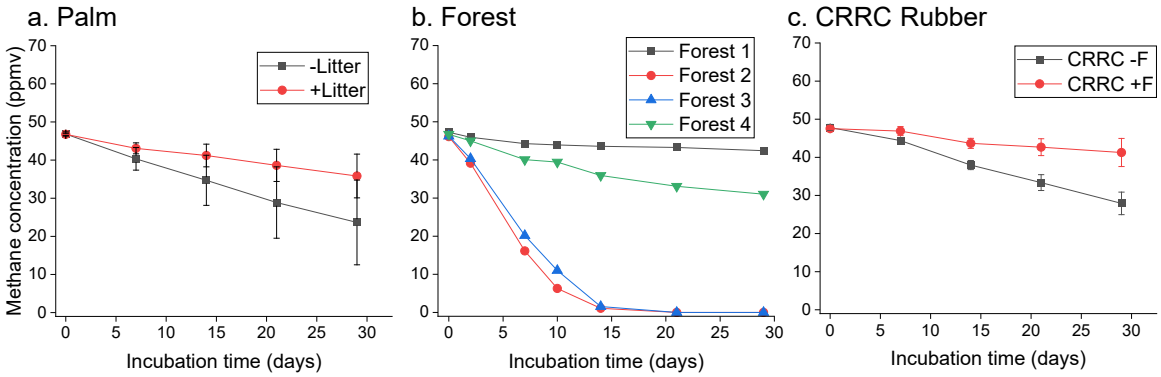
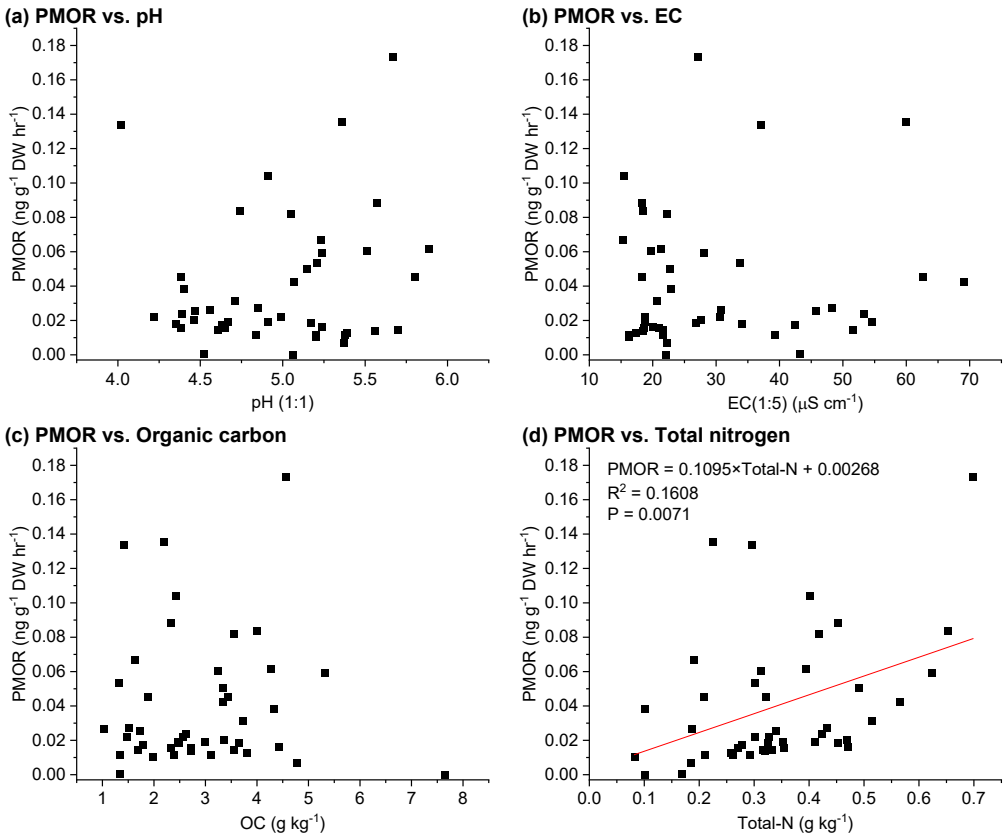
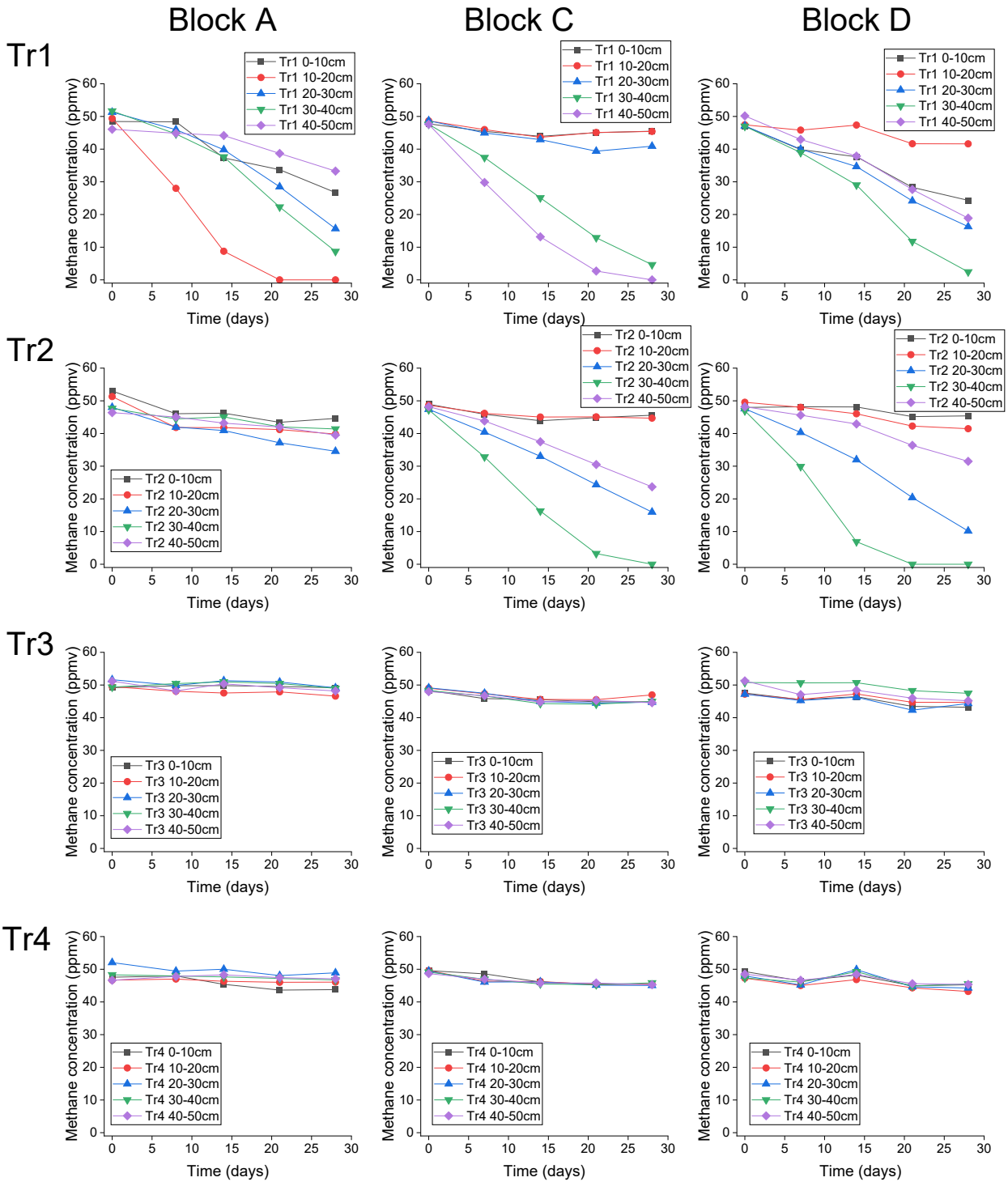


