The Low Pathogenic Avian Influenza (LPAI) H5N2 virus was detected in the Dominican Republic (DR) late last year, causing a serious disruption in subregional trade, poultry production and food security. In collaboration with the World Bank, the DR Secretariat of State for Agriculture organized a workshop to share regional knowledge on preparedness for emergency actions to deal with avian flu. This note captures interesting themes from the workshop.

Expert Opinions at the Workshop

With HPAI subtype H5N1 reported in more than 60 countries worldwide, the international community has rallied to provide support for its prevention and control. While H5N1 has not been detected in the Americas to date, countries in the Latin America and the Caribbean Region (LCR) are already coming together to prepare for a potential outbreak of the virus.

A couple of months after the LPAI strain was identified in the DR, the Bank team supervising an ongoing grant-financed project and the DR’s Ministry of Livestock took the initiative to organize a two-day workshop for stakeholders across all concerned sectors. The aim of the meeting was to review the government’s National Emergency Plan for AI to evaluate its comprehensiveness and to gauge the country’s readiness for implementation. Without the actual experience of having fought an AI outbreak in the DR, how could workshop participants anticipate the Plan’s performance on the ground? What must the country watch out for in terms of unexpected issues or outcomes?

To provide a reality backdrop to workshop analysis, a multi-country dialogue was organized to allow the Dominicans to ask many of the pressing questions they had and to seek advice from those who have helped their own countries fight this avian disease.

Within weeks, some 40 workshop participants from the DR sat facing a video conferencing (VC) screen, immersed in a live discussion about AI with agricultural sector experts in Chile, El Salvador, Guatemala and neighboring Haiti. This just-in-time intra-regional learning event, executed through the Global Development Learning Network (GDLN)*, raised important questions. How was the disease detected in each country? How did it develop? What actions were taken in response? And, most importantly, what did these experts learn from the

---

*The Global Development Learning Network (GDLN) is a partnership of over 120 learning centers (GDLN Affiliates) in nearly 80 countries around the world. GDLN Affiliates collaborate in holding events that connect people across countries and regions for learning and dialogue on development issues. http://www.gdln.org
The lessons were plentiful and often similar across countries. Much of the discussion focused on which actions should be taken in prevention and control of avian flu, such as whether to vaccinate birds, and how related decisions should be made.

Dr. Moises Vargas Terán of the Regional Food and Agriculture Organization (FAO) Office in Santiago, Chile spoke about global alliances formed to combat AI and the need to better understand its disease etiology for improved prevention and control.

Mexico has learned some significant lessons from its experience with vaccination. AI was declared eradicated in 1995 yet later found to have been silently present over the last 14 years. Dr. Miguel Marquez, a Mexican veterinarian and avian pathologist who participated in the workshop in person, stressed that “if a country vaccinates, it should consider itself condemned to live indefinitely with LPAI and the continuing need for vaccination.” As a consequence, Dr. Marquez recommended that the DR eradicate the virus immediately when it is detected to prevent its spread. He also recommended culling in primary sites because that is practically feasible for most country systems. At the same time, once H5N2 is found in commercial poultry, immediate and massive culling is difficult because of logistical constraints.

Participating from GDLN affiliate Universidad Rafael Landívar in Guatemala, Dr. Manuel Hoffman of the Country’s National Association of Poultry Farmers asserted, “(There) must be a strong alliance between the productive sector (and government) in order to be able to implement plans for control and eradication (of Avian Influenza)” The need for sector coordination was echoed by each of the country panels. Experts in El Salvador emphasized the importance of including the private sector when deciding on vaccination as a response. Dr. Marquez expressed optimism that the DR can still eradicate AI through early detection, culling and with a real, effective partnership with the productive sector. Experts from all participating countries highlighted the importance of epidemiological surveillance and of anticipating the country’s needs ahead of time. Panelists urged the DR to develop a clear idea of the costs of response and to design a plan of action to be taken, before an outbreak occurs. “The day that AI is identified

Box 1 –What is Avian Influenza and what dangers does it present?

