

### Who is coordinating the project?



#### Claude Garcia

Claude is an ecologist, researcher at CIRAD in the unit Goods and Services of Tropical Forested Ecosystems.

Since 2012, he's been leading the "Forest Management and Development" group (ForDev) at ETH-Zurich, Switzerland.

He is mostly interested in interactions between public policies, local practices, and ecological dynamics. He analyses decision-making determinants and stakeholders strategies in forested and agro-forested landscapes, based on biodiversity distribution and land use dynamics. To do so, he uses among others the participative modeling approach 'Companion Modeling'.

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#### Laurène Feintrenie

Laurène is an agronomist, researcher at CIRAD, and she is based in Yaoundé, Cameroon.

She works on interactions between forests and family and industrial farming. She is interested in the dynamics of farming expansion and intensification in forested landscapes, and studies agrarian systems and farming practices. After having studied Southeast Asian agro-forests, she now works in central Africa, on the different sources pressuring forest conversion and degradation: family farming, and agro-industry and mine development.

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### Congo basin forests: tipping points for biodiversity conservation and resilience of the forested social and ecological systems

The CoForTips project is coordinated by CIRAD. It brings together Liège university, IIASA, IRD, and all partners from the FORENET-central Africa network (IRAD Cameroon, Douala University, Bangui University, IRET Gabon, INDEFOR, Marien Ngouabi University) as well as the Autonomous University of Barcelona, ETH-Zurich, Ecole Normale Supérieure in Paris-Les Mines, the University of Montpellier 2, Rennes University, and Electricity of France (EDF). The project started in January 2013, and will be going on for three years.

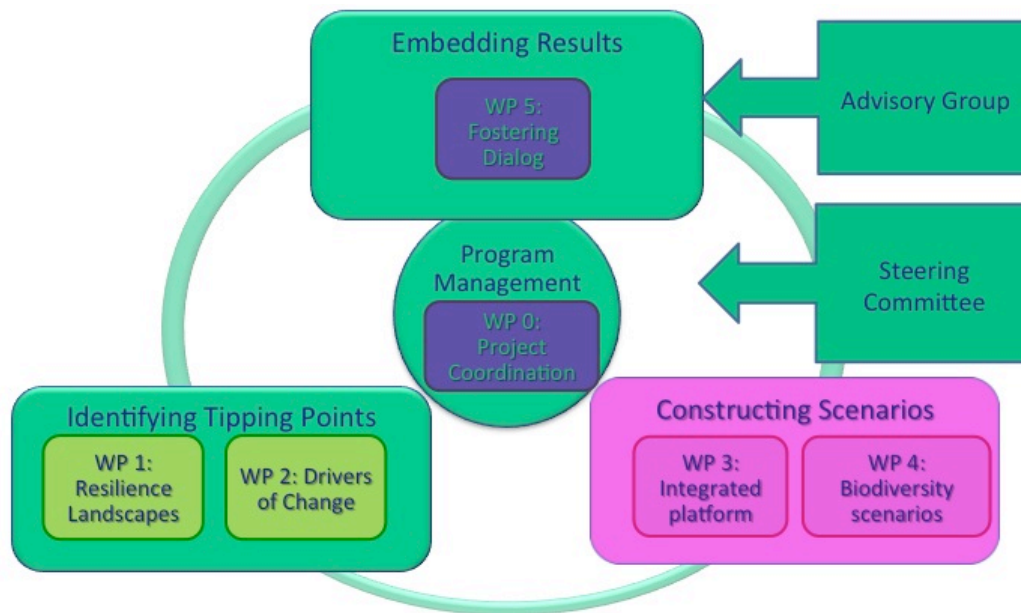
The purpose of CoForTips is to foster better management of the Congo Basin forests through:

- (i) A better understanding of the dynamics of forest biodiversity, and of resilience of forested socio-ecosystems,
- (ii) Constructing scenarios of biodiversity at different temporal and spatial scales, integrating social, economic, governance, ecological, and geophysical processes,
- (iii) Simulating regional trajectories incorporating coping strategies developed by stakeholders.

These scenarios will be used as decision-making tools for economical and political managers at different spatial scales: family, village, region, country, sub-region.

## Project structure: Activities and Coordinators

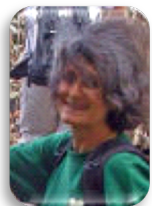
The project is structured in 'Work Packages', or 'WP':



### WP1: Building resilience landscapes

Coordinated by Raphaël Pélissier (IRD) and Sylvie Gourlet-Fleury (CIRAD), this WP aims at increasing our understanding of biodiversity dynamics via fine analysis of forest floristic composition. It builds on the results from the CoForChange project.

