

THE ROLE OF INTERNATIONAL AND REGIONAL ORGANIZATIONS IN ANIMAL HEALTH AND WELFARE

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SUMMARY

For major epidemic diseases (OIE list A), the international goal is to achieve disease eradication than simply control. This calls for the concerted straightening of all aspects of veterinary services and, clearly defined chain of management command in member countries. The control of endemic diseases, is after approached differently in neighboring countries harmonization and standardization of control strategies is being pursued.

Government services need to accommodate the private sector, in their effort to deliver veterinary services on a continuous basis to livestock owners. services need to function with goals of improved food productivity, increased food security and enhanced producer profitability.

FAO's Animal Health service, OIE, WHO and other International and Regional Organizations through their many various international projects continuously attempt to promote the concept of these programmes. RADISCON EMPRES, GREP and MZCP are addressing actively this collaboration in the animal health field.

Keywords:

Disease, malnutrition, poor management and low genetic material are constrains of livestock production. The major objectives of animal health activities are to secure food supply for human population, safeguard human health by compating zoonoses and to facilitate domestic and international trade in animal and animal products.

During last two decades developments in biotechnology, in formatics and information systems have been achieved, and the results are now being utilized in the planning and execution of animal disease prevention and control programmes in many countries.

The control of epidemic disease of livestock has a geographical emphasis (country, region, continent), while health and productivity improvement schemes are usually designed for the farmer and / or local community.

There is a growing desire among veterinary services to assess current disease control programmes and, if possible, move from the control phase to an eradication phase.

The International Office of Epizootics (OIE) is defining new guidelines based on three - stage pathway that a country will need to follow before it can obtain international recognition as being free from an epizootic disease :-

stage 1: provisional freedom from disease (absence of disease and cessation of vaccination).

stage 2 : Freedom from disease : no out break after declaring phase, and demonstrates results of prescribed surveillance.

stage 3 : Freedom of infection, the country must have extended surveillance, which demonstrate evidence of the absence of the causative agent within the livestock population and have in place adequate measures to prevent the reintroduction of infection.

National, subregional eradication, though emergency preparedness to assure the state of freedom is expensive and needs to be maintained continuously at a high level, yet the total eradication gives the best economic return in the long term.

Eradication at the global or regional level cannot be accomplished without a coordinated international effort in gathering disease intelligence and implementing control procedures. International agencies such as FAO, OIE and WHO have a crucial role to play in this since their mandates enable them to operate in the international arena relatively free from political constraints.

A major component in the eradication of any major epidemic disease is a viable prevention programme. realizing this, FAO has initiated a new priority programme called Emergency Prevention System (EMPRES) for Transboundary Animal and plant pests and Diseases. The animal- diseases component of EMPRES aims at strengthening the response of member countries in prevention and or their immediate response to emergencies caused by major Transboundary pests and diseases through FAO assistance including technical coordination of control / eradication activities.

FAO is coordinating the Global Rinderpest Eradication programme (GREP) aimed at total eradication of Rinderpest from the world by the year 2010. In order to facilitate the execution of this programme, FAO's Animal production and health Division (AGA), has created the GREP secretariat which will there fore provide the technical linkage between the three regional campaigns in Africa (PARC), west Asia (WAREC) and south Asia (SAREC), The success of the regional campaigns ultimately depends on the effectiveness of the operations at the national level, including the veterinary services the regional in frastructures and the availability of adequate financing. In order to ensure national success, FAO is making technical contributions within each of the regional campaigns in the areas of epidemiology, such as surveillance and sero - monitoring, vaccine quality control and the design of communication programmes to promote community participation..

A strategy for disease eradication at the continental level :

1- Foot and mouth disease (FMD) is the most important animal disease constraining world trade. In addition it is also directly limits agricultural production through losses in weight gain, milk yield and draught power. All development countries are free of the disease and operate a policy aimed at total exclusion of the virus.

Middle-income countries, run major FMD control campaigns to be able to maintain their international trade capability, while in low-income countries with negligible participation in international trade in animals and animal products (Sub-Saharan Africa and some parts of Asia) there are few examples & effective control programmes.

