[JJ] Evening Poster | A (Atmospheric and Hydrospheric Sciences) | A-CG Complex & General

[A-CG40]Material Circulations in Land Ecosystems

convener:Tomomichi Kato(Research Faculty of Agriculture, Hokkaido University), Takashi Hirano(Research Faculty of Agriculture, Hokkaido University), Hisashi Sato(海洋研究開発機構 地球表層物質循環研究分野, 共同), Ryuichi Hirata(National Institute for Environmental Studies)

Thu. May 24, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

Terrestrial ecosystem influences global climate through circulations of water, carbon, and nitrogen between land surface and atmosphere. For better understanding of those behaviors, a great effort has been paid for developing varieties of approaches and techniques such as biometric survey, eddy and chamber methods, near and satellite remote sensing, biosphere modeling and so on.

In particular, the JapanFlux, founded in 2006 as a researchers network of CO2, H2O and other trace gas flux measurement, has promoted the multi-disciplinal studies not only for flux measurement community, but also for remote sensing and biosphere modeling communities. Moreover, the Research-Group-on-Integrated-Land-Processes, which was founded in 2006, also has contributed to build networks between Japanese researchers to better understanding of physical and biological processes on interactions between terrestrial surface and atmosphere.

This session unites those multi-disciplinal activities, and promotes the oral and poster presentations on the role of terrestrial ecosystem in material circulations of water, carbon, nitrogen, energy and other substances by any approaches and technics. This session takes over the former session in last year: A-CG47.

[ACG40-P07]Carbon emissions caused by land use change in Borneo island

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While tropical peat forest occupies only 0.25% of surface area on globe, it accounts 3% of soil organic carbon on earth (Hergoualc’h and Verchot, 2011). Tropical peat forest, in which forest grows on peat with depth of 1 to -10 m, spreads in Southeast Asia such as Borneo and Sumatra Island. Recently, the area of tropical peat forest is rapidly decreasing because of fire or plantation, and has resulted in large carbon lost. Therefore, carbon management and control for tropical peat forest is very important with the objective of development, conservation and disaster prevention. In order to evaluate the effects of land use change on greenhouse gas fluxes of tropical peat lands.