



Presentation of the Economics, Energy and Foresight Department





General information

- **Objective:** to contribute to the improvement of the competitiveness of forest and wood based industries through research studies and consulting activities
- **Organisation**
 - ✓ Team of 5 FTP
 - ✓ Interaction with other FCBA departments
 - ✓ Connections with public or private structures (COST, Universities, INRA, Skogforsk, ...)
- **Various studies** with economical, technical, technico-economical or multidimensional components
- **Missions towards:**
 - ✓ Public (National Forest Department, Regional Forest Department, ADEME, European Commission, Ministries, National Research Agency,...)
 - ✓ Private (professional organisations, enterprises,...)



Overview of the recent/current assignments

- **Multidimensional issue**
 - ✓ Multi-criteria analysis (wood sector, bioenergy incl. ligno-cellulosic liquid biofuels)
 - ✓ Climate change and forest (adaptation/mitigation)

- **Technico-economic issue**
 - ✓ Wood resource availability
 - ✓ Wood energy (quantity, quality, availability, price) / biomass
 - ✓ Transport and logistics

- **Economical issue**
 - ✓ Employment in the forest sector
 - ✓ Risks and forest management
 - ✓ Economic impacts of biotechnologies
 - ✓ Wood sector model and interactions

Harvesting more and better ?

■ More?

✓ **Availability from forest data**

- Traditional way : Forest Inventory data (Surface, Volume, Increment, Harvest); National Harvest Enquiry; Aforestation and Reforestation statistics; Wood availability in even aged stands (age classes, growth models and harvest scenarios); Wood availability in uneven aged stands (diameter classes, growth model and harvest scenarios)
- Additionnal dimension: socio-economic one
- Survey (private forest behaviours)

✓ **Long-term scenarios of French energetic mix incl. biomass**

✓ **Harvesting schemes**

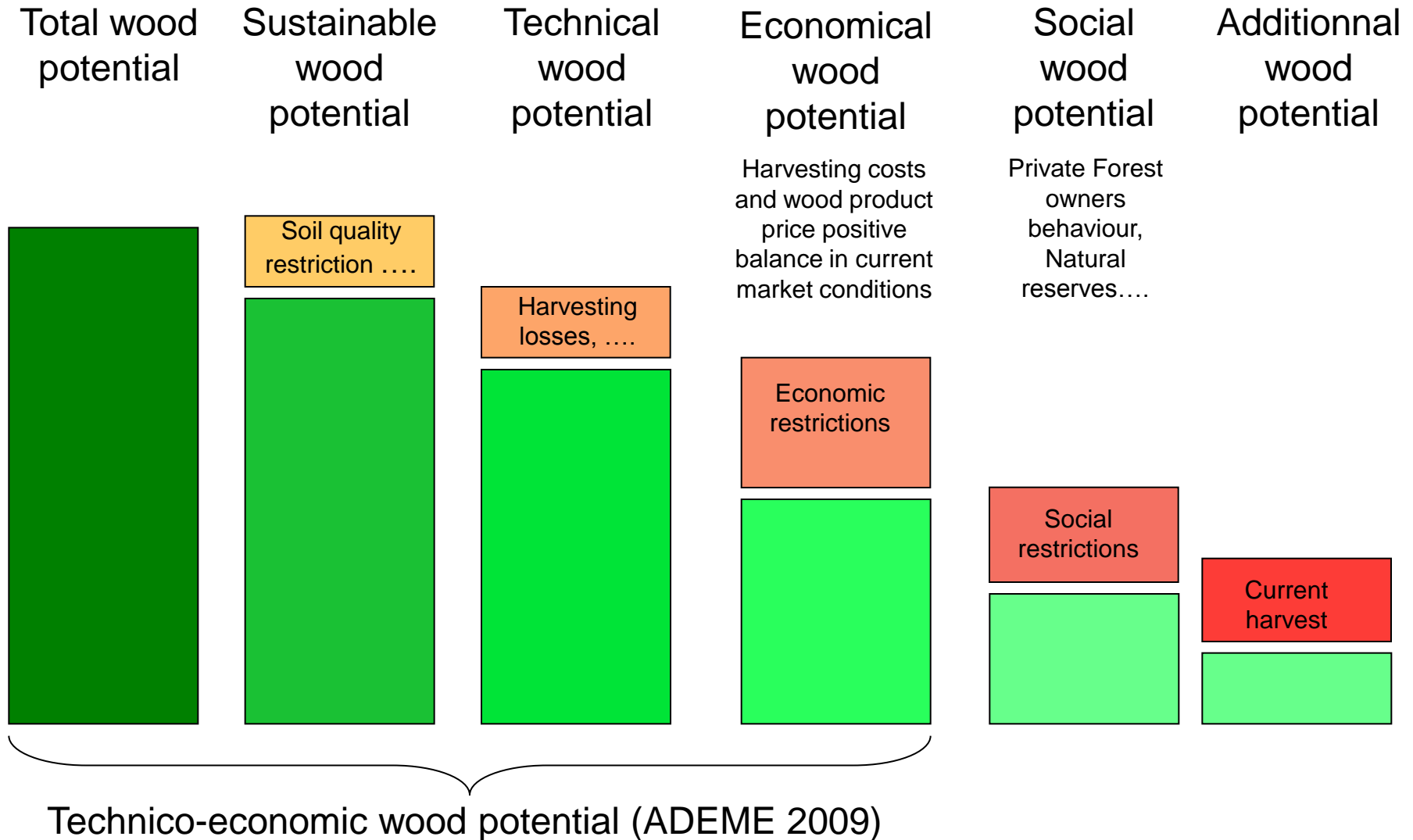
■ Better?