- Avian influenza (AI) is a disease caused by a virus that has multiple strains or types, some of which are more dangerous than others. AI viruses can be divided into highly pathogenic (HPAI) and low pathogenic (LPAI) strains, based on their ability to cause disease in poultry. LPAI is a natural infection of waterfowl that may cause minimal-to-no signs of disease in domestic poultry and wild birds and is not a serious threat. HPAI is rarely found in waterfowl, but causes severe disease in domestic poultry with a high death rate.
- The H5N1 virus is the strain of HPAI that has infected numerous species of birds in more than 60 countries in Asia, Europe and Africa. To date, it has not been detected anywhere in the Americas. More than 300 million poultry have died or been culled in efforts to control the disease.
- The widespread persistence of H5N1 in poultry populations poses two main risks for human health. The first is the extremely small risk of direct infection when the virus passes from poultry to humans and causes severe disease. Such infections are extremely rare so far – fewer than 400 people have been infected, despite trillions of interactions between infected poultry and people. However, of the very few AI viruses that have infected humans, the current H5N1 virus has caused the largest number of cases of severe disease and death.
- The virus is not yet able to spread readily among humans. However, a second risk, one of much greater concern, is that the virus - if given ample opportunity - might change into a form that is highly infectious for humans and spreads easily from person to person. Such a change could mark the start of a pandemic (a global outbreak in humans), with the potential to kill millions of people worldwide.
- If H5N1 does appear in birds and poultry in Latin America and the Caribbean, it will threaten the food security of the most vulnerable groups in the region. In these countries, poultry generally accounts for more than 70 percent of animal protein consumption. Such an epizootic would also have serious repercussions on the economies of the Americas. Brazil, for example, the top poultry exporter in the region, sold 3.3 million tons of chicken overseas last year. (ANBA, “Chicken exports reach US$5 billion and break record”, January 2, 2008; April 25, 2008, http://www.anba.com.br /ingles/ noticia.php?id=17172.

experience of fighting AI and what recommendations did they have for the DR?
on commercial farms,” Marquez stressed, “the decision to cull or vaccinate must have been made.” Speaking of Mexico’s lessons from its 1994–95 outbreak of AI, Dr. Marquez explained, “Mexico took too long to act at the onset of the outbreak and this had a terribly negative impact on controlling the spread of the virus.” In Guatemala, Dr. Hoffman reaffirmed this view, saying, “Time has been our enemy, given how quickly the virus spreads and can mutate.”

In other recommendations, the Dominicans were encouraged to be aware of cock fights, which are popular throughout the island and which can easily facilitate the transmission of avian flu from birds to farm animals, especially given that the birds are moved over significant distances.

Given the political climate when Mexico’s AI crisis emerged and its hindering effect on response, Dr. Marquez cautioned the DR to separate the political dimensions from technical aspects when determining how best to address an AI outbreak. Chilean experts Álvaro González of the Ministry of Agriculture and Claus Kobrich of the University of Chile agreed, sharing the same advice from among their recommendations. Both participated by videoconference.

The multi-country exchange provided the basis for a rich set of discussions held on the second and final day of the workshop. Participants derived great benefit from the activity, one rating the workshop’s most valuable element as “learning about the situation that countries like Chile, Guatemala, El Salvador and Mexico have experienced and seeing how they were able to deal with it.”

As a whole, the workshop provided the stage for further inter-sectoral coordination in the DR. Among the most valuable learning elements of the workshop were “the opportunity for integration of the different sectors,” according to another participant. The donor community showed impressive support, with representatives participating from the APHIS US Department of Agriculture, US Agency for International Development, and embassies of France, China and the UK. Regional organizations, including IICA, FAO and OPS, were also present. The military also sent a participant, given the security issues anticipated from an AI outbreak.

Nevertheless, for some participants, not all stakeholders were present. In suggestions for future events, one recommended “involving more people who are part of the poultry farming chain, the press, and the public in general.”

Another suggested “that political authorities as well as technical authorities participate, so that they can speak the same language. Poultry farmers should also participate; they are the most important part of this topic.”

World Bank expert Mario Bravo spoke on the theme of communication, a topic which resonated strongly with participants, both during the GDLN dialogue and for the second day’s on-site discussions. One evaluation rated communication as “undoubtedly” the most useful aspect of the workshop. In his presentation, Mr. Bravo emphasized that communication should be seen in partnership with other efforts - not just as an instrument. He also noted that communication activities – whether for raising awareness, changing behaviors, mobilizing community resources or securing stakeholder buy-in - go beyond just “messaging.” They need to be carried out as a phased program, he advised, in accordance with the epidemiology of the disease, and across related sectors (environment, agriculture, health, tourism, etc.).

