

# ANALYSIS OF BIOSECURITY CONTROL MEASURE POLICY IMPLEMENTATION ON HIGHLY PATHOGENIC AVIAN INFLUENZA IN JAKARTA

## *Analisis Penerapan Kebijakan Pengendalian Biosekuriti terhadap Penyakit Flu Burung di Jakarta*

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### ABSTRAK

Flu burung pertama kali terdeteksi di Jakarta pada tahun 2003, dimana sejak saat itu virus penyakit ini telah menjadi wabah hingga menyebabkan kematian ternak unggas dan bahkan korban manusia. Sehubungan dengan hal tersebut, Pemerintah Provinsi DKI Jakarta telah mengeluarkan dua kebijakan masing-masing Peraturan Gubernur No. 15/2007 dan Peraturan Daerah No. 4/2007 guna menertibkan dan sekaligus mengawasi pemeliharaan serta pendistribusian ternak unggas di wilayah ini. Kebijakan tersebut diimplementasikan baik melalui operasi terhadap ternak unggas yang berkeliaran, depopulasi, pemusnahan, dan sertifikasi ternak unggas maupun rencana relokasi tempat penampungan dan pemotongan unggas. Akan tetapi, berbagai reaksi muncul dari para pelaku usaha ternak unggas terhadap kebijakan yang dimaksud. Tidak menyeluruhnya sosialisasi dan kurangnya pertimbangan kondisi sosial ekonomi masyarakat merupakan isu utama yang dirasakan para pelaku usaha ternak unggas terhadap implementasi kebijakan tersebut. Oleh karena itu, diperlukan penataan konsep berdasarkan pendekatan partisipatif antar segenap pemangku kepentingan perunggasan guna mendapatkan umpan balik kebijakan yang komprehensif dan holistik.

**Kata kunci** : *flu burung, ternak unggas, biosekuriti, pengendalian, kebijakan*

### ABSTRACT

Highly Pathogenic Avian Influenza (HPAI) was first detected in Jakarta in 2003 in which since that time, the virus has become pandemic in the area and has resulted in poultry and human deaths. Based on these facts, the provincial government of Jakarta has launched two policies on biosecurity control measure, namely Governor Legislation No. 15/2007 and Provincial Government Legislation No. 4/2007 in order to control raising poultry and its distribution in this area. It was implemented through field inspection towards free-range poultry, depopulation, stamping out, and poultry certification as well as planned poultry collection point and slaughter facility relocations. Nevertheless, certain reactions occurred which particularly derived from poultry business actors. Incomprehensive campaign and lack of community socioeconomic consideration were among the issues perceived as detrimental about the adopted policy. It therefore seems necessary to carry out participatory approach towards rearrangement concept to arrive at a comprehensive and holistic biosecurity control measure policy feedback.

**Key words** : *avian influenza, poultry, biosecurity, control measure, policy*

## INTRODUCTION

HPAI (Highly Pathogenic Avian Influenza) first came into Indonesia in 2003 and is currently pandemic in 31 of its 33 provinces. It has the potential to cause the significant economic loss for the producers (by reduction in income and protein), consumers (by higher prices), and service providers (by decreased demand). There is also the continuing risk of a global pandemic since more than 200 million Indonesians live closely with, and have close social and cultural ties with, birds (Patrick, 2007).

Jakarta, the capital city of Indonesia, is no exception in which HPAI has become pandemic in the area and has resulted in poultry and human deaths. In 2006 to 2007, 22 sub-districts or about 52.4 percent of total number of sub-districts in this city had detected as contagious areas of HPAI. The highest proportion was found in East and West Jakarta, while the lowest was in North Jakarta (see Appendix Figure 1). Therefore, local government of Jakarta Province issued two legislations namely Governor Legislation No. 15/2007 and Provincial Government Legislation No. 4/2007 on raising poultry and its distribution control measures. It requires Jakarta residents who raise chickens, ducks, muscovy ducks, geese, pigeons, and quails in residential areas to voluntarily consume, sell, or cull their poultry starting from 17 January 2007. Moreover, people were also banned from raising the above-mentioned poultry in residential areas effective on 1 February 2007. Poultry earmarked for research, education, and hobby owned by a resident or an institution must have animal certificates. The provincial livestock office had issued health certificates free of charge. Well-managed poultry farms, collection points and slaughter facilities, and live poultry selling markets will be relocated to areas outlying and/or outside Jakarta. The provincial government of Jakarta will issue another regulation to control live poultry distribution. Poultry belonging to violators will be culled.

The most adversely affected of the implementation of legislation was poultry raised at residential areas (backyards) particularly in peri-urban regions. Hence, this article aims at analyzing the implementation of the legislation called biosecurity control measure policy on highly pathogenic avian influenza (BCMP-HPAI) particularly towards smallholder's backyard poultry in Jakarta. It is initially discussed the role of poultry industry followed by the substance of the BCMP-HPAI. The analysis is focused on the implementation of BCMP-HPAI and will be finally supported by concluding remarks.

## ANALYTICAL FRAMEWORK

FAO (2004) classified poultry production system into four sectors, namely sector-one (industrial integrated), sector-two and sector-three (both commercials),

and sector-four (village or backyard). Patrick (2007) mentioned that sector-one comprises large multinational companies producing a highly valued product with complete control over inputs and outputs. It is regarded as biosecure, or at least able to handle its own risk. Sector-two has the economic capability and a commercial imperative to minimize the risk of HPAI and other diseases. Sector-three and sector-four are expected to be the main reservoirs and propagators of the HPAI virus as they are for other avian diseases. Poultry raisers in these sectors are less able to invest in biosecurity, being small-scale producers, are probably more capable of handling disease loss by rapid replacement. In sector-four, in particular, it is regarded as simply replace the dead poultry rather than reducing its mortality risk.

