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# Introductory Chapter: Animal Welfare—Global Perspective

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## 1. Introduction

Animal welfare is gradually becoming a critical issue in the world. No religion of the world promotes malicious treatment to animals; all of them advocate to treat animals with kindness [1]. There is no recognized definition of animal welfare rather animal welfare definition changes from country to country and sometimes even different regions of the same country [2]. We lack any specific criteria to measure animal welfare. Humans treat animals depending upon their socioeconomic status and surroundings [3].

Many researchers use five freedoms concept to define animal welfare. According to this five freedom concept, animals should be "free from hunger and thirst, free from discomfort, freedom from pain and disease, freedom from fear and distress, free to express normal behavior" [4]. According to OIE statement, animal welfare means how an animal is surviving in an environment. The animal is either healthy, relaxed, well fed, and expressing innate behavior or suffering from pain and disease [5].

Two basic reasons for treating animals badly are poverty and the dearth of knowledge. In most of the countries, pack and draught animals are regularly overburdened and abused [6]. In modern, intensive farming animals are given better feed, better disease control, and climate-regulated facilities, but on the other hand, with subsistence system, animals have more likelihoods of expressing natural behavior and move around [7].

Animal welfare was added to the Organization for Animal Health (OIE) Strategic Plan for the period 2001–2005. Development of explicit animal welfare standards by OIE has diverted the global attention toward farm animal welfare. Animal welfare standards give the option to



member countries to exert international pressure OIE [8]. For example, if a member country violates the standards, other countries and agencies can ask for corrective action. Trade of animals and their products is mostly based on bilateral or multilateral agreements between contracting countries, so the role of World Trade Organization is very limited. In such contracts, generally countries overlook the animal welfare standards to lure new markets [9].

## 2. Animal welfare and international trade

Establishment of OIE guidelines provides a real advancement in the area of animal welfare that can be applied to global scale. The OIE guidelines do not force the member countries for national legislation. Enforcement of the guidelines is beyond the mandate of OIE. These guidelines provide a basic outline for countries to adopt them according to their own resources, political policies, and social structure just like other international agreements, for example, child education and climate change [10].

These guidelines can influence the international trade within the trade rules of the World Trade Organization (WTO). The agreement on the Application of Sanitary and Phytosanitary Measures allows that the importing country can ban the supply if it is harmful to the health of humans, plants, or animals. If any supply is banned due to animal welfare issues on the basis of two points that can be challenged [9]. First, it is a clear fact that animal welfare is linked with the incidence of diseases and injuries, but this relationship is not opined as the point on which importing country can ban on imports of animals from violating country or company. Second, according to WTO rules, two similar products cannot be differentiated on the basis of how these are produced [11].

On the other hand, consumer demand has compelled many multinational companies to consider animal welfare as an issue [12]. This trend has forced many multinational food companies to market products that meet animal welfare standards. NGOs working on animal welfare are putting pressure on food companies to label the animal welfare status of their products. Many exporters improved the animal welfare practices to meet the requirement of their trade partners [13].

### 3. Welfare of farm animals

Farming trends have been totally changed during the last century. The world has shifted to intensive farming that has increased the production of animals and decreased the expenses. This system seems very good from economic point, but animal welfare is mostly neglected in this system [14]. In intensive system, animals are considered as product manufacturing machines not as living creatures. Animals are kept inside the shed for most of the day and cannot show normal behavior. Concrete floors of housing increase the chances of hoof problems in cows [15].

Veal crate was another example of brutality to young calves. The EU has banned the veal crate from 2007. The EU has also banned sow stalls from 2013 [16]. Wild pigs do rooting and foraging for 75% of their daylight hours [17]. Such activities are not possible in intensive farming systems where pigs are kept in overcrowded pens. These frustrated creatures start biting tails of each other and farmers performed tail docking to control these vices [18].

## 4. Welfare of poultry birds

Cage system is used for rearing laying hens for commercial purpose all around the world. The European Union has banned the battery cage system for rearing laying hen from 2012 due to health issue and animal welfare. But other developed countries like New Zealand, Australia, and US have no such regulations for the layer. India is the third largest egg producing country, but has no rules and regulations regarding the spacing of laying hens in cages [16]. Actually, in India, per hen space in battery system is less than anywhere in the world. Just like India, in other Asian and African countries, welfare of laying hens is ignored by the community and government [19].

