

### **General**

As agriculture is a significant source of greenhouse gas emissions and given that farmers manage the bulk of the Australian landscape, the agricultural sector should be a prominent partner in mitigation and adaptation policies and programmes.

The majority of our agricultural product is exported and, as such, the health of this sector is important for our long term economic prosperity. Even in a globalised, currently relatively peaceful world, we mustn't discount strategic food security issues either. In light of this, every effort should be made to bolster the capacity of our farmers to adapt to a changing climate, even if the finer details of the projected changes are uncertain.

Of course, any future emissions trading scheme should be inclusive as practicable, to avoid market distortions and to best capture the benefits of such as measure.

Further to this general statement of principle, we wish to make the following points:

### **Landclearing:**

Although the pace of landclearing for agricultural purposes has diminished, further steps need to be taken to end the broad-scale destruction of native vegetation. We do believe that farmers should be permitted to clear in limited circumstances, but efforts to offset this through revegetation in other areas should be allowed, to give some flexibility to landholders.

We are strongly of the view that financial compensation to landholders for the past or future cessation of landclearing is NOT good policy. Awarding payments / credits retrospectively would almost certainly be impossible without creating perceptions of unfairness amongst those who miss out. We don't believe landholders should be compensated for merely complying with the law. Having said this, there should be mechanisms for farmers to benefit from revegetation efforts within an emissions trading scheme (ETS).

In the medium term, farmers should be encouraged through a portfolio of means, to adopt more environmentally sustainable practices. These often have multiple positive outcomes. For example, minimum tillage can improve soil health, reduce erosion and sequester carbon. Due to high spatial and temporal variability, the recognition in an ETS of practices such as minimum tillage as offsets will be problematic. We therefore suggest the production and environmental benefits of

these practices be strongly encouraged, but not included in an ETS, at least not initially.

### **Revegetation**

Revegetation offsets should be permitted under an Australian ETS as soon as possible, subject to the usual principles of additionality, permanence, measurability and verifiability.

### **Enteric Fermentation**

As enteric fermentation constitutes the bulk of agricultural emissions, it may be possible to cover this source of emissions in a future ETS, as New Zealand is proposing. However, farmers must be consulted as to the most equitable way forward for the inclusion of this sub- sector. (Farmers will of course, look after their own interests, which may not always be consistent with the objectives of an ETS, but at least policy makers should engage with them.) We must also be mindful of trade exposure issues. Perhaps a more cautious approach would be to boost R&D investment aimed at limiting methane emissions, for example, through vaccines for methanogenic bacteria.

### **Biofuels / Bioengery**

Although this is not mentioned under the agricultural discussion paper, the sector will clearly be a key player within this topic.

We believe biofuels could present a reasonable opportunity for reducing fossil fuel dependence. However, dedicated biofuel crops:

- are putting upward pressure on food prices;
- are, in some areas, accelerating the destruction of some of the world's highest biodiversity value habitats (eg palm oil production in Indonesia and PNG);
- may actually have a negligible net green house gas benefit due to poor energy balance, that is, energy input : energy yield, (eg corn to ethanol in the US).

Therefore, any biofuel recommendations with respect to climate change should:

- carefully consider whole life cycle energy balances, that is projected net greenhouse gas emission reductions;
- at all costs, avoid exacerbating other global environmental problems (eg a mandated biodiesel target could create a demand for imported palm oil or other feedstock from countries destroying tropical rainforest, with resultant greenhouse gas release, to meet the demand).

We advocate that the Garnaut Review recommends a significant investment in R&D in second generation biofuel production, such as from ligno-cellulosic feedstocks, where fuel production can complement food crops, not displace them. This strategy may lead to greater diversification of income steams for farmers – itself a sensible goal as an adaptation measure.

**Exceptional Circumstances**

The notion of what is exceptional within a changing climate is a vexed question. We suggest that farmers have access to social security measures where needed, but that financial support for drought difficulties and water shortages should be kept to a minimum and highly targeted. Farmers must be assisted to cope with a mostly drier and warmer climate through access to technologies, R&D and expertise. Unfortunately, if businesses in marginal areas cannot remain viable on their own, they must be allowed to fail, as is the case with most other agents in this free market economy.

Finally, we endorse the 'landcare' ethos and programmes (in a very broad sense) as an effective vehicle for boosting the adaptive capacity of Australian landholders and furthering mitigation efforts.