Conceptually, biosecurity is strategic and integrated approaches of which it consists of policy and regulation patterns employ at analyzing and managing food security, live and health of animals and plants. It is related to agricultural sustainability, food security, and environmental protection (FAO, 2000 in Daryanto, 2007). At national level, government of Indonesia has nine strategic biosecurity policies on HPAI, namely : (1) avian influenza control in animals, (2) animal quarantine services, (3) campaign management and public awareness, (4) communication, (5) laboratory services, (6) legislation and enforcement, (7) poultry industry restructuring, (8) research and development, (9) surveillance and epidemiology (MoA, 2007).

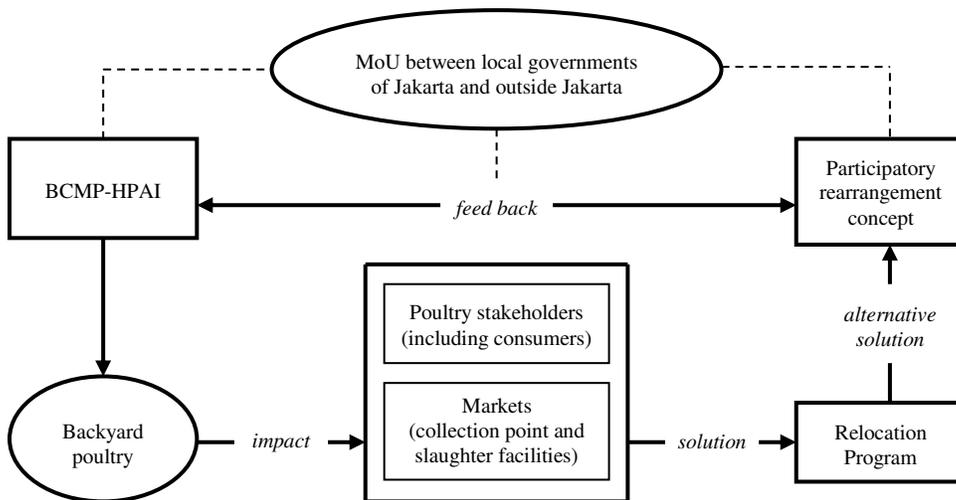


Figure 1. Analytical Framework of Biosecurity Control Measure Policy Implementation in Jakarta

BCMP-HPAI, being implemented by Provincial Government of Jakarta, is proposed to control raising poultry and its distribution in this area. Analytical framework of this article (Figure 1) is focused on the implementation of BCMP-

HPAI towards backyard poultry, which has an impact on poultry stakeholders (including consumers) and markets (collection points and slaughter facilities). The problem solution will be employed through relocation program. Nevertheless, it is quite complicated to implement due to socioeconomic constraints such as limited land availability, community's attitude towards and perception about the program, and feasibility of the location. Therefore, it is necessary to generate alternative solution through participatory rearrangement concept in order to obtain improvement feedback of the BCMP-HPAI. All stakeholders from Jakarta and its surrounding areas should be concerned about this concept since poultry consumption of Jakarta's community is not only supplied from Jakarta but also supported from outside Jakarta. It can be substantially through organizing the memorandum of understanding (MoU) in which the provincial government of Jakarta should play as leading sector in terms of planning and implementation managements.

## **ROLE OF POULTRY INDUSTRY IN JAKARTA**

Poultry is one of community livelihoods in Jakarta. The general role of poultry industry in this province is necessary to identify particularly in terms of its contribution to GRDP (Gross Regional Domestic Product), labor absorption, population, production, and consumption. These identifications are essentially required in order to improve the implementation of BCMP-HPAI.

### **Contribution to GRDP and Labor Absorption**

The contribution of poultry sub-sector including poultry to GRDP of Jakarta is quite minor namely about 0.01 percent. During the period of 2001 to 2005, GRDP of this sub-sector aggregately decreased about 0.6 percent per year (Table 1). Reasonably, this is because : (1) people's activities of were more focused on business, industry, and services as consequences of metropolitan lifestyle, (2) developed non-agricultural activities and increased population growth had shifted livestock activities towards non-agricultural activities, and (3) livestock products tended to more rely on supply from outside due to limited land availability. Nevertheless, livestock in general and poultry in particular play as additional income of certain households in peri-urban areas.

In 2005, the number of primary economic activity labors in Jakarta was about 3.6 million people (CBS, 2006). Agricultural labors were recorded as minor number, namely 19,651 people (0.6%). The highest labor proportion was trades, hotels, and restaurants (38.9%), services (21.3%), and mining sectors (19.6%). As a metropolitan city, people in this area were predominantly worked in trade and services sectors as compared to agricultural sector. It was noted that number of

livestock labors was only 4,883 people, or about 0.1 percent of the total number of labors in Jakarta (Table 2).

Table 1. Value, Share, and Growth of GRDP of Livestock Sub-Sector in Jakarta, 2001-2005

Item	2001	2002	2003	2004	2005
GRDP value (Rp billion) :					
Livestock	26.2	21.9	20.7	22.5	24.2
Agriculture	425.2	440.0	367.3	403.03	438.2
Total	263,691.9	299,967.6	334,331.3	375,561.5	436,250.7
GRDP share (%) :					
Livestock to agriculture	6.1	5.0	5.6	5.6	5.5
Livestock to total	0.01	0.01	0.01	0.01	0.01

Source : DGLS, 2007

Table 2. Number and Proportion of Labors by Primary Economic Activity in Jakarta, 2005

Economic Activity	Number of Labor (people)	Proportion (%)
Agriculture :	19,651	0.5
Livestock	4,883	0.1
Others	14,768	0.4
Mining	698,782	19.6
Electricity, gas, and water supply	9,072	0.3
Construction	174,426	4.9
Trade, hotel, and restaurant	1,391,304	38.9
Transportation and Communication	326,539	9.1
Finance, banking, and service	172,938	4.8
Services	761,666	21.3
Total	3,565,331	100.0

Source : CBS, 2006

Growth of labor absorption significantly increased during 2002 to 2005, namely 61.9 percent per year (Figure 2). There were only 356 labors in 2002; however, it increased 14 times to 4,883 labors in 2005. It is indicated that some people were more interested in as a livestock livelihood, particularly in poultry farms requiring limited land basis.

