

TABLE FOR COMMENTS

Name of submitter: \_\_\_ Geoffrey Orme-Evans \_\_\_\_\_

Affiliated organization of the submitter (if any): \_\_\_ Humane Society International \_\_\_\_\_

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#	Para No./ Annex / Figure / Table	Line Number	Type of comment ge = general te = technical  ed = editorial	Comment (including justification for change)	Proposed change (including proposed text)	Assessment of comment (to be completed by UNFCCC secretariat)
1	2	1-2	ge	The Board's use of "integrated mitigation actions" should be clearly defined. On its face, with reference to the CDM, it seems this refers just to the actions themselves. However, a broader view, which is also needed to comply with the CDM's sustainable development mandate, is that the integration should also ensure the project's integrity with sustainable development. This is particularly important as it relates to projects involving farm animals and their welfare, for example.	"that contribute to sustainable development" should be added so that it reads "...integrated mitigation actions in agriculture that contribute to humane and sustainable development"	
2	2	3	ge	"Efficient" animal husbandry, without further definition and incorporation into a framework of sustainability runs the risk not only of additional environmental externalities, but of significant and severe impacts on farm animals. While the specific issues for animal welfare apply to methodologies listed in Table 2, an explanation and review of most of those methodologies in regard to their relative contributions to animal welfare and climate change are discussed in Shields and Orme-Evans (2015). <sup>i</sup>	Change "efficient" to "sustainable and welfare-friendly"	
3	4	6	ge	As per the comments above, the concept note and further evaluation must consider these methodologies in light of contributions to sustainable development, including co-benefits and trade-offs. Further, appropriate safeguards should be considered where necessary.	At the end of this paragraph, add the following line: "It also considers the new methodological options and gaps in light of contributions to humane and sustainable development, including co-benefits and trade-offs, as well as appropriate safeguards."	

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4	5	8-10	ge	Only mentioning the issue of food production ignores a large part of food security; and this can have implications for choices of methodologies and projects, and their efficacy. Therefore, the double burden of obesity-related illness and undernutrition facing many populations should be mentioned.	At the end of this paragraph, add: "The four key dimensions of food security include availability, access, stability and utilization. Food security also requires addressing the growing incidence of obesity and chronic disease in developing countries since "[a] growing number of developing countries must shoulder a 'double burden' of malnutrition: the persistence of undernutrition, especially among children, along with a rapid rise in overweight, obesity and diet-related chronic diseases." (FAO, 2006). Undernutrition should be solved responsibly—without taking communities down the path of chronic disease—and responsible agricultural investments should enable healthier future, facilitating sustainable consumption practices."	
5	6	5	ge	This paragraph should also mention the CDM's requirement to contribute to sustainable development, which includes the need for appropriate safeguards in some cases. In the area of agriculture, this is particularly important for farm animals.	At the end of this paragraph, the following should be added: "Additionally, given the CDM's mandate, agricultural practices and measures discussed in this note must contribute to sustainable development. And, in furtherance of this contribution, where potential trade-offs exist, appropriate safeguards will be considered and implemented to ensure sustainable development. This includes, <i>inter alia</i> , protecting and promoting animal welfare, biodiversity, gender equity, and food security."	

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6	11	3	ge	Demand-side mitigation potential in agriculture is significant. While this is considered in the IPCC AR5, it is only mentioned in this Concept Note in Table 4. According to the Food and Agriculture Organization of the United Nations, farm animal production accounts for 14.5% of the world's greenhouse gas emissions. <sup>ii</sup> Even assuming efficient sectoral growth, by 2050 emissions from animal production is predicted to grow 39% over year-2000 levels and to account for 70% of the sustainable level of global GHG emissions. <sup>iii</sup> Recent studies indicate that decreases in animal source food consumption can reduce emissions from the farm animal sector more than supply-side solutions. Such reductions in meat, egg, and milk consumption can simultaneously improve food security and public health, as well as lessen pressure on natural resources. <sup>iv</sup> Thus, section 3.1 in the Concept Note on mitigation potential needs to consider demand-side action.	After paragraph 11, a new paragraph should be added similar to the following: "The IPCC AR5 also discusses the large potential for demand-side mitigation action in agriculture, particularly in reference to dietary choices. These options should be explored further."	

