

***Animal health and welfare in a changing trade
and food security environment in Africa***

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Honourable Guests,

Dear colleagues,

Ladies and gentlemen,

Let me start with a bold statement: Africa is no longer the doomed continent! The predictions of market gurus and Wall Street pundits about emerging African markets and the prospects of progressively lifting millions of Africans out of extreme poverty fill my old and weary heart with joy. At the same time (and this is probably where my African traditionalism kicks in) there is no denying that this economic growth and accession of millions of our brothers and sisters to the middle class is also a tremendous challenge. Environmental degradation, pollution, unmanageable mega-cities and the ruthless quest for raw materials and land resources are words and concepts we learned from our brothers and sisters in Asia, in particular, China a decade ago.

Ladies and gentlemen, by 2050 we will have to share our planet with 9 billion souls, 70% of whom will live in cities. The world demand for milk, meat and eggs will have increased by 70%. To give you a little perspective, currently the per capita consumption of meat on our continent is estimated at 54 kg in Southern Africa, 24 kg in North Africa and a mere 12 kg in West Africa. Imagine what the demand for

these products would be, should prosperity in Africa meet that of in-transition nations and those that are developed, where the annual consumption varies from 64 to 118 kg per annum.

It therefore goes without saying that animal health and indeed, animal welfare practices, are and will be deeply affected by the changing political, social, cultural and environmental parameters that challenge our conventional animal production and health systems in Africa. This notwithstanding, there are also tremendous opportunities for innovative approaches to help feed a rapidly growing world population and provide consumers with varied, healthy, and balanced animal protein.

Ladies and gentlemen, global warming affects the distribution of many vectors of animal diseases on the continent. It also directly and indirectly affects land-use patterns, which are in turn exacerbated by food security challenges such as the production of bio-fuel crops and land-grabbing. The geographical coverage and frequency of outbreaks of diseases such as West Nile fever, Bluetongue and Rift Valley fever, as well as dengue fever, chikungunya and malaria, have been extended due to the resilience of their vectors to the changing patterns of temperature and rainfall. Indeed, they colonise new territories every day. Whilst urbanisation, deforestation, and the encroachment of human settlements into pristine nature, has undoubtedly led to the destruction of habitats for some disease vectors - think of some tsetse fly species - the closer cohabitation between man, animal and vector has led to a tremendous increase in re-emerging and genuinely emerging diseases of man and animal. This is nowhere better illustrated than in the epidemiological hotspots, as described by *Jones et al* and published in *Nature* in 2008¹, where the confluence of extreme poverty, lack of hygiene and

¹Jones KE, Patel N, Levy M, Storeygard A, Balk D, Gittleman JL, Daszak P. Global trends in emerging infectious diseases. *Nature*. 2008; 451:990-994.

access to potable water, close co-habitation of livestock and man, proximity to wildlife and man's habit of hunting and eating bush-meat, has given rise to an explosive cocktail of emerging and possibly pandemic threats. Bats, primates, and rodents have been incriminated as the origin of the threats. Think of Ebola, Marburg disease, or even the novel corona-virus.

Whilst global warming has affected the distribution of diseases and hence, the distribution of livestock production in parts of Africa and the world, livestock itself, and in particular large ruminants, have been blamed for contributing to global warming and the greenhouse effect. "*Livestock's long shadow*" a phrase coined by the FAO in 2007, includes the emission, by cattle and small ruminants, of methane and other gasses from manure and stomach fermentation. These gases are believed to contribute up to 18% of total greenhouse gas emissions measured in CO₂ equivalent. The "long shadow" also includes the degradation of CO₂-capturing vegetation due to overgrazing, erosion, the deforestation undertaken to open up more land for cattle farming, and the depletion of water resources for cattle and livestock in general.

Ladies and Gentlemen, galloping demographics have lead to increased conflicts between pastoralists and cultivators; food producers and nature (wildlife) conservationists, for dwindling natural resources. Conservationists often correctly argue that conservation brings in more money through tourism and game farming, than agriculture can ever hope to generate. But is this to be regarded as sound economics in the light of countries facing food insecurity?

Regional integration and the globalisation of trade have led to increasing pressure on prices, with local markets no longer allowed to put up protectionist measures, as per the *Sanitary and Phyto-*

Sanitary (SPS) and Technical Barriers to Trade (TBT) Agreements of the World Trade Organisation. Healthy competition leads to lower prices for consumers, but un-healthy competition results in scandals such as the dioxin and melamine contaminations, the recent horse meat fraud, and the alteration of *halal* foods with *haram* contaminants, all in the name of profit. Greed and the quest for more profits have also lead to increased use of antibiotics in food production, most often as growth promoters, resulting in increasing – but not always rational - consumer concerns.

One of the most remarkable sectors in this respect is aquaculture production (farmed fish), which will not only overtake marine or fresh water capture fisheries soon, but will also supply most of our animal protein in the latter part of this century. Indeed, by 2020, farmed fish will account for 68% of our overall fish consumption. But will the production of food animals on land grow at the same rate?

The buzzword is “economies of scale”. Countries like Brazil and Argentina have taught us that accessing world markets for beef requires a scale of operation that is mindboggling to us Africans. Some beef exporting nations in Africa do so only by the grace of preferential import tariffs, granted by the importing countries. Without this preferential treatment, even these countries in Africa we look up to, such as Namibia and Botswana would face the stiff competition on the world markets and be unable to export. Wouldn't you indeed be tempted to mix your beef with a bit of cheaper horse meat?

And what if the importing food corporation requires your beef not only to be healthy and tasty, but also to stem from “happy cows”, grazed on lush green pastures? Or your eggs from “free ranging” hens, all for the same bottom price?

