

Criterion 5

National Report on Sustainable Forests—2010

Maintenance of Forest Contribution to Global Carbon Cycles

What is this criterion and why is it important?

More than any other criterion, this one reflects the fact that forests exist within a context of the global environment and the world's economic and social activities. Criterion 5 embodies a direct link between the environment and the economy, because carbon cycling concerns result from the fossil fuel combustion that powers the human economy. The capacity of forests to sequester carbon may be—or may become—a primary factor for determining the capacity of fossil fueled economies. The global economy, in other words, may be a function not only of the global environment but also, particularly, of the forested environment.

What has changed since 2003?

The data—Most of this criterion's data continue to be based on greenhouse gas (GHG) inventories compiled by the U.S. Environmental Protection Agency, forest inventories conducted by the Forest Service, surveys of electricity generation by the U.S. Department of Energy, and models and simulations of carbon pools and fluxes based on said data sources.

The indicators—The following table summarizes the revisions. Briefly, the forest ecosystem and product pools have been separated into their own respective indicators, while a new indicator focused on avoided fossil fuel emissions through forest biomass use has been created. Indicator reference numbers for 2003 and 2010 are provided to assist in comparisons with the previous report. A more detailed rationale for the revisions may be found at http://www.rinya.maff.go.jp/mpci/meetings/18_e.htm.

Criterion 5. Maintenance of Forest Contribution to Global Carbon Cycles.

2003 Reference	2003 Indicator	Revision Action	2010 Reference	2010 Indicator
26	Total forest ecosystem biomass and carbon pool, and if appropriate, by forest type, age-class, and successional stages	Add fluxes, delete type and age	5.22	Total forest ecosystem carbon pools and fluxes
27	Contribution of forest ecosystems to the total global carbon budget (standing biomass, coarse woody debris, peat, and soil carbon levels)	DELETE		
28	Contribution of forest products to the global carbon budget	Add fluxes, delete global context	5.23	Total forest product carbon pools and fluxes
		NEW	5.24	Avoided fossil fuel carbon emissions by using forest biomass for energy