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**PROFILING WATER TABLE DEPTH AND SOIL MOISTURE IN A DRAINED PEAT SWAMP HOSTING OIL PALM**

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Oil palm is a crop highly valued for its oil. Land conversion to host oil palm is proceeding rapidly due to the economic value in supplying the food and biofuels market. Large and adjacent plantations are transforming the landscape globally, but particularly in Malaysia where the footprint of plantation area has increased by 900% since 1975. Malaysia currently accounts for 39% of world palm oil production and 44% of world exports. For this, areas of native tropical forests have been cleared and drained, including those on peatland swamps, such that national forest cover in oil palm producing areas has declined considerably over the same period. This change in land use is contentious and the scientific community is responding to provide a science base for environmental impacts to support decision-making. For example, multiple organizations are seeking to understand the carbon footprint and changes in biodiversity of such land use change; soil gas effluxes are being measured and atmospheric chemistry changes have been observed. Crucial in many of these processes is how wet the soil is and so the position of the water table. At a drained peat body in South Selangor hosting one of the regionally oldest plantations we installed a grid of 10 pressure transducers to measure water table depth and soil moisture probes at -5 and -70 cm, all logging every 30 minutes. We have collected data since June 2014, allowing assessment of not only annual but inter-annual variation. Already we know that the water table can be as low as -120 cm, and soil moisture at -70 cm can be less than at the surface. This research suggests that for a considerable part of the year, the site is being over-drained, so revision of management practices and policy is strongly recommended.

**Keywords:-**