



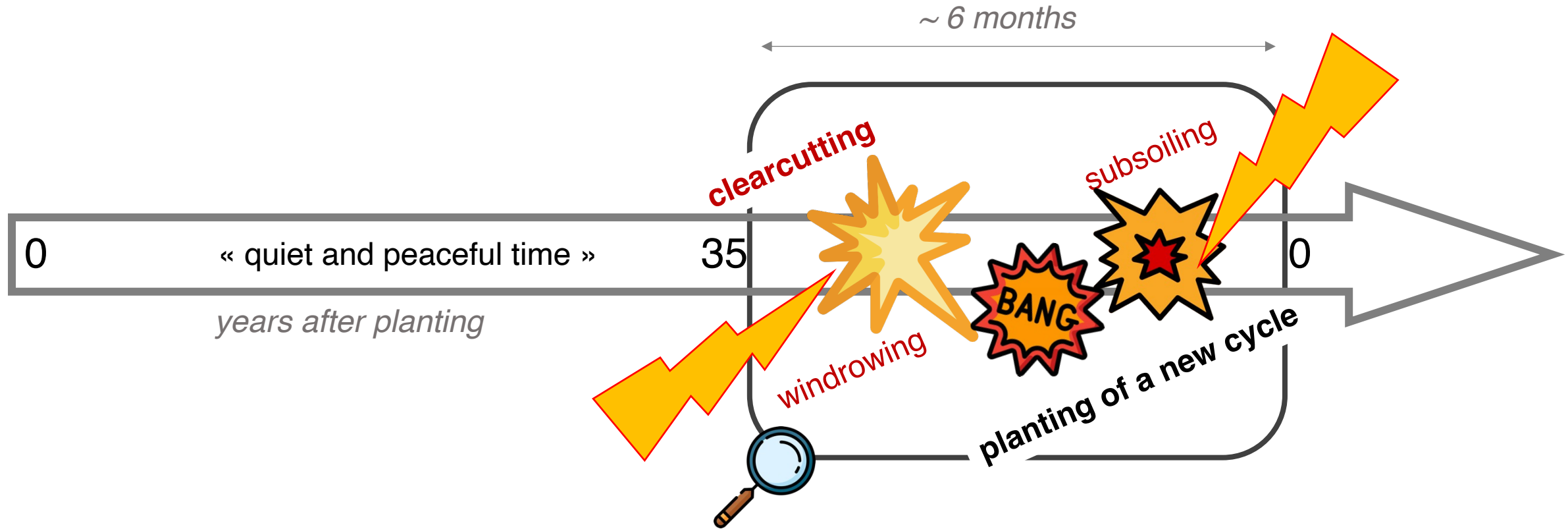
Logging residues promote rapid restoration of soil health after clear-cutting of rubber plantations in West Africa

Thibaut Perron, A. Kouakou, C. Simon, L. Mareschal, J.P. Laclau, F. Gay, A. Brauman