In contrast to layers, broilers are kept on litter. Two major problems that broilers face is over-crowding and rapid growth [20]. In 2010, the European Union has set the regulations for spacing of broilers depending upon the mortality rate of the farm and environment control of shed [21]. Other large poultry meat producing countries such as Brazil and Thailand kg/m² spacing is lower than EU law because of high temperature, humidity, and cheaper land [22]. In Asia, there is no such defined bird spacing rule is present. There is no regulation regarding increased leg deformities in broilers due to the rapid growth anywhere in the world.

## 5. Welfare of farmed fish

Fish farming is very ancient business in many countries of the world. In this century, fish farming shows rapid growth and adopts new husbandry systems. Asian countries dominate this industry by having more than 70% share in fish and fish product exports, whereas European countries have only 8% share [23]. Regardless of that much production, Asian countries lack any rules and regulations for transport and killing of fish. EU follows the OIE standards for transport, stunning, and killing of fish [24].

## 6. Welfare of wildlife

Wildlife species living near the human population are most affected by human acts. Increase in human population is also putting pressure on the wildlife species. For safety reasons, humans kill many predators that enter in civic areas, for example, wolf encounters in Central Europe. Stray dogs are killed very brutally in many countries. For example, in Kenya, stray

dogs are killed by strychnine. Wild boars are killed frequently in many countries because they damage gardens and crops [25].

Overpopulation of elephants in Kruger National Park, South Africa has been affecting other animal's habitats too. For population control of elephants, many methods are suggested by the South African Ministry of Environmental Affairs and Tourism such as culling, fertility control, translocation, and capture. Many NGOs working for the elephants' preservation opposed these steps and opined that overcrowding of elephants is mainly due to the increase fencing of the park [26]. In Yellowstone Park, around 3500 bison were killed due to fear of possible outbreak of brucellosis [27]. When we talk about wildlife welfare, there are two concepts: first, when only welfare of one species is under consideration and second, when we focus on ecoethics. Humans are responsible for whole ecosystem welfare [28].

## 7. Conclusion and future prospect

Animal welfare has become a topic of very serious discussion now a day. There are chances with increased public awareness that animal welfare can become the cornerstone for trade of animals and poultry products to developed countries. Multinational companies can act as a role model for other companies by adopting animal welfare standards. Global trade is also a bright opportunity for less developing countries. If these countries adopt OIE animal welfare standards and produce products according to those standards, they can compete with developed countries. There would be more profit for developing countries because they have inexpensive land and labor. On the other side, better welfare standards also result in better health of animals. Humane transport of poultry would decrease mortality and better carcass quality. Good feeding and housing of dairy animals would sequentially increase the milk production. It is the need of the hour that the WTO should also consider animal welfare as an issue and amend its rules.

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#### References

- [1] Nielsen BL, Zhao R. Farm animal welfare across borders: A vision for the future. Animal Frontiers. 2014;**2**:46-50
- [2] Wilkins DB, Houseman C, Allan R, Appleby MC, Peeling D, Stevenson P. Animal welfare: The role of non-governmental organisations. Revue scientifique et technique (International Office of Epizootics). 2005;24(2);625-638

