Bangladesh Journal of Bioethics 2017; 8(1): 33-43

Original Article

Animal Ethics and India:

Understanding the Connection through the Capabilities Approach

Rhyddhi Chakraborty

Visiting Professor of Philosophy and Global Health American University of Sovereign Nations, Arizona, U.S.A.

Email: rhyddhi_414@yahoo.co.in

Abstract: This paper, unveiling the visionary short-sightedness of animal protection, argues for a just vision towards animals in India. Critically analysing the wide range of animal protections in India, the paper finds that in spite of such protections, animals continue to suffer out of unfair and unjust treatments in the country. Considering visionary short-sightedness as the reason behind these unfair and unjust treatments, the paper argues that ensuring the rights of non-human animals to basic capabilities is a fundamental and just vision towards delivering ethical and just actions towards animals. For this, the paper grounds itself on the theoretical foundation of the capabilities approach and makes some policy-level recommendations to protect animals in India.

Key Words: Animals, Capabilities Approach, Ethics, India

Introduction

You be good, I love you.

The Great Silence, Exhibition on Making Nature,
Wellcome Collection, London, 9 December 2016

These are the last words of Alex, the African grey parrot, who has been the subject of research on complex problem, language, and understanding for thirty tears. Alex was precious to the world, for, being a parrot, he was able to distinguish colors, shape, and numbers, and share feelings with his researcher. While animals like Alex have proved that they are able to communicate, able to aspire, and able to do, very few humans have shown justified attention and realized their aspirations, their potentials, and their entitlements. Exceptions are Jane Morris Goodall¹, Dian Fossey² and other persons who have fought with the odds and extremities to speak on behalf of the nonhuman animals who could not speak for their own entitlements and rights. Theoretically, animal rights have been endorsed and propounded by Tom Regan in 1983. Recently, Martha Nussbaum, supporting the view of the protection of animal rights for the sake of animals, described some basic animal capabilities, which she argues are intrinsic to non-human animals and are needed to be ensured and protected for the sake of animals and for the sake of justice towards their due entitlements. This paper, extending Martha Nussbaum's vision of the protection of animal capabilities, explains how the animal capabilities are maintained or thwarted in India. For this purpose, the

paper, first, through the description of practices of animal protection, unveils the shortcomings of the existing Indian measures to protect animals and argues for the ethical connection between animal rights and capabilities. Second, with the specific foundation of the justice framework of the capabilities approach, the paper argues for the protection of animal capabilities, particularly the right to life, gives reasons why that is vital for India, and explicates how it can be implemented through some policy recommendations in India.

Reasons to be Concerned about Animals in India: Like many other countries, it has been a continuing tradition in India to sacrifice non-human species for medical research, industrial use, farm production, and human consumption, and also to check zoonotic diseases such as A H1N1 and A H5N1. The common fact underlying these activities is that animals are killed prematurely, mistreated with the consideration of having no dignified existence, and to a great extent unethically to save and secure human lives. In contrast, India has got a deeprooted tradition of concern, affiliation, and respect for non-human animals. For example, the two great world religions of Hinduism and Buddhism convey messages for the protection of animals with respect, dignity, and compassion. Animals in the Hindu tradition mostly have been conceived as protectors and companions of Gods and humans. Being associated with gods, these animals were portrayed to be preserved and conserved, for they have shown to possess the capacities to reason practically, to guide the Gods and humans to the path of righteousness³.

The religio-cultural tradition of Buddhism propounded its messages of showing kindness, love, care, and sympathy for all kinds of animals – wild or domestic. Gautama Buddha, the propounder of Buddhism, had always suggested maintaining a harmonious relation to all forms of life. The passage from the *Sutta Nipāta* reflects such thought and vision:

Ye keci pānabhūtatthī, tasā vā thāvarā vanavasesā / Dīghā vā ye mahantā vā, majjhimā rassakā nukathūlā // Ditthā vā yeca aditthā, ye ca dūre vasanti avidūre / Bhūtā vā sambhavesī vā, sabbe sattā bhavantu sukhitattā // (Metta Sutta, SA, 146-147;1974:364).

In other words, "metta or loving kindness is to be practiced towards all creatures, timid and bold, great, visible and invisible, near and far, born and awaiting birth."