In terms of gender perspective, the number of male labors was higher than that of female labors (2002-2004). However, since 2005, total number of female labors was more than half of total number of male labors. This phenomenon shows that women had partially taken over from men responsibility in livestock activities (especially in poultry farms). In 2007, the number of livestock sub-sector labors, particularly in poultry farms, is estimated to decrease due to BCMP-HPAI implementation.

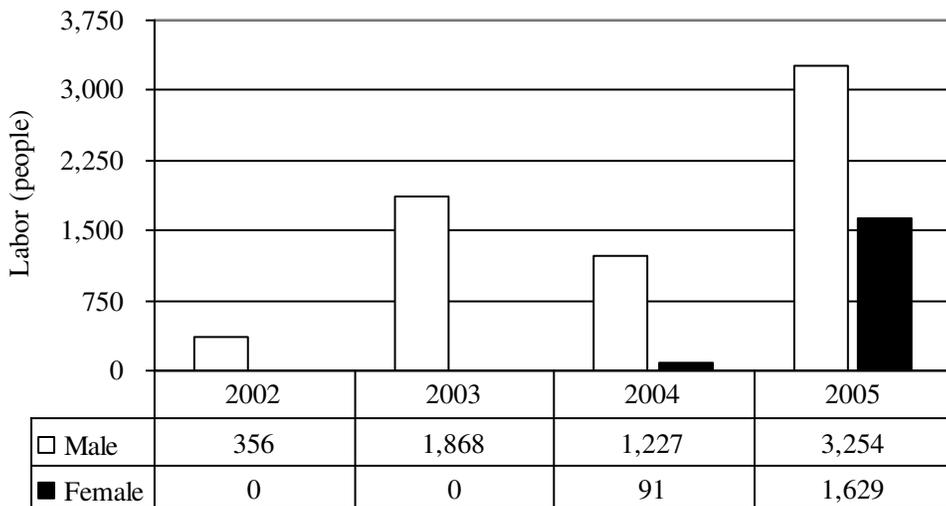


Figure 2. Labor Absorption on Livestock in Jakarta, 2002-2005 (source : CBS of Jakarta, 2006)

### Population and Production

The majority of existing poultry in Jakarta is native chickens, broilers, and ducks. During the last five years (2003-2007), the population aggregately decreased about 0.6 percent per year (Figure 3). Population growth of native chickens, broilers, and ducks was -13 percent per year, 6.4 percent per year, and 4.9 percent per year, respectively. However, during 2006 to 2007, the population growth decreased sharply, falling to 66.8 percent in native chickens, 49.5 percent in broilers, and 8.2 percent in ducks. The population of native chickens and duck began to decrease in 2006 but after implementing the BCMP-HPAI, the population of native chickens and broilers decreased tremendously. Native chickens were mostly affected by BCMP-HPAI since these poultry were predominantly raised in the backyard. Conversely, some ducks were raised outside backyard. Meanwhile, raising broilers were based on cycle system in which some broiler farms were temporarily closed in the first implementation of BCMP-HPAI.

During the same period (2003-2007), poultry meat and egg production increased about 0.8 percent and 16.9 percent, respectively (Figure 4 and Figure 5). Meanwhile, poultry egg productions decreased about 29.4 percent (native chicken eggs) and 4.4 percent (duck eggs). During 2006 to 2007, poultry meat productions increased about 3.8 percent. However, poultry egg productions decreased about 23.5 percent (native chicken eggs) and 9.1 percent (duck eggs). These phenomena indicate that many poultry raisers sold their poultry due to BCMP-HPAI implementation. Thus, meat productions slightly increased while egg productions were conversely drop-off.

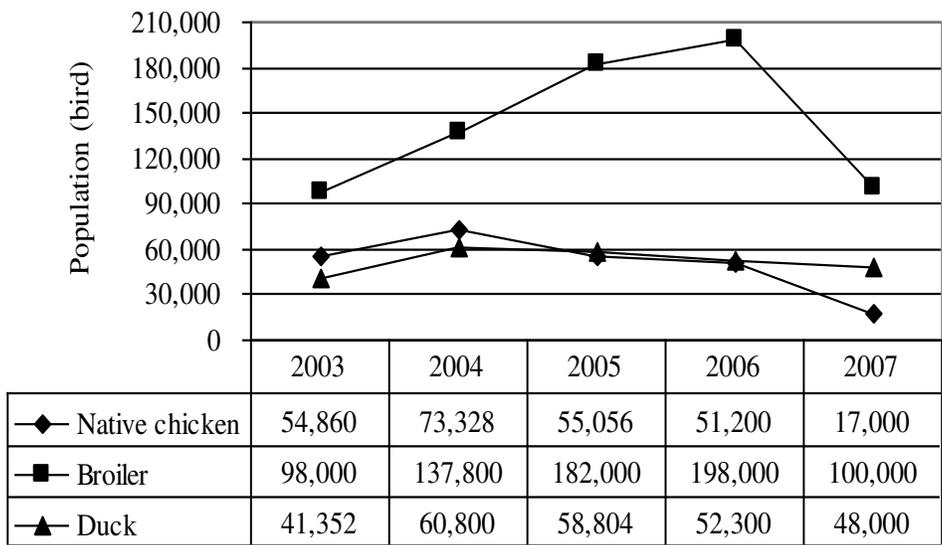


Figure 3. Populations of Native Chicken, Broiler, and Duck in Jakarta, 2003-2006 (source : DGLS, 2007)

