
ANIMAL-FRIENDLY COUNTRIES' INDEX (BIOCENTRICITY INDEX) 2011

Description, Evaluation Methods and Data Sources for Indexed Countries by Indicator

Description of the Project

Exponential global growths of human population and subsequent pressure on natural resources as well as the alarming status of the living environment on Earth have finally been moved to the top of the agenda of global expert and public debate. It is a universal and long-term issue that may seem abstract in the light of our individual insignificance and short existence, yet that should not serve as a pretext for doing nothing about it. Insignificance does not mean helplessness; sufficiently multiplied insignificance can actually turn into great strength. We need to act – everyone according to their abilities and using the means they are most efficient with.

Biocentrism¹ as ethical position according to which all life is interconnected and equally worthy, as well as its antipode, anthropocentrism² or claim of human superiority over all other living beings, have both had long history and are rooted in some of dominant world religions. Anthropocentrism is the principal argument for self-evident exploitation and abuse of living natural »resources« to human benefit and entertainment only. Since man had been simply *given* his superior position over other living beings, he has got the right to »develop« Earth as he see fit to his needs (see Manes, 1991). No wonder some environmental philosophers consider anthropocentrism the key issue and determinant of not only environmental philosophy, but also human survival. After all, the opponent biocentric worldview considers human species to be so embedded in the ecosystem that negative impact of human activities on other living species must result in catastrophic consequences for humans themselves. At present, we remain rather blind to this dynamics, although we have seen evidence of it in the past: by radical modifications of indigenous habitats and viral epidemics, ecological imperialism (Crosby, 2000), this formerly ignored, yet crucial collateral of Western colonialism caused more genocides than did inter-human conflicts.

Some environmental theorists interpret anthropocentrism analogically with androcentrism in feminist theory and ethnocentrism in antiracist theory (Plumwood, 1993). However, environmentalists are far from being unanimously opposed to anthropocentrism: the so-called shallow ecologists argue that clean and healthy environment is necessary to

¹ Synonymous with antispecism, i.e. or opposition to any hierarchy of living species.

² Synonymous with specism, i.e. hierarchy of living species with human species considered dominant.

human welfare, not in itself or for survival and welfare of other living species. When considering supposed origins of anthropocentric positions we also come upon paradoxes: interpretations of the Bible, whether man's »dominion« over the rest of the world means reign or responsibility, are conflicting; Darwin, by arguing that evolution was the ruthless struggle for survival of the fittest, made available to anthropocentrists a very efficient argument; he also supposed however, that common origins of life made all species interconnected and interdependent. (Darwin, 1838)

If we don't abide by the assumption that man is superior to all living species because God wills it, anthropocentric justification of man's superiority also needs be explored. Human species is supposedly the most intelligent, the fastest evolving and the only moral species on Earth. Renouncement of anthropocentrism would mean a threat to human rights based on equality of all men and men alone (Adler, 1993). It supposedly makes little sense to consider rights of animals or nature since the subjects of these rights could not be made aware of them (Ferry, 1999). Comparing anthropocentrism to racism (see Patterson, 2011) is supposedly absurd since animals would never be able to rationalize on their position in the living world as humans can. Yet, if humans only have rights because only humans can conceptualize rights, isn't it also humans who have the duty to conserve the living world and by that human species and individuals? Is it indeed intelligent to saw the very branch we sit on? Have anthropocentrists, undignified by the parallel between Holocaust and human attitude toward animals, considered an important nuance of Patterson's argument in *Eternal Treblinka* that the parallel was no artificial deduction but the Holocaust survivors themselves established it and have accounted for a disproportional share of animal activists?

