

**ASEAN REGIONAL STRATEGY  
FOR THE PROGRESSIVE CONTROL AND ERADICATION OF HPAI  
(2008-2010)**

**I. BACKGROUND**

When the highly pathogenic avian influenza (HPAI)- H5N1 began to spread throughout the Southeast Asian region in 2003-2004, the ASEAN Member Countries implemented various prevention and control measures directed at-source. Measures were aimed at preventing HPAI from creating further losses in the poultry industry and from evolving into a much serious public health problem.

As HPAI spread to almost all of the member countries of ASEAN, a regional approach to enhance the efforts of countries and address the common problems was urgently sought. Thus, on 7 October 2004 in Yangon, Myanmar, The Twenty-sixth Meeting of the ASEAN Ministers of Agriculture and Forestry (AMAF) endorsed the formation of the ASEAN HPAI Taskforce. The Taskforce was tasked to coordinate the prevention, control and eradication of HPAI in the region, and was expected to facilitate the sharing of experiences and expertise in HPAI control by the Fourth Meeting of the AMAF Plus Three held the following day (8 October 2004) during the same occasion.

The ASEAN HPAI Taskforce, in consultation with FAO and OIE, subsequently formulated the Regional Framework for the Control and Eradication of HPAI in ASEAN, and its 14 associated projects (Work Plan for the Control and Eradication of HPAI in ASEAN, 2006-2008) during their Second and Third Meetings held in Kuala Lumpur on 4-6 July 2005 and 4-6 January 2006 respectively. The Regional Framework was formally endorsed by the Twenty-seventh Meeting of the AMAF in Manila on 29 September 2005 which also provided the directive for the formulation of the detailed Work Plan and the sourcing of project funds.

The Regional Framework provided strategic direction in the effort and cooperation to improve the implementation of HPAI prevention and control measures, with reference to eight Components or Strategic Areas, namely: 1) Disease surveillance; 2) Containment measures; 3) Stamping out and Vaccination policy; 4) Diagnostic capability; 5) Establishment of disease free zones/compartments; 6) Information sharing; 7) Emergency preparedness plans; and 8) Public awareness and communication.

To assess and move forward the implementation of the Regional Framework activities, various initiatives were undertaken, including the conduct of three regional workshops and country situational visits, which resulted in identifying the gaps and formulating corresponding recommendations. The information collectively gathered prompted the HPAI Taskforce to proceed with the necessary reformulation of the Regional Framework, which subsequently led to the formulation of this Regional Strategy.

## **A. Rationale**

ASEAN Member Countries have applied concerted efforts to prevent, control or eradicate the HPAI–H5N1 at-source. Some countries have shown that complete eradication is possible through early disease detection and response. However, HPAI has become endemic and continues to spread in some other countries and, therefore, remains a threat to the poultry and livestock industry and to public health security in the region and globally. In Southeast and Eastern Asia, over 200 million poultry have either died or been destroyed and up to 328 people have contracted the infection worldwide, and 200 people have died (as of 10 September 2007). These figures have tripled since about 2 years ago. Economic losses to the Asian poultry sector are estimated at over US\$10 billion. It is apparent that many of the reservoirs of infection are found in the developing world, in particular amongst the lower-income livestock farming segments.

The situation, therefore, calls for the development of a Strategic Plan that is responsive to the currently identified gaps, and the continued possibility of the dreaded influenza pandemic occurring. Serious attention must be focused on the failures of prevention/control systems, particularly those incorporating poultry vaccination as a main control strategy. As individual countries and as a region, the prevailing HPAI threat should continue to be viewed with a real sense of urgency.

The capacity and capability of HPAI affected and re-affected countries to better deal with HPAI threats should be enhanced in ways that virus transmissions can be stopped, with reasonable certainty and a predictable outcome. Countries must be made more responsive to HPAI outbreaks, and enabled to quickly decide and plan when innovations in control systems are called for.

Mid- to Long-term undertakings such as industry restructuring, progressive zoning, legislative development, institutional strengthening, harnessing political cohesion, manpower development and deployment, etc. are all very important and should be started immediately, although these will not out-rightly solve the current emergencies.

