CMC-AH Crisis Management Centre Animal Health

ACTIVITY REPORT

October 2008 – September 2010

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 2010

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FAO/D Hadrill

Disinfection area checkpoint; Bhutan.

INTRODUCTION

FAO/M Vargas

FAO/D Hadrill

(Above) Pigs on a commercial farm; Mexico.
(Below) Backyard poultry can be highly susceptible to HPAI infection; Nepal.

As of March 2009, outbreaks of Highly Pathogenic Avian Influenza (HPAI) and the pandemic threat they represent were not foremost in the minds of many. New occurrences received reduced media coverage, and assistance focused less on response and more on mitigation in many HPAI-affected countries. Meanwhile, despite their continued impacts on animal health, human health and vulnerable livelihoods, other transboundary animal diseases (TADs) lacked the media attention they deserved.

Much of this changed with the appearance of pandemic (H1N1) 2009 influenza in late April 2009. Spreading with great speed in humans, the new virus became a sudden, global concern. The need to maintain international efforts to fight influenza viruses and other threats was once again high on the international agenda.

Continuing to respond to this global need, the Crisis Management Centre – Animal Health (CMC-AH) of the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE) has remained at the forefront of efforts to combat TADs, including HPAI and pandemic (H1N1) 2009 influenza. From October 2008 to September 2010, the Centre deployed 17 missions supporting 16 countries in their efforts to respond to TAD emergencies. The CMC-AH has worked in conjunction with donors and partners to meet evolving response needs spanning more of the globe and much of the animal disease spectrum.

In the past two years the CMC-AH has assisted governments responding to emergencies involving: African swine fever (ASF), brucellosis, Ebola Reston virus (ERV), HPAI, pandemic (H1N1) 2009 virus, porcine teschovirus (PTV) and rabies. The Centre also responded to critical situations with unknown or multiple causes.

During this period, FAO and partners have continued to strengthen the Centre's capacities with efforts focusing on:

- broadening the scope of assistance;
- expanding the range of services and tools; and
- strengthening operational capacities.

WHO/B Pavlin

Blood samples taken with CMC-AH technical guidance; Philippines.

AN EVENT OF PANDEMIC PROPORTIONS

In April 2009 in Mexico, a novel influenza virus appeared in humans and spread with tremendous speed throughout the global human population. Inappropriately termed "swine flu" during the initial stages, the pandemic (H1N1) 2009 influenza virus went on to infect people in over 200 countries[1]. While not as lethal as it could have been, the pandemic reminded the world that influenza viruses still represented tangible and ongoing threats. Influenza viruses require continued vigilance due to their capacity to reassort and spread rapidly in humans and animals.

[1] http://www.who.int/csr/don/2010_07_16/en/index.html

FAO/E.Christy

Balinese authorities vaccinate a dog for rabies; Indonesia.

RESPONDING TO NEEDS

FAO/C.Bebay

FAO/K.DeBalogh

(Above) Diseases in wild game can pose human health risks; Togo. (Below) A vaccination team prepares to receive domestic animals; Indonesia.

BROADENING ASSISTANCE

Country requirements have evolved since 2008 along with the changing disease landscape. One such shift has been the clear increase in requests for assistance with non-HPAI emergencies. Only 35 percent of missions deployed since October 2008 focused on avian influenza. The CMC-AH deployed nearly equal that amount of missions to assist with disease emergencies involving epidemiologic patterns of complex or unknown causes.

CMC-AH AT A GLANCE (October 2008 – September 2010)	
Missions deployed	17
for HPAI	*6*
for other TADs	*11*
Countries assisted	16
Phased deployments or follow ups	8

FILLING THE GAP

Recognizing animal health crises as overarching emergency events and not just isolated incidents, the CMC-AH deployed more multi-mission and phased responses than in previous years. Designing assistance as event-based response support, 50 percent of missions since October 2008 took the form of sequential or longer-term deployments to meet government requests.

Public information on ASF displayed by FAO and veterinary services; Togo.

FAO/C.Bebay

REGIONAL ASSISTANCE FOR WEST AFRICA

When the Togolese authorities suspected new outbreaks of ASF in previously unaffected areas in late 2008, FAO was quick to recognize the regional threat posed by the disease. Through an initial mission in February 2009, the CMC-AH provided a rapid response plan, an emergency funding package and a roadmap toward an ASF strategy for Togo.

Building on the momentum of these activities, the CMC-AH deployed a two-month mission starting in April 2009 to Benin, Burkina Faso, Côte d'Ivoire, Ghana and Togo. The follow-up mission gathered extensive information on ASF and the livestock sector as a first step in developing a regional ASF strategy for West Africa.