It seems it all depends on our perception of the »world«: if we see ourselves living in line with Bookchin's social ecology, according to which all our environmental issues have been caused by social injustice, then the world is only human world. (Bookchin, 2007). Not even an ideal form of such world can save the rest of living beings from extinction and an egalitarian and truly democratic society could still rely on exploitation of nature, deep ecologists would argue with Bookchin. If our environmental issues stem from human attitude towards the environment however, we live in Taylor's world; here humans are members of community of equal living species based on a system of physical and relational interdependence and where every living organism has a purpose and an inherent value (Taylor, 1986). Beside ecologists, philosophers, such as Singer (1995) or Cavalieri (2006) convincingly argue for liberation of animals from under human yoke and for extension of human rights to truly universal rights of all sentient living beings. This is a biocentric world. This is a world where change of behavior patterns is needed more than revolutions.

The project »Animal Friendly Countries Index« began in 2009/10 when I first challenged senior students of Political Theory program to start collecting data as part of their assignments in their "Third World" Politics class. Research papers that students approached mostly with interest and often with enthusiasm aimed at relativisation of the concept of the Third World as a geographical category. More concretely, when students selected a country and detected elements characteristic of the Third World in theory, they were realizing that there was not one among the most developed and the richest countries worldwide that would not include some feature of the Third World as identified in theory. Their research was meant to be an additional argument for my principal thesis in this class that the Third World is primarily a political and economic agenda that may be interpreted in the context of political and economic conditions in the period this phrase was coined and introduced in political discourse and which is determined primarily by Western (neo)colonialism and its consequences (notwithstanding the self-perception of certain parts of the world as the Third World in the Cold War context).

In my instructions for creation of the most complete possible portrait of the researched country, I included an invitation for the students to explore the attitude of the society they were probing towards animals, nature and the environment. Were students to collect sufficient amount of varied, telling and comparable data, I was hoping for a possibility for the class to identify correlations between the level of anthropocentricity of the First as opposed to the Third World, between postindustrial and traditional societies.

Students were so interested and successful in collecting data in that first year that my expectations were surpassed. In the following year 2010/11 I therefore extended the list of countries for the students to choose from. Beside the EU Member States and other so-called Western democracies it now also included the newly industrialized and »up-coming« countries that tended to be well placed on some other indexes that we also studied in detail in this class, such as the UN Human Development Index, the Environmental Performance Index or the Happy Planet Index.

Students were again asked to examine the level of anthropocentricity of the society they were researching by analyzing national legislation on animal protection, the status of zoological gardens and aquariums, the interest of population for hunting and vegetarianism and media coverage of animal cruelty. Other data and information on the topic they might have found during doing research were all welcome.

The second generation students also did a wonderful job and it would be a loss, if data collected were not translated into a form which could be used for interpretation and comparison. Since all sorts of global indexations according to various indicators have been

made available recently and many of them are useful and interesting, I decided to aggregate the data into another index I called Biocentricity Index since by demonstrating the attitude of a particular country to sentient living beings sharing the same territory, it indicates to what extent that country has been comparably alienated from nature and the living world, which not only surrounds people and provides resources for them, but of which people are an inseparable and dependent part.

The Animal Friendly Countries Index as it may also be called, now includes 86 countries worldwide. It is based on data mostly dating from 2011, in some cases also older, yet considering the contents we are dealing with, that does not appear a particular methodological issue to me - legal frameworks, let alone mentalities do not change as fast as the GDP does. I hope that following publication of the Index, competent institutions, nongovernmental organizations and individuals will come forward with updated data for their countries, if necessary.

The list of indexed countries is not accidental. It has been determined with possible correlations of key parameters in mind so countries figuring on the Biocentricity Index are placed at the top, in the middle and at the bottom of GDP *per capita*, UN HDI, EPI and HP indexes. Also, all continents, climates, world religions and political systems, size of national territory and density of population have been considered.

Standard ranking has been used to classify countries according to a particular indicator and in the final ranking, meaning that when two countries had exactly the same result, they got the same ranking, but the next country on the list was ranked one place lower (the 1.A-2.B-2.C-4.D system). A separate ranking was made per each indicator and the final indexation was calculated based on median value of all rankings of a particular country.