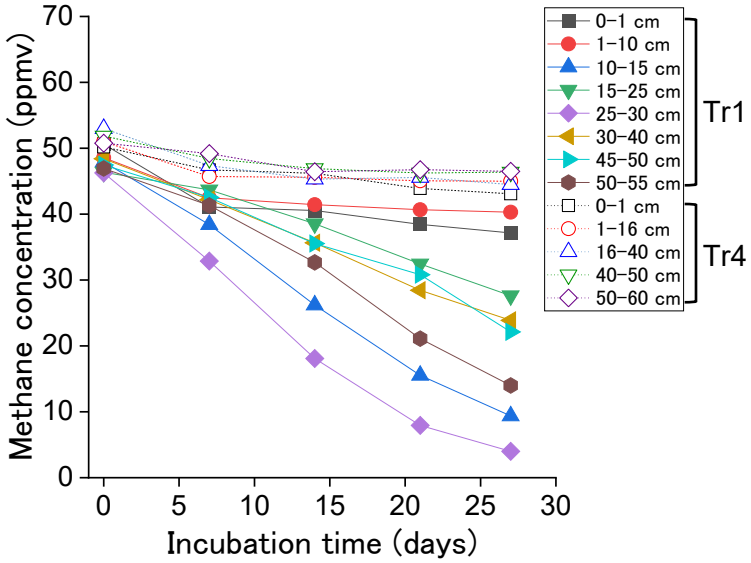
Supplementary Figure S1: Methane oxidation of surface (0-10 cm) soils of (a) the palm plantation and (b) secondary forest of Bangburd Experimental Station, and (c) rubber plantation in Chachoeng Sao Rubber Research Center (CRRC) collected in August 2023 (wet season). The data of palm plantation represent the average and standard error of triplicate samples corrected from the sites with and without litter cover on the soil. The data of four forest soils were independently shown due to the large spatial variation. CRRC data represent the average and standard error of triplicate samples corrected from the sites with and without fertilizer applied.