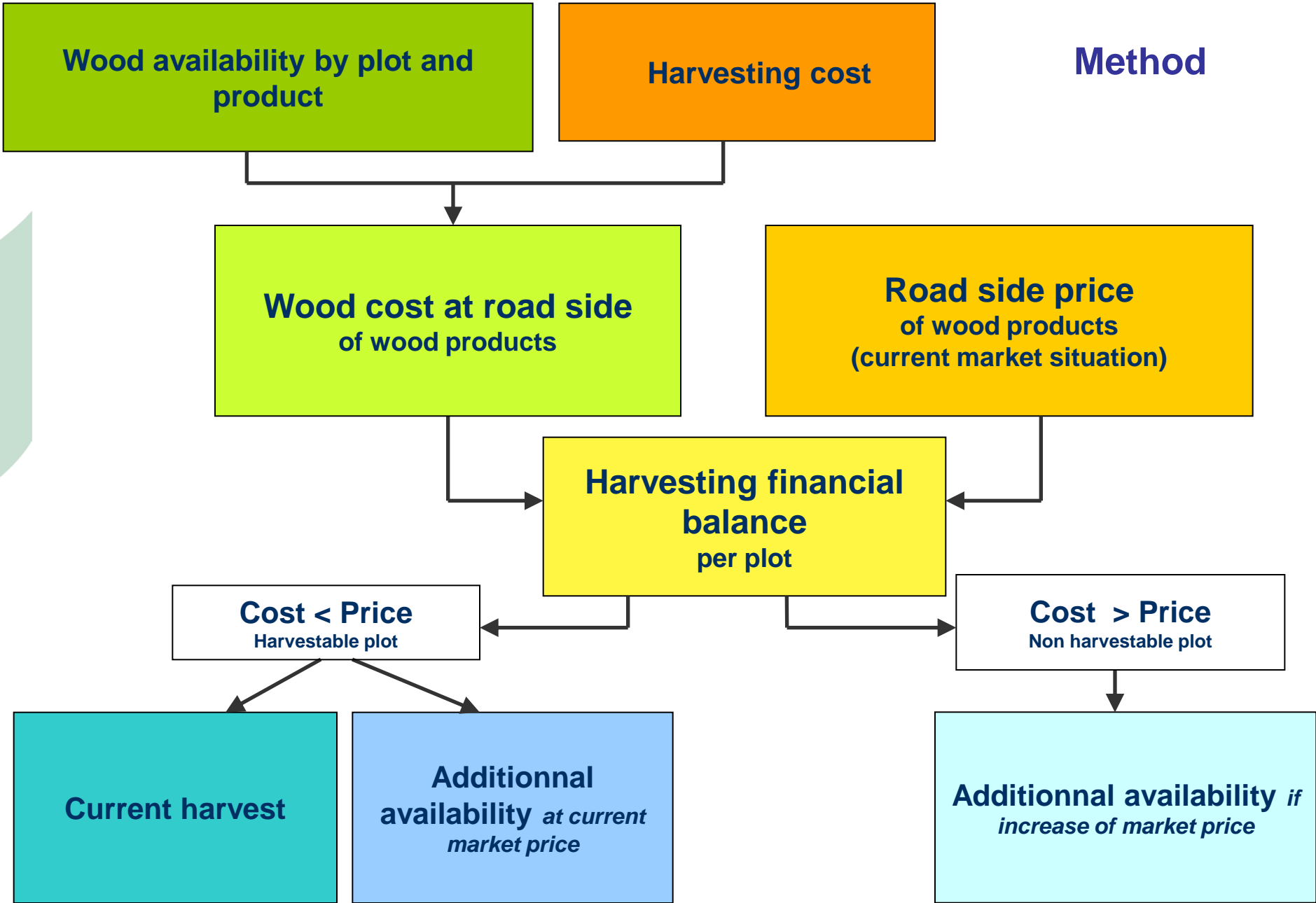
✓ **Prices and quality for users (technico-economic)**