- [3] Bayvel ACD. Animal welfare: Global issues, trends and challenges. Revue scientifique et technique (International Office of Epizootics). 2005;24(2):475-477
- [4] Phillips C. Animal welfare: Global issues, trends and challenges Coordinated by ACD Bayvel, SA Rahman and A Gavinelli. Australian Veterinary Journal. 2007;85(11):479-479. DOI: 10.1111/j.1751-0813.2007.00217.x
- [5] OIE. Animal Welfare. Paris: World Organization for Animal Health; 2015. Available from: www.oie.int/fileadmin/Home/eng/Media\_Center/docs/pdf/Fact\_sheets/AW\_EN.pdf [Accessed: July 8, 2018]
- [6] Mullan SM. Ethical decision-making in veterinary practice: Using the head and the heart. The Veterinary Record. 2012;**171**:443-444
- [7] Thiermann AB, Babcock S. Animal welfare and international trade. Revue scientifique et technique (International Office of Epizootics). 2005;24(2):747-755
- [8] OIE. 4th Global Conference on Animal Welfare. December 6-8, 2016, Guadalajara, Mexico. 2016. Available from: http://www.oie.int/eng/animal-welfare-conf2016/presrec. html [Assessed: July 1, 2018]
- [9] WTO. The WTO Agreements Series, Sanitary and Phytosanitary Measures. Revised in 2010. 2010. ISBN: 978-92-870-3803-6. Available from: www.wto.org/english/res\_e/booksp\_e/agrmntseries4\_sps\_e.pdf [Accessed July 18, 2018]
- [10] OIE. Resolution No. XXXII. Implications of Private Standards in International Trade of Animals and Animal Products. Paris: World Organisation for Animal Health. 2008. Available from: www.oie.int/fileadmin/Home/eng/Internationa\_Standard\_Setting/docs/ pdf/en\_resolution\_20N\_C2\_B0\_20XXXII.pdf [Accessed: July 15, 2018]
- [11] WTO. The WTO Agreements Series, Technical Barriers to Trade. Revised in 2014. 2014. ISBN: 978-92-870-3836-4. Available from: www.wto.org/english/res\_e/publications\_e/tbttotrade\_e.pdf [Accessed: July 11, 2018]
- [12] Allender WJ, Richards TJ. Consumer impact of animal welfare regulation in the California poultry industry. Journal of Agricultural and Resource Economics. 2010;35:424-442
- [13] Green TC, Mellor DJ. Extending ideas about animal welfare assessment to include 'quality of life' and related concepts. New Zealand Veterinary Journal. 2011;59:316-324
- [14] Harris T. Animal transport and welfare: A global challenge. Revue scientifique et technique (International Office of Epizootics). 2005;**24**(2):647-653
- [15] Fraser D. Toward a global perspective on farm animal welfare. Applied Animal Behaviour Science. 2009;**113**(4):330-339. DOI: 10.1016/j.applanim.2008.01.011
- [16] Lundmark F, Berg C, Schmid O, Behdadi D, Röcklinsberg H. Intentions and values in animal welfare legislation and standards. Journal of Agricultural and Environmental Ethics. 2014;**27**(6):991-1017. DOI: 10.1007/s10806-014-9512-0
- [17] Horgan R, Gavinelli A. The expanding role of animal welfare within EU legislation and beyond. Livestock Science. 2006;**103**(3):303-307

- [18] Deen J. Pigs: Behavior and welfare assessment. Encyclopedia of Animal Behavior. 2010:731-739. DOI: 10.1016/b978-0-08-045337-8.00086-3
- [19] Rahman SA, Walker L, Ricketts W. Global Perspectives on animal welfare: Asia, the Far East, and Oceania Revue scientifique et technique (International Office of Epizootics). 2005:24(2);597-610
- [20] van Horne P, Achterbosch T. Animal welfare in poultry production systems: impact of EU standards on World trade. World Poultry Science Journal. 2007;64:40-51
- [21] Tulloch G, White S. A global justice approach to animal law & ethics. Australian Animal Protection Law Journal. 2011;(2):29-52
- [22] Da Cunha RGT. A Brazilian perspective of layer welfare. World Poultry. 2007;23(6):35-36
- [23] Braitwaite V, Ebbesson LO. Pain and stress responses in farmed fish. Revue scientifique et technique (International Office of Epizootics). 2014;33:245-253
- [24] Braithwaite VA, Huntingford F, Bos RV. Variation in emotion and cognition among fishes. Journal of Agricultural and Environmental Ethics. 2011;**26**(1):7-23. DOI: 10.1007/s10806-011-9355-x
- [25] Treves A, Karanth KU. Human-carnivore conflict and perspectives on carnivore management worldwide. Conservation Biology. 2003;17:1491-1499
- [26] Robson AS, Aarde RJ. Changes in elephant conservation management promote densitydependent habitat selection in the Kruger National Park. Animal Conservation. 2017. DOI: 10.1111/acv.12393
- [27] White P, Wallen RL, Geremia C, Treanor JJ, Blanton DW. Management of Yellowstone bison and brucellosis transmission risk Implications for conservation and restoration. Biological Conservation. 2011;144(5):1322-1334. DOI: 10.1016/j.biocon.2011.01.003
- [28] Würbel H. Ethology applied to animal ethics. Applied Animal Behaviour Science. 2009;118(3):118-127