



Veterinarians' Contribution to the UN Sustainable Development Goals (SDG)

"REFLECTION PAPER"

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Summary

The rapidly growing world population, combined with the increasing number of people that can afford meat and other products of animal origin (OPOAO) has led to a sharp rise in demand for foods of animal origin. To meet those demands in a sustainable way, animal production systems will need to be significantly modified over the coming decades.

In order to end hunger and achieve a global food security (safety, quality and nutrition) everyone on this planet should be responsible for sustainable food consumption and production, as well as for preserving a healthy environment for humans, animals and plants.

The European veterinary profession is a health profession with a special focus on the One Health agenda - the integrated approach of the health of people, animals and the environment. The profession has the know-how and therefore a responsibility to do its best for people, animals, plants and the environment.

The purpose of this working paper is

- **to help FVE in scoping and reviewing its priorities in line with the United Nations Sustainable Development Goals¹, in particular goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture and the UN Millennium Development Goal whose objective is to half food waste by 2030, which is coherent with the fighting of hanger.**

- **to recommend further work and to provide an overview of the European veterinary profession's clear commitment and contribution to the United Nations Sustainable Development Goals.**

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¹ <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Introduction

Over the years, it has become evident that the current increase of global population and its consumption patterns are a growing threat to the global environment, including its inhabitants. The rapidly growing world population, combined with the increasing number of people that can afford to eat meat has led to a sharp rise in the demand for animal proteins². It is estimated that in the next 3 to 4 decades the global demand for animal protein will triple³. However, breeding and raising large numbers of animals is not without consequences. Farm animals, especially when present in large numbers, can have a serious impact on the environment. The management of animal manure and the production of large volumes of greenhouse gases, together with the use of finite resources of minerals and biologically active substances, can directly and indirectly impact on the environment and affect the flora and fauna and reduce biodiversity.

The United Nations World Commission on Environment and Development report "*Our Common Future*", (also called the Brundtland report⁴), describes sustainable development as "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*". To be sustainable and in line with this definition, it is clear that the exponential growth in animal production envisaged cannot take place without significant changes in the way animal protein is sourced and produced.

From the same report and other papers that followed, it becomes clear that sustainability is a complex and multifaceted issue for which simplistic solutions are not possible. There are many perspectives, sometimes conflicting, to consider and to balance. Sustainable animal husbandry needs, ultimately, to be economically viable and ethically acceptable.

Given the complexity of the issue, the different interests at stake and socio-economic differences between regions, progress can only be made through a multidisciplinary, inter-professional and inter-sectoral approach. More recently this approach has been reflected by the UN approving Sustainable Development Goals¹.

Here, the European veterinary profession can and shall continue to be of help. As a health profession with a special focus on One Health - the integrated approach of the health of animals, people and the environment – the profession has the know-how and with that a responsibility to contribute within its own abilities and sphere of influence, to sustainable animal husbandry practices.

This working document investigates ways the veterinary profession can contribute continuously to the development of more sustainable animal husbandry practices, aimed at optimizing the health and welfare of the animals themselves.

² FAO.2011. Mapping supply and demand for animal-source foods to 2030, by T.P. Robinson & F. Pozzi. Animal Production and Health Working Paper. No. 2. Rome

³ Feeding the world better by controlling animal diseases Vallat B. Bulletin de l'OIE 2008, n° 4, p. 1-2

⁴ Our Common Future ('Brundtland report') (21 May 1987) by Gro Brundtland, Mansour Khalid, Susanna Agnelli, et al.

- **Animal Health**

Animals shall be kept in a way which neither negatively affects their health nor makes them more susceptible to infectious diseases. Housing conditions (e.g. space, air temperature and quality, bedding, etc.) and the quality of feed and water shall meet the needs of the animals. Disease in young animals or premature slaughter should be avoided through good biosecurity, well-designed disease monitoring, surveillance and data collection systems, thus facilitating proper risk analysis and efficient disease control mechanisms.

Effective and reliable data collection systems need to be in place, harmonised across Member States, thus facilitating proper risk analysis. Major infectious disease outbreaks have resulted in culling and destruction of enormous numbers of animals, even though they were fit to enter the food chain. Attention shall also be given to the prevention of production diseases like lameness and mastitis.

Stakeholders need to develop and agree initiatives to strengthen disease prevention by ensuring good health on the farm, at livestock markets, during transport and at the abattoir. At the same time, governments, producers, traders and consumers should investigate alternative sources of protein; for example, fish and insects.

Control systems should be well-designed to ensure that meat and other animal-derived products are not unnecessarily discarded. Consumers should be educated about the storage and handling of food in order to avoid unnecessary waste and self-inflicted disease.

When and where necessary, animals must be treated against animal pathogens. However, the responsible use of medicines in animal health is fundamental. In particular, the responsible and prudent use of antimicrobials is critical. Systematic antimicrobial treatment shall be avoided, and never be used to replace poor husbandry practices. Special attention should be given to the use and disposal of biological active substances in order to limit environmental bioaccumulation, soil contamination and the emergence of antimicrobial resistance.

Close collaboration between veterinarians and farmers, based on regular farm visits, will help to find long-term solutions for various issues important for the health and welfare of farmed animals.