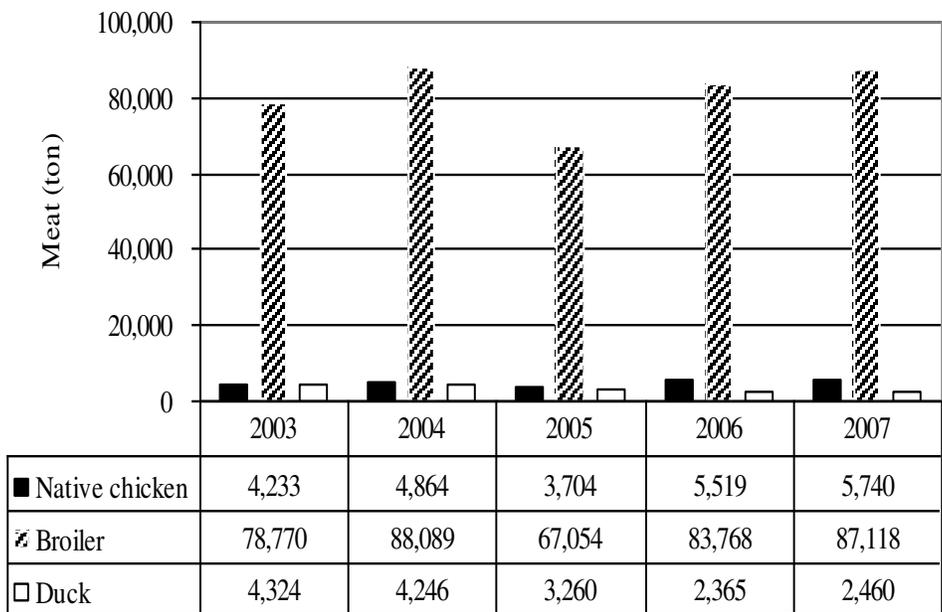


Figure 4. Poultry Meat Productions, 2003-2007 (source : DGLS, 2007)

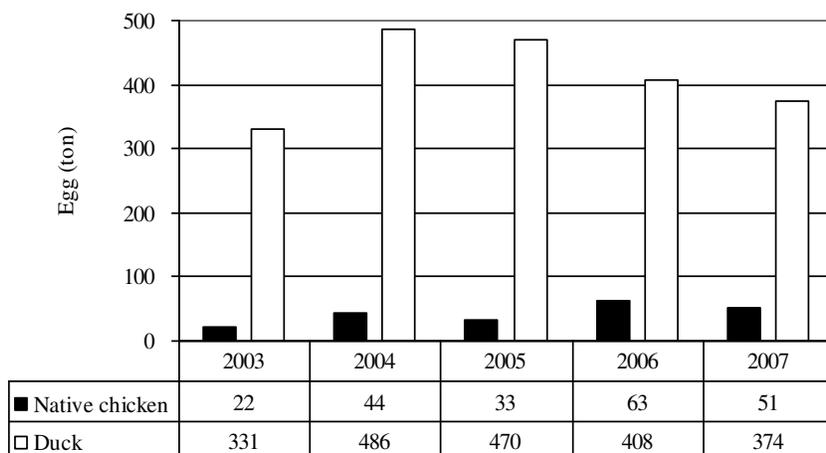


Figure 5. Poultry Egg Productions, 2003-2007 (source : DGLS, 2007)

### Meat and Egg Consumptions

During 2002 to 2006, per capita meat and egg consumptions in Jakarta had increased 3.1 percent per year and 1.1 percent per year, respectively. In 2006, meat consumption was 19.6 kilograms per capita while egg consumptions were 14.4 kilograms per capita (Figure 6 and Figure 7). These consumption levels were almost three times higher than the national consumption level (7.9 kg/capita of meat and 14.2 kg/capita of egg).

It is assumed that the high meat and egg consumption in Jakarta were due to high income of its community as compared to community income of other provinces in Indonesia. Demand for meat will increase in line with community income since demand elasticity of meat is elastic.

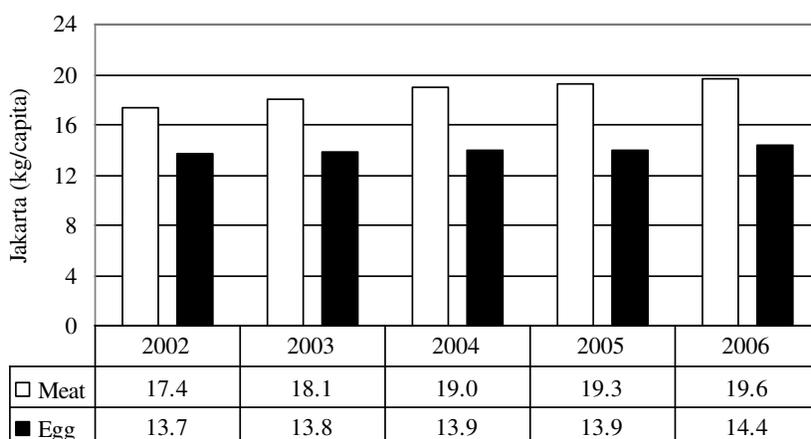


Figure 6. Meat and Egg Consumptions in Jakarta, 2002-2006 (source : DGLS, 2007)

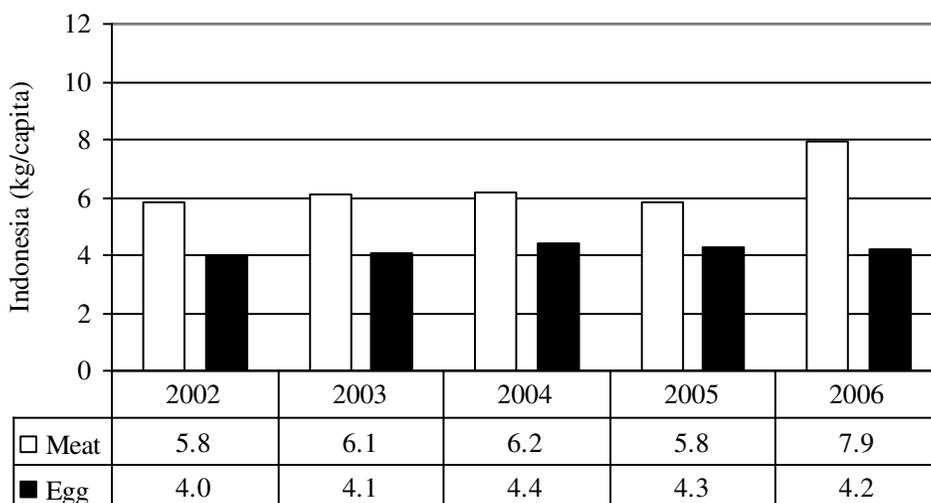


Figure 7. Meat and Egg Consumptions in Indonesia, 2002-2006 (source : DGLS, 2007)

