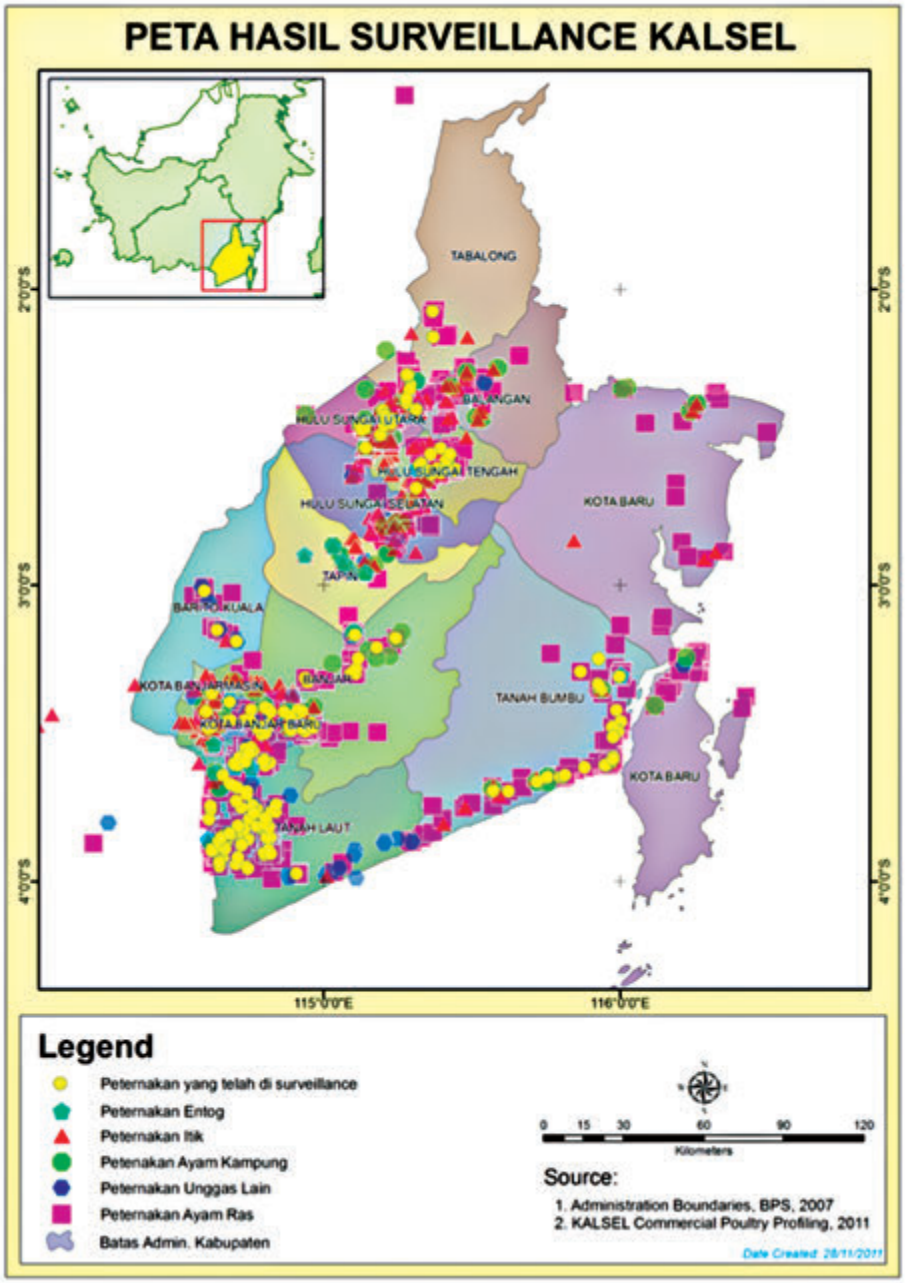

erangkat Komunikasi " One Health "