With inspirations from such heritage, Mohandas Karam Chand Gandhi, popularly known as Mahatma Gandhi, has shown how animals can be protected from the slightest of slight human harm, both intentional and non-intentional. As Fischer noted, Gandhi propounded the notion that the practice of non-violence towards animals (besides humans) can actually sustain man and can lift the human mind above the status of animal⁵. To Gandhi, it was a sin to ill-treat animals, to put animals in deprived conditions. Thus, feeding stray dogs was a sin to him, for he believed that making those dogs stray was a sign of the failure of civilization and society⁶. In short, to Gandhi, depriving animals of their natural environment was a sign of failure of human obligation and was a matter of injustice.

In spite of such ancient Indian custom of being compassionate towards non-human animals, through the historic periods, animals have continued to suffer from inhumane treatments in India. The subsections below point out some vital reasons for animal suffering in India and explain why they are unfounded, unfair, and unjust.

- **1.Animal sacrifice for the sake of religion:** In India, non-human animals such as bovines, camels, horses, goats, and chickens continue to be sacrificed for the sake of religious rituals⁷, even though the killing of animals for religious purposes has been declared to be illegal by the Wildlife Protection Act of 1972, the Local Municipal Corporation Acts, Rule 3, Slaughterhouse Rules, 2001, and the Prevention of Cruelty to Animal Act (PCA), 1960 of Indian Penal Code⁸. For instance, in spite of orders from the Kerala High Court not to trade and sacrifice camels for religious purposes, in 2015, a significant number of camels were smuggled out of Rajasthan to reach Kerala and were slaughtered during the festival season of Eid⁹. Even though it is an illegal and cognizable offense to use and incite animals for entertainment and fighting following sections 11 (1) (m) (II) and 11 (1) (n), PCA Act, 1960, *Bulbul* fighting continues to be a ritual during Assam's harvest festival of *Bhogali Bihu*, especially in the *Hayagriva-Madhava* temple in Hajo, 30 km from Guwahati¹⁰. Overruling the legal rules, as the rituals have continued to meet the needs of human religions, they have pushed many animals, such as camels, to be enlisted as endangered animals in the country¹¹.
- 2. Animal sacrifice due to illegal hunting, poaching, and trafficking: In spite of a range of legal protections for animals under the Wildlife Protection Act, 1972, illegal hunting, poaching, and trafficking continue in India, mainly to meet the demand of international agents, as representative of organized transnational crime. In the Kaziranga National Park, Assam, for example, between 2006 and 2015, just under 200 rhinos have been documented as poached. Through international cells in several South Asian countries, India contributes to these illegal actions for various animal products such as mongoose hair, snake skins, rhino horn, tiger and leopard claws, bones, skins, whiskers, elephant tusks, deer antlers, turtle shells, musk pods, bear bile, and meat, feathers, and nails of birds such as parakeets, mynas, munias, etc. These actions have not only driven the animals to be endangered, but have also changed the morphology of certain geographical locations. Acres and acres of wet, luscious rainforest of the north-eastern Indian states of Nagaland, Mizoram, and Manipur have witnessed a sharp decline of wild fauna, for they were either trapped or hunted¹². One of the main obstacles to stop this illegal hunting, poaching, and trafficking, as made noticeable by investigators, is the difference in the legal status of wild animals in various countries. Also, as highlighted, several trafficked animals are not protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and every year a few countries issue permits for legal sale of a fixed number of wild animals 13 Consequently, the animal population continues to suffer disproportionately and inequitably across the biological hot spots.
- **3. Animal sacrifice for experimentation and research:** The use of non-human animals in experiments, research, education, training, and *in vivo* testing is popularly known as animal testing ¹⁴. Worldwide, it is reckoned that every second approximately three animals are used

for the experimentation process¹⁵. In India, a few years back, the findings of India's Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) had presented a deplorable standard of animal care, shelter, and treatment in the majority of facilities inspected. Such appalling conditions have not only caused inexcusable levels of animal suffering, but have also undermined any pretensions that the research was conducted scientifically, and that the results were reliable¹⁶.