### THE SUBSTANCE OF BCMP-HPAI IN JAKARTA

The substance of BCMP-HPAI in Jakarta stem from two types of legislation, namely Governor Legislation No. 15/2007 and Provincial Government Legislation No. 4/2007. Both legislations have been implementing in order to control raising poultry and its distribution in this area. It is substantially notified that the legislation is the most comprehensive local government policy towards BCMP-HPAI in Indonesia. Hence, the notion of these legislations can be referred as lessons learned which would be possibly implemented in other areas based on its local specific characteristics. Table 3 shows key points of Governor Legislation while Appendix Figure 2 summarizes the Provincial Government Legislation of Jakarta.

Table 3. Key Points of Governor Legislation and Provincial Government Legislation of Jakarta

Governor Legislation No. 15/2007	Provincial Government Legislation No. 4/2007
Starting from 17 up to 31 January 2007, the community is asked to voluntarily consume, sell, or depopulate their poultry	Legislation covers poultry used for food consumption; hobby flocks which have value in terms of beautification/exotica, color, performance, agility, and chirp); and poultry for research, education, and conservation purposes

Table 3. continued

Governor Legislation No. 15/2007	Provincial Government Legislation No. 4/2007
Starting from 1 February 2007, community is banned from raising poultry at residential area	Every person and/or corporate body who keeps poultry must have authorization document provided by Livestock Office through the requirements of photocopy of citizenship identification card, environmental permit, kind and number of poultry, form and shape of coop, and coop location at least 25 meters from residential area
The term poultry refers to chickens, ducks, muscovy ducks, geese, pigeons, and quails	Every person and/or corporate body who has been keeping poultry and do not have authorization document within six months of government legislation issued would be banned from raising poultry or stamped it out in line with implementation procedure
Poultry earmarked for research, education, and hobby, should obtain animals' health certificates issued by Jakarta Provincial Government through the Livestock Office. The certificate will be free of charge with special signs	Every person and/or corporate body who keeps poultry for research, education, and conservation purposes must obtain health certificate and special signs provided by Livestock Office
Farms, poultry collection points, and slaughter facilities as well as live bird markets will be gradually relocated to the location set by Jakarta Provincial Government.	Every person and/or corporate body who delivers poultry from outside Jakarta must locate his or her poultry to special collection point
Live poultry movement coming to Jakarta will be regulated further	The owners of collection points and slaughter facilities existing before government legislation must move to established places provided by governor or outside Jakarta within maximally three years since the government legislation issued, otherwise his or her poultry activity would be stopped or culled
The legislation is issued to protect the life of people in Jakarta from HPAI virus. Thus, the previous legislations are either to be put aside or temporarily considered invalid until HPAI would be handled	Every person and/or corporate body who delivers poultry to Jakarta must provide health certificate document from a veterinarian and approval letter from responsible officer in origin and destination of poultry
All parties are obliged to implement this legislation with accountability and conscientiousness	Every person and/or corporate body who keeps domesticated poultry for hobby and for the purposes of research, education, and conservation must be carried out in registered premises
	Every person and/or corporate body who violates the legislation can be maximally sentenced within three (3) years of imprisonment or maximum penalty of about Rp 50 million and culling of birds as punishment
	Every person and/or corporate body who keeps poultry infected by bird flu can be culled without compensation

Source : PGJ, 2007

The implementation of BCMP-HPAI has covered depopulation (148,769 birds), and sweeping (123,188 birds) in Jakarta by provincial government teams. In addition, 38,418 poultry health certificates have been issued to owners of poultry earmarked for education, research, and hobby. The BCMP-HPAI implementation also calls for the relocation of collection points and slaughter facilities. Existing number and capacity of poultry collection points and slaughter facilities in Jakarta can be seen in Table 4.

Table 4. Number and Capacity of Poultry Collection Points and Slaughter Facilities in Jakarta, 2007

Location	Collection Point		Slaughter Facility	
	Number (unit)	Capacity (bird/day)	Number (unit)	Capacity (bird/day)
Central Jakarta	17	40,000	55	55,000
East Jakarta	112	250,000	594	200,000
South Jakarta	27	40,000	276	60,000
West Jakarta	56	60,000	48	50,000
North Jakarta	7	35,000	180	37,000
Total	219	425,000	1,153	402,000

Source : Setiarto, 2007

Provincial Government of Jakarta plans to relocate collection points and slaughter facilities in two phases (Table 5). Phase-one covers 16 collection points located in the sub-districts of Cempaka Putih and Johar Baru (Central Jakarta) within six month (up to 15 October 2007). Other collection points must be relocated within 18 months since the implementation of Provincial Government Legislation No. 4/2007. Moreover, phase-two includes the rest of collection points before 19 May 2010.

