

Moving towards integrating IFM better in the global climate agenda the cycle of wildfires impacting climate change and a changing climate will cause more wildfires

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ABSTRACT – Wildfires can be part of a natural and healthy forest disturbance process, but in recent years they have become increasingly frequent and severe. After generations of fire suppression, today's wildfires are very different from the forest fire patterns that have historically shaped our landscapes. Wildfires not only emit greenhouse gases while they're burning, but they also release carbon sequestered by the trees that are burned. Dead trees continue to release carbon as they decompose after a fire, and carbon uptake is slowed or halted in burnt areas because the vegetation is gone and photosynthesis cannot take place. It can take decades for a forest to reach pre-fire levels of carbon uptake and storage. Thus, improved wildfire management is an essential part of successful global reductions of forest and land-use related greenhouse gas (GHG) emissions. In so far, there remains ambiguity on forest fires, in particular as in many agroforestry landscapes in the tropics most fires are wanted and an integral part of landscape management. Moreover, for many smallholders in developing countries, fires are an essential element of their farming systems. In Indonesia for example, the environmental management law allows smallholders to use fires to clear land. The impact of wildfires in terms of GHG emissions, as well as impacts on human health, local economies and the shaping of future landscapes are determined by a combination of factors, among which the most important are ecosystem-driven and determined by social and economic dynamics of the population relying on these ecosystems. This makes the causes of fire differ dramatically between the developed and the developing world. In the latter, fires play an important part in terms of livelihood and food security, while in the former, fire incidence is related to access to forests for recreational purposes, and wildfire outbreaks are often due to neglect during times when weather or climate makes these ecosystems highly fire vulnerable. This makes the case for better acknowledgement of the role of integrated fire management in the global climate change agenda both in terms of mitigation as well as adaptation.

Keywords: Climate change; wildfires; IFM