Collected data – on legislation on animal protection, animal testing, zoophilia, on national networks of animal protection societies and animal shelters, on protected areas of nature, zoological gardens and aquariums, on hunting, vegetarianism, possibilities of veterinary studies, on status of circus animals and on animal welfare extremism – illustrate biocentricity or anthropocentricity of a particular society without bringing any definite judgment. Selected indicators are complex, some may also be considered controversial. In a number of cases final ranking will differ from (self)perception of a particular society and the interpretation of these gaps will represent a challenge.

I am also aware that taking measure of the world from this perspective takes place within this world and, despite my education and professional background as a social scientist, must be conditioned by the mentality of a small European society with a prevailing Catholic and consumerist value system. To illustrate the inevitable bias and outrun the

criticisms at least on this one point: there are over 900 million vegetarians worldwide, yet 6% only are vegetarians of choice. (Leahy et al, 2009) Among those 6% quite a few are anthropocentric (see for example Meatless Monday.com). Also, there is no animal testing in certain countries because of insufficiently developed pharmaceutical or cosmetics sector and not because there would be opposition to testing. Popularization of zoophilia in the sense of sexual behavior with animals some interpret as an abolition of Christian anthropocentric taboo, while others see it as a sexual disorder (for detailed argumentation of evaluation methods see particular indicators below).

Beside the fact that selected indicators may be the most telling of biocentricity and anthropocentricity of societies similar to ours, they were also determined according to comparability and credibility of data for all 86 indexed countries. For that reason the index does not include otherwise very important area of intensive agriculture and meat industry where complex duplicity of the West in the attitude toward animals would appear clearly (see Joy, 2011) The few global corporations that dominate meat industry today, rely more on global distribution of their products than delocalization of their production. Despite globalization, meat consumption as the final result and aim of intensive animal farming is also difficult to compare owing to cultural biases towards certain animals.

As mentioned earlier, research papers by senior students of Political Theories program at the University of Ljubljana, Faculty of Social Sciences in years 2009/10 and 2010/11 have represented the starting point of this project. I am hereby fulfilling my promise that their papers would not end up in an archive or in a waste bin and I thank all those that took part in this endeavor for having encouraged me to push it all the way to this point. My special gratitude goes to the graduate student of Ljubljana Political Theories program Aleksandra Zavadlav, who patiently helped me with searching for missing data and verifying them.

References and Additional Literature on Biocentrism and Anthropocentrism

Adler, M. J. (1993): *The Difference of Man and the Difference It Makes*. New York: Fordham University Press.

Bookchin, M. (1996): *The Philosophy of Social Ecology: Essays on Dialectical Naturalism*. Montreal: Black Rose Books.

Cavaleri, P. (2003): *The Animal Question. Why Nonhuman Animals deserve Human Rights*. Oxford, UK: Oxford University Press.

Conn, P. M. in Parker, J. V.(2008): *The Animal Research War*. New York: Palgrave Macmillan.

Crosby, A. W. (2000): *Ecological Imperialism. The Biological Expansion of Europe 900-1900*. Cambridge: Cambridge University Press.

Darwin, C. R. (1837-1838): *Notebook B: Transmutation of Species*. <http://darwin-online.org.uk/content/frameset?viewtype=text&itemID=CUL-DAR121.-&keywords=wild+choose+run+let+if+to+conjecture+we&pageseq=234>

Ferry, L. (1995): *New Ecological Order*. Chicago: University of Chicago Press.

Joy, Melanie (2009): *Why We Love Dogs, Eat Pigs, and Wear Cows: An Introduction to Carnism*. Newbury, Ma: Red Wheel/Weiser/Conari Press.

Leahy, E., Lyons, S., Tol, R. (2009): *Diets and Methane Emissions, Workshop on "Future Emissions Targets and International Approaches to Mitigation"* The Economic and Social Research Institute, 2009. www.esri.ie/research/.../diet_and_methane.ppt

Manes, C. (1991): *Green Rage: Radical Environmentalism and the Unmaking of Civilization*. Newport Beach, CA: Back Bay Books

Patterson, C (2002): *Eternal Treblinka: Our Treatment of Animals and the Holocaust*. Herndon, VA: Lantern Books.

