



Food and Agriculture Organization of the United Nations

February 2016



Proposed Focus Countries Individual country coverage will be decided and agreed upon in conjunction with USAID/Washington

EPT-2 will build on the lessons and knowledge from its predecessors and bring heightened focus to those "places and practices" that enable not just "spill-over" of new microbial threats, but potentiate its "amplification and spread", and invest in the One Health policies and capacities needed for their prevention and control.

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EPT | Successes

Through its IDENTIFY, EPT+, and avian influenza projects, FAO has strengthened disease surveillance in livestock, enhanced capacity of veterinary epidemiologists and laboratories, and improved the response to avian influenza outbreaks (AI). As a result of these efforts, the number of H5N1affected countries decreased from 53 in 2006 to 11 in 2014 while the number of poultry outbreaks and human cases both declined more than 50% over the same time period. Countries were also better prepared to detect novel avian influenza viruses including H7N9. With a focus on AI and other livestock diseases in Africa and Asia, FAO made significant contributions to: characterizing risk associated with poultry movement within and among countries; strengthening surveillance and laboratory capacities; characterizing influenza viruses in poultry and swine; testing interventions to decrease the presence of AI viruses in live animal markets; and determining efficacy of poultry vaccines.

EPT 2

EPT2 is focused on mitigating the impact of novel "high consequence pathogens" that originate in animals with a goal of enabling early detection of new disease threats, effectively controlling those threats, enhancing national-level preparedness in advance of outbreaks, and ultimately reducing the risk of these diseases emerging by minimizing human behaviors and practices that trigger the "spill over and spread" of new pathogens. EPT2 consists of a suite of One Health Investments--PREDICT 2, One Health Workforce, Preparedness & Response, FAO, and the World Health Organization--that contribute to each of these goals and are complemented by strategic collaborations with other partners including the U.S. Centers for Disease Control. EPT 2 activities directly contribute to the Global Health Security Agenda.

Project Goals and Objectives

Building on livestock surveillance, animal value-chain studies, viral characterization, and capacity strengthening efforts carried out in over 20 countries during EPT 1, FAO is continuing efforts to shift the prevention and surveillance paradigm towards early identification and mitigation of viral spillover and amplification risk. Specifically: better defining rapidly evolving livestock production systems; identifying and better characterizing known and unknown viruses in livestock; identifying livestock reservoirs and amplification hosts for viruses that can infect people; and efficiently targeting interventions at human behaviors which amplify disease transmission at locations and interfaces that are hotspots for viral evolution, spillover, amplification, and spread.

To achieve these objectives, FAO is working with EPT2 partners and others to operationalize effective One Health platforms that increase knowledge and strengthen functional capacities in local, national, and regional contexts for surveillance, field sampling, laboratory techniques, and risk characterization.

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Key Activities

Under EPT2, FAO is focusing efforts on the highest risk locations and interfaces, where livestock interact with wildlife and people and potentially share viruses. Using an epizonal approach, FAO is targeting surveillance activities at two major pandemic risk pathways that drive viral emergence: intensification of animal production systems; and animal value chains.

In focus countries, FAO's overall efforts will contribute to understanding and mitigating risk, strengthening staff and institutional capacities, and supporting a One Health approach for preventing, detecting, and responding to infectious disease threats.

To achieve these goals, FAO will map animal value chains and conduct risk assessments along them, strengthen viral surveillance in livestock and capacities of veterinary laboratories, develop and test interventions to decrease viral spread associated with livestock production and marketing, and support response to disease outbreaks in livestock that are caused by viruses with pandemic potential.

While similar types of activities will be carried out in all focus countries, FAO will adjust its overall approach and focus to take into consideration the differences in disease patterns and country capacities across regions. Specific projects will include:

- West Africa: preparedness and emergency response to H5N1 avian influenza in livestock.
- West Africa: strengthening of veterinary laboratories.
- Africa: surveillance for Ebola and other high-consequence viral pathogens in livestock.
- Africa: developing evidence for policy change to decrease the risk of increased disease transmission as livestock production increases between now and 2050 (in cooperation with PREDICT 2 and Preparedness & Response).
- Northeast Africa and the Near East: surveillance for Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and related viruses in livestock.
- Egypt and Asia: surveillance and response to avian influenza in livestock, to include longitudinal influenza surveillance and developing risk-mitigation interventions in Southeast Asia (in cooperation with PREDICT 2 and WHO).
- Asia: monitoring antimicrobial drug use and resistance in livestock production and collecting data for policy makers.

FAO (along with PREDICT 2 and WHO) will improve the understanding of the dynamics of zoonotic virus spillover, evolution, amplification, and spread in order to forecast risk and inform prevention and control measures, facilitating and optimizing policies and practices that reduce disease transmission risk through sound, science-based interventions.

PARTNERS

Implementing Partner: Food and Agriculture Organization of the United Nations

Global Partners: EPT PREDICT 2, EPT One Health Workforce, EPT Preparedness & Response, CDC, WHO, U.S. Defense Threat Reduction Agency (DTRA), International Atomic Energy Agency (IEAE), World Organization for Animal Health (OIE), U.S. Department of Agriculture (USDA) **Host country and regional partners:** Ministries of Agriculture, Health, Livestock, Wildlife, and associated Departments; USAID missions; and other relevant partners.