FAO/E.Christy

A sampling and diagnostic team with multiple partner members; Philippines.

BUILDING PARTNERSHIPS

Specialized breathing equipment; Italy.

FAO/K.De Balogh

THE ANIMAL-HUMAN INTERFACE

Missions have engaged increasingly in coordinated efforts to respond to crises emerging at the animal-human interface. FAO, OIE and WHO – along with partners like the Centers for Disease Control and Prevention (CDC), the United States Department of Agriculture (USDA) and others – have contributed to coordinated efforts to respond to disease crises with potential impacts on animals, humans and the environment.

ADDRESSING RISKS TO THE FOOD CHAIN

In November 2008, the first known occurrence of ERV in pigs was confirmed in the Philippines. Found for the first time in a production species, ERV was known previously to kill monkeys but only to cause antibody production in humans. The authorities recognized the potential ramifications for both humans and animals and called on FAO for assistance.

Putting together a diverse team of 12 experts from FAO, CDC, OIE, WHO and USDA, the CMC-AH coordinated an international effort focused on understanding the situation and its possible implications for the food chain. In April and May 2009, the CMC-AH followed up with a second mission to enhance national surveillance and control capacities.

DRAWING EXPERTISE FROM ADDITIONAL SOURCES

Over these past two years the CMC-AH has strengthened established relationships and developed additional allies in the fight against TADs. Working with institutes, universities, regional bureaus and national governments, the CMC-AH has enriched its capacity to bring the most up-to-date, international assistance to bear when helping countries manage critical events.

If left unchecked in milk-producing cows, brucellosis can pose significant public health risks; Fiji.

FAO/P.Pasquali

ADDITIONAL PARTNER EXPERTISE

In addition to collaborating closely with each host government, since October 2008 the CMC-AH has augmented its capacities by partnering with the: CDC; *Centre Ivorien de Recherches Economiques et Sociales*; Foreign Animal Disease Diagnostic Laboratory of USDA; *Friedrich-Loeffler-Institut* (FLI); Inter-American Institute for Cooperation on Agriculture; *Organismo Internacional Regional de Sanidad Agropecuaria*; Pan-American Health Organization; University of Ljubljana; USDA; WHO; and *Istituto Superiore di Sanità*.

OIE/K.Glynn

Pig slaughterhouse; Philippines.

SERVICES AND TOOLS

CMC-AH experts use reagents to test for HPAI; Nepal.

FAO/M.Kim

EXTERNAL SERVICES

Providing countries the services needed to implement recommendations has been a major focus of work this biennium. Specifically, the CMC-AH has been engaged in two ongoing initiatives: developing a contingency stock of critical reagents; and revising and expanding FAO's Good Emergency Management Practices. The latter has incorporated field-tested guidelines on outbreak communication and disease response procedures.

INTERNAL TOOLS

Focusing on how to better support coordinated operations for improved impact, the CMC-AH has created tools and mechanisms that help the Centre better fulfil its mandate. These tools have ranged from improved procedures to innovative after-action review processes for better efficiency and improved event management.

FAO/C.Price

CMC-AH Operations Room; Italy.

DEVELOPING REAGENT CONTINGENCY STOCKS

Quick and reliable testing of suspect samples on the ground and in national laboratories is a key part of effective outbreak management and response. The CMC-AH has been developing an accessible stock of reagents to facilitate rapid laboratory confirmation in countries experiencing outbreaks. In partnership with the United Nations Humanitarian Resource Depot, the CMC-AH established stocks of key HPAI reagents for storage and shipment under appropriate cold-chain conditions. In addition, the Centre identified reagents for other critical, non-HPAI TADs and made arrangements for their procurement should current funding limitations change.

TRACKING EVENTS AND MANAGING RESPONSES

The CMC-AH has fine-tuned its ability to track critical events and manage possible responses through the creation of the Event Tracking and Management System (ETMS). While other established databases track diseases, the CMC-AH employs ETMS for its own event management purposes. Supported in particular by the Canadian International Development Agency, ETMS has improved the Centre's capacity to plan, manage and follow-up on emergency response activities as well as strengthen post-mission analysis and reporting.

FAO/C Price

Planning meeting for the CMC-AH mission to Mexico; Italy.

A SOLID BASE

WHO/B Pavlin

Animal health experts at a suspect site; Philippines.

FAO/C Bebay

Veterinary authorities plan surveillance activities using hand-held global positioning systems provided by FAO; Togo.