✓ **No particularly “forest and amenities driven work”**

✓ **Taking into consideration some impacts such as the soil impact of the forest residues or environmental criteria (LCA, multi-criteria...)**

Harvesting more (and better) ?





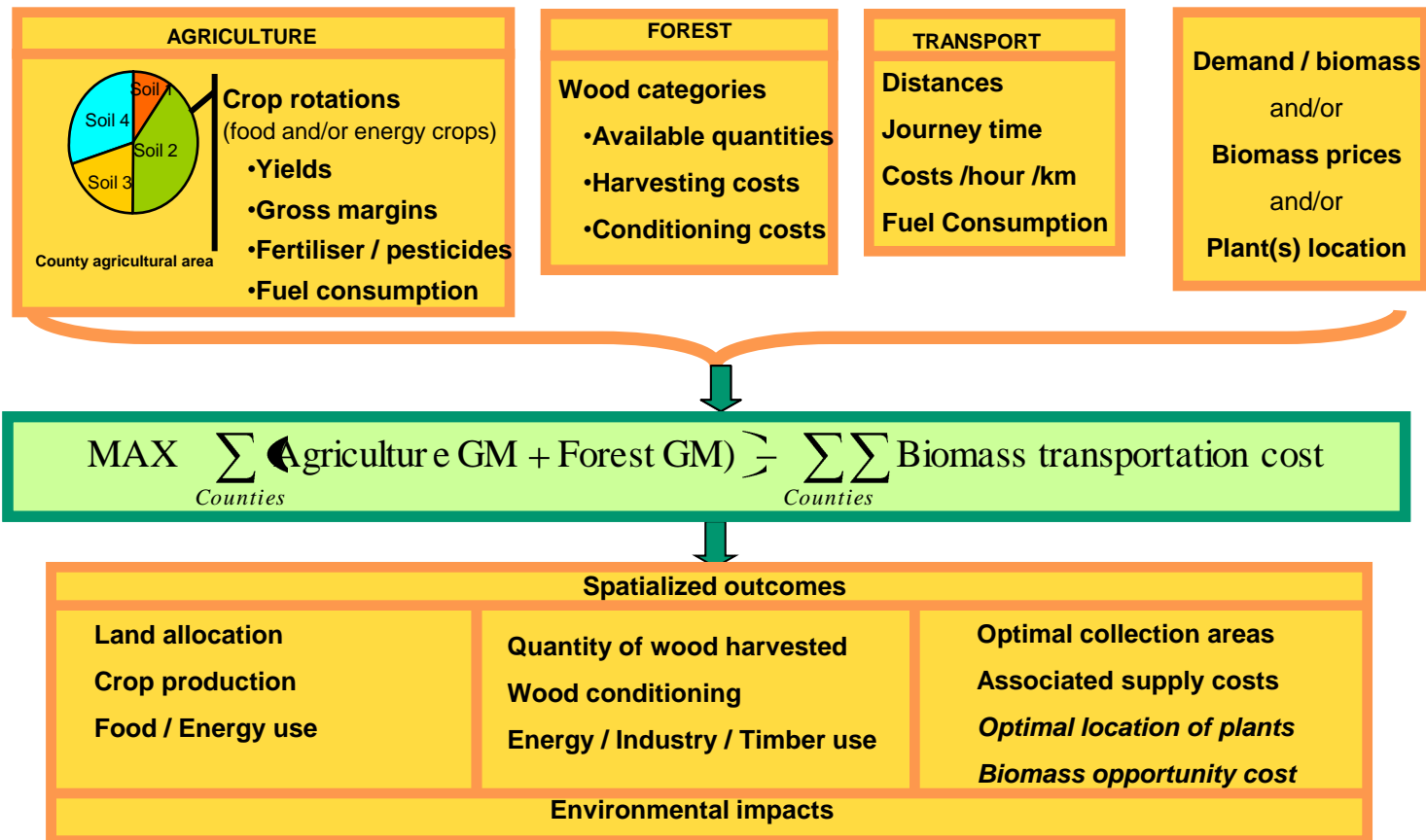


Harvesting more (and better) ?

