Gael Sola

Forest monitoring expert

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At the interface between countries technical experts and decision makers to improve forest management and protection

Experience

FAO - Food and Agriculture Organization of the United Nations

2014–present Forestry and REDD+ technical expert, *UN-REDD Programme*, Viet Nam and South-Southeast Asia.

- O Viet Nam:
 - Provide technical support to the forest department and its technical bodies, in collaboration with international organisations (UNDP, JICA) to develop and improve forest monitoring systems,
 - Pilot **updated methods** for (1) forest cover and cover change maps, (2) national forest inventory field manual and quality assessment/quality control,
 - Organize participatory workshops on monitoring systems for forest activities in six provinces,
- South and Southeast Asia:
 - Provide **training** and technical backstopping on forest monitoring to government bodies and research institutions (Bangladesh, Cambodia, the Philippines, Thailand).
 - Support the design, implementation and update of **National Forest Inventories** (Bangladesh, Cambodia, Thailand).
- 2012–2014 **Forest inventory and biomass assessment expert**, *UN-REDD programme*, FAO HQ, Italv.
 - Conduct training, develop guidelines and training materials for field work, data exploration and data analysis on developing tree biomass allometric equations (Vietnam, Cambodia, Zambia, Tanzania, Congo, DRC).

Research Institutes / NGOs

2011–2012 **Research assistant**, Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), Republic of the Congo.

Installation and monitoring of experimental sites, contribution to data analysis and scientific production

2009 **Technical assistant**, *Groupe energies renouvelables, environnement et solidarités (GERES)*, Cambodia, 6 months.

Wood supply and demand analysis on Phnom Chumriey area.

2008 **Research assistant**, *(CIRAD)*, Republic of the Congo, 6 months. Study of the nutrient losses by erosion and run off intensity on eucalyptus plantations.

Education

- 2006–2010 **Master of forest science**, *AgroParisTech-ENGREF*, France.
 - Sustainable management of tropical and temperate forests.
 - Forest and climate change mitigation (MDP, REDD).
 - o International policy, economy and sociology applied to natural resources management.

Masters Thesis

Title Formal and informal wood supply chains in two forest areas of Madagascar East Coast (CIFOR-HELVETAS)

Supervisors Professor Jean-Laurent Pfund

Description A deep dive into the harsh reality of the illegal wood commodity chains in and around forest protected areas, revealing the importance of timber logging for local communities around protected areas and quantifying the distribution of revenues from the forest to the main markets.

Languages

French ★★★★ English ★★★☆ Vietnamese ★☆☆☆☆

Computer skills

Basic SQL, HTML, SAS

Intermediate Geographic Information Systmes (QGIS, ArcGIS), PYTHON, LATEX, OpenOffice, Linux, Microsoft Windows

Advanced R SOFTWARE for data analysis, statistics, modeling, geospatial analysis and reporting (reports, dashboards), MS Office

Interests

- Nature, Hiking, Photography

- Music & Music festivals

- Cooking

- Sport

Publications

Author, co-author

Baldasso, M. et al. (2012). Tutorial for Tree Allometric Equation Database Development. Tech. rep. Rome, Italy: Food, Agriculture Organisation of the United Nations, Centre de Coopération Internationale en Recherche Agronomique pour le Développement, Department for Innovation in Biological, Agro-food, and Forest systems of the University of Tuscia.

Birigazzi, Luca et al. (2015). "Toward a transparent and consistent quality control procedure for tree biomass allometric equations". In.

Epron, D. et al. (2012). "Partitioning of net primary production in Eucalyptus and Acacia stands and in mixed-species plantations: Two case-studies in contrasting tropical environments". In: Forest Ecology and Management.

FAO (2017). Voluntary guidelines on national forest monitoring. Rome: Food and Agriculture Organization of the United Nations.

Henry, Matieu et al. (2013). "GlobAllomeTree: international platform for tree allometric equations to support volume, biomass and carbon assessment". In: *iForest: Biogeosciences and Forestry* 6, E1–E5. DOI: 10.3832/ifor0901-006. URL: https://hal.archives-ouvertes.fr/hal-01195066.

Henry, Matieu et al. (2015). Assessment of national biomass in complex forests and technical capacity scenarios. Tech. rep.

Inoguchi, A. et al. (2013). Tree allometric equation development for estimation of forest above-ground biomass in Viet Nam. Tech. rep. (Part A). Hanoi, Viet Nam: UN-REDD Programme.

Mugasha, Wilson et al. (2016). "Allometric Models for Estimating Tree Volume and Aboveground Biomass in Lowland Forests of Tanzania". In: *International Journal of Forestry Research* 2016, pp. 1–13. DOI: 10.1155/2016/8076271.

Picard, Nicolas et al. (2015). "Error in the estimation of emission factors for forest degradation in central Africa". In: *Journal of Forest Research* 21. DOI: 10.1007/s10310-015-0510-5.

Sola, G. et al. (2012). Summary of the manual for building tree volume and biomass allometric equations: from field measurement to prediction. Rome, Montpellier: Food, Agriculture Organization of the United Nations, and Centre de Coopération Internationale en Recherche Agronomique pour le Développement, p. 20.

Sola, Gael et al. (2015). "Wood density for forest conservation: towards improvement of biomass and carbon stocks in tropical regions". In: Proceedings of the 27th International Congress for Conservation Biology and 4th European Congress for Conservation Biology "Mission biodiversity: choosing new paths

for conservation". Ed. by P. Visconti et al. Vol. International Congress for Conservation Biology. 27. Washington DC: Society for conservation biology.

Contributed

FAO (Aug. 2020). Better data, better decisions: Towards impactful forest monitoring. Forestry Working Paper 16. Food and Agriculture Organization of the United Nations. DOI: 10.13140/RG.2.2.34030.02888.