Clearly, the HPAI problem is not just a problem of individual countries, but of the Region. All stakeholders must be given the opportunity to work together through a common and regionally relevant Strategy that provides real solutions, and is supportive to the needs of gravely affected countries.

## **B. Guiding Principles**

The formulation of this Regional Strategy has been closely guided by the set of identified gaps and recommendations gathered through the three ASEAN workshops that were conducted through the collaboration of the Asian Development Bank (ADB), Food and Agriculture Organisation (FAO), World Organisation for Animal Health (OIE), ASEAN HPAI Taskforce and concerned ASEAN governments, and other stakeholders. Through these Workshops and various other opportunities for exchanges of information and experiences among the AMCs, the situation became more clearly understood and enabled the holding of a brainstorming meeting for the reformulation of the Regional Framework on 30-31 August 2007 in Manila, participated in by the focal points of the HPAI Taskforce and representatives from

international organisations, including the FAO and OIE. The product of this brainstorming meeting provided the outline and basic concepts for this Regional Strategy.

The timeliness and strategic focus of this and related future efforts are in consideration of the eventual conclusion of the implementation of the Regional Framework in 2008, and the decision arrived at during the Sixth HPAI Taskforce Meeting, held in Bandar Seri Begawan on 24-25 April 2007, for the Taskforce to start preparing for more detailed discussions to map out an action plan or roadmap and to put priority on addressing the identified gaps and challenges, such as those relating to vaccine production and supply strategy, and strengthening capacities on outbreak response and reporting systems, including information sharing, R and D, and the collaboration among concerned sectors, particularly between health and agriculture.

## **II. PROGRAMME/ACTIVITIES**

### **A. Goal**

To protect and maintain HPAI-free countries/zones and to control/eradicate HPAI in the remaining infected zones

### **B. Objective**

To strengthen the coordination and capacity to manage HPAI infections

### **C. Implementation Timeframe**

This Regional Strategy is projected to be relevant for a period of three years (Year 2008-2010). Specific arrangements, projects/programmes, work plans/ roadmaps, etc that may emanate from this Regional Strategy may be designated their respective implementation timeframes as deemed relevant.

### **D. Focus Areas**

#### ***1. Strengthen regional cooperation through sustained coordination and partnership with stakeholders***

#### ***Strategic Thrusts***

Various key organisations and sectors are operating independently in implementing HPAI control and eradication initiatives in the region. As these organisations and sectors continue to meet in common discussion fora, the need for better and sustained coordination of their efforts through a defined coordination mechanism is now realised. Individual roles need to be clearly established in such a way that synergy is optimally enhanced and duplication of efforts is avoided. The mechanism for coordination is expected to be related to existing institutional arrangements such as the GF-TADs and ongoing ASEAN projects/programmes/mechanisms and mandate (involving the HPAI Taskforce and the ASEAN Secretariat). It is recognised that the prevention and control of avian influenza is a global responsibility that requires close collaboration and coordinated efforts among governments,

communities and businesses with the active participation of appropriate regional and international organisations and mechanisms.

- **Institutionalisation of a regional coordination mechanism/unit**

The ASEAN Secretariat currently provides regional coordination in support to the ASEAN HPAI Taskforce. As regional (ASEAN-driven) activities are further elaborated and integrated to the GF-TADs in collaboration with FAO and OIE, a more sustained and efficient coordination is required. Therefore, a regional coordination unit and the mechanism for its operationalisation should be institutionalised. The main activity expected to be carried out in this regard would be an interagency strategic planning meeting to formulate the organisational structure and terms of reference of the unit and the related entities within the whole mechanism.

- **Regional workshops/seminars/conferences to discuss technical and policy issues**

As activities are implemented, monitored and evaluated both at country- and regional-levels, a dearth of knowledge or lessons learnt would be developed. This knowledge base should be shared among countries through regional meetings that take stock of developments and enable the formulation of recommendations for utilisation and evolution of the technical knowledge gained. This knowledge sharing should be part of an overall regional “knowledge management” arrangement interlinking the application of knowledge in the field, knowledge generation from the field and knowledge sharing at all levels in collaboration with individual AMCs and technical organisations. The planning and holding of a series of meetings/workshops relating to specific focus areas are the main activities to be carried out.