To stop this brutal process of animal experimentation, a number of legal revisions and formation of injunctions took place in the country: Amendment of the PCA Act, 1960 in 1982; formulation of the Breeding of and Experiments on Animals (Control and Supervision) Rules, 1998, amended in 2001 and 2006; provision of guidelines from the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA); formation of rules and procedures by the Indian National Science Academy (INSA) and the Indian Council of Medical Research (ICMR) for the care and use of animals in scientific research as well as in medical colleges, and to utilize non-animal alternatives wherever possible 17. In 2012, the Ministry of Environment, Forest, and Climate Change has issued guidelines to the University Grants Commission (UGC), the Ministry of Health and Family Welfare (MoHFW), the Pharmacy Council of India (PCI), and the Medical Council of India (MCI) to discontinue dissection and experiments with live animals in universities, colleges, research institutes, hospitals, laboratories, and instead use alternatives like computer simulation to avoid unnecessary suffering or pain in animals. In spite of such legal bans and prohibitions in the country, People for the Ethical Treatment of Animals (PETA) reports that Procter and Gamble India has continued to test on animals in 2016, even after announcing the end of the use of tests on animals for all its current non-food and non-drug products in 1999¹⁸. Such illegal arrangement of animal research and experimentation not only inflicts pain on their bodily health, but also affects the environment where animals deserve to be and obstructs their potentialities to grow and develop.

4. Animal sacrifice for public health concerns: Besides the above-mentioned causes of animal sacrifice, India complies with international health regulations for the control of zoonotic diseases such as A H1N1 and AH5N1, and culls or puts down animals to prevent the spread of zoonotic diseases in the country. Table 1 highlights the number of ducks and chickens killed in India during the past few years to check and stamp out the disease of A H5N1 from the country.

Table 1. Number of Birds culled to make the country free of Avian Flu (Source: http://dahd.nic.in)¹⁹

Year	Place	Total Birds Culled (lakh)
February 2005 - April 2006	Maharashtra, Gujarat	10.44
July 2007	Manipur	3.39
January 2008	West Bengal	42.62
April 2008	West Bengal	19
November 2008	Assam	5.09
December 2008	West Bengal	2.01
October 2009	Sikkim	4000
January 2010	West Bengal	1.56
February 2011	Agartala, Tripura	0.21
September 2011	Assam	15409
September 2012	• Odisha	0.81
	 Meghalaya 	0.07
	 Tripura 	0.13
	 Karnataka 	0.33
September 2013	Bihar	0.06
August 2014	Madhya Pradesh	0.31
November-December 2014	Kerala	2.7

Table 1 brings to notice the numbers of birds culled each year during the last few years to check the spread of avian flu in the country. This culling procedure might have helped the country to control the spread of the disease during the respective outbreaks. However, the procedure of culling has neither helped the country to totally uproot the disease from Indian soil, nor has it acted as a barrier to restrict the disease in the Indian territory. Rather, even after culling, the disease has continued, almost annually, and caused repetitive outbreaks and incidences in the country. Most recently, there has been a rising public health concern against culling as a public health means²⁰. However, without any such deep reflection of relevance and significance of culling as a major public health measure in India, culling has continued to be implemented to prevent animal-vector borne diseases in the country, leaving many animal lives to an unjust end.

As the above-mentioned facts highlight, animals, in spite of being perceived as having special senses and capacities in religious traditions, continue to be ignored and continue to be used for different human purposes in India. In spite of the range of legal protections and a rich religio-cultural tradition of showing compassion and respect towards animals, the conditions of non-human animals in India have degraded. They are deprived of their due entitlements and deprived of their due rights to exercise their intrinsic capacities mainly due to inhumane attitudes towards them. The question, therefore, arises, what went wrong that led to such unjust behaviour towards non-human animals? The strive to reveal the answer obviously leads to the question about the underlying vision towards the prevention of animal killing and the protection of animals. And so, in the following part, this paper argues for this vision with

a theoretical foundation on the capabilities approach (CA). There is a need for a theoretical foundation, for any sort of action demands theoretical undergirding, to drive it to proper vision and mission, and to strengthen it to have just and fair implementation, over and above, the legal provisions. The CA has been chosen as a suitable theoretical undergirding for this study, as the CA advocates to confer moral entitlements and intrinsic worth to diverse life forms, including non-human animals.

Capabilities Approach, Animals, and India: Being part of the global justice requirement, the capabilities approach has been extended towards animal rights and animal welfare for the sake of animals only. As Nussbaum writes, it "requires looking around the world, at the other sentient beings with whose lives our own are intrexicably and complexly intertwined." The core focus of the CA has thus been on the moral responsibilities of humans towards the ecosystem where animals and humans are living in connection with each other.

