

## Resume

1. **Family name** Nourtier
2. **First name** Marie
3. **Date of birth** 8/14/84
4. **Nationality** France
5. **Civil status**
6. **Education**

| <i>Years</i> | <i>Institution</i>                              | <i>Degree(s) or Diploma(s) obtained</i>                                  |
|--------------|-------------------------------------------------|--------------------------------------------------------------------------|
| 2011         | INRA Avignon – EMMAH research lab               | PhD of the University of Avignon. Forest and agronomic sciences          |
| 2008         | ENSAT (Engineer school of agronomy of Toulouse) | MSc. Engineer in agronomy – specialty environment management             |
| 2008         | University of Toulouse                          | Master 2. Specialty Hydrology, hydrochemistry and environmental sciences |
| 2002         | Lycée Eugène Woillez (62)                       | BSc. Scientific Baccalaureate                                            |

### 7. Language skills

| <i>Language</i> | <i>Reading</i> | <i>Speaking</i> | <i>Writing</i> |
|-----------------|----------------|-----------------|----------------|
| French          | 1              | 1               | 1              |
| English         | 2              | 2               | 2              |
| Spanish         | 4              | 5               | 5              |

### 8. Member of a professional organization

9. **Current position** Project Manager / Forest & REDD + / France
10. **Years of experience** 7 years
11. **Key qualifications**

#### **Project management and supervision of technical work**

- Management of projects over several years and implying several experts and technicians
- Supervision of field teams and of students on research studies

#### **Forest ecology**

- Water and carbon balance in forested areas (immediate measures - modelisation)
- Functional Ecology and Forest Ecophysiology
- Experimentation management and forest inventory
- Forest biodiversity analysis

#### **Support to REDD+ mechanism**

- Carbon accounting : assessment of carbon stocks, historical deforestation areas
- Knowledge of the methodologies at project and jurisdictional scales
- Development of strategies to reduce deforestation
- Development of MRV system
- Watching of international REDD+ policies

## Environmental and social impact assessment of projects

- Design and monitoring of impact studies on forest cover or biodiversity, soil erosion or carbon stocks, land use land cover changes (LULC), water resource management and social impact of projects
- Competencies on Geographical Information System (GIS) and remote sensing
- Greenhouse gas assessment project

## 12. Professional experience

| Dates          | Location                                                          | Company               | Position                                                             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|-------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Since May 2015 | France, Madagascar, Mozambique, Cote d'Ivoire, Burkina Faso, Laos | NITIDÆ (ex-ETC TERRA) | Project officer - Environmental and socio-economic impact evaluation | <p><b>Madagascar</b></p> <ul style="list-style-type: none"> <li>• Feasibility study for the development of a carbon project for L'Oréal in the Loky Manambato Protected Area (SAVA Region).</li> <li>• Development and validation of a REDD+ project design document (VCS and CCB) for the activities of the Holistic Program for Forest Conservation in Beampingaratsy (Anosy region).</li> <li>• Redaction of a global management plan leading to the creation of the Beampingaratsy Protected Area (NAP - Anosy region).</li> <li>• Supervision of impact assessments of the Kolorano project - a water resource management project in the Matsiatra region - water resource and plantation management at watershed scale. Development of a hydrologic modelling according to land cover.</li> <li>• Study of the agents and factors of deforestation around the national park of Mikea (Atsimo-Andrefana region) and qualitative analysis past and future dynamics of land use changes.</li> </ul> <hr/> <p><b>Mozambique</b></p> <ul style="list-style-type: none"> <li>• Development of a REDD+ project design document (VCS and CCB) for the conservation activities around the National Reserve of Gilé.</li> <li>• Background study and development of the ER Program Document of the Zambézia Province (ZILMP) - FCPF:</li> <li>• Supervision of a socio-economic survey about the impact of charcoal production on forests in seven districts of the Zambézia Province.</li> <li>• Analysis of forest and post-deforestation carbon stocks and establishment of degradation and deforestation emission baseline.</li> <li>• Integration of the national FREL and description of the method for the MRV system.</li> <li>• Supervision of a study on the regeneration dynamics after slash and burn agriculture or charcoal production around the national reserve of Gilé.</li> </ul> <hr/> <p><b>Cote d'Ivoire</b></p> <ul style="list-style-type: none"> <li>• Study on the agents and factors of deforestation at national scale.</li> <li>• Technical support on PRM Project (reducing deforestation in Mé region).</li> </ul> <hr/> <p><b>Burkina Faso</b></p> <ul style="list-style-type: none"> <li>• Supervision of the study of the degradation of the forest in the South of the country.</li> </ul> <hr/> <p><b>Laos</b></p> <ul style="list-style-type: none"> <li>• Capitalization of the environmental impact assessment of an agronomic project and training of project staff</li> </ul> |