A DEDICATED EMERGENCY SERVICE

Having established the CMC-AH as a fully operational rapid response platform during its first two years of operation, FAO and partners have moved to consolidate the Centre's human resources.

FAO cemented the Centre's leadership by recruiting the CMC-AH Manager as a senior staff member within the Organization's Regular Programme of Work and Budget. An expert in veterinary science and emergency management, the Manager took up the position in August 2009.

LONG-TERM COMMITMENT

Member states have rallied alongside FAO to support the CMC-AH with new human resources on longer-term assignments.

USDA extended its commitment by loaning two senior experts to FAO on three- to five-year secondments. The first expert joined FAO in October 2009 to provide a direct link between the CMC-AH and the FAO-OIE-WHO Global Early Warning System (GLEWS), thereby enhancing the Centre's response decision making. The second expert joined the CMC-AH in March 2010 to coordinate planning. This expert has brought extensive disease control and incident management experience to the Centre.

In addition, the Government of the French Republic seconded a veterinarian on a two-year assignment in November 2009 to help coordinate response activities. The expert's extensive experience in epidemiology has underpinned the technical basis of the Centre's work.

WHO/B Pavlin

Post-mortem diagnostics on pigs; Philippines.

FAO/E.Moncada

Interviewing backyard farmers at an outbreak site; Haiti.

CLEAR RESULTS

SUPPORTING THE MOST VULNERABLE

The CMC-AH functions primarily thanks to the support of donors providing core funding for HPAI. However, in light of the need to support responses to non-HPAI TADs, the Swedish International Development Cooperation Agency (Sida) provided USD 450 000 to the CMC-AH in mid 2008 through an FAO/Sida partnership project. This support enabled the Centre to better fulfil its mandate to provide rapid assistance to governments responding to a wider range of animal diseases.

Backyard pigs represent a key source of savings for rural farmers; Haiti.

FAO/E.Moncada

RESPONDING TO SMALLHOLDER NEEDS IN HAITI

Just months before the devastating earthquake hit Haiti, PTV began killing backyard pigs owned by vulnerable farmers. To combat this extremely rare disease, the CMC-AH mobilized remote assistance from one of the world's few PTV experts. The mission team included a veterinarian and risk communicator from FAO, an operations expert also from FAO and a pathologist from FLI. The team collaborated with the PTV expert (based at the University of Ljubljana) to support response efforts and develop recommendations for vaccination, training and surveillance.

With this critical investment, the CMC-AH deployed missions and designed support for smallholder farmer livelihoods impacted by TADs. In addition, the CMC-AH was better able to contribute to international efforts in the field of food security. Scenarios included:

- emerging or unknown diseases;
- non-HPAI TADs affecting livelihoods; and
- dangerous diseases impacting both animals and humans.

FOCUS ON COMMUNICATION

Sida funding in association with other donors enabled the CMC-AH to provide outbreak communication support for several non-HPAI emergencies over the two-year period. The Centre provided crisis communication assistance to eight countries dealing with animal health emergencies through: deployment of communication experts; in-country production of communication materials; and provision of outbreak communication guidance.

FAO/D.Castellan

FAO/E.Christy

(Above) Communication is crucial for effective disease risk management; Lao People's Democratic Republic. (Below) An FAO expert is interviewed by local media; Philippines.

FAO/D.Hazrill

Disposal area for depopulated poultry; Bhutan.

RAPID RESPONSE

From October 2008 to September 2010, the CMC-AH deployed 17 missions in response to 14 emergency disease events. For both well known and unknown threats, the CMC-AH has proven its capacity this biennium to meet government needs for response assistance.

TRACKING CRITICAL EVENTS

Numerous events tracked over the past two years have not required rapid mission deployment. For those situations requiring alternative assistance, the CMC-AH has strengthened its information links and decision making processes to help provide the most effective type of support.

Veterinarians restrain cattle for sampling; Côte d'Ivoire.

FAO/B.Seck

UNEXPLAINED CATTLE MORTALITY IN COTE D'IVOIRE

When an upsurge in cattle deaths with no known cause hit Cote d'Ivoire in November 2008, the CMC-AH helped authorities investigate. Including a national epidemiologist with intimate knowledge of the country, the CMC-AH team worked with authorities to collect samples from suspect animals for urgent testing.

Efforts helped clarify the multi-disease problem and identify several of the TADs involved. The CMC-AH team then strengthened local capacities to deal with future emergencies through recommendations tailored to the Ivorian context.