Plumwood, V. (1993): *Feminism and the Mastery of Nature*. London: Routledge

Regan, T. (2003): *Animal Rights, Human Wrongs*. Lanham, MD: Rowman & Littlefield

Singer, P. (1998): *Animal Liberation*. London: Pimlico.

Singer, P. (2001): *Heavy Petting. Nerve*. <http://www.utilitarian.net/singer/by/2001----.htm>

Taylor, P. (1986): *Respect for Nature: A Theory of Environmental Ethics*. Princeton, NJ: Princeton University Press.

Evaluation Methods and Data for Indexed Countries by Indicator

1. Legislation (Animal Welfare , Animal Testing, Circuses, Zoophilia)

Evaluation method:

First indicator of the Biocentricity Index aggregates several data since ranking countries for each of these descriptive and non-numerical data would result in an insufficient differentiation among indexed states. For that reason negative and positive points for four indicators have been added and the sum was the basis for the final (standard, descending) ranking.

The principal comparable indicator on attitude towards animals in a country is the legal framework regulating it. The implementation of the legislation is of course another, less verifiable matter that cannot be considered here. In the great majority of indexed countries animals do benefit from basic legal protection from human cruelty, so most of countries were graded 0 points on this indicator. Austria, Bolivia and Germany got 2 points each because animals are constitutionally protected there. The Netherlands also got 2 points as the Dutch parliament is the only one in the world including a party primarily focusing on animal rights (Partij voor de Dieren, "PvdD"). Croatia, Great Britain, Austria and Switzerland got 1 point for legal ban on fur production. Minus 1 point was attributed to countries with inconsistent, partial and outdated legislation on animal welfare. Minus 1 point was also attributed to countries for which no reliable data were available. Those countries that have still not adopted any legislation on protection of animals were graded minus 2 points.

Principal data sources:

Neville G. Gregory, Temple Grandin, *Animal Welfare and Meat Production*. CABI, 2007.

Frame, Fund for the Replacement of Animals in Medical Experiments
http://www.frame.org.uk/page.php?pg_id=154

Implementing the Animal Welfare Standards: the Role that Civil Society Plays, 2011 Report.
http://eurogroupforanimals.org/files/publications/downloads/OIE_International_report_2011.pdf

Tasker, Louisa, *Stray Animal Control Practices (Europe)*. WSPA, RSPCA International, 2007.
http://www.fao.org/fileadmin/user_upload/animalwelfare/WSPA_RSPCA%20International%20stray%20control%20practices%20in%20Europe%202006_2007.pdf

Animal Welfare in OIE Member Countries & Territories in the SADC Region. Botswana Ministry of Agriculture, 2011.
http://www.rr-africa.oie.int/docspdf/en/2011/Animal_Welfare_Summary.pdf

http://en.wikipedia.org/wiki/Fur_farming

Additional sources by country:

Argentina: <http://www.authorstream.com/Presentation/PoloVet-545861-animal-welfare-in-argentina/>

Montenegro: http://www.skupstina.me/cms/site_data/23_%20SAZIV%20ZAKONI/ZAKON%20O%20ZA%20C5%A0TITI%20DOBROBITI%20%20C5%BDIVOTINJA.pdf

Lebanon: <http://english.al-akhbar.com/content/first-animal-welfare-law-reaches-lebanese-parliament>

Libya: http://www.achpr.org/francais/state_reports/Libya/LIBYA-%20Periodic%20Report.pdf

Senegal: <http://www.fao.org/legal/prs-ol/lpo13.pdf>

Singapore: http://en.wikipedia.org/wiki/Agri-Food_and_Veterinary_Authority_of_Singapore

Switzerland: http://en.wikipedia.org/wiki/Cruelty_to_animals#Switzerland

Experiments on Animals and Animal Testing

Evaluation method:

Legal regulation of animal testing and experimenting indicates the tension between the perception of animals as things or machines that need to serve human welfare and safety regardless of their own welfare and the perception of animals as sentient beings that humans have no right torturing and killing for their benefit. Conn and Parker (2008) argue for "ethical" experiments on animals and accuse animal activists of hindering scientific progress. The arguments of the scientific community in favor of animal testing (such as "because it has always been that way"; "because there are no alternatives"; or "since animals have no duties, they have no rights") made me identify this indicator as commensurate with anthropocentricity of a society.