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7	Section 3.4	N/A	ge	<p>The section on other initiatives misses two significant, relevant actions. First, the Global Agenda for Sustainable Livestock (<a href="http://livestockdialogue.org">livestockdialogue.org</a>) is a multilateral partnership working to make a more sustainable farm animal sector. The initiative, importantly, incorporates sustainable development, including animal welfare, in each of its focus areas. This could be very informative for the CDM. Second is the issue of sustainable and healthy diets. As stated above, recent studies indicate that decreases in animal source food consumption can reduce emissions from the farm animal sector more than supply-side solutions, and that such reductions in meat, egg, and milk consumption can simultaneously improve food security and public health, as well as lessen pressure on natural resources.<sup>v</sup> Leading public health and nutrition experts have confirmed that such a shift can be achieved without compromising nutrition,<sup>vi,vii</sup> and that a reduction in the consumption of animal products will likely lead to health benefits,<sup>viii</sup> as well as other environmental benefits.<sup>ix</sup> Therefore, “Sustainable and Healthy Diets” can help address leading public health and environmental issues in appropriate ways across populations. Governments, IGOs, the private sector, civil society, and other stakeholders can raise awareness of the health, climate, and environmental benefits of eating more fruits and vegetables and reducing meat, egg, and milk consumption. Such initiatives are already taking place across the globe. One such campaign, Meatless Monday, simply asks consumers to leave meat off of their plates once a week, on Mondays. The campaign is a popular international movement that began in the United States during World War I and was revived in 2003 by the Monday Campaigns with backing from the Johns Hopkins Bloomberg School of Public Health. Its tremendous success includes over 2000 hospitals, school districts, and corporate sites participating in the U.S. The movement is also growing rapidly in Brazil, where the city of Sao Paolo has embraced Meatless Monday. Meat reduction campaigns are also taking off in Asia’s major emerging economies, where the rising middle classes are suffering from a high incidence of obesity/overweight and related chronic diseases.</p> <p>Thus, not only is this important for the CDM, the cross-cutting nature of sustainable and healthy diets can support broader sustainable development, including a number of the Sustainable Development Goals.</p>	<p>Add a new section under section 3.4.1 with the heading “Global Agenda for Sustainable Livestock.” The associated new paragraph should read: “The Agenda is a partnership of livestock sector stakeholders committed to the sustainable development of the sector. With global population projected to reach 9.6 billion in 2050, the livestock sector’s role in sustainable food and agriculture will continue to increase. To be sustainable, livestock sector growth needs to simultaneously address key environmental, social, and economic challenges: growing natural resources scarcity, climate change, widespread poverty, food insecurity and global threats to animal and human health and welfare.”</p> <p>Add a new section under the current section 3.4.3 with the heading “Healthy and Sustainable Diets.” The associated new paragraph should read: “Initiatives to promote sustainable and healthy diets are burgeoning across the globe in diverse economies. The acknowledged vast mitigation potential, contributions to humane and sustainable development, and bottom up, diverse global progress in recent years warrants consideration under the CDM.”</p>	

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8	28	4-5	ge	As explained above, mitigation technology and methodologies related to farm animal production can have significant impacts on farm animal welfare. Some are much more preferable than others in terms of co-benefits to the environment and animal welfare (Shields and Orme-Evans, 2015). <sup>x</sup> This needs to be acknowledged in the development of the CDM.	To paragraph 28(a)(i), “sustainable and animal-welfare-friendly” should be added so that the subsection reads: “New methodologies for sustainable and animal-welfare-friendly grazing land and livestock management (e.g. improved breeds with higher productivity).”	
9	28	N/A	ge	As explained above, the mitigation and sustainable development potential for demand-side interventions in human diets should not be ignored; it should be included in topics for further exploration in paragraph 28.	Add a new subsection 28(g) that states: “Sustainable and healthy diets: Human dietary shifts away from animal source foods to less resource intensive plant-based foods can provide carbon benefits in addition to environmental, animal welfare, and human health benefits.”	
10	29	N/A	ge	The further work needs to consider these methodologies in light of their direct and indirect impacts on sustainable development, per the CDM mandate.	A new subsection 29(c) should read: “To explore potential humane and sustainable development co-benefits and trade-offs, as well as appropriate safeguards, methodologies listed in paragraph 28. This includes, <i>inter alia</i> , protecting and promoting animal welfare, biodiversity, gender equity, and food security	
11	30	2	ge	The contribution to sustainable development, including animal welfare, should be acknowledged in a section on impacts.	Add a clause to the end of the paragraph so that it reads: “...in the agriculture sector that contribute to humane and sustainable development.”	
12	Appendix Table pp. 23-23	N/A	ge	The comment on human dietary shifts away from animal source foods to less resource intensive plant-based foods should acknowledge the broader, positive impacts on health and the environment.	Add a clause at the end of the paragraph at the top of page 23 so that it reads: “...and reduces land demand, as well as other environmental and human health benefits.”	

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<sup>i</sup> Shields S and Orme-Evans G. 2015. The impacts of climate change mitigation strategies on animal welfare. *Animals* 5(2):361-94.

<sup>ii</sup> Gerber PJ, Steinfeld H, and Henderson B et al. 2013. Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities. Food and Agriculture Organization of the United Nations (FAO), Rome.

<sup>iii</sup> 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.

<sup>iv</sup> Smith P, Haberl H, and Popp A et al. 2013. How much land-based greenhouse gas mitigation can be achieved without compromising food security and environmental goals. *Global Change Biology* 19:2285-302.

<sup>v</sup> Smith P, Haberl H, and Popp A et al. 2013. How much land-based greenhouse gas mitigation can be achieved without compromising food security and environmental goals. *Global Change Biology* 19:2285-302.

<sup>vi</sup> Position of the American Dietetic Association. 2009. Vegetarian Diets. *Journal of the American Dietetic Association* 109(7):1266-1282.

<sup>vii</sup> United States Department of Agriculture. 2009. Vegetarian Diets. [http://www.mypyramid.gov/tips\\_resources/vegetarian\\_diets.html](http://www.mypyramid.gov/tips_resources/vegetarian_diets.html). Accessed on November 17, 2009.

<sup>viii</sup> Position of the American Dietetic Association. 2009. Vegetarian Diets. *Journal of the American Dietetic Association* 109(7):1266-1282.

<sup>ix</sup> Leitzman C. Nutrition ecology: the contribution of vegetarian diets. 2003. *American Journal of Clinical Nutrition* 78:657S-659S.

<sup>x</sup> Shields S and Orme-Evans G. 2015. The impacts of climate change mitigation strategies on animal welfare. *Animals* 5(2):361-94.