IDENTIFYING THE MOST APPROPRIATE ASSISTANCE

When GLEWS noted an upsurge of Rift Valley fever (RVF) in South Africa in March 2010, FAO began tracking the situation on a daily basis. Nearby Namibia had been free of the disease for some 25 years, so when infected sheep were found on the border with Botswana, the Government shipped samples for laboratory testing and requested FAO's help.

The CMC-AH gathered FAO animal health experts to plan the most appropriate type of support. Rather than deploying a full, rapid response team, FAO sent three subject-matter experts to a high-level consultation in Namibia on prevention and response strategies. The CMC-AH remained on alert and continued planning for a possible mission until handing over to FAO's Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases.

FAO engaged with the authorities to best understand their technical needs. The experts then helped the Namibian veterinary services design strategies to mitigate the RVF threat in light of the upcoming rainy period and expected increase of disease-carrying mosquitoes. Subsequent and swift actions by the Government resulted in the protection of human lives.

Grazing cows; Philippines.

WHO/B.Pavlin

MAP OF MISSIONS

Avian influenza

HPAI – Highly Pathogenic Avian Influenza
4 countries (Bhutan [2], Lao People's Democratic Republic, Nepal [2] People's Republic of China)
6 missions
13 team members
61 days in the field

Other zoonoses

Rabies
1 country (Indonesia)
1 mission
3 team members
12 days in the field

Pandemic (H1N1) 2009 virus
1 country (Mexico)
1 mission
8 team members
22 days in the field

Brucellosis
1 country (Fiji)
1 mission
2 team members
13 days in the field

Other TADs

ASF – African swine fever
6 countries (Belarus, Benin, Burkina Faso, Côte d'Ivoire, Ghana, Togo)
3 missions
8 team members
82 days in the field

PTV – Porcine teschovirus
1 country (Haiti)
1 mission
4 team members
14 days in the field

Multiple TADs
1 country (Democratic Republic of Congo)
1 mission
1 team member
46 days in the field

Investigation

Multiple TADs
1 country (Côte d'Ivoire)
1 mission
2 team members
15 days in the field

Unknown impacts

ASF – African swine fever
5 countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Togo)
1 mission
1 team member
61 days in the field

Multiple TADs
2 countries (Côte d'Ivoire, Democratic Republic of Congo)
2 missions
7 team members
61 days in the field

ERV – Ebola Reston virus
1 country (Philippines)
2 missions
13 team members
23 days in the field

Pandemic (H1N1) 2009 virus
1 country (Mexico)
1 mission
8 team members
22 days in the field

HPAI HITS BHUTAN FOR THE FIRST TIME

When Bhutan experienced its first outbreak of HPAI in February 2010, authorities requested FAO assistance to: review control activities already underway; assess the risk of future HPAI introduction; and examine equipment and cost requirements. The CMC-AH deployed an epidemiologist in March 2010 to support the Government's efforts, which included undertaking control operations on difficult-to-traverse terrain.

Following up on mission recommendations, the CMC-AH: provided personal protective equipment, sprayers and rapid test kits; facilitated sample shipment; and promoted cross-border linkages. The Centre also deployed a second mission in late May 2010 to build laboratory capacities and strengthen subregional cooperation. All mission costs, equipment and provisions were supported by the United States Agency for International Development (USAID) through FAO's Global Programme for HPAI Prevention and Control.

FAO/D Hadrill

HPAI control operations; Bhutan.

ADDRESSING A MULTI-DISEASE CRISIS

Conflict, soaring food prices, climate change and many other factors have all created severe challenges for the Democratic Republic of Congo. The animal health situation has been particularly affected. As a result, in early 2010 the national authorities faced a sudden and critical rise in TAD-related animal mortalities.

Requesting assistance with at least six different disease threats, including foot-and-mouth disease and rabies, the CMC-AH deployed an expert team focused on understanding the epidemiologic, socio-economic and market-chain elements of the emergency. The key goal was to work with the Government to set a process in motion aimed at improving overall animal health in the country. Through field analysis and consultation, the team helped the authorities lay the foundation for a much-needed animal health programme to address disease in a holistic manner. The CMC-AH also generated follow-up project concepts to build on the Government's ongoing efforts.

FAO/D Hadrill

Slaughterhouse; Democratic Republic of Congo.