Going beyond utilitarian, Kantian, and contractarian approaches to justice, the capabilities approach holds that every life form, including non-human animals, deserve due entitlements, dignity, respect, and scope to flourish. Differing particularly from the utilitarian approach, the capabilities approach recognizes that animals have got intrinsic rights to utilize their own potentials, rather than depending on humans to use them. As against the Kantian approach, the capabilities approach holds that animals have got their due rights and entitlements, for they have their own moral status to live their lives by using the practical reasoning that they possess. And in contrast to the contractarian approach, the capabilities approach conceives that animals do have the potentialities to choose the life they want to have and desire to lead. In short, according to the capabilities approach, non-human animals do have the moral capacity to think about their well-beings, to be and to do and therefore deserve a moral status. The capabilities approach views non-human animals as agents who are capable to flourish and subjects of interaction who share the same resources and space to live with humans in this world. Animals, as the CA claims, deserve moral entitlements, rights of not being made to suffer, sacrificed, abused, or mistreated for the sake of animals themselves. Being influenced by Aristotelian philosophy, the CA admires that "there is something wonderful and wonder-inspiring in all the complex forms of animal life"22 and argues for a world where the diverse and complex life forms of the world get the opportunity to flourish with humane guidance and responsibility, for the sake of the diverse life forms, not for any human benefits. It, thus, focuses on the welfare of all, and prescribes protection of intrinsic dignity as a basic entitlement of every life form, including non-human animals. The ethical foundation of capabilities approach aims to respect the human-animal relationship from the perspectives of both humans and other animals and follows the following principles:

- Animals should not be deprived of flourishing. They should be provided positive opportunities to flourish, especially by humans, for they impact pervasively on the opportunities of animals to flourish by affecting habitats, determining opportunities for nutrition, free movement, etc.
- Animals should be respected, not as spiritual objects, but simply as a member of animal species.

- Animals should be given their due entitlements, at least of the following core capabilities:
 - Life: All animals, irrespective of their size, sentience, and conscious interest, are entitled to live their lives.
 - o Bodily health: All animals are entitled to not just life, but a healthy life with adequate nutrition, and space for movement, free from abuse and violence.
 - o Bodily integrity: All animals deserve due protection of their bodily integrity from violence, abuse, and maltreatment.
 - Senses, imaginations, thought: Animals, both wild and tamed, should be equipped to manifest excellences as part of their characteristic capabilities. This also means providing proper light, space, and a variety of opportunities for animals to enable them to exercise their entitlements.
 - o Emotions: Animals are known to have senses and emotions, such as fear, anger, resentment, gratitude, grief, envy, and compassion. Such emotional needs of animals are to be given importance and valued.
 - o Practical reason: Animals frame their life plans and life goals in their own style. This capability of them should be honored in a responsible and reasonable way.
 - Affiliation: Animals are entitled to relations with humans and other animals.
 They are as well entitled to world policies which grant them their rights and legal status as dignified beings, regardless of their understanding of the concerned states.
 - Other species: Animals are entitled to be independent, and also to be in interdependent species relationships in which all enjoy a cooperative and mutually supportive relationship with each other.
 - o Play: All animals deserve the provision of an adequate space, light, and sensory stimulation to enjoy and exercise their skills and competencies.
 - Ocontrol over one's environment: Animals are entitled to own rights to their property, territories, and habitats. They are as well entitled to political participation, ensured by their human guardians who commit not to use them as mere means and to treat them rightly.

This list, as Nussbaum mentions, is open-ended, with the provision of supplementation and deletion of core capabilities as required²³. However, with the foundation on these core capabilities, this paper now considers the task to analyse the cases of animal sacrifice in India and the injustice that are imposed on them at the level of their capabilities.

In India, when animals are sacrificed in the name of great religions or for public health reasons, the emotions and senses of the animals are ignored and undermined. Consequently, animals are made to suffer in their bodily integrities. As a result, even though these animals cannot protest against the injustice, the injustice occurs at the level of their capabilities to live the life they deserve, the treatment they have the right to claim, and in exercising their right to the just provision of their bodily health.

As mentioned before, hunting, poaching, and animal trafficking are still dominant causes of animal sufferings in India, more so because of gaps in international laws. While suffering from these activities, non-human animals lose control of their own environment in a drastic and an unjust manner. They are also made to suffer from their affiliation with humans and in their abilities to live with other members of their part of the eco-system. Making them suffer cause injustices at the level of their rights to basic life functions.

