

Reduce greenhouse gas emissions, **improve** food security, and **respect** the welfare of animals

Farm Animal Welfare Recommendations

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**HUMANE SOCIETY
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Animal Agriculture and the Global Climate Crisis

Farm animals' welfare involves both their physical and psychological well-being. How farm animals are raised and treated can have important repercussions, not just for animal welfare, but for environmental sustainability, food security, and the economic well-being of farmers.

The animal agriculture sector is one of the largest contributors to greenhouse gas (GHG) emissions worldwide, responsible for an estimated 18% of human-induced emissions.¹ A 2010 study in the *Proceedings of the National Academy of Sciences* projected a 39% rise in emissions from animal agriculture by 2050.² Practically every stage of meat, egg, and dairy production exacerbates the climate crisis by releasing GHGs into the atmosphere or by reducing the absorption of these gases by carbon sinks.³ Establishing a food secure, sustainable, and welfare-friendly future requires immediate changes in farm animal production and consumption patterns.

ACTION

- 1. Any successor agreement(s) to the Kyoto Protocol must include agriculture.** Climate change poses significant threats to ecosystems and biodiversity,⁴ as well as human health, especially in low-income nations.⁵ Considering animal agriculture's large, global impacts on climate change, policymakers should seek to implement agricultural policies and programs that not only respond to climate change but also improve food security, promote the long-term sustainability and viability of agricultural systems, and respect animal welfare.
- 2. The United Nations Framework Convention on Climate Change (UNFCCC) Ad Hoc Working Group for Long-term Cooperative Action (AWG-LCA) should, as a part of its Durban decisions, create a Subsidiary Body for Scientific and Technological Advice (SBSTA) work program on agriculture that improves food security and long-term sustainability, enhances the ability of farmers and farming systems to adapt to climate change, mitigates emissions, and respects animal welfare.** Climate change mitigation and adaptation policy solutions must be evaluated for their impacts on other social and environmental goals. In the case of agricultural solutions, it is imperative that the UNFCCC adopts equitable solutions that enhance adaptation to climate change while improving food security, and promoting farm animal welfare.
- 3. The SBSTA decision in Durban should request submissions from all Parties and admitted observers on the drivers of both deforestation and forest degradation (REDD+). The submission deadline should be early enough to allow the secretariat to prepare documentation in response that allows informed discussion at the next SBSTA meeting.** Deforestation and forest degradation, of which animal agriculture is a significant driver,⁶ destroy carbon sinks in addition to releasing billions of metric tons of CO₂ into the atmosphere. REDD+ must address the drivers of deforestation, pursuant to the Cancun Agreements (Decision 1/CP.16, Appendix II(a)). Submissions should, at least, address: (1) international drivers as well as national; and (2) how drivers interact with, or may interfere with, other aspects of the REDD+ mechanism.
- 4. National, regional, and local strategies to reduce GHG emissions and adapt to climate change must specifically include humane solutions for farm animal production.** Although climate change is a global problem, requiring global solutions, there is also a need for national and sub-national solutions. Such solutions should address agriculture in an equitable manner that promotes resilient landscapes, food security, animal welfare, and the ability to adapt to climate change.
- 5. Governments and civil society must raise awareness about the health, climate, and environmental benefits of reducing meat, egg, and milk consumption, particularly in developed nations and amongst higher income urban consumers in mid-income nations.** A shift toward plant-based diets will reduce GHG emissions.^{7,8,9,10,11} Leading public health and nutrition experts have confirmed that such a shift can be achieved without compromising nutrition^{12,13} and that a reduction in the consumption of animal products will likely lead to health benefits,¹⁴ as well as other environmental benefits.¹⁵

¹ Steinfeld H, Gerber P, Wassenaar T, Castel V, Rosales M, and de Haan C. 2006. Livestock's long shadow: environmental issues and options. Food and Agriculture Organization of the United Nations, p. xxi.

² Pelletier N and Tyedmers P. 2010. Forecasting potential global environmental cost of livestock production 2000-2050. *Proceedings of the National Academy of Sciences of the United States of America* 107(43):18371-18374.

³ Steinfeld H, Gerber P, Wassenaar T, Castel V, Rosales M, and de Haan C. 2006. Livestock's long shadow: environmental issues and options. Food and Agriculture Organization of the United Nations, p. 79.

⁴ Fischlin A, Midgley GF, Price JT, et al. 2007. Ecosystems, their properties, goods, and services. In: Parry ML, Canziani OF, Palutikof JP, van der Linden PJ, and Hanson CE (eds.), *Climate change 2007: impacts, adaptation, and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, United Kingdom: Cambridge University Press, p. 241-245, Table 4.1).

⁵ Confalonieri U, Menne B, Akhtar R, et al. 2007. Human health. In: Parry ML, Canziani OF, Palutikof JP, van der Linden PJ, and Hanson CE (eds.), *Climate change 2007: impacts, adaptation, and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, United Kingdom: Cambridge University Press, p. 393).

⁶ Steinfeld H, Gerber P, Wassenaar T, Castel V, Rosales M, and de Haan C. 2006. Livestock's long shadow: environmental issues and options. Food and Agriculture Organization of

the United Nations, p. xxi.

⁷ Baroni L, Cenci L, Tettamanti M, Berati M. 2007. Evaluating the environmental impact of various dietary patterns combined with different food production systems. *European Journal of Clinical Nutrition* 61: 279-286.

⁸ McMichael A, Powles J, Butler C, and Uauy R. 2007. Food, livestock production, energy, climate change, and health. *The Lancet* 370:1253-1263.

⁹ Pelletier N and Tyedmers P. 2010. Forecasting potential global environmental costs of livestock production 2000-2050. *Proceedings of the National Academy of Sciences of the United States of America* 107(43):18371-18374.

¹⁰ Pathak H, Jain N, Bhatia A, Patel J, and Aggarwal PK. 2010. Carbon footprints of Indian food items. *Agriculture, Ecosystems and Environment* 139:66-73

¹¹ Weber CL and Matthews HS. 2008. Food-miles and the relative climate impacts of food choices in the United States. *Environmental Science & Technology* 42(10):3508-3513.

¹² Position of the American Dietetic Association. 2009. Vegetarian Diets. *Journal of the American Dietetic Association* 109(7):1266-1282.

¹³ United States Department of Agriculture. 2009. Vegetarian Diets. http://www.mypyramid.gov/tips_resources/vegetarian_diets.html. Accessed on November 17, 2009.

¹⁴ Position of the American Dietetic Association. 2009. Vegetarian Diets. *Journal of the American Dietetic Association* 109(7):1266-1282.

¹⁵ Leitzman C. Nutrition ecology: the contribution of vegetarian diets. 2003. *American Journal of Clinical Nutrition* 78:657S-659S.