If animal testing and experiments on animals are allowed without legal restrictions, the indexed country was graded minus 2 points. If experimenting and testing are allowed under certain conditions or restricted with animal welfare in mind, the country was graded minus 1 point. Only one among indexed countries, Malta, formally prohibited animal testing and was graded with 1 point. Where no reliable data were available, the country got 0 points. Botswana where experiments are not prohibited, but are not taking place at present, was also graded 0 points.

Principal data sources:

Frame, Fund for the Replacement of Animals in Medical Experiments. www.frame.org.uk

European Consensus-Platform for Alternatives: <http://www.ecopa.eu/wp-content/uploads>

Implementing the Animal Welfare Standards: the Role that Civil Society Plays, 2011 Report.
http://eurogroupforanimals.org/files/publications/downloads/OIE_International_report_2011.pdf

Additional sources by country:

Qatar:

http://www.sch.gov.qa/sch/UserFiles/File/Research%20Department/Lab_Animal_guidlines2_Appen1_%20Appen2.pdf

Nepal: <http://awnnepal.org/blog/campaigns/242-2>

Saudi Arabia: <http://archive.arabnews.com/?page=1§ion=0&article=120170&d=12&m=3&y=2009&pix=kingdom.jpg&category=Kingdom>

Switzerland: http://www.ebra.org/switzerland+1_18.htm

Circuses

Evaluation method:

Circuses often hold captive animals in unsuitable conditions and make them travel long distances and train them for circus shows with inappropriate methods. Despite considerable differences between circuses, circuses are a “negative” indicator, commensurate with anthropocentricity. As circuses are mobile, countries cannot be assessed according to their standards of treatment of animals. What can be assessed is the attitude toward circuses. Countries that prohibited animal circuses were graded 1 point. Other countries that allow animal circuses were graded minus 1 point. In case of some countries, no reliable data was available for several decades, so they were graded 0 points.

Principal data sources:

Circopedia, the Free Encyclopedia of International Circus
(<http://www.circopedia.org/index.php>)

European Circus Association

(http://www.europeancircus.info/ECA/index.php?option=com_login&Itemid=49&lang=en)

Additional sources by country:

For countries not figuring on Circopedia, data were collected on the internet, mostly based on information on recent visits of animal circuses that allow for assumption that animal circuses are welcome there.

Zoophilia

Evaluation method:

Zoophilia considered here is sexual behavior with animals consensus for which cannot be obtained. According to Singer (2001) zoophilia is not necessarily abuse and may be acceptable, if no harm is done to the animal. This sounds like a compromise, yet it is again man who evaluates harm. This indicator was therefore considered according to Regan’s position on zoophilia that animals have no possibility of agreeing on a sexual intercourse with a human so they must be considered victims of sexual violence (Regan, 2003). Despite complex argumentation pertaining to historical evolution of human attitude toward zoophilia this indicator was treated as “negative” and commensurate with anthropocentricity of a society. The few countries that sanctioned sexual abuse of animals were graded 1 point and all the others minus 1 point.

Principal data source:

http://en.wikipedia.org/wiki/Zoophilia_and_the_law

2. Share of Vegetarians in Population (in %)

Evaluation method:

Percentage of inhabitants out of national population total that do not consume meat may indicate an ethical attitude toward animals, yet can also account for the poverty level and/or the existence of religious i.e. cultural obstacle for consumption of certain animal species. Still, this indicator was considered "positive" and commensurate with biocentricity of a society. Countries were classified according to the percentage of vegetarians in their population from the highest to the lowest.