2- Brucellosis continue to be a problem in many countries and it is the most important zoonotic disease in the Near East . FAO, together with WHO & OIE is preparing project documents for a regional brucellosis control programme according to guide lines established in collaboration with the countries of the region, The strategy of the programme is based on whole herd / flock vaccination regardless of age and sex.

3- Ticks and tick- borne disease programm aims at promoting integrated control methods that include immunization when applicable and increasing awareness of the fact that tick acaricide resistance is spreading worldwide. The coordinated programme for the control of ticks and tick borne diseases in Centra, East and Southern Africa currently entering its third phase. The programme's objective is the control of ticks and tick borne diseases in cattle based on immunization against the Ixodosis, heart - water, anaplasmosis and babesiosis on a sustainable cost-recovery basis, coupled with strategic tick control.

4- Insect - borne disease : Africa animal trypanosomiasis (AAT), transmitted by tsetse flies , is the most important animal health constraint in sub- Saharan Africa. FAO, has established a Geographical information system (GIS) to quantify the economic and agricultural impact of at and to identify the areas where AAT control is most likely to translate into increased agricultural productivity. The availability of novel bait techniques such as traps, targets and insecticide treated live stock, FAO's contributions in this regard involve support to training, applied research and education of rural community group .

With the successful conclusion of the screw - worm eradication campaign in the Libyan Arab Jamahiriya a supported by the screw worm Emergency centre for North Africa (SECNA), FAO has shifted attention towards the prevention of new outbreaks of both New world screwworm (NWS) and old world sereworm (OWS) as well as of other exotic diseases, activities continue to improve techniques for NWS surveillance, control and the use of the Sterile Insect Technique (SIT) for eradication, in the anticipation that results will yield significant benefits to all infested countries.

Non - infectious and production diseases : During the last few years FAO has put more emphasis on the development of programmes for the control of helminths and non - infectious disease. A number of activities have been aimed at increasing governments ' awareness of the economic importance of these diseases and conditions and the constraints they put on efforts to accelerate livestock productivity. Activities include the publishing of informative material's and the generation of production data through pilot projects .

The rapidly in creasing problem of anthelmintic resistance in sheep parasites is of great concern to FAO , and funds are allocated to activities attempting to map the extent of the problem in developing countries.

Parasitic zoonotic diseases continue to be a major problem causing human suffering and significant losses from condemned meat and organs. FAO in collaboration with the veterinary public health unit of WHO is developing control strategies.

Animal health delivery at herd level :

FAO's livestock programme is increasingly emphasizing an integrated approach to livestock production and enhancement of food security. One arm of this integrated approach is a Herd Health and production programme (HH & PP) protocol. This approach allows private veterinary practice to deliver clinical and HH & PP services and defines areas of responsibility in a manner that promotes close cooperation between the private sector and public services.

The key tools for the international control of animal diseases are the availability of adequate information, proper services for the diagnosis of disease conditions, vaccines of appropriate quality and a functional veterinary service. Emerging trends in all four areas will affect future strategies for the control of animal diseases.

a - Information : The international exchange of information concerning animal diseases is coordinated by OIE. It is the responsibility of the chief veterinary Director of each country to notify the international community, through the OIE, whenever an outbreak of an epizootic disease is encountered and periodically to update OIE on the disease situation in the country. Every year FAO publishes the FAO/OIE WHO Animal Health year book, which details the disease status of each member country. It is well recognized the official information given in this year book after represents the minimum known about the disease situation in many developing countries.

Therefore, the veterinary services need to develop sound information systems that would strengthen the services and improve the accuracy of disease incidence data and of diagnostic testing or surveillance results. This would also enable governments to devise appropriate livestock health and productivity improvement schemes at community level.

Diagnosis : The use of modern diagnostic technology based on molecular biotechnology is dramatically gaining ground, and polymerase chain reaction (PCR), monoclonal antibody probes, enzyme-linked immunosorbent assays are now becoming standard, primary diagnostic tools in developed countries. There is a need for technologies in developing countries. FAO has been addressing this issue as follows:

- * - Training and awareness of decision makers.
- * - Practical training & technicians and laboratory scientists.
- * - FAO biotechnology networks
- * - Global monitoring of pathogens of major diseases, this is being achieved through a network of reference laboratories which provide referral diagnosis for the disease(s) for which the laboratory is designated. The networks of FAO, OIE and WHO complement, each other.