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### WP 2: Identifying drivers of change



Coordinated by Cédric Vermeulen (ULg-Gembloux agro bio-tech), this WP analyses drivers and causes of change in biodiversity components and forest provision of ecosystem goods and services.

Different categories of stakeholders and the relationships among them and with their environment will be analysed. Human activities will be studied, and their impacts on natural resources will be assessed.

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### WP3: Developing an integrated platform

Coordinated by Michael Obersteiner (IIASA), this WP will integrate the resilience landscapes mapped out in WP1 and the drivers of change identified in WP2.

This integrated platform will incorporate biophysical, ecological, and socio-economic drivers and processes. It will address the trends in policies of land allocation, and in local dynamics of land use practices in forestry, agroforestry, and agriculture.

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### WP4: Building biodiversity scenarios

Coordinated by Claude Garcia (CIRAD), this WP relies on the participatory modelling approach ComMod to understand local dynamics and explore possible futures and their consequences for biodiversity and ecosystem services provided by the Congo basin forests.

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### WP0: Project coordination

Claude Garcia and Laurène Feintrenie are responsible for coordinating project activities. They are supported in this task by a project management unit formed by:

- CIRAD representative: Hélène Dessard (on the left)
- IRD representative: Raphaël Pélissier
- IIASA representative: Aline Mosnier (on the right)
- Gembloux representative: Cédric Vermeulen



### Steering committee

The steering committee aims at inspecting project progress, reviewing annual results during the three years of the project, suggesting new directions, and solutions to the difficulties encountered if need be. The committee is formed by:

- Project management unit
- Alfred Ngomanda, director of IRET, Gabon (on the left)
- Mathurin Tchatat, coordinator of the forest department at IRAD, Cameroon (on the right)



### WP5: Fostering dialog

Coordinated by Alain Billand (CIRAD), this WP aims at insuring continuous dialog between the project research team and decision makers from all categories (public, private, industrial, familial).

A strategy of communication and interactions with stakeholders will be developed, in order to insure that the models elaborated in the project integrate key indicators used by decision makers. It will also insure that biodiversity scenarios match policies and biodiversity management practices at different scales.

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### Advisory group

The advisory group aims at contributing to defining research questions, insuring that the established scenarios are relevant, and distributing project results to decision makers. This group is formed by:

- Rosalie Matondo, coordinator of the National Afforestation and Reforestation Program (ProNAR) et adviser to the President of the Republic of the Congo
- Professor Shango Mutambwe, professor emeritus of ERAIFT, RDC
- Prudence Galega, Forests of Cameroon Ministry
- Josiane Kondaoule, EFCP Ministry of RCA
- Jacques F. Mavoungou, IRET and University of Masuku, Gabon

### **European partners of the consortium**

- CIRAD, Agricultural Research for development, Montpellier, France. CIRAD is responsible for project coordination. Two research units (RU) participate in the project: (i) Tropical Forested Ecosystem Goods and Services RU (Biens et Services des Écosystèmes Forestiers tropicaux, B&SEF), and (ii) Sustainable Resource Management and Environment RU (Gestion des Ressources Renouvelables et Environnement, GREEN).
- Liège University, Gembloux Agro-Bio Tech, based in Liège, Belgium. The Forests, Nature, and Landscape department coordinates activities from WP2.
- IIASA, 'International Institute for Applied Systems Analysis', based in Laxenburg, Austria. The 'Ecosystems Services and Management Program' (ESM) team coordinates activities from WP3.
- IRD, Research Institute for Development, based in Marseille, France. The mixed research unit AMAP (botanique and bioinformatique de l'Architecture des Plantes, or botanic and bioinformatics of plant architecture) coordinates activities from WP1 in collaboration with RU B&SEF from CIRAD.

### **FORENET – Central Africa**

- INDEFOR, National Institute for Development and Forest Research, Equatorial Guinea, sustainable forestry department.
- IRAD, Research Institute for Agronomy and Development, forests, soil, and environment department, based Yaoundé and Bertoua, Cameroon.
- IRET, Research Institute in Tropical Ecology, Libreville, Gabon.
- Bangui University, sciences faculty, Bangui, Central African Republic.
- Douala University, Plant Biology Department – Science Faculty, Cameroun.
- Marien Ngouabi University, Science Faculty, Brazzaville, Republic of the Congo.

### **Other partners**

- Barcelona University, Institute for environmental science and technics, Barcelona, Spain.
- ETH-Zurich, environmental science department, Zurich, Suisse.
- École nationale supérieure in Paris – Les Mines, geosciences department, Paris, France.
- University Montpellier 2, UMR I3M, Probabilities and Statistics team, Montpellier, France.
- Rennes University, laboratory COSTEL – LETG, Rennes, France.
- Electricity of France (EDF), Research and Development Sector, department of industrial risks management, Chatou, France.