Principal data sources:

International Vegetarian Union: <http://www.ivu.org/>

European Vegetarian Union: <http://www.euroveg.eu/lang/dk/info/howmany.php>

Raw Food Health: <http://www.raw-food-health.net/NumberOfVegetarians.html>;
http://en.wikipedia.org/wiki/Vegetarianism_in_specific_countries

Additional sources by country:

Albania: Institute for Environmental Policy Tirana, e-mail of February 23 2012

Bangladesh: <http://teresabergen.com/?p=436>

South Korea: <http://matadornetwork.com/abroad/how-to-be-a-vegetarian-in-korea/>

Mongolia: <http://www.eurasianet.org/node/61212>

Portugal: <http://www.centrovegetariano.org/>

Singapore: <http://www.nanhuahigh.moe.edu.sg/wbn/slot/u1201/veg.pdf>

Switzerland: http://en.wikipedia.org/wiki/Vegetarianism_by_country#Switzerland

3. Share of Hunters in Population (in %)

Evaluation method:

Percentage of hunters in population total of a country was considered a "negative" indicator commensurate with anthropocentricity of a society. Hunters are supposed to take care of wildlife, yet they also kill wildlife as they see it fit and without public control. Hunting is particularly controversial where it is interpreted as sport and pleasure and a branch of tourism, the latter leading to trophy hunting of often protected and endangered animals. The highest ranking countries here are those that prohibited all hunting (notwithstanding illegal hunting on which no reliable and comparable data are available) and then according to the increasing share of hunters in population to the bottom of the list composed of countries allowing for trophy hunting (illustrated by doubled highest registered share of all indexed countries – $12\% \times 2 = 24\%$)

Principal data source:

The Hunting Report, Newsletter Serving the Hunter Who Travels: huntingreport.com

Additional sources by country:

Albania: <http://www.globalpost.com/dispatch/europe/100209/balkans-hunting-conservation?page=0,1>

Argentina: Juhani Ojasti , *Wildlife utilization in Latin America: current situation and prospects for sustainable management*, FAO Conservation Guide 1996, str. 46.

Bangladesh: <http://www.bforest.gov.bd/wild.php>

Botswana: http://touslesfelins.free.fr/lion_afrique.htm

Bosnia and Herzegovina: <http://www.lovackisavez-hb.ba/onama.asp>

Chile: http://www.huntingreport.com/hunting_article_list.cfm?country=Chile%20Hunting
http://www.tourismchile.com/panoramas.php?id_nodo=354?id_nodo=354&show=articulos&id_articulo=1177

Egypt: http://www.birdlife.org/action/change/sustainable_hunting/PDFs/SHP_SR1_Bird_Hunting_Practices.pdf

Finland: <http://digital.csic.es/bitstream/10261/8259/1/WP1-reportf.pdf>

France: <http://digital.csic.es/bitstream/10261/8259/1/WP1-reportf.pdf>

Jordan: <http://blog.taglegal.com/?p=336>

South Korea: [http://www.cic-wildlife.org/index.php?id=15&no_cache=1&sword_list\[\]=korea](http://www.cic-wildlife.org/index.php?id=15&no_cache=1&sword_list[]=korea)

Canada: http://www.humanesociety.org/news/press_releases/2010/03/canada_polar_bear_study_030510.html

Cuba: <http://www.cubatravelusa.com/hunting.htm>

Laos: http://news.mongabay.com/2009/0420-wildlife_trade_in_laos.html

Lebanon: http://www.birdlife.org/action/change/sustainable_hunting/PDFs/SHP_SR1_Bird_Hunting_Practices.pdf

Madagascar: http://www.cites.org/fra/resources/pub/checklist11/Repertoire_des_especes_CITES.pdf

Morocco: <http://fr.allafrica.com/stories/201108240455.html>;
http://www.birdlife.org/action/change/sustainable_hunting/PDFs/SHP_SR1_Bird_Hunting_Practices.pdf

Mexico: Juhani Ojasti , *Wildlife utilization in Latin America: current situation and prospects for sustainable management*, FAO Conservation Guide 1996, str. 46.