- **Animal Welfare**

Animal husbandry systems shall allow for a '*good quality of life*' for animals and respect the 5 freedoms⁵. This applies to farm animals, companion animals, and any other kept animals. Animals shall be kept in environments with which

⁵ <https://www.gov.uk/government/groups/farm-animal-welfare-committee-fawc#assessment-of-farm-animal-welfare---five-freedoms-and-a-life-worth-living>

they can cope, be free from unnecessary suffering and be able to express important behaviours and not suffer from frustration and boredom. Thirst or hunger must be avoided. In general, the environment should be designed to fit the needs of animals, not the other way around.

Mutilations as routine practice must be avoided. Husbandry systems should offer opportunities for positive welfare such as contentment, play and comfort.

Breeding programmes shall be balanced and not focus on productivity alone. They should consider the best adapted breeds in view of the environment, the welfare needs of current and future animal generations, focus on producing robust animals, impact on biodiversity and including minimisation of aggression and conditions associated with fast growing animals. Animals should also experience a humane death, including being effectively stunned before slaughter.

Animal welfare training is an essential part of the professional development of any person planning to work with animals.

- **Public Health**

Globalization, together with environmental and climate change, impacts on the emergence of new, or the re-emergence of existing, animal diseases including zoonoses. Sixty percent of the infectious human diseases are zoonotic and at least 75% of the emerging human disease have an animal origin. Many diseases, or their vectors, also closely follow the movement of climate zones. It is important to support local communities to develop and own their own sustainable animal production methods rather than encouraging trade of animals over the globe. Reliable monitoring and surveillance systems are essential for the rapid detection and early control of transmissible diseases. Information should be accessible and shared amongst veterinary and medical doctors and other knowledgeable individuals. This is vital and also presents a great opportunity for common initiatives from all health professionals. Communication and exchange of information shall start during under-graduate training of medical and veterinary students and other relevant scientific and caring professions.

In relation to public health, it should also be noted that a wholesome diet is a well-balanced diet, composed of different foods. Production systems aiming for large amounts of relatively low-priced meat generally don't contribute to sustainability nor to healthy eating habits

- **Novel sources of protein**

The use of animals with a high feed conversion rate like fish and insects offers the potential to produce equal amounts of good quality proteins whilst reducing the impact on the environment. This is especially true in the new field of insect production. Veterinary involvement in assuring the health of the animals and the safety of food is appropriate. This will require the

development of veterinary expertise in this field. Attention shall also be given to education and research in this field.

- **Food waste/Food loss**

The veterinary profession can contribute towards reducing food waste by providing expertise and technical support in order to manage the safety aspect of food (e.g. developing Guidance for proper use and handling of food waste fit for human consumption) and to propose solutions for using food of animal of origin waste food or by products as animal feed.

- **Research**

Knowledge advancement is vital to determine how various types of animal husbandry systems affect the environment and how environmental and animal health and welfare needs can be balanced. Environmental concerns include the production of greenhouse gases, overgrazing and deforestation for the production of animal feed. The interaction between wildlife and domestic animals with respect to the spread of (zoonotic) diseases or competition for resources requires cautious management. Environmental and animal welfare aspects, such as pasture access, shall be taken into consideration.

Specific research to strengthen disease prevention (e.g. vaccination and rapid diagnostics) is also recommended. There is also a need for knowledge advancement regarding the interaction between humans and animals and the human-animal bond. This must be shared with and understood by society. Animals are a resource for human well-being, and this should also apply the other way around.

- **Education and training**

The veterinary community has to continue to develop training programmes for veterinarians in the areas of animal welfare and animal ethics, thereby making individual veterinarians aware of the profession's responsibilities, resources and competences in the animal welfare sphere. Veterinarians shall be continuously involved in work to improve animal welfare standards, whether in the area of research, legislation, guideline development and implementation, education or training. Veterinary organisations and individual veterinarians are ideally placed in society, and thus have a responsibility to advise on sustainable animal husbandry from a scientifically based perspective. Veterinarians are, and must always strive to be, the leading advocates for the welfare of animals in a continually evolving society.

- **Economics**

Economic sustainability for farmers is an essential prerequisite to ensure the sustainable production of animals. This means that public policy and

associated incentives must allow for food, feed and energy crop production to develop on an economically sound basis. Consumers should understand that food prices must be realistic and based on real costs. This cannot be left to the market alone. The ongoing retail competition based on low pricing of food of animal origin has a detrimental effect on the way animals are kept and treated. Raising awareness, promoting good practices and setting standards shall be encouraged.

Concluding remarks

Sustainability in general is a complex and multifaceted issue for which simplistic solutions are not possible. There are many perspectives to consider and many hurdles to overcome. It will be difficult to devise comprehensive solutions. However, this doesn't mean that the veterinary profession should stay silent.

The veterinary profession is at the core of influential groups on a global scale because it has the know-how and therefore the responsibility to promote health and welfare of animals, people and the environment. The profession should contribute to the sustainability debate, identifying areas for which it has responsibility and highlighting responsibilities of other partners.

This paper will help align FVE's thinking on this subject in line with the United Nations Sustainable Development Goals and will support the Federation in reviewing our priorities and partners with whom we want to develop further initiatives to contribute to sustainability on a local and global scale.

Acknowledgement

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