Table 5. Poultry's Collection Points and Slaughter Facilities Relocation in Jakarta, 2007

Phase	Municipality	Sub-District
I	Central Jakarta	Johar Baru, Cempaka Putih, Kemayoran, Senen, Sawah Besar
	East Jakarta	Matraman, Pulogadung, Jetinegara, Duren Sawit
	North Jakarta	Pademangan, Tanjung Priok
	West Jakarta	Tambora, Tamansari, Grogol Petamburan, Palmerah
	South Jakarta	Kebayoran Lama, Setiabudi, Tebet, Pancoran, Mampang Prapatan
II	East Jakarta	Cakung, Makassar, Cipayung, Ciracas, Kramatjati, Pasar Rebo
	North Jakarta	Cilincing, Koja, Penjaringan, Kelapa Gading
	South Jakarta	Pesanggrahan, Jagakarsa, Cilandak, Kebayoran Baru, Pasar Minggu
	West Jakarta	Cengkareng, Kembangan, Kalideres, Kebon Jeruk

Source : Setiarto, 2007

## ANALYSIS OF BCMP-HPAI IMPLEMENTATION IN JAKARTA

It is commonly known that poultry in sector-four is raised as backyard farm either in coop or in free-range systems. Poultry is characteristically managed by low dependence on market inputs, normally can be raised using crapped household foods and minimal biosecurity handling. Nevertheless, poultry plays an important role in livelihood of smallholder raisers, in which it is able to support household economy through selling eggs and meats as well as live products. The existence of poultry in sector-four is also a part of social activity by which it is serviced in ceremonial and religious occasions. In addition, poultry has traditionally supported household income of Betawi Ethnic that predominantly lives in peri-urban areas of Jakarta.

Since the implementation of BCMP-HPAI and bird flue blown-up by mass media, poultry situation in Jakarta was significantly shocked. Smallholder poultry raisers, in particular, were exposed to be ambiguity. On the one hand, they had to comply with BCMP-HPAI implementation. On the other hand, many people believe that there was no evident clarified the contagious HPAI virus from poultry to human, especially towards raisers who manage poultry as their daily activities.

Hartono, director of *PINSAR* (pers. com., 2007) estimated that BCMP-HPAI has caused a financial loss to livestock sub-sector of about Rp 4 billion in Jakarta. Due to the implementation of the policy, poultry meat consumption decreased about 33 percent from 25 kilogram per capita per year in 2006.

FAO-ICASEPS (2008) reported that the implementation of BCMP-HPAI in Jakarta has some negative impacts. Among other things were : (1) reducing household incomes, (2) disbanding of poultry farmer groups and their social network benefits, (3) decreasing time available for women to spend with their children as they are forced to find alternative income generating activities (often jobs outside the home), (4) loosing poultry income that was often controlled by women in the household and used for medical and educational expenditures, and (5) degrading poultry meat and egg household consumption.

After implementing BCMP-HPAI, there were some impacts on raising poultry. *Firstly*, some native chicken producers stopped their activities while other moved from backyards to vacant plots of land in the neighborhood and the rest kept hiding in backyard. *Secondly*, raising ducks became more concentrated especially in rice field or unoccupied lands belonging to real estate developers, such as in Cengkareng (near the Soekarno-Hatta International Airport). *Thirdly*, there was little impact on broiler producers as the initial culling activities focused on backyard and free-range poultry. The contract system promoted relatively good levels of biosecurity in these small commercial producers that in turn reduced the impact of HPAI. *Fourthly*, some quail producers lost their birds while other

shifted to duck production and stopped raising quail all together and rely on non-poultry income sources. *Fifthly*, the culling of pigeons had a psychological impact especially towards racing pigeon producers because this poultry was earmarked as on those households who kept them for racing and as hobby birds. *Sixthly*, there was a little impact on flock hobbies since all owners had obtained health certificates for their birds.

Comprehensively, there are three essential constraints in line with BCMP-HPAI implementation. They are farm management, compensation scheme, and relocation program. Those constraints can be practically managed using participatory approach in order to accomplish management-effective of BCMP-HPAI.

### **Farm Management**

Farm management is one of key points in BCMP-HPAI implementation. On the one hand, for instance, South Jakarta Livestock Office had provided technical assistance towards poultry raisers who had more than 50 native chickens. Those poultry raisers were united in four farmer's groups with more than 100 members. In relation to bird flu, officers of Livestock Office persuasively socialized poultry management and regulation through farmer's group. However, poultry raisers who had less than 50 native chickens cannot be monitored properly (SJLO, 2006). On the other hand, Health Office implemented BCMP-HPAI with the intention of protecting people and environment from HPAI.

Based on the above situation, it is indicated that each institution (sector) as if come up with different strategies. It is analog with the statement of Daryanto (2007) in Patrick (2007) : *“Biosecurity issues are often dealt with by governments on sectoral basis – limited attention is paid to interdisciplinary nature of biosecurity, different stakeholders organize their work without much attention to other sectors. Sectoral approach to biosecurity issues results in a lack of strategic focus, inefficient use of scarce resources and less than optimal results. Inadequate controls in one sector can have far-reaching consequences for other sectors”*.

### **Compensation Scheme**

According to “National Strategic Work Plan for the Progressive Control of Highly Pathogenic Avian Influenza in Animals : Avian Influenza Control Campaign 2006-2008”, culled birds due to avian influenza need for compensations. It proposes that payment of compensation at rates approximating their “fair market value” (Vadnjai and Hartono, 2006).

In the case of Jakarta, the compensation rate was about Rp 12,500 per culled bird. Nevertheless, according to poultry raisers, compensation payment was quite difficult to accomplish. On the one hand, it is obliged some requirements

such as approval test of avian influenza conducted by veterinarians and recommendation from village, sub-district, livestock, and police officers. On the other hand, some poultry raisers did not report their poultry condition to authorized institutions/officers. Some others were reluctant to cull their affected bird flu poultry such as burning and burying them because they felt guilty to perform it based on their beliefs.

## Relocation Program

Relocation program is a part of BCMP-HPAI besides farm management. It is focused on marketing (collection point) and post harvest handling (slaughter facility). Reasons and steps of collection point and slaughter facility relocations are presented in Table 6.