Mongolia: <http://www.mongoliasafari.com/main.html>

Nepal: <http://awnnepal.org/blog/2011/07/stoptrophyhuntinginnepalsaysawnn.html>

Namibia: <http://www.kalaharitrophyhunting.com/africantrophyhunting.html>;
http://touslesfelins.free.fr/lion_afrique.htm

Poland: <http://www.huntingpoland.eu/>

Portugal: <http://digital.csic.es/bitstream/10261/8259/1/WP1-reportf.pdf>).

Russia: www.rors.ru

Saudi Arabia: http://nwrc.gov.sa/NWRC_ARB/mnshwrat_files/1-1995-017.pdf

Senegal: <http://www.hunting-poland.eu/SPECIAL/senegal-hunting>

Spain: <http://digital.csic.es/bitstream/10261/8259/1/WP1-reportf.pdf>

Switzerland: http://www.univers-nature.com/divers/chasse_europe.html

Thailand: "Wild Animal Reservation and Protection Act, BE 2535", *Royal Thai Government Gazette* 109 (15), 28 February 1992.

Tanzania: http://touslesfelins.free.fr/lion_afrique.htm

Tunisia: http://www.birdlife.org/action/change/sustainable_hunting/PDFs/SHP_SR1_Bird_Hunting_Practices.pdf

United Arab Emirates: http://www.uaeinteract.com/uaeint_misc/pdf/perspectives/14.pdf

*Montenegro and Libya: an approximation by analogy with neighboring countries

4. Share of Protected Areas of Nature in Total Surface

Evaluation method:

Protected areas of nature were considered a "positive" indicator commensurate with biocentricity of a society. By legally protecting a part of national territory, the country also made survival easier to those animal species that inhabit protected habitats. Data include land as well as waters. Countries were ranked from the one with the highest share of protected areas of nature descending.

Principal data source:

World Database on Protected Areas <http://www.wdpa.org/Statistics.aspx> (National stats for 1990-2010 from the 2011 MDG analysis)

Additional sources by country:

Maldives protected less than 1km² out of 298 km of total country's surface. (Stuart Chape, Mark Spalding, Martin Jenkins, *The world's protected areas: status, values and prospects in the 21st century*. University of California Press, 2008, p. 282)

5. Network of Animal Protection Societies and Animal Shelters

Evaluation method:

Number of animal protection societies and animal shelters (these two were merged because their activities often overlap in practice) in proportion to population number is an important indicator of efforts invested by state administration and the citizens in animal welfare. This indicator was therefore considered "positive", yet non-commensurate with biocentricity of a society, since less inhabitants per society/shelter means denser network of societies and shelters helping animals. It is possible that not all animal protection societies are registered on the World Animal Net. Following calculation of number of inhabitants per society/shelter for each country, countries were classified from that with the densest network descending.

Principal data sources:

World Animal Net: <http://www.worldanimal.net/>
http://en.wikipedia.org/wiki/List_of_countries_by_population (population censuses or estimates for 2010, 2011 or 2012)

Additional sources by country:

Laos has no registered Animal Protection Society; there is only a *PAL Pet Awareness in Laos* group on Facebook.

Maldives have no registered Animal Protection Society; there is one nongovernmental organization however, also claiming "animal rights" among its activities figuring on the website of the World Association of Non-Governmental Organizations (www.wango.org).

6. Opportunities for Veterinary Studies

Evaluation method:

Education is a crucial factor in changing attitude toward animals. However, interest in veterinary studies may also depend on the weight of livestock farming in national economy. Greater number of veterinarians means better health care for domestic and wild animals and better opportunities for awareness-raising on animal welfare with the population. If there is no possibility for veterinary studies, potential student may change his mind owing to expenses, foreign language barrier and recognition of degrees associated with studying abroad. The number of veterinary study programs was put in proportion with the number of inhabitants and the countries were classified from that with the best opportunity of veterinary studies descending to those that have no such program available yet.