- **Strengthening involvement of partner organisations**

There are several partner organisations playing key roles in the implementation of HPAI control initiatives. Key international organisations, such as the FAO, OIE, WHO, and ADB, have been collaborating with ASEAN through the joint formulation of regional work plans and organisation of meetings and workshops. These collaborations should continue at even greater extent and in more defined ways (e.g. in the context of “Knowledge Management”), involving all other key organizations including NGOs. It should be emphasised that ASEAN must continue to function through partnerships with technical organisations, with each organisation doing what it does best, and taking into account the regional arrangements/facilities already in place such as the GF-TADs.

- **Multi-sectoral coordination**

Coordination between the public health and animal health sectors have been strengthened through joint undertakings in most countries. These should be further strengthened through more defined arrangements (e.g. as described below on animal-human health interface). There are also other sectors that should be engaged depending on the focus area. For instance, the Ministry of Trade would play an important role in ensuring trade facilitation arrangements; the Ministry of Information would facilitate Information-Education and Communication (IEC) programs; and the various private sectors (e.g. poultry and livestock industry, veterinary associations, etc.) could contribute to various aspects of the HPAI control and eradication program in each country. Sectoral collaborations must also focus particularly on addressing possible displacement of livelihood and businesses.

## **2. Pursue the regional arrangements adopted at ministerial level**

### **Strategic Thrusts**

Various regional arrangements have been initiated to support the efforts of ASEAN to better control and eradicate HPAI in the region (e.g. the establishment of the ASEAN Animal Health Trust Fund). In the light of the participation of six other countries (ASEAN Plus three and EAS participating countries) declaring their support to the ASEAN HPAI control initiatives, the opportunity for broader technical cooperation shall have to be created, cognizant of the expectation of the Heads of State of participating countries that every effort is to be undertaken, through existing bilateral, regional and multilateral channels, to enhance national, regional and international capacities to deal with the current avian influenza epidemic.

- **Long-term sustainability through the ASEAN Animal Health Trust Fund**

The approval of the ASEAN Animal Health Trust Fund (AAHTF) provided the expectation for ASEAN to establish a vehicle that can serve to promote the implementation of coordinated, and unified animal health projects and programmes in ASEAN. At its inception in June 2003, the aim of setting up the AAHTF was to enhance the effort of ASEAN to ensure that the region will become a FMD free zone. However, when avian influenza started to destroy the poultry industry in early 2004, the purpose for establishing the Fund took on a broader and more regionally relevant animal disease control and eradication perspective. While all ten AMCs have fully committed their spread-out contributions to the AAHTF, a strategy for operationalising and sustaining the Fund has to be formulated. As the Fund is currently dependent mainly on Member Country contributions which are expected to accrue to 1.8 Million USD after 5 years, the strategy must include mobilising additional funds from other sources (refer to Resource Mobilisation below).

- **Strengthen the commitment/effort of AMCs towards the control and eradication of HPAI with support of participating countries**

By virtue of the declaration of the Heads of State of EAS participating countries to undertake every effort to enhance national, regional and international capacities to deal with the current avian influenza epidemic, ASEAN is to formulate the strategies by which existing regional mechanisms and framework could integrate further cooperation and support from various participating countries. The main focus areas for further strategising may include institutional strengthening (including the regional coordination mechanism/unit), knowledge management and information sharing, general capacity building, laboratory networking, and other areas where collaboration is deemed essential, including in the elaboration of the activities and development of work plans related to this Regional Strategy.

## **3. Develop short-, mid- and long-term strategies to eradicate HPAI in ASEAN taking into account the regional and global strategies (i.e. the GF-TADs regional mechanism and FAO/OIE strategies)**

## **Strategic Thrusts**

Eradication of HPAI from the region remains to be the ultimate objective for strengthening collaboration and building capacities. However, because this is the stage wherein capacity-building is just progressing and resources may be limited, the disease has become entrenched in some countries, and poses a challenge for effective control to be achieved. Therefore, the detailing out of a progressive approach to the control and eradication of HPAI shall take into consideration the available and developing capacities and resources particularly in severely affected countries, or regions within countries. In this regard, the engagement of other sectors including the private sector is an important consideration.