Table 6. Reasons and Steps of Collection Points and Slaughter Facilities Relocation

Reason	Step
Relocation is one of strategic programs to control HPAI	Identifying number and location of slaughter facilities
Relocation program is necessary since some collection points and slaughter facilities located in residential areas have caused environmental pollutions (smell and garbage) affect on its surrounding communities	Identifying appropriate standard of slaughter facilities
Relocation program can ensure <i>halal</i> (permissible)	Providing representative sites for marketing live poultry facilitated by proper infrastructure in order to divide the places of marketing live poultry and its products
Relocation program can fulfill market demand (consumers needs) of good quality poultry meat products.	Relocating collection points and slaughter facilities includes waste and cooling units
Relocation program is one of regional development impetuses	Revitalizing collection points and slaughter facilities in order to avoid spatial crossed pollution and to obtain hygienic poultry carcasses
Relocation program is strategically implemented to anticipate global market (AFTA, APEC) required high quality and competitive domestic products	
Relocation program is essential in which consumers not only oblige good quality but also require environmentally safe processing products	

Source : adapted from Daryanto, 2007

Relocation program is strategically implemented. However, it should be carried out socially and manageably through appropriate facility to relocate all poultry business actors and free from monopolistic system. It is noted that some slaughters are still currently operating at traditional markets. Those activities are being preferred because some consumers would like to observe the processing of poultry directly. Apart from that, the consumers wish to secure the poultry condition in terms of healthiness, freshness, and *halal*. The term of “*halal*” can be applied to all aspects of life, but usually refers to food permissible under Moslem dietary laws, such as meat from animals that have been slaughtered in the correct ritual fashion (Anonymous, 2008).

### **Participatory Approach**

Participatory approach among poultry stakeholders is an entry point of rearrangement concept formulation in order to accomplish management-effective of BCMP-HPAI. At this point, the essence of participation is win-win solution. It is understood to be the involvement of poultry stakeholders in a process of change engaged critical reflection and action with political, economic, scientific, and ideological dimensions coming together in social praxis (Gianottent and de Witt, 1982 *in* Selener, 1997). Thus, the solution of sectoral bias towards farm management and BCMP-HPAI implementation can be solve through improving equal commitment among related institutions. Meanwhile, compensation scheme constraint would be able to manage by way of comprehensive socialization associated with improving public awareness towards HPAI transmission.

As a central issue of BCMP-HPAI, relocation program is quite sensitive to implement since poultry industry in Jakarta closely associates with culture, socioeconomic, and ritual aspects of community. Nevertheless, it is simply employed if all stakeholders are involve in all stages of program i.e. planning, implementing, monitoring, and evaluation. Since Jakarta has specific circumstances such as limited land availability, multi ethnic communities, metropolitan life style, depends upon supply from outside, therefore, concepts of relocation program should be rearranged through participatory approach among poultry stakeholders as an alternative solution towards BCMP-HPAI feedback.

Participation is not only from Jakarta’s communities with its provincial government but also from communities and local government of outside Jakarta since it plays significant role as poultry suppliers to Jakarta. One of significant roles of poultry suppliers from outside Jakarta can be found in West Jakarta Municipality (Table 7).

Table 7. Location, Number of Trader, Kind and Origin of Poultry in Traditional Market of West Jakarta, 2007

Location	Kind of Poultry	Origin of Poultry
Tambora	Native chicken, broiler, ex-layer, male chicken, duck	Bogor, Purwakarta, Karawang, Cilacap, Purwokerto, Ciamis, Tangerang, Gunung Sindur
Kebon Jeruk	Broiler	Bogor, Sukabumi, Cianjur, Parung, Serang, Tangerang, Cilacap, Purwokerto
Tamansari	Native chicken	Purwokerto, Kebumen, Cilacap, Indramayu, Tangerang, Cilacap, Tegal
Cengkareng	Broiler	Bogor, Tangerang, Purwokerto, Cempaka Putih
Grogol Petamburan	Broiler	Bogor, Tasikmalaya, Ciamis, Tangerang, Balaraja, Cilacap, Purwokerto
Kalideres	Broiler	Tangerang, Bogor, Tasikmalaya
Kembangan	Broiler	Sukabumi, Lampung

Source : WJLO, 2006

Participatory approach can be strategically implemented through organizing the memorandum of understanding (MoU) in which the provincial government of Jakarta should play as leading sector in terms of planning and implementation managements. Due to limited land in Jakarta and highly depend upon poultry products from outside, the relocation program can be projected in certain areas closely located to Jakarta. It is also aimed at developing employment opportunity for local community while Jakarta's community is expected to take delivery of poultry product supplies in the form of *halal* (permissible) and hygienic carcasses. As a result, summary of public dialogue "Live poultry is banned entering Jakarta" held in Jakarta on 9 August 2007 should be considered as inputs of rearrangement concept of relocation program based on participatory approach (Table 8).

Table 8. Summary of Public Dialogue "Live poultry is banned entering Jakarta", 9 August 2007

Summary
Provincial Legislation No. 4/2007 legalized on 19 April 2007 has not been comprehensively accepted yet, because :
Up to present, there has no evident about the activities of collection point and slaughter facility affect on human death related to bird flu
New location of collection points and slaughter facilities established by provincial government of Jakarta in Rawa Kepiting is quite not feasibly operated
Provincial government of Jakarta has not provided alternative solutions to encourage the owners of collection points and slaughter facilities related to the implementation of legislation

