Abstract

Retrospectively, the success in the eradication of rinderpest was in large part because of the commitment from countries, regional and international organizations coordinating the vision to remove the threat to cattle production in large swaths of Asia, Middle East and Africa. As with OIE’s establishment, the creation of FAO not only recognized the paramount importance of rinderpest but also underscored the significance of FMD. The regional FMD campaigns in western Europe, parts of South America and country programmes in east and southeastern Asia, southern Africa have been over the past 30 years largely successful. In endemic settings, multiple disease burdens, differing health and developmental priorities, and resource-poor veterinary systems have not been successful in tackling the eroding production efficiencies caused by FMD, however. With an expected global population of over 9 billion people by 2050 and the need to produce more food, and the forecasted demand for more animal products in people’s diets, efficiencies in production parameters are required, as are the management of natural resources and sound policies for a vibrant livestock sector – including safe trade. The ever increasing disease threats in a globalizing world place all countries at risk of incursions of FMD and other pathogens, as recently seen in east Asia, North Africa, western Europe and the southern cone of America.

While existing tools in FMD diagnostics and vaccines have proven successful for some regions, improved methods in risk management, understanding drivers in the emergence of virus variants, and insight into production and marketing practices can used to improve FMD management. A progressive control pathway (PCP), which guides the public veterinary authorities and livestock holders to intervene at critical stages of convergence of risks would be advantageous in terms of maximizing epidemiological knowledge and would be cost effective especially in resource poor environments. The developed PCP for FMD provides this framework and fully complements existing regional programmes on FMD control. Furthermore, this approach can be modified to address other high impact diseases, including some
zoonoses. In this regard the importance of veterinary services to meet their public good obligations need to conform or reform to attain the international standards as prescribed by the OIE. Thus, investments into this aspect of agricultural and livestock development would have major impact on overall human health, nutrition, food safety, and contribute to local and national economic and social growth.

In this context it is for the global public good to tackle FMD control at source; and, is of vital interest of both developed (usually FMD free) and underdeveloped (usually endemically infected) countries. An international global concerted effort with strong regional coordination is necessary, justified through global joint financing to further leverage public-private partnerships. A Global FMD Strategy that opens opportunities to address other diseases that impact efficiencies, food security, and develop robust veterinary services in developing countries is needed.
Thank you, Mr Chair. Indeed it is a great honor for me to deliver the **Settings the Scene** presentation at this Global FMD Conference.

The health of our animals is a reflection of the health of our planet, not only in terms of biodiversity and ecosystem health, but also a reflection of our own health and stewardship of natural resources; availability of foods of high nutritious value; and, the opportunities for safe commerce.

Foot and mouth disease impacts the entire globe.

In the wake of the success against cattle plague, foot and mouth disease and a global progressive control leading to its elimination or eradication differs from rinderpest, but it is the one disease that all regions of the world have prioritized under the FAO/OIE GF-TADs umbrella.

The challenges faced with FMD are far different from what we faced with rinderpest; [FMD] which has far great antigenic and genetic variation, multiple susceptible species, including wildlife, a vaccine with shorter duration of immunity that needs to be delivered every six to twelve months, and that of greater persistence in food products of animal origin. But there are some essential lessons from the successful rinderpest eradication that we can and should implement.

Retrospectively, the success in the eradication of rinderpest was in large part because of the commitment from livestock owners, pastoralists, countries, regional organizations, funding partners, and international organizations coordinating the vision to remove the threat to cattle production in large swaths of Asia, Middle East and Africa.

The regional FMD campaigns in western Europe, parts of South America and country programmes in east and southeastern Asia, southern Africa have been over the past 30 years largely successful. In endemic settings today, however, multiple disease burdens, differing health and developmental priorities, and resource-poor veterinary systems have not been successful in tackling the eroding production efficiencies caused by FMD.

Feeding the world’s 9 billion, as the UN has forecasted for the year 2050, will be a more than a challenge, it is a responsibility that we need to do and do it well, with proper natural resource management, ensuring
quality nutrition and food security to all, safe trade, land rights and health, and based on sustainable policies. Health means animal, human and environmental health; sick animals are inefficient in all performance indicators – less milk, less feed conversion, more GHG emissions, less profits, - by as much as 25 to 33%.

Though not a zoonoses, FMD affects human health through impact on available animal resources and opportunities in commerce.