FINAL WORKSHOP ON ROADMAP FOR HPAI FREEDOM
IN SOUTH KALIMANTAN

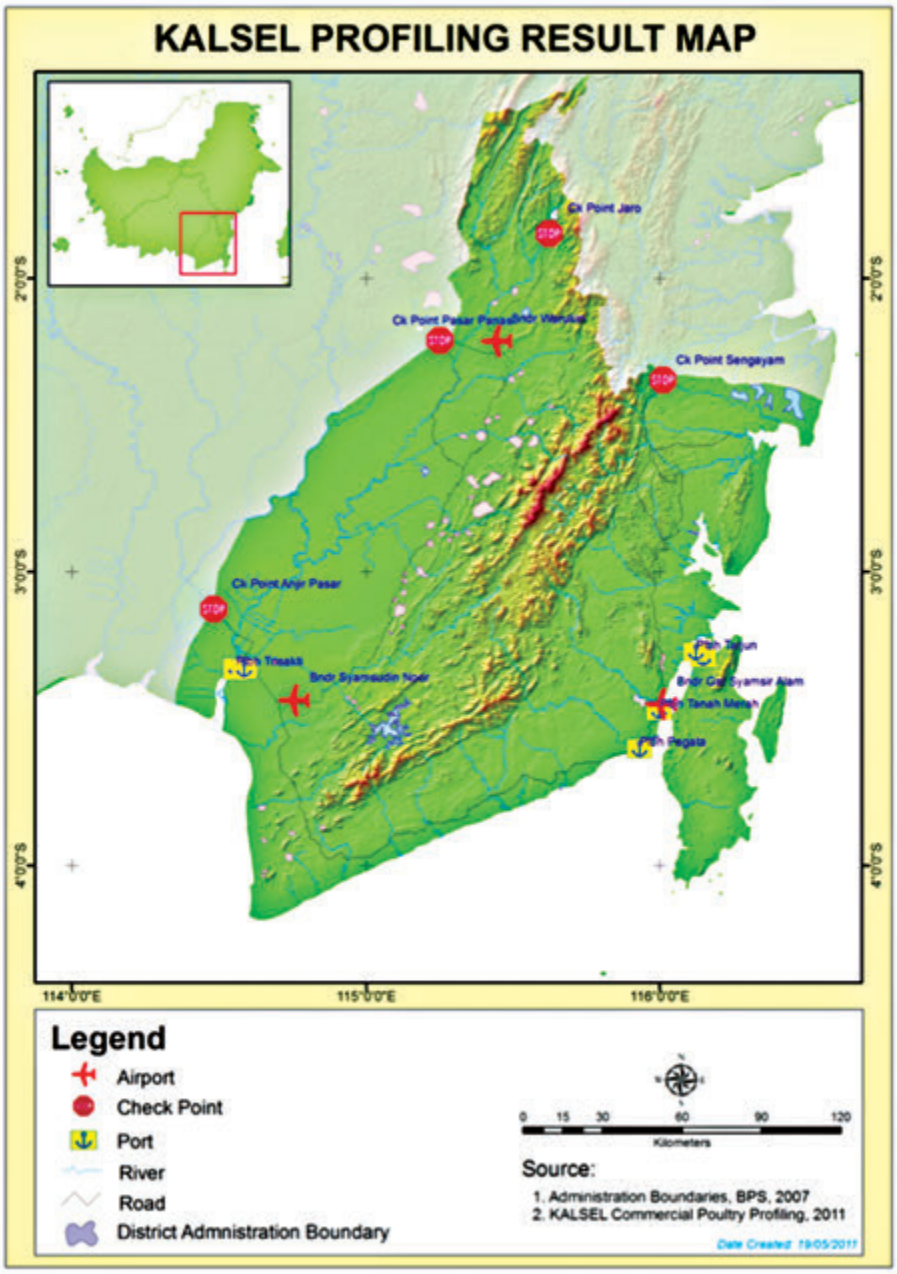


Following the profiling exercise, HPAI surveillance was conducted in selected commercial poultry farms in eight (8) districts and poultry markets in all districts in South Kalimantan Province. Districts were selected based on their risk of HPAI outbreak occurrence. Surveillance was conducted to determine the latest AI situation in the province, combined with an assessment of capacity to perform post outbreak AI control. The surveillance result will be scientifically justifiable to determine the AI status of South Kalimantan Province.

The surveillance design combined 'targeted surveillance' and 'random surveillance' activities. The number of samples collected and tested was based on the confidence level, the expected prevalence and the test sensitivity/specificity. Pooled swabs were tested by RT-PCR to identify the matrix influenza type A protein. Tests for influenza virus H5 subtype H5 subtype were conducted on an estimated 1% of the pooled swabs.



