

Submission to the  
NSW Legislative Assembly  
Natural Resource Management  
(Climate Change) Committee

Emissions Trading Schemes (Inquiry)

By:

CLIMATE  
ACTION   
NEWCASTLE

Climate Action Newcastle

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## 1. Introduction

Climate Action Newcastle (CAN) is a grass-roots community group established in 2006 by a group of committed local individuals concerned about rising greenhouse gas emissions in Australia, and the role of Newcastle as the largest coal exporting port in the world.

Climate Action Newcastle has enjoyed great successes in public education and community campaigns, and has staged several key events including ‘Smart Energy Expo Newcastle’ in September last year. The Expo was attended by two and a half thousand people and attracted an invitation by Newcastle City Council to make it a Newcastle signature event. In addition, Climate Action Newcastle also conducts Annual Lectures on environmental issues, the annual Walk Against Warming on Nobbys Beach and facilitates community talks. CAN continues to build strong relationships with other members of the Climate Action Network Australia (CANA) as well as other environment groups. Currently CAN has 30 members and over 600 supporters.

The following submission represents the views of Climate Action Newcastle (CAN) for consideration in the Emissions Trading Schemes Inquiry conducted by the NSW Legislative Assembly’s Natural Resource Management (Climate Change) Committee. This submission is primarily concerned with the environmental implications of any offset scheme (as per section ‘c’ of the Inquiry Terms of Reference).

CAN believes that the design of any offset system to be included in an Emission Trading Scheme (ETS) will have a significant impact on Natural Resource Management objectives such as ‘reducing salinity, improving water quality and conserving biodiversity’ (Australian Government Department of Climate Change). The environmental impact of offset activities, particularly bio-sequestration, will dictate the effectiveness of an ETS in reducing the effects of climate change. If this

is not taken into consideration, such offset activities may add to the damage already being done to the environment.

## **2. Offset Timeframes**

CAN's main concern in regards to bio-sequestration is the projected timeframes for proposed emission reductions. According to the Secretary-General of the United Nations Ban Ki-moon, climate change is an emergency which requires an emergency response (ABC 2007). By design many offset schemes do not reach full potential for many years in the future, particularly in the case of sequestration projects. CAN submits this is not quickly enough to reflect the scientific basis and the community's concern about the urgency of the crisis.

## **3. Direct Effects: Bio-Sequestration**

### **3.1 Clearing of native bushland**

CAN's concerns in regards to the environmental impact of carbon offsets are threefold:

- a) reduction in native forests reduces natural carbon sinks required to absorb carbon dioxide from the atmosphere
- b) clearing native forests to make way for monoculture non-indigenous forests inhibits the natural environmental cycles of native animals and insects, with consequences for existing stands of native forests
- c) clearing native forests for monoculture agriculture leads to lack of biodiversity, soil erosion, reduction in soil quality requiring excessive use of chemical fertilisers, use of chemical pesticides and increased water demand.

Replanting native forests with non-native forests could be considered a carbon neutral activity if the certification process is not tightly regulated (Reed and Ehrhart 2007). Clearly this form of bio-sequestration is not environmentally beneficial; although the net carbon emissions may be minimal, such a system does not recognize the ecological importance of native old-growth forests and their integral place in the State's environment.

CAN is of the view that any bio-sequestration carbon offset projects in NSW must continue to be audited at least to the same standard as required by the current NSW Greenhouse Gas Reduction Scheme. That is, for the bio-sequestration activity to be accredited, the trees involved in the activity:

- a) must not be planted on old growth forest cleared land (the land must have been clear prior to 1990),
- b) they have been planted since 1990, and
- c) should a tree come to any harm within 100 years of purchase (e.g. fire, disease, logging) the carbon offsets will be replaced immediately from another source (Ribón and Scott 2007).

In this way carbon offsets in the form of bio-sequestration would assist in revegetation rather than becoming a way in which to justify the clearing of land.

### **3.2 Creation of habitat**

CAN's view is that it is unsustainable to conduct carbon offset activities solely for the purpose of offsetting emissions. It is important that any accredited bio-sequestration activities are required to demonstrate a net ecological benefit; evaluated as a separate issue to the carbon benefits of the activity.

This would primarily come in the form of creation of habitat for endemic animal species through the use of regional specific plants in any offset activities. In this way

the bio-sequestration process would not only be beneficial in emissions terms, but also assist in the management of the State's biodiversity and environmental health.

### **3.3 Existing Forests**

CAN is against the continuing conservation of existing forests or the better management of existing forests being considered carbon offset practices for the purposes of an ETS. CAN supports the environmental value of these activities but believes that the positive action of conserving bushland should not secure the right for businesses or individuals to emit greenhouse gases.

The labelling of conservation as a carbon offset activity relies upon the premise that without intervention the bushland would otherwise not perform its role as a carbon sink. While the removal of bushland would have this effect, its occurrence is not guaranteed. Therefore it is only a possibility that the active conservation of the bushland would have any net emission or that the reduction could be considered 'additional'.

