AGENDA

Understanding **Ebola Virus** at the **animal-human interface**

Technical Meeting

Rome, Italy • 19-20 January 2016

Food and Agriculture Organization of the United Nations

19 January Tuesday

08:30-09:00	**Morning coffee and registration**
09:00-09:30	**Welcome, introductions and expectations**
09:30-10:15	Scientific overview presentations: • Epidemiology and risk factors *(15 min.)* • Laboratory diagnosis *(15 min.)* • Supply chains and behavioral studies *(15 min.)*
10:15-10:45	**Coffee break**
10:45-11:15	Plenary discussion
11:15-12:35	Break up into groups to discuss knowledge gaps, by thematic area as follows: • Epidemiology and risk factors • Laboratory diagnosis • Supply chains and behavioral studies
12:35-13:45	**Lunch**
13:45-14:00	Collect results from group discussion
14:00-14:30	Plenary debriefing from group discussions *(15 min. each)*
14:30-15:00	Q&A, wrap up of knowledge gaps, plenary discussion, agreement on final statements
15:00-15:20	Mapping of ongoing and planned activities of participating institutions
15:20-15:30	Plenary session
15:30-16:00	**Coffee, networking + review/completion of mapping exercise**
16:20-17:20	Q&A and open discussion on opportunities for collaboration: • Field surveillance • Behavioural studies • Capacity building, training • Test development and validation • Laboratory research • Other
17:20-18:00	Wrap-up
18:30-20:00	**Poster session and aperitivo**

20 January Wednesday

09:00-09:15	**Recap of activities from day 1 and moving forward**
09:15-10:45	Presentation of One Health implementation approach under Emerging Pandemic Threats Programme Phase 2 (EPT-2), by thematic area as follows: • Surveillance and risk factors *(20 min. ppt + 10 min. discussion)* • Laboratory diagnosis *(20 min. ppt + 10 min. discussion)* • Supply chains and behavioral studies *(20 min. ppt + 10 min. discussion)*
10:45-11:15	**Coffee Break**
11:15-12:15	Facilitated discussion on cross-cutting collaboration: • Stakeholder participation • Information sharing • Communication: awareness raising, disseminating information, and risk communication • Capacity development
12:15-12:45	Implementation approach wrap-up
12:45-13:45	**Lunch**
13:45-14:30	**Coffee over topic discussions**
14:30-16:00	Collaboration building and way forward (3 pillars: surveillance and risk factors, laboratory diagnosis, supply chains and behavioral studies): • Technical • Institutional • Stakeholder Level
16:00-16:00	**Coffee Break**
16:30-17:00	Recommendations
17:00	**Closure**

USAID FROM THE AMERICAN PEOPLE

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Concept note

INTRODUCTION

Ebola virus (EBOV) causes severe viral hemorrhagic fever in humans with often fatal outcome considered a threat for public health globally. As of 4 November 2015, the WHO has been notified of 28 601 laboratory-confirmed human cases in the current West African outbreak (Ebola Zaire species), including 11 314 fatalities. The increase in Ebola outbreaks since 1994 is likely associated with drastic changes in forest ecosystems in tropical Africa, which may have promoted direct or indirect contact between humans and infected wild animals. The precise factors that result in EVD outbreaks remain unknown and require a better understanding of the complex linkages between ecological and socio-economic factors in a constantly evolving interface between humans, animals and their ecosystems. Ebola viruses affect a large range of mammalian species, from humans to wild and domestic animals. Fruit bats are considered likely natural hosts for Ebola virus in Africa. Wild mammalian species can also be infected by the virus, such as wild non-human primates, like gorillas and chimpanzees, as well as non-primate species, like black-backed duikers, and other small wild mammals, such as rodents. Their role as reservoirs has been questioned as most of these species show high case fatality rates when their respective populations are exposed to EBOV. It has been suggested that the virus is first introduced to human populations from wild animals through close contact with blood, secretions, organs and other bodily fluids of infected wild mammalian species. People likely to be exposed to the virus in its natural environment are bushmeat hunters and people in contact with contaminated animal products.

One experimental study showed that EBOV can be transmitted from infected pigs to other pigs as well as non-human primates. Pigs were also found susceptible under field conditions to Ebola Reston species in the Philippines. In addition dogs were shown to develop an immune reaction to EBOV in highly infected areas (i.e. during an ongoing human epidemic) but were never associated with virus isolation or viral shedding. Their actual role in the transmission of the virus in highly infected areas has never been demonstrated and warrants investigation.

Critical gaps therefore remain in our knowledge of routes of transmission to humans, other potential animal host species, as well as the scope and distribution of virus circulation, epidemiology, and possible pathogenesis of the disease in animals and food safety issues. Addressing these gaps is crucial for developing and implementing messages and measures for reducing the risks to public and animal health at the human-animal-environment interfaces.

A number of research groups are currently working on various biological aspects of EBOV. FAO is embarking on a significant field programme to better understand the disease dynamics at the interface between animals and humans and identify factors that potentiate the emergence, transmission and spread of this virus. In this regard, FAO is convening a technical meeting to determine the current status of the scientific knowledge on EBOV and identify the major gaps that require further research studies for the development of practical and realistic approaches to better control and minimize the impacts of this virus.

OBJECTIVES OF THE MEETING

1. Share information on ongoing research projects and studies on the role of livestock and wildlife in the epidemiology of Ebola virus disease.
2. Identify and prioritize knowledge gaps in disease dynamics at the human-wildlife-animal interface.

3. Peer review scientific and technical approaches that aim at better understanding Ebola virus disease at the human animal interface, including the dynamics of viral emergence and evolution, surveillance design, diagnostics, these and risk factors along the animal value chains.
4. Analyse complementarities and synergies between programmes and projects implemented by various partners and explore opportunities for collaboration and partnerships.

PROCESS

STEP 1: PREPARATORY PHASE - INDIVIDUAL INTRODUCTIONS WITH PARTICIPATING INSTITUTIONS VIA TELECONFERENCE

1. Participants will be asked to share information on ongoing and planned research activities and field projects on different aspects of EBOV at the human animal interface, research gaps, existing collaborative networks and potential areas for collaboration.
2. FAO will compile and analyse the above information for discussion and further analysis during the face-to-face meeting (step 2).

STEP 2: FACE-TO-FACE MEETING AT FAO HEADQUARTERS

The meeting will be structured as follows:

1. Presentation of the compilation of ongoing and future research activities and field projects along with approaches (as compiled in Step 1)
2. Discussion on knowledge gaps and technical approaches
3. Identification of possible collaborations and partnerships and make recommendations on the way forward

Expected outcomes of the meeting

1. Mapping of ongoing and future research activities and field projects and programmes by various partners
2. An inventory of knowledge gaps and corresponding research activities
3. Validation of research and technical approaches, especially on the dynamics of viral emergence and evolution, surveillance design, diagnosis, risk factors and value chain studies
4. A collaborative framework for potential collaboration and partnerships on EBOV at the human-animal interface

PARTICIPATION AND VENUE

- Approx. 50 participants (from both FAO and external institutions)
- Suggested meeting date: 19-20 January 2016
- Meeting venue: Casa San Bernardo, Via Laurentina 289, 00142 Rome, Italy (ph: +39 06 540 7651)