In addition to and in support of the above activities, the Epidemiology team conducted Border Surveillance in South Kalimantan Province to establish risk management practices for disease incursion at the entry points. During the surveillance exercise, the team was able to survey poultry entering and leaving South Kalimantan by air, sea, and overland and collect data on the type of poultry, numbers, state of health, origin, and destination.



The surveillance survey in the commercial sector and in the markets didn't reveal indications of virus circulation at the time of conducting the survey. Sporadic outbreaks which have been reported in the past and the border risk assessment showed that South Kalimantan is still vulnerable for importing the virus either from neighboring provinces in Kalimantan or from Java. Improved surveillance for rapid detection and early response is required to maintain the South Kalimantan HPAI status.
The survey showed that surveillance could be successfully implemented in the commercial sector. The design of the surveillance can be used for other provinces in Indonesia to determine AI status in their areas.

Starting in March 2011, FAO facilitated the transition of the PDSR in South and West Sulawesi provinces. Transition workshops on Strengthening Veterinary Services were held in Makassar in March and another one in Mamuju in May. Provincial facilitation teams were established in South and West Sulawesi to accelerate and optimize the process of PDSR transitioning into the functions and responsibilities of the local governments at the Provincial and District levels. Coordination meetings were conducted in both provinces where it was agreed that PDSR activities will be integrated into the District Animal Health Division tasks and the structure of the LDCC will be inserted within the Provincial Animal Health Division/Section. The PDSR transition implemented in South and West Sulawesi is well in line with the nationwide veterinary system, which is planned under the National Veterinary Service.

WEST SULAWESI
1. Transition workshop on Strengthening Veterinary Services
2. Established provincial facilitation teams
3. Coordination meeting with the local government to integrate PDSR activities and LDCC structure into th
and District Animal Health Division/Section
4. ToT on biosecurity for PDSR officers and District Animal Health officers
5. Biosecurity training for a total of 346 commercial farmers

EAST KALIMANTAN
1. PDSR training using local government funds
2. C&D training in pilot LBM in collaboration with WH

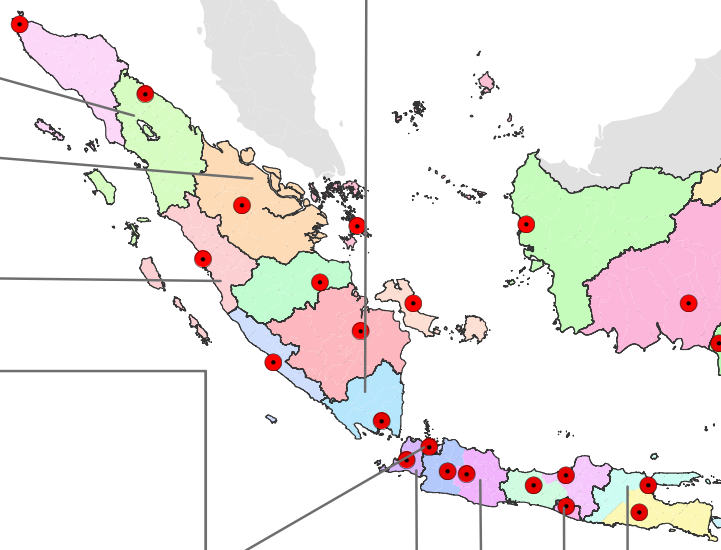
SOUTH KALIMANTAN
1. Market profiling
2. Laboratory network for monitoring Avian Influenza
3. Training on poultry farm profiling
4. GPS Refresher Training
5. Surveillance on poultry farms and markets
6. Border surveillance

LAMPUNG
1. Training sessions and stakeholder meeting for PVUK programme
2. Laboratory network for monitoring Avian Influenza
3. C&D training in pilot LBM in collaboration with WHO

NORTH SUMATERA
• Laboratory network for monitoring Avian Influenza

RIAU
• National Veterinary Service (NVS) pilot province

WEST SUMATERA
1. NVS pilot province
2. C&D training in pilot LBM in collaboration with WHO
3. Laboratory network for monitoring Avian Influenza



