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**Peatland in national greenhouse gas inventory - a basis for better peatland management**

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Peatlands are playing a critical role in combatting climate change. Undisturbed waterlogged peatlands (organic soils) store a large amount of carbon and act as small net sinks. Drainage of peatlands for agriculture and forestry results in a rapid increase in decomposition rates, leading to increased emissions of CO<sub>2</sub>, and N<sub>2</sub>O, and vulnerability to further greenhouse gas emissions through fire. Therefore, conservation of peatlands and rewetting of drained peatlands are regarded as important mitigation activities that can reduce climate forcing, as highlighted in the the 5<sup>th</sup> Assessment Report (2014) by the Intergovernmental Panel on Climate Change (IPCC). The importance of peatland management in climate policy has been attracting more and more attention in recent years. For example, greenhouse gas emissions and removals caused by “wetland drainage and rewetting” has been added in the greenhouse gas accounting scheme for the second commitment period (2013-2020) under the Kyoto Protocol although they were not included in the first commitment period (2008-2012).

A national greenhouse gas inventory is a compilation of estimates of greenhouse gas emissions and removals on a national scale on an annual basis. It provides a fundamental basis for making and implementing climate policies and measures as well as for international climate negotiation. Therefore, all the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), including its Kyoto Protocol and Paris Agreement, are obliged to produce and publish their national greenhouse gas inventories in accordance with the internationally-agreed methodologies provided by the IPCC’s Task Force on National Greenhouse Gas Inventories. The methods to estimate emissions from peatlands cleared and drained for production of peat for energy, horticultural and other uses are provided in the “*2006 IPCC Guidelines for National Greenhouse Gas Inventories*” (2006), and the methods to estimate emissions and removals by rewetting and restoration of peatland are provided in the “*2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*” (2013). Thus, peatland is included as one of the key elements in national greenhouse gas inventories

Good peatland management is essential to climate mitigation. Reliable and high-quality estimates of emissions from and removals by peatland in national greenhouse gas inventories will help countries to plan and carry out better peatland management, which will eventually enable successful implementation of the Paris Agreement as well as achieving the Sustainable Development Goals (SDGs).