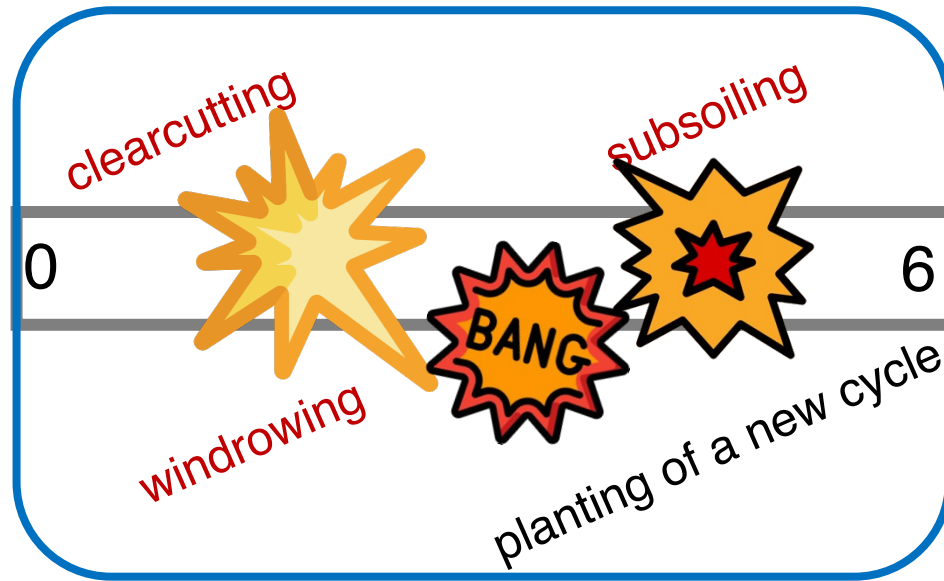
thibaut.perron@cirad.fr



Replanting : high soil **disturbances** expected



video showing the old stand clearclutting, windrowing of the logging residues in the interline
and subsoiling on the planting line



1 Quantify the **disturbance** of soil functions during the replanting phase

2 Assess the **restauration** of soil in relation with the restitution of **logging residues** and the sowing of a **legume**

3-year diachronic monitoring of **soil functions** with Biofunctool®

how ?

10 soil indicators
3 **soil functions**
driven by **soil organisms**

Carbon transformation

Nutrient cycle

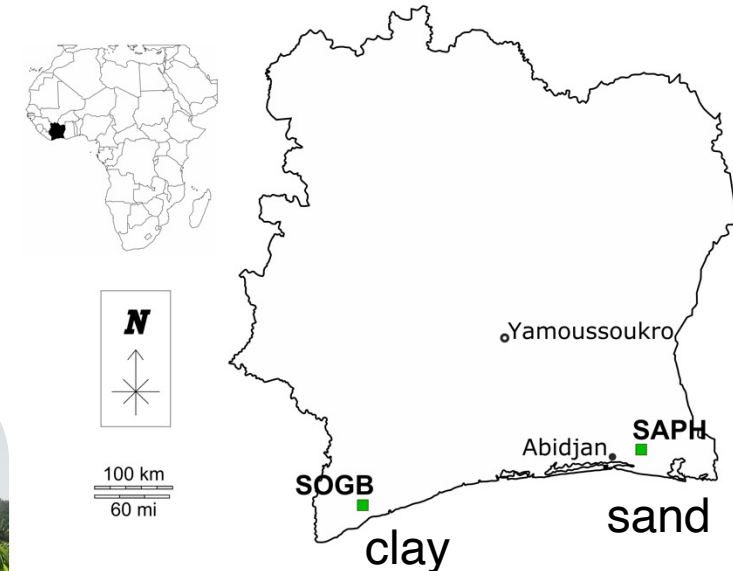
Structure maintenance

what ?



where ?