Following a presentation on trade relations by Dr. Eric Bolaños of the Instituto Interamericano de Cooperación Agrícola (IICA), the local technical team of the upcoming Avian Influenza project presented its national emergency plan on AI. Implementation of the national plan is financed through the Avian and Human Influenza Facility at the World Bank with Agriculture Ministry collaboration (see Box 2).

With the expert inputs on the table, participants decided which themes were most critical and divided into small working groups to work them through further. The priority areas were Communication, Surveillance and Economic issues. Participants were remarkably candid in their opinions and inquiries. By day’s end, the three working groups had designed a set of actions and priorities to be carried out. These were presented and discussed and additional thoughts were added to the group plans.

Evaluating the Approach

Looking back on the event and the knowledge sharing approaches employed, one in particular enabled the workshop to be regional in scope, despite a limited budget. That method is the Global Development Learning Network. Experts in three countries were able to advise the Dominicans, together with a group in Haiti, which shares the island of Hispaniola - all without any time or expense lost to travel and lodging. Incorporating a dis-
GDLN’s capabilities are clearly more than “just video conferencing.” The institutions that host and develop GDLN are, in the case of LCR, the countries’ best universities. As such, the organization of a learning event is carried out locally and the formation of expert panels and the generation of audience members is achieved by those best suited to identify the country’s expertise on a given subject. It also provides an organizational agility that is conducive to just-in-time events on topics of urgent need. As often transpires in multi-country dialogues, the end result of the regional AI exchange was a kind of “thematic matchmaking” among experts. To cultivate the staying power of new communities that emerge among technicians, practitioners and decision makers, an on-line tool called a “DGroup” was introduced during the workshop. DGroups are group online collaboration spaces made available through a development partnership which includes the World Bank (see http://www.dgroups.org). They encourage the sharing of resources and the exchange of ideas on development themes, around the Region and the World. In 2005 a DGroup on AI in LCR was launched and, as a follow up to the DR workshop, participants were invited to join. The DGroup provides a virtual meeting place for continuing collaboration that begins with face-to-face or distance learning modalities.

The workshop in the DR was the second recent gathering of the regional AI team for the topic in LCR. When it comes to preventing and controlling AI, there are lessons and improvements to be made in the GDLN-workshop approach, according to Indira Ekanayake, the Bank’s LCR AHI regional coordinator.

Having organized an event previously in Honduras, what lessons have the team learned?

• **Time is of the essence when it comes to organization.**

  The team knew that such an activity needed far more time than the few weeks dedicated to organizing the first workshop. With two months given to coordinating with counterparts on selecting a site, choosing expert speakers, organizing the Global Dialogue and prioritizing participant invitations above all, a total of 42 people participated locally, with another 30 contributors through VC.

• **Identify counterpart (internal) dynamics upfront.**

  Given past experience, the team knew to determine ahead of time what, if any, institutional matters might

Box 2 – Avian and Human Influenza (AHI) Facility Support

The AHI Facility was created in 2006 to assist developing countries meet financing gaps in their AHI integrated country programs in order to minimize the risk and socioeconomic impact of avian and, possibly, human pandemic influenza. Donors have pledged $125 million to this Facility, with the European Commission making the largest contribution (Euro 71 million). The Facility provides grant financing for activities that are part of national integrated AHI response programs, including:

• Communications and coordination to raise awareness and trust among the population and to mobilize partners key to managing an outbreak;

• Surveillance systems;

• Strengthening of human health systems to deal with infectious disease occurrences;

• Rapid outbreak containment plans and operations;

• Support for reference laboratories;

• Evaluation and strengthening of veterinary systems and services; and

• Cross-country coordination activities

impact the organization or delivery of the workshop and to seek a resolution.

• **Advantages of a strong counterpart team.** The DR counterpart, a government agency, set higher standards for the workshop than past counterparts. They were notably willing to engage in debate with the private sector and to deal with conflicts that arose.

• **Need for technical “synchronization” among GDLN sites.** A technical problem with either microphones or the VC equipment in the DR site caused an interruption in the quality of the audio. This was a distraction for participants and came up as an issue in participant evaluations.

• **Follow-up to the GDLN event.** The project in preparation with DR will engage the different sectors that participants confirmed as important during the workshop.

• **Bringing in the right expertise.** Inputs in terms of experts were right on target and made a tremendous contribution to the quality of the workshop. The ability to involve international experts via the GDLN removed any barriers to their participation.

About the Authors

1 Senior Agriculturist, 2 Consultant, 3 Senior Economist, LCSAR, SDN-World Bank, Washington DC.