Faced with these challenges the institution I work for, the *World Organisation for Animal Health (OIE)* attempts to devise trade standards and international binding agreements on many of these subjects, in a democratic manner. The OIE does this to secure the global supply of sufficient and healthy food of animal origin.

The OIE sets standards not only for the rich nations of the west (which already benefit from numerous private standards), but especially for the poorer and more price-conscious consumers as well as livestock producers in developing countries who need to be shielded from many of these private (often not science-based) standards such as the aforementioned happy cow standard.

In recent years the scope of veterinary science and practice, as it is defined in the various Codes and Manuals of the OIE, has been extended to include aspects of animal welfare, food safety, aquatic animal production, wildlife and bio-diversity, invasive species, the use of animal pathogens for biological warfare, veterinary education and - most importantly - veterinary governance. Every year, trade standards are created, revised, fine-tuned and abolished where needed, to ensure that the trade of livestock and livestock products is facilitated without jeopardising food safety, condoning animal cruelty or against discriminating poorer nations.

Ladies and gentlemen, in the interest of time I cannot cover the full scope of the OIE's activities in detail, but will highlight a few important ones that may be of interest to you as livestock producers and/or processors.

Let me begin with nature conservation. The role played by wild animals as source, as well as recipient of animal diseases can no longer be ignored or examined separately. The OIE addresses these challenges with a view to facilitating the trade of animals and animal products, while ensuring at the same time that consumers worldwide

benefit from safe products. Examples of actions developed in recent years include: the supporting role of OIE focal points for wildlife in the design and setting of new standards, as well as the increased involvement of African states in the approval process of these standards; the separation of disease status in domestic (and captive wild animals) from wild animals (e.g. Newcastle disease) to avoid unjustified trade barriers; the concepts of compartmentalisation and of safe commodities, irrespective of disease status; the revised definitions of wild, feral and captive wild animals; the dedicated wildlife disease notification system WAHIS-Wild; the new OIE Terrestrial Animal Health Code chapters on wildlife-specific diseases (e.g. tuberculosis of farmed *cervidae*) and finally, the testing and validation of diagnostic tests for wild species.

Which brings me to the concept of the **'One Health Approach'**. More than another “buzz-word”, the One Health approach endeavours to view public health, animal health and environmental health issues from a holistic perspective and fosters closer collaboration between public health authorities and the corresponding competent authorities for animal health and environmental protection. This has led to closer collaboration, for example, between the OIE, the FAO, the WHO and the *Wildlife Conservation Society* (WCS) which aim to better predict and manage “eruptions” of diseases such as the current H7N9 avian influenza situation in China, the Reston – Ebola outbreaks in the Philippines, and the recent outbreak of Hanta-virus in the Yosemite National Park in the USA. At the national level, One Health seeks to improve collaboration on diseases such as rabies, Rift Valley fever, various influenza types, brucellosis etc... The Republic of Kenya, I'm proud to say, has taken the lead in Africa with the establishment of an inter-ministerial *Zoonotic Diseases Unit* (ZDU) which qualifies as a One Health instrument.

Food safety is also considered to be a topic that qualifies for a One Health approach. In this regard, the OIE, in close collaboration with the Codex Alimentarius Commission of FAO and WHO, has taken decisive steps to address the issue of responsible and prudent use of antibiotics and other anti-microbials in the production of food animals. The OIE now provides standards for the monitoring of the quantities of antimicrobial agents used as well as antimicrobial resistance. The OIE has also developed standards and guidelines to provide methodologies for OIE Member Countries to appropriately address the risk of the emergence or spread of resistant bacteria that result from the use of antimicrobial agents in food producing animals.

In response to the stigmatisation of ruminant production as a major contributor to global warming, especially extensive ruminant production systems prevalent in Africa, the OIE has been instrumental in highlighting the positive aspects of such production as a fundamental provider of high quality animal protein, and a determining factor in the eradication of chronic qualitative and quantitative malnutrition. A 2010 OIE expert group listed some additional positive effects of livestock farming, including the conversion of solar energy to animal products with high added value through the consumption of plants by herbivores; and the numerous herbivore production systems which help to maintain sylvo-pastoral ecosystems, contributing to the sequestration of carbon and nitrogen derivatives, biodiversity and favourable management of water in the river side basins concerned. These farming methods also contribute to maintaining an open landscape; with the added advantage of the natural organic fertiliser that the animals produce. Whilst the OIE does not contradict the present data on livestock's "long shadow", it promotes a more balanced approach to listing disadvantages and advantages of ruminant production systems, and definitely a more

prudent approach to any long-term forecasting in the absence of sound models at this time.

Finally, the OIE has invested considerable resources and expertise in providing a sound scientific basis for animal welfare standards, hitherto entirely handled by the global private agri-food business as so called industry or private standards. In the past 3 years, a string of new international standards have been adopted on difficult issues such as the humane killing of animals (including farmed fish) for consumption or for disease control purposes, welfare of laboratory animals, control of stray dog populations, regulation of beef production systems and - this past May - broiler chicken production systems.

Ladies and gentlemen, dear colleagues, my talk is not intended to be exhaustive; I merely wanted to point out that livestock production and - in extension - animal health are not static sectors. The world around us is changing for better or for worse, science and technology are evolving, diseases appear and disappear, habits change and new approaches emerge. While being a livestock farmer might very well be the second oldest job in the history of mankind, the profession has rarely seen such change as has been witnessed in the last two decades. Our sons and daughters will live in a completely different “animal husbandry” landscape than the one in which we grew up and - although I’m of course slightly biased - I hope that the OIE, as the specialist animal health advisory agency under the SPS - Agreement will remain relevant for a long time to come, as it was in the past, for example – during the eradication of rinderpest.

I thank you very much.