The ever increasing disease threats in a globalizing world place all countries at risk of incursions of FMD and other pathogens, as recently seen in east Asia, North Africa, western Europe and in certain countries in the southern cone of America.

In the road leading to rinderpest eradication, the threats and concern of FMD were expressed on all continents, and for this the international organizations have come together again.

Though this conference is termed the Second Global FMD Conference, after the one held in Paraguay in 2009, there needs to be recognition that the road and lessons began before, not just with regional efforts in the 1950’s in Europe and the Americas, but also with the seminal meeting in 1997 in Brasilia organized by Pan American Health Organization in collaboration with the two international bodies responsible for animal health, the OIE and FAO.

Ten years ago, in 2002, a Global Plan of Action for FMD was being designed in the wake of the devastating outbreaks in Europe and South America – Pan Asia O and the A/Argentina viruses, respectively.

Throughout the following two years the Global Plan embarked in its design to be more ambitious and address more than just FMD, as FAO and OIE recognized that such an effort should necessitate the completion of rinderpest eradication and improve the incidence and impact of other high priority diseases of importance to livestock development, animal health and welfare, and food security. This was the origin of GF-TADs. In mid-2011, global freedom from rinderpest was announced by OIE and FAO in their respective Assembly and Conference.
FMD chosen some years ago as the next TAD to concentrate on after Rinderpest?

The presence of FMD results in sub-optimal use of natural resources on a scale that is gravely underestimated and that we can no longer afford.

Several presentations on the economic (and social) impact of FMD will be made at this Conference and highlight that FMD is not just a rich countries concern; the impact of the disease in endemic settings is high, and erode any possible profits for the poorest of families and small scale operators on a daily basis. In fact FMD may cause mortalities that range from 50 to 85% from the household perspective – if, for instance the calf from the family cow dies or the six piglets die at the homestead leaving the sow with teat lesions and complicated by mastitis.

The ever increasing risks in a globalizing world, such as the recent outbreaks in Japan, Republic of Korea and North Africa and imminent threats to Middle East and Europe should serve as an alarm.

In this case, even well equipped and trained veterinary services in wealthy countries were and are at risk. With the financial crises affecting the globe the risk is even higher for the public services to maintain an adequate level of vigilance.

A reconfirmation of the private-public sector alliance is required, and joint planning practiced – this goes beyond surveillance and reporting, but should address investment in research, demands for good governance among associations, and compliance with established regulations and international agreements.

What has now become a motto for us, “controlling the disease at source”, is, in particular reference to tackle the problem in its endemic setting before its spread. This translates that investments from the free-countries and neighbors to tackle the nidus of infection is critical to avoid downhill – or transboundary - spillage. “At source “… also means the need to better understand the epidemiology of the disease and the factors that contribute to its emergence, maintenance and spread to better identify points for intervention and prevention. “At source” means
disease intelligence so that cost effective practices can be implemented rather than blanket policies that are too costly.

The millions and billions – whether dollars, euros, pounds or yen - spent on controlling FMD to regain freedom and recuperate access to international markets are paid by the tax contributions of the whole of society – poor and rich alike. Could this money be better spent in prevention?

Thus FMD control at source is in the interest of both developed (usually FMD free) and underdeveloped (usually endemically infected) countries.

An internationally concerted effort with strong regional coordination is necessary and a global joint financing is highly justified. Disease control and the work of the veterinary services are a Public Good - that benefits food quality, food safety, and trade.

Addressing FMD prevention and control activities serves as an opportunity to advance and strengthened veterinary infrastructures in resource poor environments of developing countries, where the disease burden are disproportionately high in both animals and humans; where access to medical care and extension services are often lacking; were treatments or vaccines are often sub-standard. It also offers the opportunity that this investment is translated to the veterinary curriculum to ensure that there is depth in the quality of the professionals that will replace us in the near and distant future.

Intervention activities for one disease, such as FMD, can be coupled with those required of other high impact diseases with minimal increments of resources – human or financial. Such is the case for priority disease such as PPR, SP, GP, RVF, CSF and ASF or PRRS, CBPP and CCPP, HS, and brucellosis. Such incentives can establish increased cooperation with campaign strategists so that there are benefits to all.