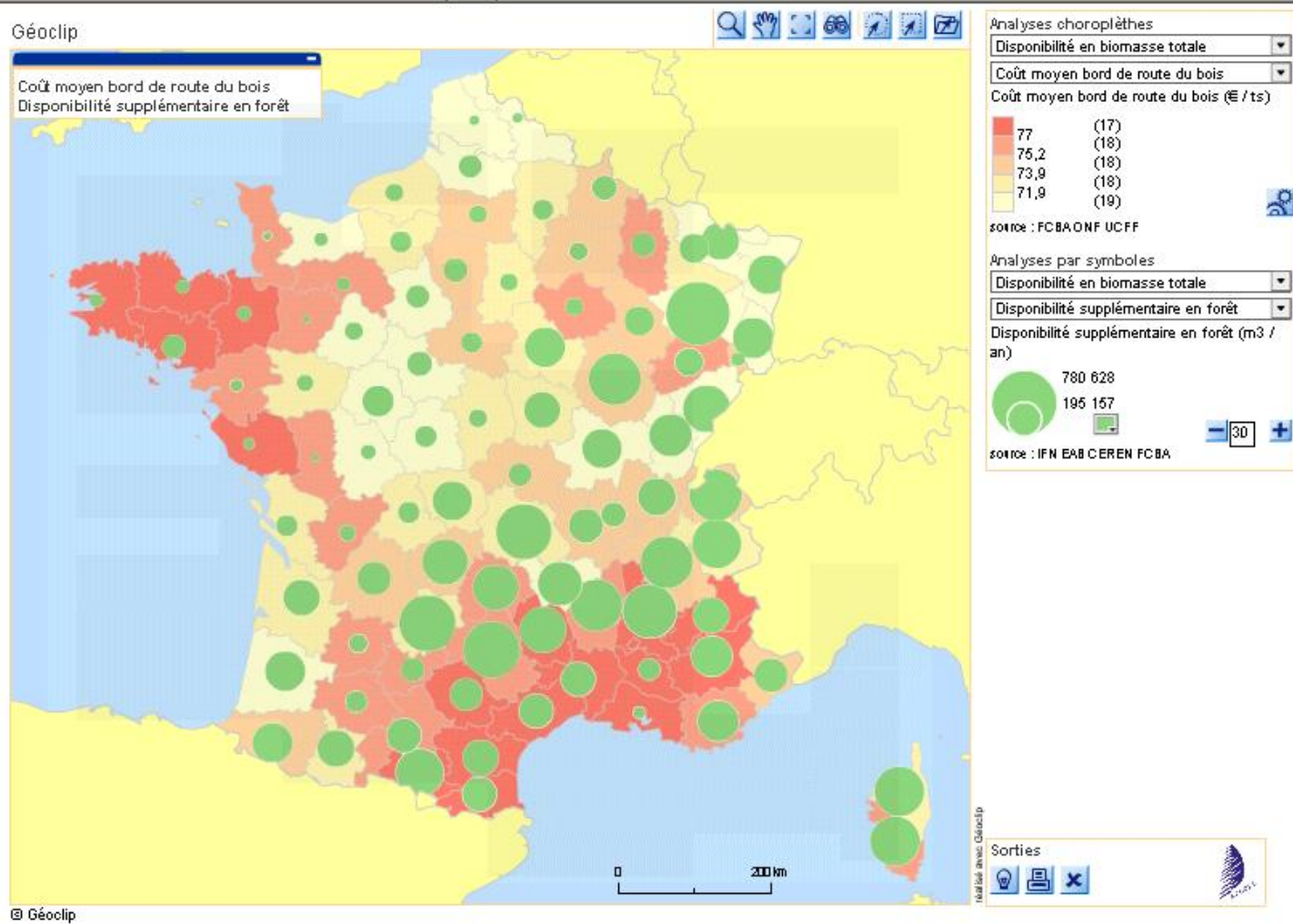
ECOBBIOM: A spatially explicit model to analyse the regional supply of lignocellulosic biomass (FCBA coordination) – 2006-2009