### **▪ Prioritise areas for progressive zoning**

While it is apparent in some countries that controlling the wide spread of HPAI in the entire country is difficult to accomplish, a progressive zoning strategy may provide a solution to ensuring HPAI eradication in the short- to mid-term in, for instance, economically important regions/provinces in relation to poultry trade facilitation. This approach requires a long-term strategy whereby the progressive eradication of HPAI in designated zones would eventually lead to the complete eradication of HPAI in a given country. The strategy must be applied systematically and requires sustained commitment and resources as described above. A specific timeframe must be defined for each stage of zonal eradication of HPAI.

### **▪ Strengthen veterinary services and manpower (to address future emerging diseases)**

The nation-wide availability, per country, of a cohesive veterinary service is an important key to ensuring that the objective of controlling and eradicating HPAI from the region is attained (as well as dealing with similar disease threats). Effective veterinary services not only pertain to human resources but equally to the provision of material resources and the establishment of structures and infrastructures for the efficient delivery of essential services. Veterinary manpower (including para-veterinary professionals) has to be enhanced in both number and skill. The short- to long-term strategies that relate to this focus area shall therefore include equipping veterinarians and para-veterinarians with the system, facilities, tools, materials and skills for conducting early detection and early response to emerging disease outbreaks and collaborating with relevant sectors such as on animal-human health interface issues. At the regional level, establishing a center for veterinary education may be relevant to countries such as Lao-PDR that currently has no veterinary school.

### **▪ Vaccination and vaccination exit strategies**

Serious attention must be focused on the apparent limitations of HPAI control measures conducted with vaccination, as applied in Viet Nam and Indonesia. While believed to be theoretically feasible, vaccination must still be proven beyond doubt to be a practical tool in controlling HPAI in an endemic environment, considering the enormous organisational, human, material, and financial resources required for sustained country-wide application. Furthermore, the dynamics of HPAI infection, disease and transmission among vaccinated and unvaccinated poultry must be first clearly understood, as these have direct implications on the nature of HPAI endemicity and enhancement of transmission risks to both the poultry and human

populations. It is necessary that the short- to long-term strategies for applying vaccination must include a predetermined good quality and adequate vaccine supply and science-based vaccination approaches with clearly defined monitoring and exit mechanisms.

#### **4. Enhance capacities and capabilities (including sharing experiences through training workshops, country visits, etc.)**

##### **Strategic Thrusts**

The current Regional Framework for the Control and Eradication of HPAI in ASEAN focuses on capacity building for eight strategic areas as described previously. Much have already been accomplished, but efforts that have already been laid out shall have to be continued and expanded to other important focus areas requiring capacity development at both Member Country and Regional levels. Detailed activities are to be formulated and could be implemented through AMCs through regional “Collaborative Arrangements” that facilitate integration of lessons learnt. Implementation of activities have to be regionally coordinated, monitored and evaluated, and information gathered are to be reported/shared to improve overall regional capacity. Key capacities are to be scaled up in the long-term, with a view that synergy shall evolve. Establishing a Regional Knowledge Management mechanism is, therefore, an essential strategic element to ensure that output generation is maximised. Below are the key focus areas for capacity building.

- **Surveillance and epidemiology (including outbreak investigation)**

This focus area is paramount for early disease detection and response, understanding the spread of the disease, and assessing stamping out and vaccination programmes. While much has been done to improve surveillance capacities, further enhancement of efforts is still necessary such as in addressing the existing lack of surveillance equipment and trained manpower, inadequate reporting and notification systems from grassroots levels (including poor data collection and analysis), need for prompt virus analysis services, need for instituting incentives to reporting and the need for regional networking. Specifically for zoonoses outbreak investigation and risk assessment, field or applied epidemiologic capacity requires further enhancement.

- **Laboratory**

Developing laboratory capacities is essential to supporting surveillance and outbreak investigation. The main thrust is establishing laboratory readiness at national and sub-national levels, particularly in terms of developing the system, equipment and skilled laboratory technicians. The further upgrading of laboratory capacities focuses on setting up standard diagnostic methods and biosafety protocols, and instituting Good Laboratory Practice (GLP) standards. Strategies must also consider the regional mechanisms for sharing of virus samples, biological resources and providing laboratory support to countries.