The conservation of existing bushland can not be considered an offset because it does nothing to reduce emissions any lower than would occur naturally in the environment.

## **4. Direct Effects: Geo-sequestration**

The dangers of geo-sequestration to the environment and to society have been well documented. They include:

- a) Reservoir leakage: the slow, long-term release of CO<sub>2</sub> from storage sites through faults,
- b) Sudden leakage: the large-scale release of CO<sub>2</sub> from storage sites, through failures of active or abandoned injection wells,

- c) Escape of CO<sub>2</sub> into shallow groundwater,
- d) Displacement of deep brine and mobilisation of toxic metals and organics moving upwards leading to contamination of potable water,
- e) Escape of other hazardous captured flue gases (Greenpeace 2006)

Furthermore, there are no suitable sites to sequester carbon in the most populous regions of NSW, requiring substantial pipelines to transport captured carbon from emission sites to burial grounds.

Therefore CAN strongly submits that geo-sequestration should not be included in an Emissions Trading Scheme in NSW.

## **5. Indirect Effects**

### **5.1 Reinforces current emission practices**

CAN submits that the introduction of carbon offsets as an alternative to emissions reductions legitimises current behaviours and consumption patterns. By providing the opportunity for businesses and individuals to purchase an alternative to a reduction in emissions, carbon offsets reinforce current inefficient business practices. Carbon offset provide a guilt free way to carry on polluting (Monbiot 2006).

This is especially relevant when carbon offsets are made available on a free market basis – as is currently the case (Ribón and Scott 2007). It may be more cost effective for business and individuals to purchase carbon offsets than to change the way in which they use energy.

CAN does not support the inclusion of carbon offset programs within the structure of an ETS. In order to maintain the integrity of an ETS, carbon offsets should only be considered on the basis that they are supplementary to an ETS (i.e. a separate legislative or financial instrument to encourage action to mitigate the impacts of



climate change). Carbon offsets are an unsustainable instrument to combat climate change as they do nothing to reduce reliance on non-renewable resources such as fossil fuels for energy. Carbon offsets may have a beneficial impact on reducing GHG emissions, however if considered in isolation they will simply delay the need for renewable sources of energy to be deployed throughout society.

## **5.2 Measurability of bio-sequestration**

Care must be taken when considering projected future carbon sequestration rates. Biological processes are inherently uncertain, particularly for long projections into the future in our highly variable and changing climate (Atkinson 2007). The science of bio-sequestration is not entirely certain as it is difficult to accurately measure the rate at which carbon is taken from the atmosphere, especially when attempting to take into account future unknown variable inherent in the unpredictability of biological processes (ibid.). Consequently, CAN submits that energy efficiency projects must be given precedence over any carbon sequestration schemes due to the ability to implement them in a safe and timely fashion.

## **6. Conclusion**

There are a number of important issues for NSW surrounding the use of carbon offsets. CAN strongly submits that the issues outlined in this submission should be taken into consideration at all levels of government when implementing an ETS. The only effective way for an ETS to be successful in reducing emissions and effectively halting and reducing the effects of climate change is through incentives to encourage energy efficiency and the rapid deployment of renewable energy sources throughout all sectors of society.

It should be recognised that any adverse environmental effect of carbon offsets will almost certainly have an impact on natural resources, and therefore their effective management. This inquiry set out to evaluate the economic and environmental effect

of carbon offsets on NSW in terms of natural resource management. While the above issues may not be immediately relevant to this aim, CAN is of the opinion that these important issues should also be taken into consideration when evaluating the effects of this area of policy.

## 7. Recommendations

**Recommendation 1:** Carbon offset activities should not be included in an Emission Trading Scheme to which NSW is a part.

**Recommendation 2:** Carbon offset activities such as energy efficiency projects should be preferred rather than bio-sequestration projects due to their negative environmental impact.

**Recommendation 3:** The continuing conservation of existing forests or the better management of existing forests should not be considered carbon offset practices for the purposes of an ETS.

**Recommendation 4:** Any accredited bio-sequestration activities in NSW should be required to demonstrate an additional ecological benefit as a result of the activities. This to be evaluated as a separate criterion to the carbon benefits of the activity.

**Recommendation 5:** Carbon offset programs should act as a supplement to other emission reducing programs. Regulations should target sustainability and efficiency to reduce the need for carbon offsets.

**Recommendation 6:** Carbon offsets which have short-term timeframe should be given preference to those with longer-term timeframes.

**Recommendation 7:** Carbon offset projects in NSW must continue to be audited at least to the same standard as required by the current NSW Greenhouse Gas Reduction Scheme.

**Recommendation 8:** Geo-sequestration projects should not be included as a part of a carbon offset scheme in NSW due to the risks involved in its implementation.

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