



Tropentag, September 18-20, 2019, Kassel

“Filling gaps and removing traps
for sustainable resource management”

The Necessity and Challenges of Tropical Paludiculture

HANS JOOSTEN

University Greifswald, Inst. of Botany and Landscape Ecology; Partner in the Greifswald Mire Centre, Germany

Abstract

The Paris Agreement has made the world simple. We have one common goal: to limit global temperature rise to clearly below 2°C. The physical consequence is, that we have to reduce global net CO₂ emissions by 2050 to 0 (zero). As, furthermore, these goals have to be reached “. . . in the context of sustainable development and efforts to eradicate poverty”, the challenges are enormous.

Currently drained peatlands account for 5% of all global anthropogenic GHG emissions, half of which coming from the tropics. Millions of hectares of drained peatlands will furthermore in future be flooded by the sea because of ongoing peat subsidence. The Paris Agreement and the Sustainable Development Goals imply that the use of drained peatlands is completely stopped and that worldwide until 2050 almost 20,000 km² of drained peatland will be rewetted annually. As the demand for biomass is growing, these peatlands must largely maintain their production function. Peatland agriculture and forestry must therefore rapidly advance the development of innovative, wet cultivation techniques, i.e. of paludicultures, which – per definition – minimise greenhouse gas emissions and stop subsidence.

The presentation will discuss the perspectives, options and major challenges of tropical paludicultures.

Keywords: Climate change, gas emissions, peatlands