The New York Times

December 27, 2009

OP-ED CONTRIBUTOR

To Save the Planet, Save the Seas

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FOR the many disappointments of the recent climate talks in Copenhagen, there was at least one clear positive outcome, and that was the progress made on a program called Reducing Emissions From Deforestation and Forest Degradation. Under this program, key elements of which were agreed on at Copenhagen, developing countries would be compensated for preserving forests, peat soils, swamps and fields that are efficient absorbers of carbon dioxide, the primary heat-trapping gas linked to global warming.

This approach, which takes advantage of the power of nature itself, is an economical way to store large amounts of carbon. But the program is limited in that it includes only those carbon sinks found on land. We now need to look for similar opportunities to curb climate change in the oceans.

Few people may realize it, but in addition to producing most of the oxygen we breathe, the ocean absorbs some 25 percent of current annual carbon dioxide emissions. Half the world's carbon stocks are held in plankton, mangroves, salt marshes and other marine life. So it is at least as important to preserve this ocean life as it is to preserve forests, to secure its role in helping us adapt to and mitigate climate change.

Sea-grass meadows, for example, which flourish in shallow coastal waters, account for 15 percent of the ocean's total carbon storage, and underwater forests of kelp store huge amounts of carbon, just as forests do on land. The most efficient natural carbon sink of all is not on land, but in the ocean, in the form of Posidonia oceanica, a species of sea grass that forms vast underwater meadows that wave in the currents just as fields of grass on land sway in the wind.

Worldwide, coastal habitats like these are being lost because of human activity. Extensive areas have been altered by land reclamation and fish farming, while coastal pollution and overfishing have further damaged habitats and reduced the variety of species. It is now clear that such degradation has not only affected the livelihoods and well-being of more than two billion people dependent on coastal ecosystems for food, it has also reduced the capacity of these ecosystems to store carbon.

The case for better management of oceans and coasts is twofold. These healthy plant habitats help meet the needs of people adapting to climate change, and they also reduce greenhouse gases by storing carbon dioxide. Countries should be encouraged to establish marine protected areas — that is, set aside parts of the coast and sea where nature is allowed to thrive without undue human interference — and do what they can to restore habitats like salt marshes, kelp forests and sea-grass meadows.

Managing these habitats is far less expensive than trying to shore up coastlines after the damage has been

done. Maintaining healthy stands of mangroves in Asia through careful management, for example, has proved to cost only one-seventh of what it would cost to erect manmade coastal defenses against storms, waves and tidal surges.

The discussions in Copenhagen have opened the way for all countries to improve the management of oceans and coasts to harness their immense potential to mitigate climate change — especially over the next decade, while the world's politicians, scientists and engineers develop longer-term strategies for stabilizing the atmospheric concentration of greenhouse gases.

In their continuing negotiations on climate change, nations should now make it a priority to produce a single map of the world that documents all the different types of coastal carbon sinks, and identify the ones that are in most immediate need of preservation. New studies should be undertaken to better understand how best to manage these areas to increase carbon sequestration. Then, following the example of the forests program, it will be possible to establish formulas for compensating countries that preserve essential carbon sinks in the oceans.

We urgently need to bring the ocean into the agenda alongside forests so that, as soon as possible, we can help the oceans to help us.

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