In India, gaps and lapses in such legal scopes have failed to enable many animals to lead their lives to full forms. As a result, over and above the legal injustice, an ethical injustice is caused at the level of ensuring and enabling the animals' right to life. For instance, even though the use of animals in research and experimentation has been prohibited in India, in many cases, it has continued for the commercial benefits of businesses in the country. While this has led to the violation of law, it has also caused an ethical injustice; animals, being maltreated for research and experimentation purposes, have been deprived of their intrinsic rights of maintaining bodily health and integrity, as well as exercising their skills and natural competencies to play and affiliate with others.

To address such injustices to animals, this paper with its foundation on the CA, claims that the injustices that animals suffer are actually injustices at the level of their core capabilities. To address that, India should adopt the following recommendations.

Recommendations and Conclusion:

- 1. The animal protection policy of India should adopt a vision of ensuring and enabling protection of animal capabilities to determine the scope of animal sacrifices in the country, to enable and ensure animal rights in the country.
- 2. The CA also demands that India should disseminate information equitably about the status of non-human animals in the country through proper education and training. This might motivate the growth of a sense of collective and shared responsibility to give up animal sacrifice in the name of religion and experimentation. In this regard, the animal protection policy can involve and engage tribes such as the Bishnoi and the Soliga who share not only a harmonious relationship with animals but also behave as their protectors²⁴.
- 3. The CA also asks India to undertake a stronger and a more open and transparent collaboration between local and global governments for the proper implementation of just measures to ensure and enable the lives of animals in the wild, to respect the ownership rights of animals, and to guarantee species diversity. It also suggests the strengthening of legal measures to check the international organized crimes of animal poaching and trafficking. It implies an open and transparent animal census, the strengthening of surveillance with enhanced technology, etc.
- 4. As against culling as a public health measure for zoonotic diseases such as Avian flu, this paper, with its foundation on the CA, suggests that India, rather than following the international recommendations, needs to discover whether any indigenous and alternative method can be useful to curb diseases in the country. That implies greater

- participatory decision-making, capacity-building, innovations for sustainable small-scale business strategies, and alternative livelihood arrangements for the farmers.
- 5. Individuals, as this paper with its foundation on the CA suggests, should inculcate compassion towards animals, both as individuals and as members of the animal kingdom. It implies that individuals should refrain from buying luxury items made of leather and fur, avoid eating the meat of young animals, forgo animal shows, sports, and games as means of entertainment, avoid any direct and indirect pain on animals, letting them free in natural environment, avoid human-animal conflicts, avoid hitting animals even out of panic, fear, or anxiety, practice not to harm animals in zoos, not to make domesticated animals suffer, not to leave any animal in isolation as well as in confinement, and take a strong stand and responsibility against any form of crimes against animals. In short, the CA prescribes that individuals should enhance the unconditional accountability towards any form of animal life, realizing that animals too have got emotions, senses, and the capacity to think, and so, deserve due entitlement as animals.

Despite the diverse natural resources in India, the country increasingly suffers from scarcity of natural resources, man-animal conflicts, and the degradation of animal status. Additionally, India, which once used to ascribe dignity to both humans and other animals, has lost its vision of treating non-human animals with justice. To address this problem, this paper suggests Indian policies on animal protection to adhere to the vision of the CA and to bring about certain changes in its implementation to curb and check animal sacrifices in the country, thereby doing justice to animals, and to their rights and entitlements.

Author Contribution: The author developed the conceptual idea and wrote the manuscript.

Conflict of Interest: Declared none.

Acknowledgement: I am grateful to the anonymous reviewer and Rainer Ebert for comments that helped to improve the paper in due course of time.

References

- 1. The Jane Goodall Institute, UK. 2016. http://www.janegoodall.org/. Last accessed 19 Oct 2016.
- 2. Hogenboom, Melissa. The Woman Who Gave Her Life to Save the Gorillas. 2015. http://www.bbc.co.uk/earth/story/20151226-the-woman-who-gave-her-life-to-save-the-gorillas. Last accessed 19 Oct 2016.
- 3. Chakraborty, Rhyddhi. Insights of Hinduism and Buddhism: A Study of the Possible Remedies for Deep Ecological Problems. M. Phil. Dissertation. Dept. of Philosophy, University of Calcutta;2006.
- 4. Ibid.
- 5. Fischer, Louise. The Life of Mahatma Gandhi. London; 1951.