Vaccines : Recent trends in vaccine development have involved 3 principal issues :

- Vaccine technology : development of gene deletion gene manipulation of vaccine viruses and viral-vector recombinant vaccines. FAO has published a comprehensive review of and guidelines for veterinary vaccines.

- Vaccine quality : vaccine should be manufactured under conditions of good manufacturing practices. PAN VAC (pan African veterinary vaccine centre which is a programme of QAU / IBAR (Organization of African Unity / International Bureau of Animal Resources) with technical assistance from FAO, has improved the production of African vaccines to meet the international standards of quality.

Vaccination monitoring: The advent of ELISA technology has made sermonitoring a practical reality for vaccination monitoring ELISA technique using standardized and specific reagents, standardized equipment and computer software, supported by a well-controlled quality-assurance programme by consistent techn-advice from FAO.

Veterinary services :

A strong veterinary service with a clearly defined chain of management and reporting command is a prerequisite for effective control of animal diseases. The veterinary service should also have adequate laboratory support for disease diagnosis and surveillance. An effective veterinary service doesn't mean government action in all veterinary matters, it needs a healthy private veterinary programme, supported by national veterinary associations and international organizations.

Control of animal diseases demands the national veterinary services operate within both a regional and international context. An outbreak of major epizootic disease in one country is of immediate concern to neighboring countries and should be reported to OIE & FAO and in the case of zoonotic disease, to WHO, as well.

EMPRES : in 1991 FAO obtained the mandate to establish a priority programme - the Emergency prevention system for Transboundary Animal and plant pests and Diseases. The livestock disease component of EMPRES aims at strengthening FAO's role in the prevention of, and immediate response to emergencies caused by major epizootic diseases of Transboundary importance. The primary focus is the Global Rinderpest Eradication programme (GREP).

The vision for EMPRES is to promote the effective containment and control of the most serious epidemic livestock diseases as well as newly emerging diseases by progressive elimination on a regional and global basis through international cooperation involving early warning, early rapid reaction, enabling research and coordination.

Regional Animal Disease surveillance and control Network (RADISCON) : was initiated in June 1996 funded by IFAD and executed by FAO in collaboration with participating countries.

The objective of RADISCON is to achieve effective data gathering and analysis for decision-making purposes in the field of animal disease control. Applied to a region this concept will be implemented in a systematic manner in each country and built in to a network linking the countries of the region as a whole so that accurate information on animal health and disease can be generated and exchanged and disease control activities coordinated. At present 29 countries stretching from the Atlantic ocean to the Islamic Republic of Iran have subscribed to the programme. The aim of the programme is to set up a preventive risk-reducing activity against future screwworm reinfection and establish a disease surveillance activity for at least four animal diseases deemed to be of major economic importance for this region foot and mouth Disease Rinderpest, pesettes petits ruminants and brucellosis.

MZCP. (The Mediterranean Zoonoses control programme) It was established at Athens in 1979, which collaborates closely with WHO / HQ in Geneva and with WHO Regional Office at Alexandria and National Institutes in the region. The main objectives of the programme are to foster, both at national and inter regional levels, programmes for the prevention surveillance and control of zoonoses and related foodborne diseases as an integrate part of national health programmes, to strengthen the cooperation between national animal health and public health services to improve prevention surveillance and control of these disease, and to foster collaboration between MZCP member states and relevant WHO collaborating centers and MZCP National participating Institutions.

Radiscon : Regional Animal Diseases Surveillance & control Network

Empres : Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases.

Grep : Global Rinderpest Eradication Programme

WTO : World Trade Organization

**Radiscon Member States of the North Africa, the Middle
East and the Arab Peninsula Region**

Afghanistan	Kyrgyzstan	Sudan
Algeria	Lebanon	Syria
Bahrain	Libya	Tajikistan
Cyprus	Malta	Tunisia
Djibouti	Mauritania	Turkey
Egypt	Morocco	Turkmenistan
Iran	Oman	United Arab Emirates
Iraq	Pakistan	Yemen
Jordan	Qatar	
Kuwait	Saudi Arabia	
	Somalia	