

1. ADAPTATION: Africa's fisheries least able to adapt to climate change (02/06 /2009)

Lauren Morello, E&E reporter

African nations' fisheries will be hardest hit by climate change, according to a report released yesterday that attempts to determine which countries are most vulnerable to effects ranging from damage to coral reefs to changing river flows and stronger coastal storms.

The report by the WorldFish Center identifies 33 countries whose economies are "highly vulnerable" to climate change because they rely heavily on fisheries to supply food and income.



How are they biting? You should have been here yesterday. Photo courtesy Chris Béné of WorldFish Center.

"We asked a simple question, which is 'Where in the world does it matter most if climate change affects fisheries?" said Edward Allison, the report's lead author.

The answer, in large part, was Africa. There, where fish accounts for half of the animal protein consumed each day, 21 countries made the list.

That was surprising, Allison said, because the environmental effects of climate change are projected to be greatest at high latitudes. "We know that because of poverty and natural resource dependence, many [African] countries are vulnerable to climate change more generally," he said. "But what many people didn't realize is just how important fisheries are to Africa."

Asian and South American countries rounded out the list, with the notable exception of Russia, which ranked third.

Countries on the list supply about 20 percent of the world's fish exports, the report said. But they have limited ability to bring in other industry or grow other sources of food protein if climate

change harms their fisheries.

With that in mind, Allison said the new analysis is designed to guide the World Bank, governments and nongovernmental organizations that might provide money to help such nations adapt to shifting weather patterns.

Risks to fishermen were once ignored -- 'but now, my God'

"Fisherfolk are pretty adaptable, and they're used to dealing with variations in climate," he said. "But they're first in line in terms of exposure to impending storms, rising sea levels, flood and droughts. They work on water, in water. ... Every aspect of their lives are exposed to climate change."

Rashid Sumaila, head of the Fisheries Economic Research Center at the University of British Columbia, praised the analysis and said it comes at a time when the fishing community is taking stock of climate change.

"Recently, there has been a big spike of interest in climate change and fisheries among NGOs, governments and other organizations," said Sumaila, who has worked on fisheries projects in Europe, Asia and Africa. "The fishing community was quite slow getting to this stage, but now, my God."

With that in mind, Allison said he and his colleagues are already working to refine their analysis with more detailed data for individual countries and regions. That includes about 60 small island nations that could not be included in the study released yesterday because of a lack of information.

Many of those countries, including Pacific island nations like Kiribati and the

The 10 most vulnerable nations

| Gambia |
|--------------------|
| Angola |
| DR Congo |
| Russian Federation |
| Mauritania |
| Senegal |
| Mali |
| Sierra Leone |
| Mozambique |
| Niger |

