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## Ocean Acidification and Climate Change: Synergies and Challenges of addressing both under the UNFCCC

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Ocean acidification is likely to have wide-ranging impacts on marine life with negative implications for sustainable development, food security and economic diversification. Despite its potential to be as disruptive globally as climate change, the problem of ocean acidification seems to be largely absent from most policy discussions pertaining to carbon emissions and has only recently been included, and only somewhat nominally, into discussions within the United Nations Framework Convention on Climate Change (UNFCCC).

The UNFCCC is the international body designed to tackle the problem of climate change by stabilising greenhouse gases (GHG) in the atmosphere (most significantly carbon dioxide  $(CO_2)$ ), largely through a reduction in global emissions. Since global ocean acidification is caused by carbon dioxide emissions and the UNFCCC is already in the process of regulating carbon dioxide emissions it does seem the Climate Convention is the regime best suited to also contend with ocean acidification. While the UNFCCC was not originally envisioned with the intent of addressing ocean acidification it does provide the framework to tackle both ocean acidification and climate change in one forum. Setting up a second international mechanism to deal solely with  $CO_2$  reductions would be superfluous, confusing and unrealistic.

While there are large national and international research efforts currently underway to improve our understanding of the ecological and socio-economic impacts of ocean acidification it appears there is a disconnect between the scientific and policy communities on this issue. The clear urgency and concern that is felt within the scientific community is not being translated into policy action. A greater understanding of the potential of the existing policy mechanisms to address ocean acidification is required.

It is important to recognise that ocean acidification is a concurrent problem to climate change and not simply of symptom of it. Consequently, policies designed to deal solely with climate change will not necessarily mitigate rising ocean acidity. As a result it is vital that ocean acidification be given larger recognition within the UNFCCC and opportunities be sought to incorporate it further into the policies and mechanisms of the Convention.

Here we attempt to identify the linkages between ocean acidification and the UNFCCC by acknowledging the efforts already underway to address ocean acidification and by highlighting the areas where the UNFCCC is currently lacking capacity to effectively tackle rising ocean acidity. Possible scenarios will be offered for common solutions to reduce and adapt to ocean acidification and climate change within the UNFCCC.