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SENSITIVITY ANALYSIS OF BIOME-BGC MODEL FOR DRY TROPICAL FORESTS OF VINDHYAN HIGHLANDS, INDIA

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Abstract. A process-based model BIOME-BGC was run for sensitivity analysis to see the effect of ecophysiological parameters on net primary production (NPP) of dry tropical forest of India. The sensitivity test reveals that the forest NPP was highly sensitive to the following ecophysiological parameters: Canopy light extinction coefficient (k), Canopy average specific leaf area (SLA), New stem C : New leaf C (SC:LC), Maximum stomatal conductance ($g_{s,max}$), C:N of fine roots (C:N$_{fr}$), All-sided to projected leaf area ratio and Canopy water interception coefficient (W_{int}). Therefore, these parameters need more precision and attention during estimation and observation in the field studies.

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