- **Information systems (data collection, analysis, reporting in ARAHIS)**

The regional information system capacity building efforts center on the development of the ARAHIS and its linkage with various national information systems, as well as developing/ setting up these national systems. In relation to this, there are still

various activities expected to be done to complete regional integration of the information system and enhance complementarity with other systems operated by FAO/OIE. As information sharing should extend beyond web-based, all related opportunities for information sharing are to be explored.

- **Public awareness and risk communication**

While public awareness and communication is an important strategy on its own, it is also the key to creating an enabling environment that supports implementation of activities across all focus areas especially at grassroots levels. For this reason, the key element for strategic development would be the penetration of participatory public awareness approaches into grassroots levels aimed at inducing behavioral changes among various stakeholders. In more general terms, strategic development may also be targeted at strengthening of national monitoring and evaluation mechanisms, enhancing cross-sectoral and interagency coordination, conducting research, and the formulation of a “Best Practice” model/ template that elaborates on effective grassroots participatory approaches. At the regional level, the strategy to improve the capacity to coordinate public awareness activities may be incorporated into the overall enhancement of the capacity for regional coordination.

- **Emergency preparedness/contingency planning**

AMCs are implementing their respective Emergency Preparedness Plans, including the specific SOPs for investigation, reporting and rapid response. However, capacity building is further required for the establishment of clear command chains, national/provincial manpower and logistical requirements (e.g. geographical information systems) and the regional pool of various expertise.

- **Legislation**

Countries have varying degrees of regulations and enforcement abilities, particularly in terms of availability of resources for effective law enforcement. As regulations could strengthen disease control measures applied at sectors 3 and 4 production systems, including the control of live bird movement/ marketing and quarantine, the formulation of specific regulations and enforcement mechanisms especially addressing specific risk factors for HPAI transmission among poultry and to humans (e.g. illegal bird movement at borders and live poultry marketing) is identified as a strategic area for capacity development. For instance, legislation could be considered for establishing risk communication mechanisms. However, whatever legislative approaches are taken, these should not cause any adverse effect on the overall effectiveness of HPAI control programs.

- **Biosecurity measures**

Most countries are in the stage of improving biosecurity, relating it, in some instances, to the broader effort to restructure the poultry industry/production and marketing systems. These efforts would entail capacity building for ensuring effective control zone containment and quarantine such as operating road blocks and safeguarding illegal bird movement at borders, and to innovate on biosecurity measures for sectors 3 and 4 production systems, in which case proposed measures are to be effectively integrated with defined IEC strategies.



- **Stamping out and compensation**

The extent stamping out is applied in a country varies according to HPAI endemicity. For instance, where HPAI is endemic, stamping out is applied in a less expansive manner termed “focal stamping out”, in which only immediately affected farms or villages are stamped out. Under these situations, poultry vaccination is concurrently being applied, but the success of such control systems remains to be demonstrated. The provisions of compensation and sufficient logistics remain to be key issues in the success of stamping out. Clearly, an important strategic thrust is the generation of an effective control system involving strategic stamping out supported with a functional relief system, with or without vaccination. Basic improvements in stamping out methods (safe and humane culling, carcass disposal and decontamination) and stamping out-impact assessment are also key areas of concern.

- **Vaccination**

As discussed above, vaccination must continue to be made as an effective and practical tool for controlling HPAI in an endemic environment, in the context of a multi-faceted HPAI control strategy. Capacity building efforts must therefore be directed at establishing the system that ensures provision of good quality and adequate vaccine supply and the expertise for vaccination monitoring and planning vaccination exit mechanisms. Research must also be designed to elucidate on the dynamics of HPAI infection, disease, transmission and sero-conversion among vaccinated and unvaccinated poultry (refer to R and D below).

- **Zoning and compartmentalisation**

AMCs are aware of OIE guidelines and standards on implementing zoning and compartmentalisation for disease control and eradication, and some AMCs are already moving towards establishing compartmentalisation. However, the variation in the level of private-public sector partnerships currently limits adequate implementation of compartmentalisation. Cost-benefit data have to be gathered and relevant capacities have to be developed to support zoning and compartmentalisation efforts. Key focus areas for capacity building include: the strengthening of private-public sector partnerships through communication processes, poultry industry restructuring including modifications of production and live-bird marketing systems, and the institution of “Good Farming Practices” standards. As plans for these are laid out, possible adverse socio-economic and environmental consequences should be considered.