JABODETABEK
1. C&D activities at 47 Collector Yards/Slaughterhouses
2. Market Cleaning Days in 22 Live Bird Markets
3. Truck Cleaning Study in 2 Collector Yards
4. Built 2 cleaning and disinfection stations
5. ToT & advanced training on Market C&D
6. Market Rehabilitation in 5 LBMs
7. Surveillance for H5N1 virus in poultry markets and for HPAI in poultry collector yards
8. Market activation and promotion of healthy chicken meat (daging ayam ASUH)
9. C&D training in pilot LBM in collaboration with WHO
10. Epidemiology technical training on use of quick swabs and petri film
11. Integrated epidemiology training in collaboration with MoH
12. Slaughterhouse management training for veterinarians
13. Laboratory network for monitoring Avian Influenza

WEST JAVA
1. Training sessions and stakeholder meeting for PVUK programme
2. PDSR training using local government funds
3. Laboratory network for monitoring Avian Influenza

CENTRAL JAVA
1. Training sessions and stakeholder meeting for PVUK programme
2. Established baseline data identification on 6 pilot commercial farms
3. IndoCPH Production Management Changes in 6 pilot commercial farms
4. C&D training in pilot LBMs in collaboration with WHO
5. Initiate market restructuring, surveillance and C&D interventions at Semanggi market in Surakarta

D.I. YOGYAKARTA
1. Focal point laboratory for antigenic cartography
2. Laboratory network for monitoring Avian Influenza
3. Field testing of risk communication modules
4. C&D training in pilot LBM in collaboration with WHO

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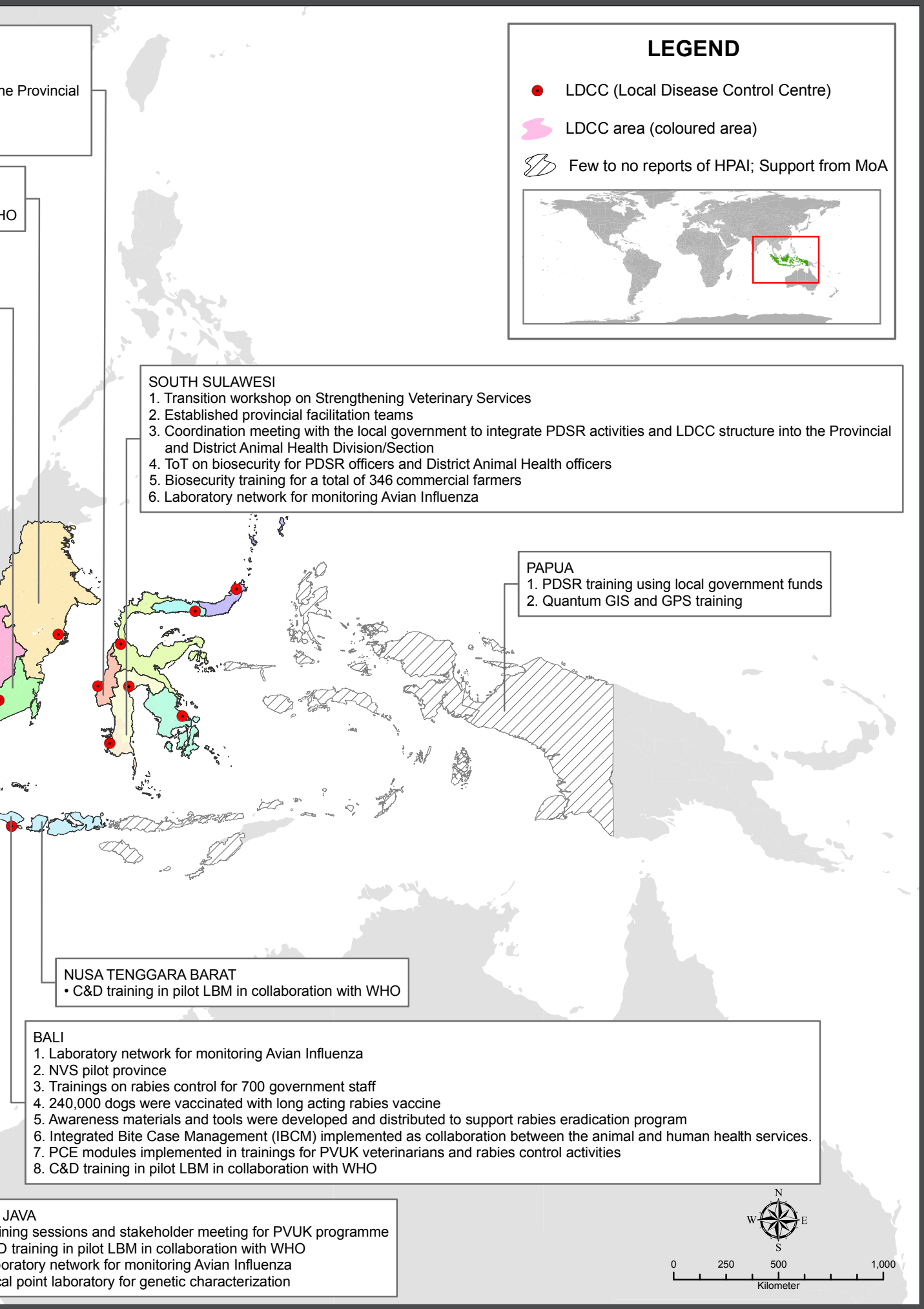
LEGEND
LDCC (Local Disease Control Centre)
LDCC area (coloured area)
Few to no reports of HPAI; Support from MoA
ne Provincial
HO
SOUTH SULAWESI
1. Transition workshop on Strengthening Veterinary Services
2. Established provincial facilitation teams
3. Coordination meeting with the local government to integrate PDSR activities and LDCC structure into the Provincial and District Animal Health Division/Section
4. ToT on biosecurity for PDSR officers and District Animal Health officers
5. Biosecurity training for a total of 346 commercial farmers
6. Laboratory network for monitoring Avian Influenza
PAPUA
1. PDSR training using local government funds
2. Quantum GIS and GPS training
NUSA TENGGARA BARAT
• C&D training in pilot LBM in collaboration with WHO
BALI
1. Laboratory network for monitoring Avian Influenza
2. NVS pilot province
3. Trainings on rabies control for 700 government staff
4. 240,000 dogs were vaccinated with long acting rabies vaccine
5. Awareness materials and tools were developed and distributed to support rabies eradication program
6. Integrated Bite Case Management (IBCM) implemented as collaboration between the animal and human health services.
7. PCE modules implemented in trainings for PVUK veterinarians and rabies control activities
8. C&D training in pilot LBM in collaboration with WHO
JAVA
ining sessions and stakeholder meeting for PVUK programme
D training in pilot LBM in collaboration with WHO
oratory network for monitoring Avian Influenza
al point laboratory for genetic characterization
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ABBREVIATIONS & ACRONYMS