Ref: Matthieu Tiberghien

|                                 |                              |                                                                                     |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------|------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| October 2012 to December 2014   | Democratic Republic of Congo | ONF International                                                                   | DRC Coordinator – Forest and climate expert | <p><b>Coordination of activities of ONFI experts for the development of several REDD+ Project Design Documents (PDD) :</b></p> <hr/> <p><b>REDD+ pilot project</b> around the biosphere reserve of Luki (WWF in Bas Congo Province, DRC):</p> <ul style="list-style-type: none"> <li>• Socio-economic analysis of the agents of deforestation and forest degradation;</li> <li>• Financial and economic analysis of project activities, including forest regeneration and plantations;</li> <li>• Biomass inventory of plantations;</li> <li>• Preparation of a Gold Standard;</li> <li>• Afforestation/Reforestation PDD.</li> </ul> <hr/> <p><b>REDD+ pilot project Novacel Sud Kwamouth</b> (NSK project, Bandundu Province, DRC):</p> <ul style="list-style-type: none"> <li>• Feasibility study: analysis of agro-forestry activities in alternative to deforestation and valorisation the project with carbon finance;</li> <li>• Elaboration of a VCS REDD PDD (VM0015 methodology);</li> <li>• Socio-economical survey in the Kwamouth territory;</li> <li>• Management of biomass inventory;</li> <li>• Propositions of a PES strategy for the project.</li> </ul> <hr/> <p>Following of and participation to <b>the jurisdictional ER Program Maï Ndombe (DRC – FCPF CF)</b> during the development of the Program Idea Note for the integration of <b>the Novacel Sud Kwamouth pilot project experience</b>.</p> <hr/> <p><b>Specific studies :</b><br/> For <b>PREREDD project in support to COMIFAC</b>: Study on the lessons learned about carbon accounting from REDD+ initiatives in Congo basin countries.<br/> <b>Preliminary study</b> on the activities of the forest concessionaire CFT (Equateur Province, DRC) for inclusion in <b>a REDD+ project</b>.</p> <hr/> <p><i>Ref: Nicolas Chenet nicolas.chenet@onfinternational.com</i></p> |
| March - April 2012              | France                       | INRA Avignon – Department of Mediterranean Forest Ecology                           | Study officer                               | Campaign to collect silver firs samples in French mountainous forests.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| September 2008 to November 2011 | France                       | DRYADE project - INRA Avignon (French Institute of agronomic research) – EMMAH unit | PhD student                                 | <p>PhD Thesis : « <b>Study of the vulnerability of silver fir (Abies alba Mill.) to drought in Mediterranean mountains</b> ».</p> <ul style="list-style-type: none"> <li>• Design and management of a 3 years experiment (collection of meteorological and sap flux data) in Mediterranean mountains and analysis of the mountains to understand the long term influence of drought on the water balance of silver fir trees.</li> <li>• Ecophysiological measurements and health status of trees.</li> <li>• Acquisition and analysis of remote sensing images in thermal infrared to evaluate the possibility to follow the spatial and temporal variations of the transpiration of silver fir forests.</li> <li>• Modification of the mechanist model Castanea – forest functioning regarding climatic and pedologic conditions - to evaluate water and carbon balance of silver fir forests under drought.</li> <li>• Supervision of internships about the monitoring of tree mortality in forest with SPOT images and about the localisation of silver firs water collection in the soil (isotopic indicators)</li> </ul> <hr/> <p><i>Ref: André Chanzy : chanzy@avignon.inra.fr</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| February to July 2007           | United Kingdom - Scotland    | Macaulay Institute                                                                  | Trainee                                     | <ul style="list-style-type: none"> <li>• Study of the impact of sheep and deer grazing on the vegetation of the heath of Scotland.</li> <li>• Moorland vegetation inventories.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| September to December 2006      | Madagascar                   | Lemur Forest Camp, Ialatsara Development Ecotourism                                 | Trainee                                     | <ul style="list-style-type: none"> <li>• Set up of a plan for permanent monitoring of natural forest regeneration in Ialatsara natural forest and of a tool of analysis for the managers.</li> <li>• Forest inventories and analysis.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### 13. Publications

- **Nourtier M.**, 2012. Study of the vulnerability of silver fir (*Abies alba* Mill.) to drought in Mediterranean mountains. PhD thesis. University of Avignon.
- **Nourtier M.**, Cailleret M., Yingge X., Chanzy A., Huc R. and Davi H., 2012 Regulation of silver fir (*Abies alba* Mill.) transpiration during drought in relation to soil characteristics. *Ann. For. Sci.*, DOI : 10.1007/s13595-012-0229-9.
- **Nourtier M.**, Chanzy A., Granier A. and Huc R., 2011. Sap flow measurements by thermal dissipation method using cycling heating: a processing method accounting for the non-stationary regime. *Ann. For. Sci.*, 68 (7): pp. 1255-1264.
- **Nourtier M.**, Chanzy A. and Weiss M. The detection of water stress in forest: potentiality of thermal infrared remote sensing. (Soumis à Agricultural and Forest Meteorology)

15. **Computer sciences skills**

- Pack Office : Word, Excel, PowerPoint
- Statistics and data analysis: R, Matlab
- Cartography and satellites images analysis: ArcGIS, Q-GIS, ENVI
- Others softwares : Fortran (Castanea model), Campbell programming