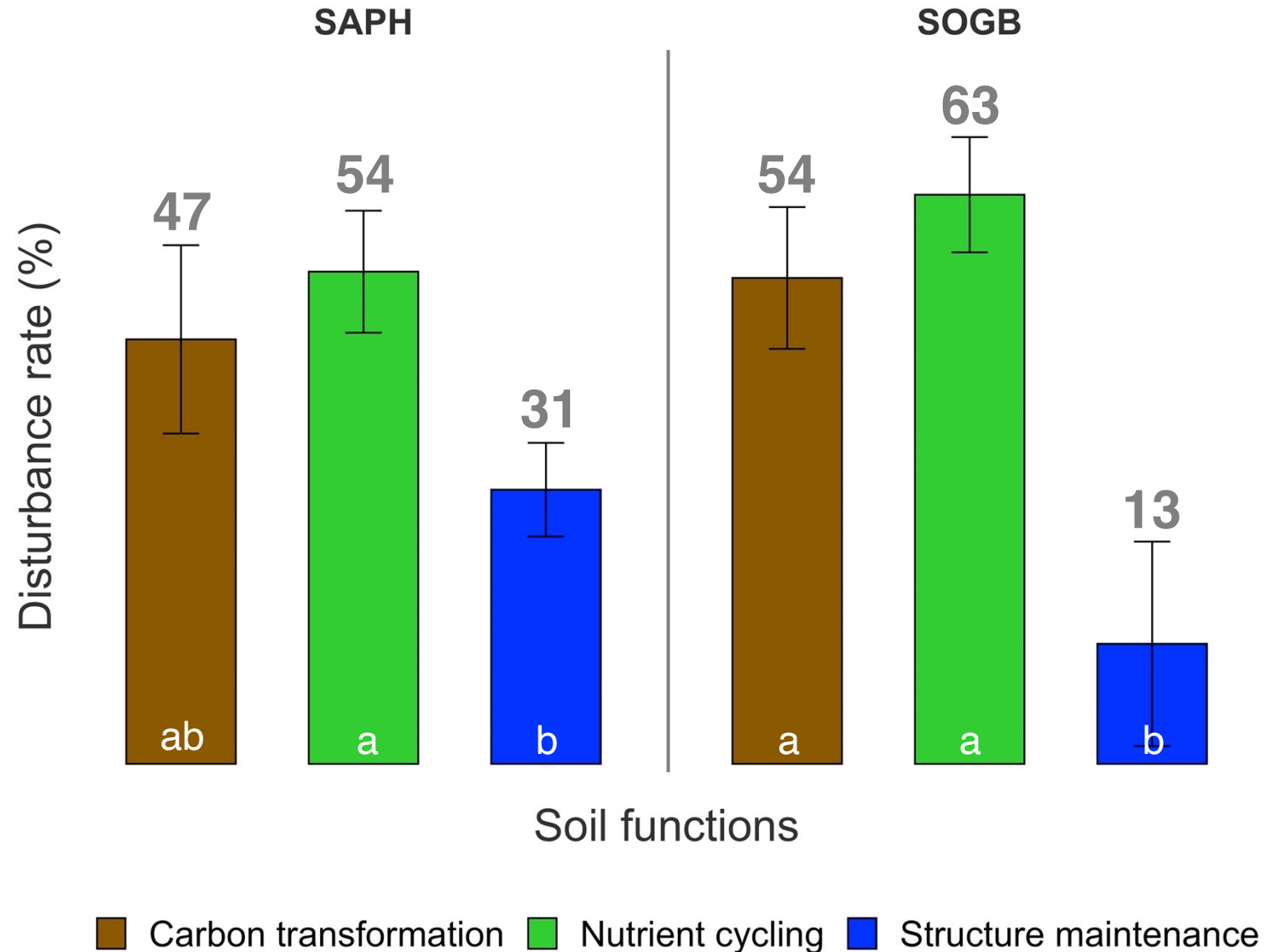
Ivory Coast



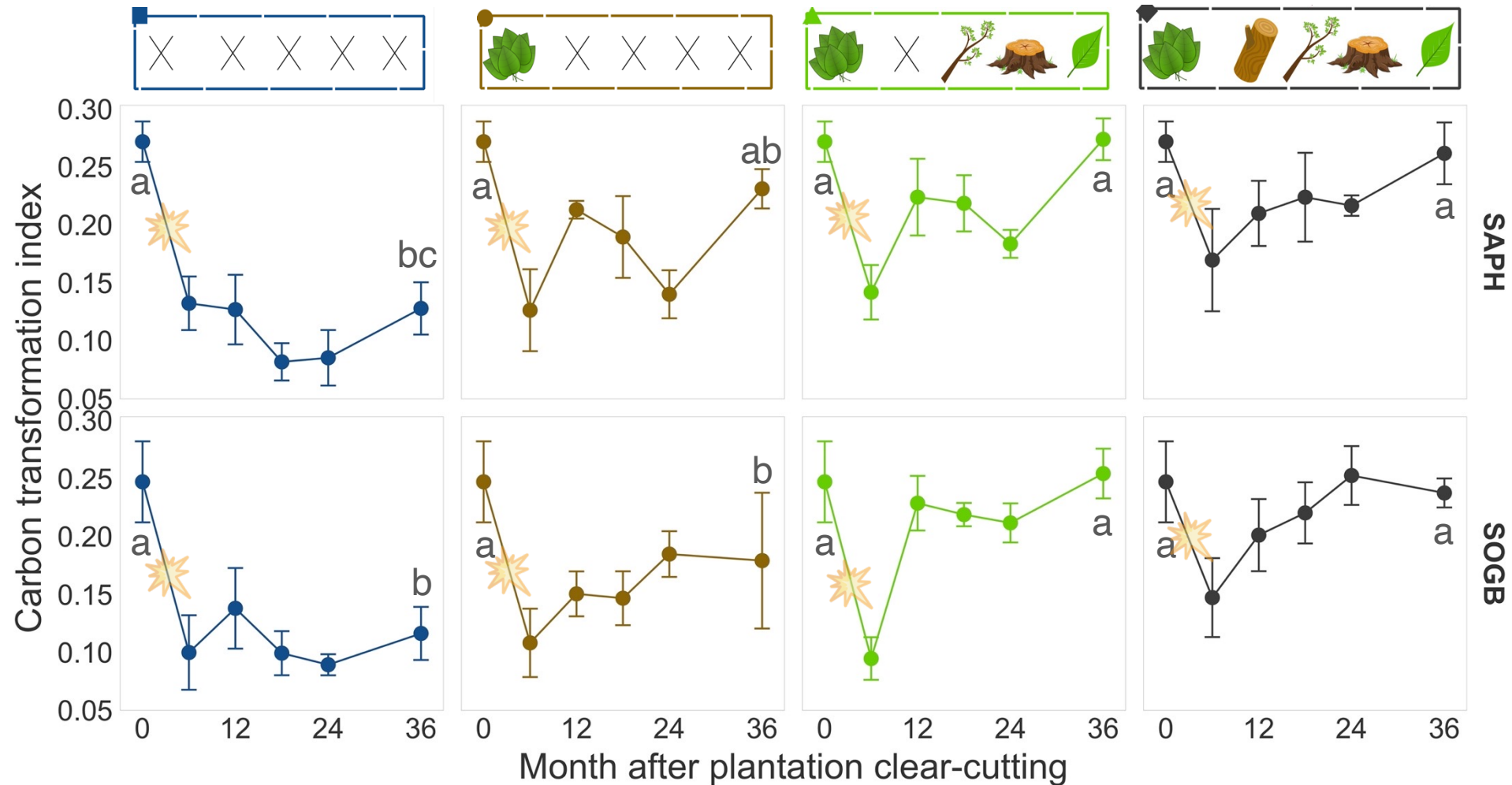
October 2017 - October 2021

rainfall : 1600 mm y⁻¹

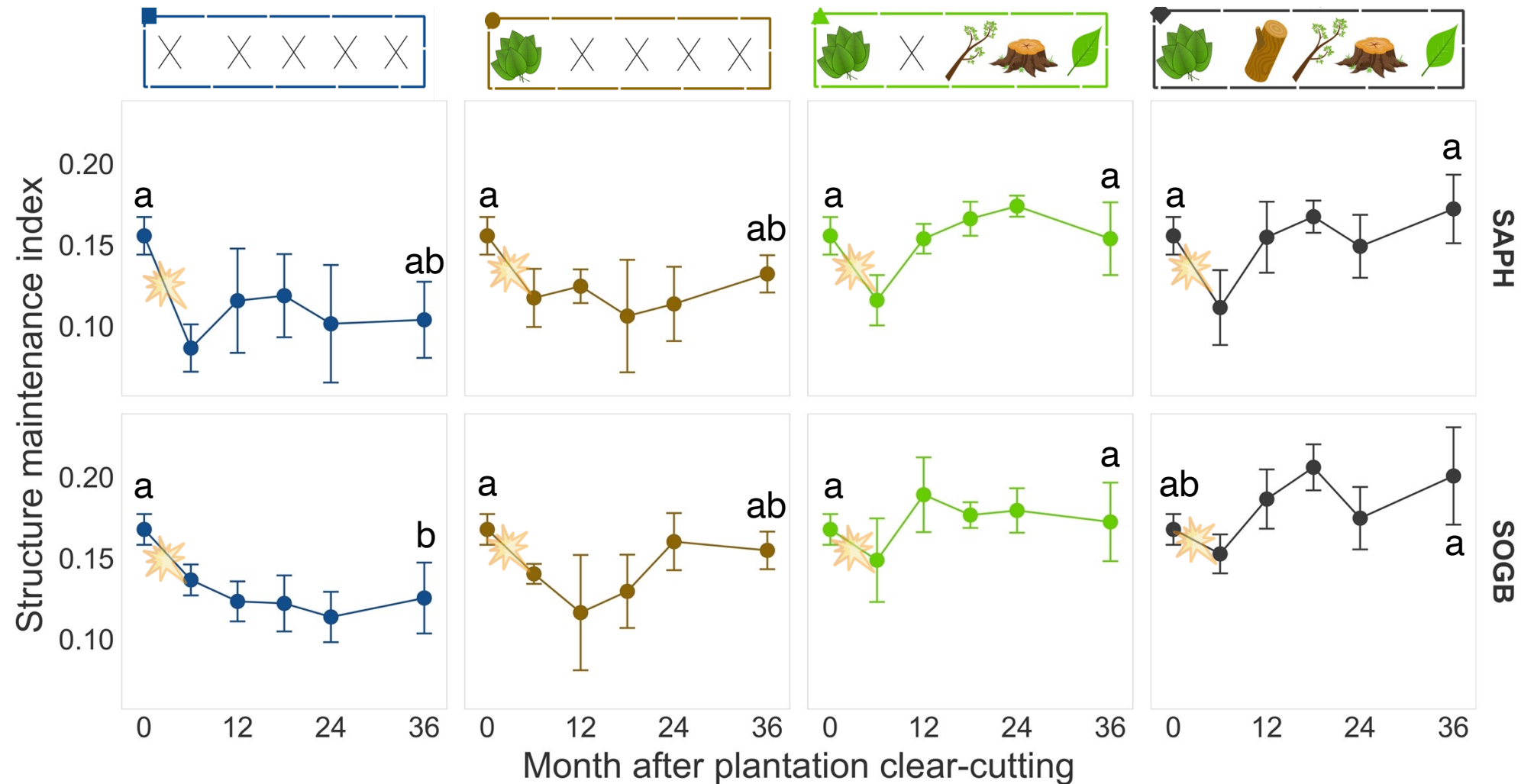
Replanting sharply disturbed soil functions

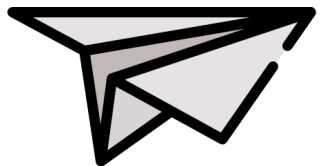


Logging residues + legume = **quick restoration** of the carbon transformation function



Logging residues + legume = **restauration of the structure maintenance function**





Replanting phase
greatly **disturbed**
the soil



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Logging residues
combined with
legume are crucial
for the **restauration**
of **soil functions**



