

Notes from break-out session on GHG emissions and conservation grazing

The workshop was held with about 20 participants. BG gave a short presentation outlining the case that is being made by some high profile commentators against extensively grazed livestock. This centres on the fact that more methane is produced by ruminants that are reared on a diet that is high in plant fibre, a situation that usually applies to conservation grazing.

Participants were asked to consider some basic questions arising from this:

- Do we think GHG emissions from conservation grazing are a problem in terms of their actual contribution to global warming?

It was generally agreed that, although these emissions are a reality they are unlikely to be of any great significance in terms of their overall contribution to global warming. This is because although the quantities of methane per animal may be higher there are many fewer animals per hectare than in an intensive system. Furthermore there are a number of factors that make extensive grazing more advantageous, viz:

- Minimum use of oil-derived inputs (fertilizers, herbicides, supplementary feeds)
 - Higher levels of carbon locked up in soil organic matter
 - Reduced levels of soil emissions (mainly N₂O but some CH₄)
- If they are, would we be able to manage wildlife habitats to the same standard using less polluting methods?

This question was therefore considered to be largely irrelevant. However even were it not so the group thought that most of the alternative techniques for managing grazed habitats would fail to deliver the desired results and could be just as or even more polluting than ruminant livestock (oil based fuels to run machinery, gases emitted by burning).

- If we cannot find alternatives to grazing what can be done to minimize the problems

Non-ruminants can substitute as grazers in some situations but this is not a panacea; we need the full range of grazing animals at our disposal in order to achieve the necessary outcomes. Given that ruminants are vital to the successful conservation of many key habitats there appears to be little that can be done to avoid GHG emissions, other than trying to reduce all of the associated sources of GHG (e.g. minimize travel and use of machinery, use only essential external inputs, avoid overgrazing and poaching that could cause increases in soil emissions)

This would be made easier if more was known about the associated sources of GHGs. We therefore need detailed assessments of the C-footprints of a representative number of conservation grazing systems, allowing us to compare a range of scenarios using a variety

of calculators. This would enable us to assess the true significance of enteric CH₄ emissions against all the other GHGs generated by the different systems.

The point was made that the current data is unlikely to have been based on the breeds of livestock that are generally used in conservation grazing. The greater efficiency with which many native breeds digest plant fibre could mean that they emit fewer GHGs when confined to a low quality diet than would be predicted from data based on the more commercial breeds of continental origin.

- Or can it all be ignored because nature conservation should take precedence over wider environmental issues?

The consensus seemed to be that whilst we, the conservation movement, might wish our own objectives to be put at the top of society's list of priorities, we had to accept that other arguments, particularly the economic and social ones, would probably override the need for conserving the diversity of wildlife and native breeds of livestock if a scramble for resources were to occur. It will therefore be important to have verifiable data and statistics in order to justify the conservation of semi-natural habitats in terms of all of the social goods that they provide. The conservation of biodiversity in this context must also include native livestock breeds since both are part of the objectives of conservation grazing and managing wildlife habitats effectively depends on maintaining the adaptations of native breeds of domestic livestock that have proved themselves best suited to delivering the required objectives. Recent studies on the benefits of extensive pastoral systems for enhancing C-sequestration, delivering products that boost human health, provision of environmental services and enriching biodiversity should all be used to build stronger support for conservation grazing. More research will be needed to show how pastoral systems can be made more multifunctional, by integrating more closely with other systems of land use (eg wood pasture, permaculture, community-based farming).

- Or is it all media hype and should we concentrate our efforts on correcting the underlying misinformation?

The general conclusion was that this issue is mainly being driven by media hype, with some of the group suggesting that it is even being fuelled by a political agenda that favours intensive large scale corporate systems. Again we need to monitor research literature to gather the information that will be needed to defend conservation grazing's corner in the face of some of the more damaging interpretations coming from influential studies (e.g. FAO 2006, Livestock's Long Shadow) and key commentators such as Lord Stern (the Times 28/10/09). GAP would have an obvious role in helping to bring the appropriate people together to undertake a review of this sort and in communicating their findings throughout the conservation sector, where they can be used to combat damaging misconceptions and misinformation.