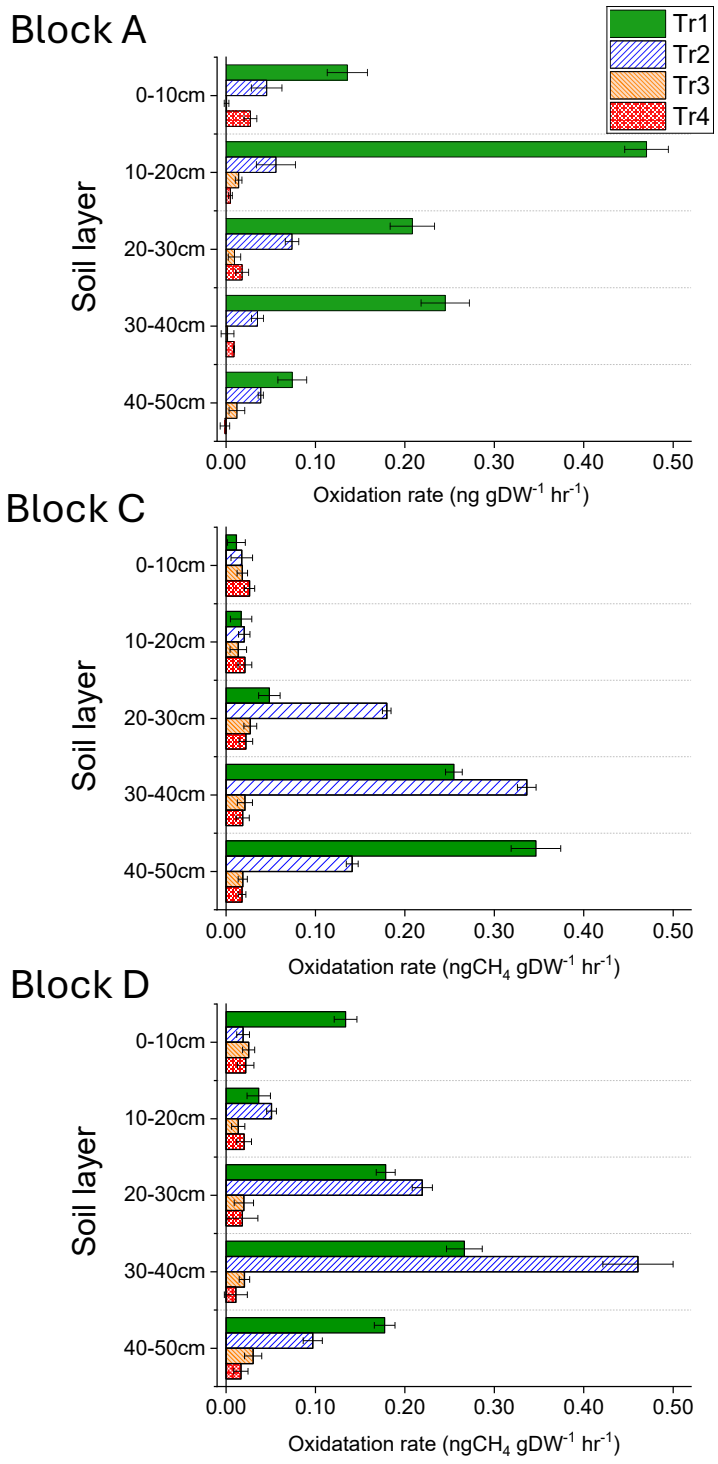
Supplementary Figure S2: Interrelationship between potential methane oxidation rates and (a) pH, (b) EC, (c) organic carbon, and (d) total nitrogen of the surface (0-10 cm) soils in SKRS rubber plantation.



Supplemental Figure S3: Methane consumption of soils with different depths in para rubber plantation under different fertilization levels. The soil samples were collected from the four replicate blocks in February 2024 (dry season), among which the data of block B is shown in Fig. 5



Supplementary Figure S4: Methane oxidation of soils corrected from different depths in the rubber plantation (block B) in August 2023 (wet season).



Supplemental Figure S5: Depth profile of potential methane oxidation rate of soils with different depths in para rubber plantation under different fertilization levels. The soil samples were collected from the four replicate blocks in February 2024 (dry season), among which the data of block B is shown in Fig. 6