AAHL	- the Australian Animal Health Laboratory
ASUH	- Aman Sehat Utuh Halal (Safe, Healthy, Pure not mixed with other material, Halal)
BKHI	- Balai Kesehatan Hewan & Ikan (Jakarta Animal Health Laboratory)
C&D	- Cleaning and Disinfection
CMU	- HPAI Campaign Management Unit
DAH	- Directorate of Animal Health
DGLAHS	- Directorate General of Livestock and Animal Health Services
DI Yogyakarta	- Daerah Istimewa Yogyakarta
DIC	- District Investigation Centre
DKI Jakarta	- Daerah Khusus Ibukota Jakarta
ECTAD	- Emergency Centre for Transboundary Animal Diseases
ELR	- Egg Laying Rate
FAO	- Food and Agriculture Organization
FCR	- Feed Conversion Rate
GPS	- Global Positioning System
HPAI	- Highly Pathogenic Avian Influenza
IndoCPH	- Indonesia Commercial Poultry Health
IVM	- Influenza Virus Monitoring
JABODETABEK	- Jakarta Bogor Depok Tangerang Bekasi
LDCC	- Local Disease Control Centre
MOA	- Ministry Of Agriculture
MOH	- Ministry of Health
MT	- Master Trainer
NTB	- Nusa Tenggara Barat (West Nusa Tenggara)
NVS	- National Veterinary Services
OFFLU	- OIE/FAO Network on Animal influenza
OIE	- World Organisation for Animal Health
PCE	- Participatory Community Engagement
PDSR	- Participatory Disease Surveillance and Response
PVUK	- Petugas Veteriner Unggas Komersial (Commercial Poultry Veterinary Officer)
RT-PCR	- Reverse Transcription Polymerase Chain Reaction
SOP	- Standard Operational Procedure
TOT	- Training Of Trainers
WHO	- World Health Organization

United Nations Food and Agriculture Organization
Emergency Centre for Transboundary Animal Diseases (ECTAD)
in Indonesia

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