possible
valorisation of
the **trunk**



acknowledgements

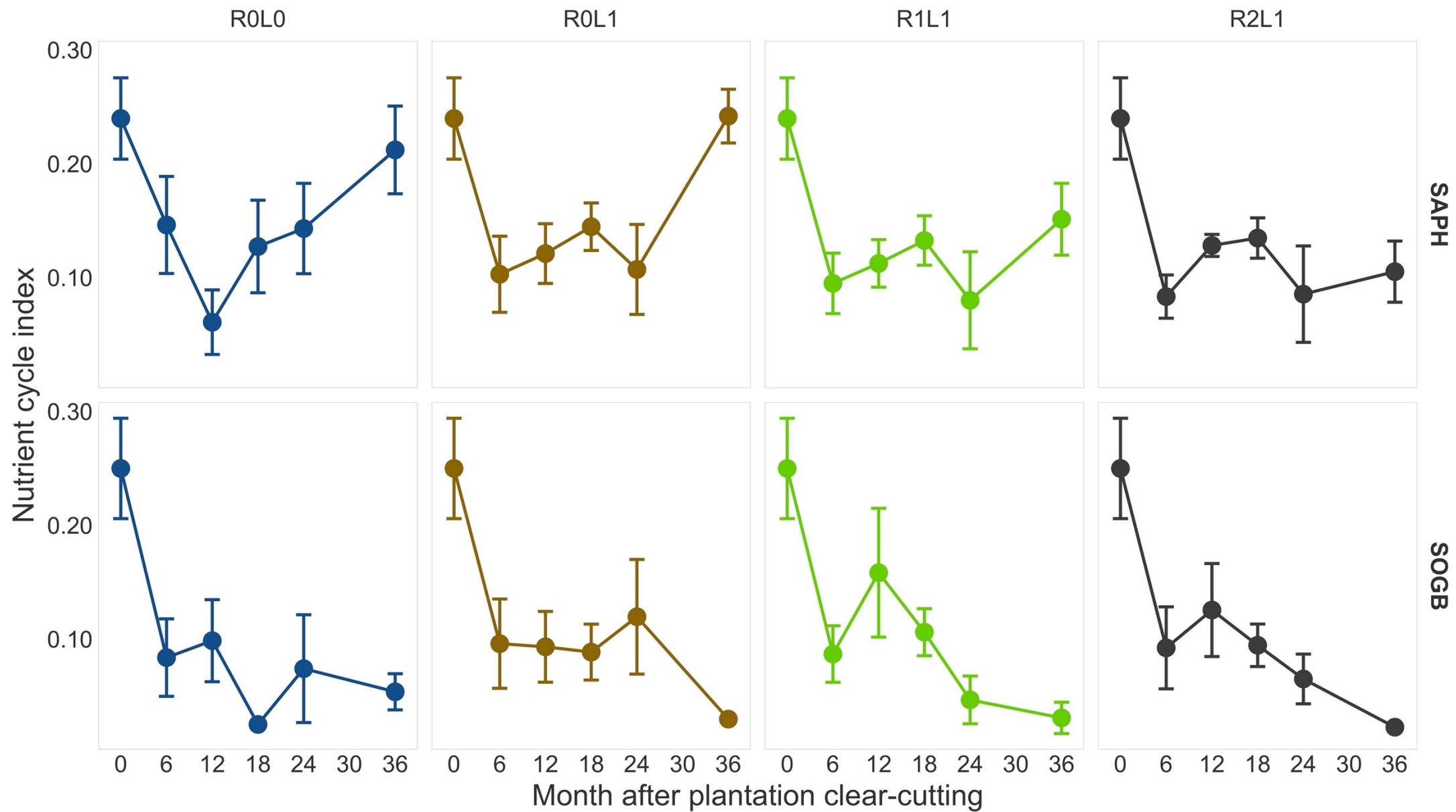


THANK
YOU!



Thibaut Perron
thibaut.perron@cirad.fr







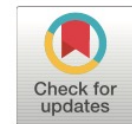
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Logging residues promote rapid restoration of soil health after clear-cutting of rubber plantations at two sites with contrasting soils in Africa



Thibaut Perron^{a,b,c,d,*}, Aymard Kouakou^{e,f}, Charlotte Simon^e, Louis Mareschal^{c,e}, Frédéric Gay^{a,b}, Mouman Soumahoro^d, Daouda Kouassi^g, Nancy Rakotondrazafy^e, Bruno Rapidel^{a,b}, Jean-Paul Laclau^{c,e}, Alain Brauman^e

^a CIRAD, UMR ABSys, F-34398 Montpellier, France

^b ABSys, Univ Montpellier, CIHEAM-IAMM, CIRAD, INRAE, Institut Agro, Montpellier, France

^c CIRAD, UMR Eco&Sols, F-34398 Montpellier, France

^d SAPH, Direction of Industrial Plantations (DPI), Côte d'Ivoire

^e Eco&Sols, Univ. Montpellier, CIRAD, INRAE, Institut Agro, IRD, Montpellier, France

^f Nangui Abrogoua University, Ecology and Sustainable Development Laboratory, Abidjan, Côte d'Ivoire

^g SOGB, Agricultural Technique, Auditing and Organisation Department (DTAO), SOCFIN, Côte d'Ivoire