PROVIDING SUPPORT TO PREVENT AND CONTROL TRANSBOUNDARY ANIMAL DISEASES, AND FACILITATE REGULAR, TRANSPARENT, AND RAPID EXCHANGE OF INFORMATION

REGIONAL VETERINARY LABORATORY NETWORKS TO COMBAT TRANSBOUNDARY ANIMAL DISEASES

FAO’s experience in networking has shown that regional networks are an effective framework for combating TADs. The FAO EMPRES-Emergency Centre for Transboundary Animal Diseases, enhanced by the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, has been working for many years with national laboratory focal points and international partners to provide coordination, capacity development, and support to regional laboratory networks in Africa, Middle East and Asia.

FAO supported the establishment and development of several regional laboratory networks. In 23 West and Central African countries, two major active networks, the Regional Laboratory Network (RESOLAB) and the Regional Epidemiosurveillance Network (RESEPI), initiated and assisted by FAO, cover diagnostic and epidemiological surveillance activities for Avian Influenza and other TADs. Two similar regional networks, the Eastern Africa Region Epidemiology Network (EAREN) and the Eastern Africa Region Laboratory Network (EARLN), provide support to these activities in 11 countries in East Africa. In West Eurasia, two networks, the West Eurasia Laboratory Network (WELNET) and the Epidemiology Network (EPINET), have been established in support of Foot-and-mouth disease progressive control pathway. In the Mediterranean region, six countries are covered by the Mediterranean Network for Animal Health (REMESA). In Asia, the Association of Southeast Asian Nations (ASEAN) and the South Asian Association for Regional Cooperation (SAARC) networks allow laboratory networking to ten South East Asian countries and eight South Asian countries, respectively.

Resource laboratories, known as “support” or “leading diagnostic” laboratories have been selected in sub-Saharan Africa and Southeast Asia, to provide services in disease confirmation, production of standardized reagents, validation of protocols, and capacity building.
FAO provides support to ensure and guide their regional responsibilities. Regional networks enable the coordination of a multiplicity of actions including the application of standardized protocols and tools, sharing of expertise, experiences and training opportunities, the use of standardized diagnostic reagents, breaking the isolation of national teams in developing countries, organization of regional proficiency tests and more transparent disease reporting, as well as building trust across borders and professionals. They are also useful platforms allowing the development of regional programs on common issues, such as the Regional Quality Assurance Program developed by FAO, or the Regional Biosafety Program for national veterinary laboratories in South and Southeast Asia.

FAO assists also in linking countries and regional laboratory networks with global networks such as the joint World Organization for Animal Health (OIE)-FAO OFFLU network for influenza and those of international partners such as the World Health Organization (WHO) and OIE, Reference Centres for independent technical and scientific advice.

FAO provides guiding tools and supports the implementation of Laboratory Information Management System (LIMS) in national laboratories for standardization of laboratory diagnostic processes and better sample tracking. Inter-operability between the LIMS and the national Livestock Identification and Traceability System is also established in some countries. FAO supported Indonesia in building a national database for real-time information sharing of laboratory results within the country.

FAO developed the influenza genetic module which is a component of EMPRES-i database (the FAO Global Animal Disease Information System). The influenza genetic module is a tool to integrate pathogen-related data into EMPRES-i.

FAO will continue supporting member countries in preventing, detecting, and responding to threats of animal origin by strengthening capacities of national and regional epidemiology and laboratory systems through continuous staff training, provision of tools and standardized methodology.