- **Risk analysis (epidemiological) and its application (in relation to disease control and trade)**

Risk analyses are required for facilitating decision making processes related, for instance, to establishing poultry trade arrangements involving poultry sourced from certified HPAI-free zones and compartments. Its implication is vast as it also indicates the effectiveness of disease control measures (e.g. stamping out and vaccination) and risk reduction in general (e.g. biosecurity, regulations, etc.). The capacity and capability to conduct risk analysis has to be enhanced as countries establish HPAI-free areas, compartments and zones, and improved poultry marketing systems.

- **Animal-human health interface (zoonoses)**

While this focus area is a relevant entity across all the focus areas above, it is important to put emphasis on the need to strengthen cross-sectoral and interagency partnerships and collaborations on specific areas such as the conduct of joint outbreak investigation and formulation of communication strategies and mechanisms. Thus, capacity building initiatives may focus on the establishment of zoonoses outbreak epidemiology capacities (e.g. unit and training program development under the Animal and/or Human Health sectors) and a comprehensive communication plan that supports approaches to disease control at-source aimed at reducing public health risks.

## **5. Research and Development (R&D)**

### ***Strategic Thrusts***

As HPAI control capacities are improved, circumstances and processes that require R and D information inputs are being identified. R and D have to constantly address demand for information that supports further capacity building and the application of cost-effective and science-based HPAI control measures. The following are the proposed focus areas for elaboration of R and D strategies.

- Vaccine and vaccination (production, quality control, supply and banking)
- Economic studies (including compensation/relief, industry recovery and restructuring)
- Epidemiology of the HPAI virus (e.g. molecular, ducks)
- Market chain study
- Traditional movement of poultry
- Operations research (e.g. application of biosecurity measures in smallholder poultry production sectors)

## **E. Implementation Arrangements**

### ***Strategic Thrusts***

After this Regional Strategy receives endorsement from the Twenty-ninth AMAF Meeting (in November 2007), an inception meeting shall be held soon thereafter for elaboration of more concrete proposals (including arrangements, mechanisms, specific work plan/s and projects) and identification of sources of funds and resources. Additionally, a coordinating unit that will keep track of the commitments of the different agencies and HPAI control activities in individual AMCs shall correspondingly be established. The elaboration and eventual implementation of the detailed work plan(s) is expected to be pursued in collaboration with ASEAN Plus three and EAS participating countries, dialogue partners (e.g. FAO, OIE, WHO, etc.), international organisations and donor agencies. When appropriate, country- and regional-level projects are to be implemented through existing mechanisms. A Roadmap for particular programmes/ focus areas may be formulated as deemed appropriate.

### ***1. Implementation Mechanism***

The thrust is to basically adopt the existing general mechanism with reference to the implementation of the current Regional Framework (refer to **ANNEX 1**) but, in a broader sense, should detail as well specific mechanisms and organisational roles (e.g. as lead agencies), with identification of the collaborating organisations and sectors such as for knowledge management, and where linkage to the GF-TADs mechanism applies.

### ***2. Resource Mobilisation***

This shall include funding mechanisms and sources at both country- and regional-levels (e.g. the continuation of project-/programme-implementations through grants from dialogue partners, conducting regular donor-consultations and setting up an ASEAN-FAO-OIE collaborative arrangement for project implementation). It would be expected that projects and programmes to be developed in relation to this Regional Strategy shall be implemented through multi-agency and donor support. As such, the project development stage would be crucial in ensuring that projects generated are well designed and planned to attract funding support.

### ***3. Monitoring and Evaluation/ Reporting of outcomes***

It shall be necessary to formulate a Monitoring and Evaluation (M and E) mechanism that identifies the responsible participating organisations (including for documentation) possibly for key program/project implementations relating to this Regional Strategy, at both country- and regional-levels. Findings and outcomes are expected to be reported at the regional level to identify key practices and lessons learnt in a systematic manner. A series of ASEAN Regional and Partners' fora shall be convened for this purpose.

# IMPLEMENTATION MECHANISM