Principal data sources:

World Veterinary Organization: www.worldvet.org

Educational Commission for Foreign Veterinary Graduates, American Veterinary Medical Association: <http://www.avma.org/education/ecfvg/ecfvg12.pdf>

Additional sources by country:

Botswana: <http://www.lrrd.org/lrrd22/6/more22107.htm>

Jamaica: [http://sta.uwi.edu/programmes/undergrad.asp?faculty=Medical Sciences](http://sta.uwi.edu/programmes/undergrad.asp?faculty=Medical%20Sciences)

Lebanon: <http://www.ul.edu.lb/Faculte/deanIntro.aspx?facultyId=13&lang=3>

Luxembourg: <http://www.en.uni.lu/>

Madagascar: <http://www.facmedtana.org/formation%20initiale.html>

Mauritius: <http://fr.allafrica.com/stories/201103060217.html>

Namibia: <http://www.universityworldnews.com/article.php?story=20100617191146602>

Singapore: <http://www.hotcoursesabroad.com/study/training-degrees/singapore/veterinary-medicine-courses/loc/168/cgory/a3-3/sin/ct/programs.html>

7. Number of Zoos and Aquariums

Evaluation method:

Although zoos and aquariums can play a positive part in conservation of endangered wildlife, similarly to circuses they represent a relic from a period in which no media and travelling opportunities were available to experience exotic wildlife so they were considered a "negative" indicator commensurate with anthropocentricity of a society. There is practically no country that would not have at least one public or private zoo or aquarium, yet there are enormous differences in standards of care among zoos and aquariums around the world. Regardless of that, animals in zoos and aquariums live in restricted space in captivity and most often in climatic conditions unsuitable for them, while the purpose of keeping them is for human fun.

World Association of Zoos and Aquariums (WAZA) requires of its members certain standards of quality of living and care for captive animals so the ranking for this indicator was calculated in the following fashion: first, as precise as possible total number of zoos and aquariums was established for each country based on compared and combined data available on Zoos Worldwide and Zoo Chat registers and Wikipedia's list of zoos and aquariums. The total number was then reduced by the number of zoos and aquariums in each country that are members of WAZA. The best possible result with this indicator would therefore be 0 point, if all zoos and aquariums were WAZA members. Countries were finally classified from that with the lowest number of zoos and aquariums to the highest.

Principal data sources:

World Association of Zoos and Aquariums (WAZA): <http://www.waza.org/en/site/about-waza/members>

Zoos Worldwide: <http://www.zoos-worldwide.de/zoos.html>

Zoo Chat: <http://www.zoochat.com/stats/countries/>

http://en.wikipedia.org/wiki/List_of_zoos

European Association of Zoos and Aquaria (EAZA): www.eaza.net

Additional sources by country:

Montenegro: http://www.b92.net/putovanja/vesti.php?&nav_id=555933

Jordan: http://www.jo.jo/index.php?option=com_content&view=article&id=1133:a-zoo-story&catid=39:land&Itemid=150

Lebanon: <http://www.whereleb.com/>

Morocco: <http://www.paazab.com/groups-woza.htm>

Tunisia: <http://www.paazab.com/groups-woza.htm>

8. Animal Welfare Extremism

Evaluation method:

This indicator is supposed to draw attention to extremes of anthropocentricity and biocentricity: if the majority of people treat animals as mere property and things without thinking twice, a minority is so anti-anthropocentric that they are willing to act against the law for animal welfare i.e. place their personal moral imperative above the consensus on collective values reflected in national legislation. A high price is often paid for such attitude: several animal welfare organizations have been classified as terrorist organizations and animal welfare activists can be found in prisons serving long sentences for destruction of property. The review of actions, by which animal activists intended to draw public attention to human attitude toward animals in 2010 and 2011, includes those "extremist" offences that violated private property, for example saving animals from laboratories and animal farms, interventions in fur shops and meat product chain stores. Countries were classified from that with the highest number of such acts in the given time period to those where animal welfare extremism is unknown.

Principal data source:

Bite Back: <http://www.directaction.info/news2010.html> for 2010-2011