**FAO and OIE think that global FMD control may be accelerated**

The numerous tools developed over the past decades under rinderpest and other regional actions (such as networks – laboratory and epidemiology, regional support units working with regional economic communities and specialized organizations) , as well as over 100 OIE
and FAO reference centers to assist countries, the establishment of research alliances, and more recently the advancement of the OIE tool for the evaluation and Performance of Veterinary Services and the risk management Progressive Control Pathway for FMD.

Much more on these networks, and the interconnectivity between the PCP for FMD and PVS will be highlighted in this Conference and hopefully lead to much discussion and insight. These tools have been in the course of the past 10 years tested and retested at country and regional level.

With risk management approaches, and improved tools in diagnostics and vaccines, much can be accomplished together with the necessary political will of the public and private sector. In this Conference we will hear about some of the new developments originating from eminent research laboratories that merit testing in the field. And though yesterday’s tools have proven useful, there is always space for improvements as knowledge grows.

Undoubtedly, investment into research will further assist in the effort (host-virus interactions, operational research, vaccinology or direct detection without the need for amplification of the target …). Some of these aspects, too, will be forthcoming in the presentations we will hear in the next few days.

There are examples of successful campaigns using past and present expertise, insights and vaccination strategies and these will also be highlighted during the conference. However, these successes have taken decades upon decades and we believe that through risk management, strategic inputs in inter-regional cooperation, grass roots outreach – whether in Sabana de Bogota, Somali Ecosystem, the steppes of Mongolia or the Gangetic plains in South Asia – can improve implementation of animal health programmes using local knowledge to everyone’s advantage. Improved reporting and analysis is required for early warning and effective response.

The first international unveiling of a **Global FMD control campaign** was in Paraguay in 2009, but not without some inter-regional testing and consultancy, initially in Eurasia and then in parts of the Middle East and throughout Africa.
Since then numerous regional workshops with the leadership and buy-in of regional cooperation and economic communities such as South Asia Association Regional Cooperation, Southern African Development Community, and African Union’s Inter African Bureau of Animal Resources. Today, FAO and OIE with the engagement of the Kingdom of Thailand will hope to seek further endorsement of the Strategy.

A Joint working group, under GF-TADs, was established to further define the Strategy. In late 2011 numerous experts in FMD met in Paris to review and discuss the proposed Strategy and subsequently underwent peer review, with further inputs from the OIE and FAO.

We will also hear from a study commissioned to the World Bank to determine estimates of a roll out plan for the Global Programme. We will have a special session on this aspect during the Conference.

It is important to make clear that the Strategy does not in any way conflict or contradict with existing regional or sub-regional efforts at FMD control. It proposes and details risk management processes to attain the end we all seek: Manage FMD better at local, national and regional level.

Food production will need to increase by 60-70% by 2050 in order to meet demand of a growing population. Although such an increase could be achieved under plausible assumptions on yield improvements and rates of expansion in land and water use, this critical path is surrounded with considerable uncertainty, especially in relation to potentially significant environmental constraints.

Concerted efforts in the control of the negative impacts of diseases such as FMD can improve agricultural-livestock inefficiencies and waste of the natural resources, since it is forecasted that by 2050 the suggest growing scarcities of agricultural land and water (forest, marine capture fishery resources too) and biodiversity will be driven by accelerated intensification of human activities with increasing pressure on these natural resources. It is our hope that that by removing FMD from large swaths of land, we do not see this as a greater opportunity for further environmental encroachment, but as an opportunity to have sound livestock sector policies in respect of the environment we live in and need.
The challenges faced with rinderpest are far different from those posed by FMD. Though there is antigenic and genetic variation in and within FMD viruses, and it affects multiple susceptible species, and with current technologies, requires vaccination several times throughout the life of the animals, there are some essential lessons that we can implement. One is that of partnership and coordination.

This requires political and financial commitments so that the veterinary services and systems can perform the duties that we, the stakeholders – the people - expect; that private sector and public sector identify common platforms to reach their shared goals for animal health, food security, and safe trade. Animal health is not only important for human health in terms of quality nutrition and prevention of zoonoses, it is also important in natural resource management and use.

Ridding the world of FMD should allow for better stewardship of the livestock sector and efficient use of natural resources without the demand to produce more, but rather more be more efficient and ensure that our children's children have a world in which to play and grow.

_FMD control today is possible: it is a matter of determination, organization, coordination, investment, support and perseverance._

Thank you