Table 8.continued

Summary
<p>It is not all residential communities nearby collection point and slaughter facility sites feel objection about the activities of collection point and slaughter facility</p> <p>High potency of social conflict would be occurred if relocation had forced to inappropriate (worse condition) area</p> <p>Collection point and slaughter facility relocations should be stressed on :</p> <ul style="list-style-type: none"> <li>Dirty and unhygienic collection points and slaughter facilities that have potentially negative impact to community health and environmental condition</li> <li>Dirty collection points and slaughter facilities nearby residential areas that have potentially affected on social conflict</li> <li>Selected relocation treatment based on standard of collection point and slaughter facilities</li> <li>It is not to generate new problem but to accomplish problem solution</li> <li>Protect business actors with impeding residential establishments nearby new collection point and slaughter facility areas</li> </ul> <p>Provincial Legislation No. 4/2007 should be spelled out into Governor Legislation No. 15/2007 to which it can be implemented consistently</p> <p>Provincial Legislation No. 5/1992 issued on the regulation of collection point and slaughter facility managements should be implemented consistently if it were relevant. Hence, the legislation should be revised in order to implement it effectively</p> <p>Education towards poultry producers and consumers should be carried out continuously in order to improve their understanding about the importance of clean consumption and hygienic poultry products</p> <p>Provincial Government of Jakarta should socialize the Legislation No. 4/2007 towards local governments of Bogor, Tangerang, Bekasi, Sukabumi, and Subang. It is suggested that Provincial Government of Jakarta to collaborate with the Provincial Government of West Java, Banten, and Lampung. Those areas are recognized as poultry suppliers of Jakarta</p> <p>In line with policy formulation affects on broad communities, government and legislative institutions should consider about community custom and culture as well as ritual aspect and socio economic interest in running business activities</p> <p>It is necessary to conduct dialogues among government, business actors, politicians, researchers, and academicians in order to find best solution with low risk</p> <p>Upon Governor Legislation has been issued, following steps should be implemented :</p> <ul style="list-style-type: none"> <li>Socializing Provincial Legislation and Governor Legislation towards the owners of collection point and slaughter facility</li> <li>Seeking and exempting lands for collection point and slaughter facility prepared and handled by Provincial Government</li> <li>Supporting infrastructures for collection points and slaughter facilities prepared by Provincial Government</li> <li>Socializing relocation plan from the previous locations to the new sites</li> </ul> <p>In order to improve efficiency and productivity of poultry industry as well as to consider about community's custom/culture and ritual aspect, therefore, an assortment of government policies issued on poultry industry should be reviewed and reassessed</p>

Source : adapted from *Trobos*, September 2007

## CONCLUDING REMARKS

HPAI has become pandemic and has resulted in poultry and human deaths in Jakarta. Therefore, it is necessary to implement biosecurity control measure policy towards raising poultry and its distribution in this area. Two types of control measure policies namely Governor Legislation No. 15/2007 and Provincial Government Legislation No. 4/2007 have been implemented, however, some particular reactions occurred which were derived from industrial poultry stakeholders. Incomprehensive socialization and lack of community socio economic consideration are among other main issues perceived by business poultry actors about the implementation of the policy. Hence, it is necessary to carry out rearrangement concept through participatory approach among stakeholders in order to obtain policy feedback.

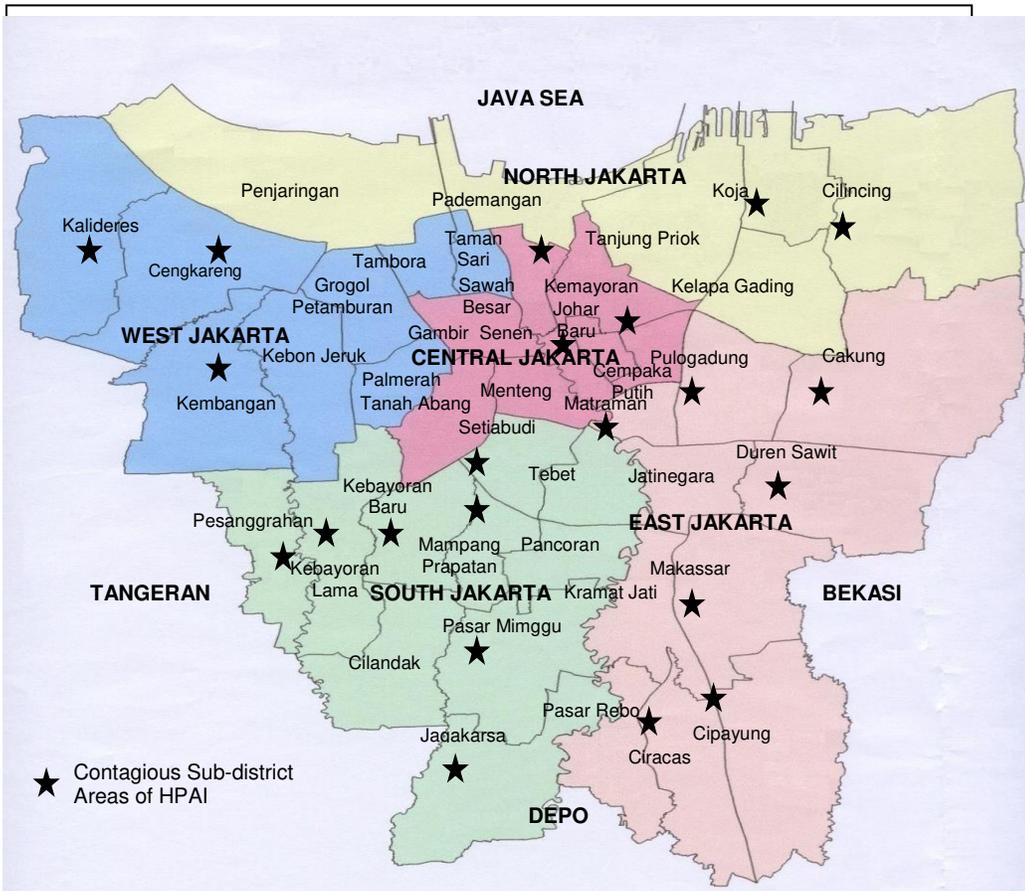
Simultaneously, local government should facilitate job fairs or provide job list to communities whose lost poultry livelihood because of the control measures. Future control policy development should involve more non-government actors particularly academicians and poultry producers. The later will be important for developing effective socialization messages. Above all, BCMP-HPAI in Jakarta needs to be implemented comprehensively and holistically. In other words, it is necessary to set up equal perception, commitment network, and collective decision among stakeholders. Those are planned to generate safe, nutritional, valued, eco-labeled, and humanistic attributes towards poultry industry.

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Appendix Figure 1. Map of Contagious Sub-district Areas of HPAI in Jakarta, 2006-2007  
 (source : Setiarto, 2007)







Appendix Figure 2. Summary of Provincial Government Legislation No. 4/2007 (adapted from Setiarto, 2007)