- 6. Op.Cit.,241.
- 7. Animal sacrifice in India. 2016. http://www.occupyforanimals.net/animal-sacrifice-in-india.html. Last accessed 18 Oct 2016.
- 8. Animal Protection Laws for the Guidance of Police, HAWOs, NGOs AND AWOs. 2016. http://www.caretrust.in/Animal%20laws%20of%20india.pdf. Last accessed 20 Dec 2016.
- 9. Gandhi, Maneka. The Sinking Ship of the Desert. The Hindu. Sept 21, 2015. http://www.thehindu.com/opinion/op-ed/the-sinking-ship-of-the-desert/article7671220.ece. Last accessed 10 Oct 2016.
- 10. Kashyap, Samudra Gupta. In Assam, a debate over banning bulbul fights. January 14, 2016. http://indianexpress.com/article/india/india-news-india/now-ban-on-bulbul-fight-in-assam-temple/. Last accessed 16 Sept 2016.
- 11. Festivals, like Eid-ul-Zuha, created a demand for Rajasthan's camels to be slaughtered and approximately 40,000 camels were slaughtered for the event of Eid-ul-Zuha in 2014 in the country. The demand and crisis that camels of Rajasthan face these days, have reduced their numbers to 50,000 in the state and have impelled Rajasthan Government to declare it as state animal, even bringing it to the list of the International Union for Conservation of Nature and Natural Resources (IUCN) of endangered animals (Ramos, Jessica. Help India's Dying Camels Before It's Too Late. July 16, 2014. http://www.care2.com/causes/help-indias-dying-camels-before-its-too-late.html; Gandhi, Maneka. The Sinking Ship of the Desert. The Hindu. Sept 21, 2015. http://www.thehindu.com/opinion/op-ed/the-sinking-ship-of-the-desert/article7671220.ece. Last accessed 19 Dec 2016).
- 12. Times News Network(TNN). Mass killing of birds reported in Mizoram. The Times of India. Feb 10, 2016. http://timesofindia.indiatimes.com/city/guwahati/Mass-killing-of-birds-reported-in-Mizoram/articleshow/50925215.cms. Last accessed 20 Dec 2016.
- 13. WWF India. Illegal Wild Life Trade in India. Special Issue. 07 September, 2015. http://awsassets.wwfindia.org/downloads/traffic_panda_8_oct.pdf. Last accessed 26 Nov 2016.
- 14. Badyal, Dinesh K., and Chetna Desai. Animal Use in Pharmacology Education and Research: The Changing Scenario. Indian Journal of Pharmacology 2014; 46(3): 257–265.
- 15. Animal testing. 2016. http://www.occupyforanimals.net/animal-experimentation-vivisection.html. Last accessed 10 Sept 2016.
- 16. Creamer, Jan, Tim Phillips, Chris Brock, and Robert Martin. Animal Experimentation in India, Unfettered Science: How lack of accountability and control has led to animal abuse and poor science. Animal Defenders International & National Anti-Vivisection Society. London, United Kingdom; 2003.
- 17. Badyal, Dinesh K., and Chetna Desai. Animal Use in Pharmacology Education and Research: The Changing Scenario. Indian Journal of Pharmacology 2014; 46(3): 257–265.
- 18. Ethical Consumer Research Association Ltd. Procter & Gamble Company Animal Testing. 2016. http://www.ethicalconsumer.org/companystories.aspx?CompanyId=19291&CategoryId=
 - 207. Last accessed 25 Nov 2016.

- 19. Department of Animal husbandry, Dairying, and Fisheries, Govt. of India. Status of Avian Influenza in India. 2015.
 - http://dahd.nic.in/sites/default/files/Status%20of%20Avian%20Influenza%20in%20India%20%209.pdf. Last accessed 7 Dec 2016.
- 20. Lederman, Zohar. One Health and Culling as a Public Health Measure. Public Health Ethics. Advanced Access. 2016. 1-19.
- 21. Nussbaum, Martha. Beyond "Compassion and Humanity", Justice for Nonhuman Animals. 2003.299-320.
- 22. Op.Cit.,306.
- 23. Op. Cit.,317.
- 24. BBC. UK. There are People Living with Tigers. 2016. http://www.bbc.co.uk/earth/story/20160607-there-are-people-in-india-happily-living-with-wild-tigers. Last accessed 27 Sept 2016.