CMC-AH MISSIONS, October 2008 – September 2010

No.	Date	Country	Disease	Focus
1	4–13 October 2008	Lao People's Democratic Republic	HPAI	Assessment and market analysis
2	4–18 November 2008	Côte d'Ivoire	Unknown	Epidemiologic investigation and assessment
3	12–23 December 2008	Indonesia	Rabies	Vaccination and communication
4	9–16 January 2009	Philippines	ERV	Assessment and response
5	3–17 February 2009	Nepal	HPAI	Assessment and response
6	10–24 February 2009	Togo	ASF	Assessment, response and strategy development
7	24 April – 8 May 2009	Philippines	ERV	Follow up: surveillance and control
8	28 April – 27 June 2009	West Africa	ASF	Follow up: regional strategy development
9	29 April – 20 May 2009	Mexico	Pandemic (H1N1) 2009	Assessment and response
10	2–15 June 2009	Haiti	PTV	Assessment, response and communication
11	22 July – 3 August 2009	Fiji	Brucellosis	Assessment and response
12	8–19 September 2009	People's Republic of China	HPAI	Scientific collaboration
13	11 January – 25 February 2010	Democratic Republic of Congo	Multiple TADs	Assessment, response and control strategies
14	9–20 March 2010	Nepal	HPAI	Assessment and response
15	21–27 March 2010	Bhutan	HPAI	Assessment and response
16	2–7 May 2010	Belarus	ASF	Assessment and response
17	17–21 May 2010	Bhutan	HPAI	Follow up: laboratory training

FAO/A Tripodi

Personal protection equipment; Côte d'Ivoire.

WHO/B. Pavlin

Sampling activities at an outbreak site come to a close; Philippines.

THE ROAD AHEAD

FAO/D. Hadril

FAO/C. Bebay

(Above) Cross-border movement of live poultry; Nepal.
(Below) Backyard poultry; Togo.

DEDICATED RESPONSE CAPACITY

The past two years have reaffirmed the need to maintain a dedicated and capable CMC-AH. Influenza viruses reasserted their pandemic potential, and new and old TADs continued to strike at livestock and livestock-related livelihoods. Coming upon its fifth year of existence, the CMC-AH has continued to play a fundamental role in the fight against TADs as a dedicated facility for global, rapid response support.

Emergency management principles have become more widely embraced than ever before, and the need to apply these principles to animal health has become evident and accepted. Countries and agencies experiencing the challenges of major animal disease outbreaks have seen that ad hoc or part-time approaches risk mounting inadequate responses. Experience has shown that a dedicated capability is required to successfully reduce disease spread, safeguard livestock, protect human health and support vulnerable livelihoods.

The CMC-AH has continued to meet disease challenges, employing proven emergency management practices in the Centre's own activities and encouraging member countries to strengthen emergency response capabilities in their own national and regional contexts.

MAINTAINING MOMENTUM

Adapting to disease developments and country requests, the Centre has broadened the assistance it offers. The CMC-AH has expanded its portfolio of support to fill gaps in national and regional capacities, including taking on multiple disease threats, investigating unknown disease situations and providing region-wide assistance.

Partnerships have become more important than ever to CMC-AH work, especially at the animal-human-environment interface. The Centre has strengthened existing partnerships over the past two years and drawn on new relationships for added expertise. In addition, the CMC-AH has developed new tools to support internal requirements for efficient operations and new services to meet the external needs of member nations.

PLANNING FOR THE NEXT CHALLENGE

TAD crises have devastating impacts on some of the most vulnerable people on earth. As the CMC-AH approaches its fifth year of existence, FAO and partners have taken stock of their established record of assistance. With continued donor support, the CMC-AH will maintain and build its capacity to plan and provide rapid response support for tomorrow's critical disease emergencies.

FAO/E. Christy

Stray dogs on Bali; Indonesia.

DONOR SUPPORT

This biennium the CMC-AH has assisted countries threatened by HPAI and other TADs with support from the Governments of: Canada, the Federal Republic of Germany, the French Republic, the Kingdom of Sweden, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

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The Crisis Management Centre – Animal Health (CMC-AH) is a primary facility of the Food and Agriculture Organization of the United Nations (FAO) and World Organisation for Animal Health (OIE) for animal disease emergency response. A combined effort of FAO's Animal Health and Emergency Operations Services within the Emergency Centre for Transboundary Animal Disease Operations (ECTAD), the CMC-AH unites FAO's extensive technical and operational expertise with that of OIE, the World Health Organization (WHO) and other international, national and local partners.

With the support of its generous donors, the CMC-AH provides technical and operational assistance to help affected governments assess situations on the ground and develop immediate solutions to help prevent or stop disease spread. CMC-AH efforts also represent the first step toward broader assistance. Working to facilitate the transition from immediate, emergency assistance to longer-term support both in the field and at FAO headquarters, the CMC-AH initiates resource mobilization and project proposal formulation efforts for affected countries and regions.