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**DISSOLVED GREENHOUSE GASES IN PEAT-DRAINING RIVERS IN SARAWAK,
MALAYSIA**

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Southeast Asian peat soils are a globally important carbon pool, but are currently undergoing severe disturbance due to anthropogenic activities such as deforestation and conversion into palm oil plantations. Peatland degradation usually increases carbon loss through direct emissions to the atmosphere and via riverine export, however, most of the data has been collected in temperate regions and information on tropical rivers is largely lacking. This presentation will provide an overview of recent work in several peat-draining rivers in Sarawak. We have for example measured dissolved greenhouse gases (GHG; CO₂, CH₄, N₂O) using Fourier Transform InfraRed (FTIR) spectroscopy as well as dissolved organic carbon (DOC), particulate organic carbon (POC) and inorganic nutrients over the course of several years and seasons. Results show that while those rivers are sources of GHG to the atmosphere, the level of emission was lower than expected. The occurrence of methanotrophs as well as short residence times are likely the main reasons behind the low emissions.

Keywords:-