- Funding by the French Research Agency (ANR)
- Model developed by INRA/CNRS/AgroPT

<http://www.fcba.fr/ecobiom/index.html>

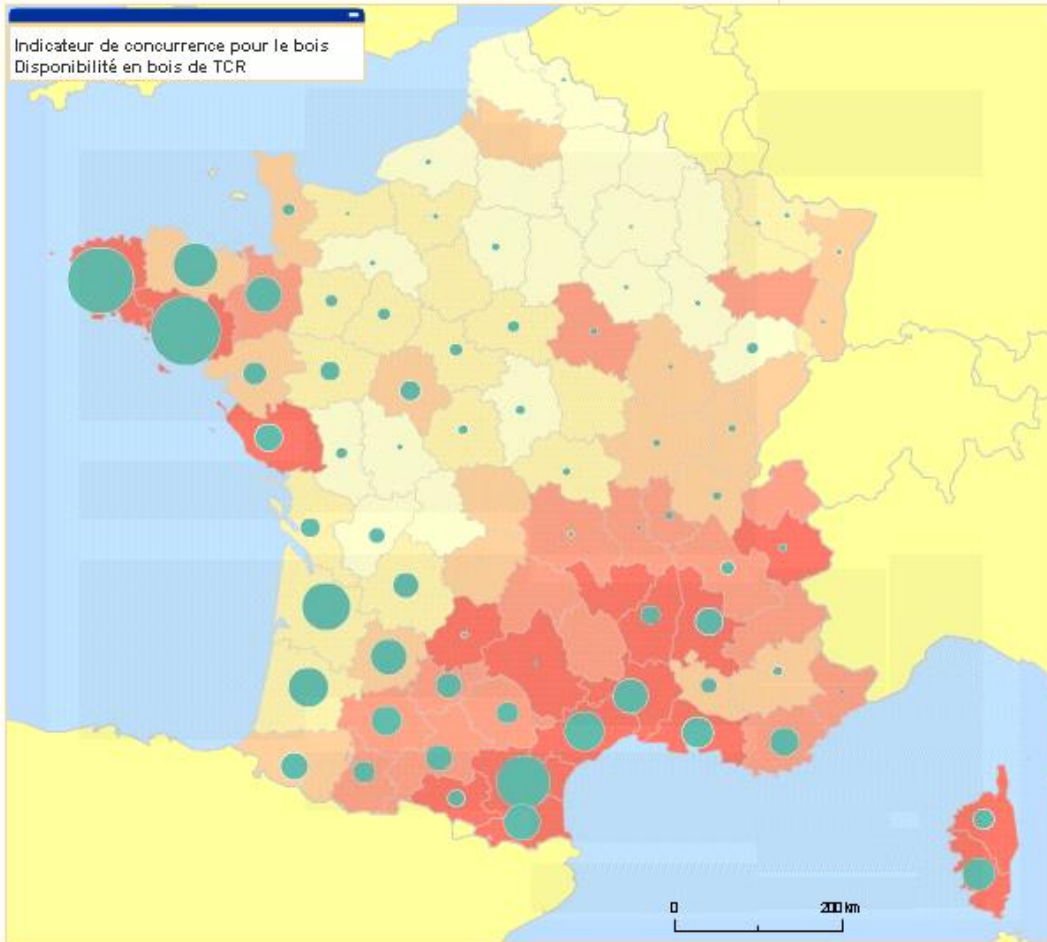


Harvesting more for energy



Harvesting more for energy

Géoclip



Indicateur de concurrence pour le bois
Disponibilité en bois de TCR

Analyses choroplèthes

Disponibilité en biomasse totale

Indicateur de concurrence pour le bois

Indicateur de concurrence pour le bois

3,95	(17)
2,31	(18)
1,28	(18)
0,59	(19)

source : IFN EAB CEREN FCBA

Analyses par symboles

Disponibilité en biomasse totale

Disponibilité en bois de TCR

Disponibilité en bois de TCR (ts / an)

687 700	(17)
166 925	(18)

source : FCBA

Sorties






Harvesting more : socioeconomic dimension

Which are the conditions to mobilize wood in particular for energy ?

No objection of forest owners to provide wood for energy (incl. forest wood chips); but it is still difficult to mobilize more in private forest (no levers)

Survey, Audit

Private owners (400 postal survey returned and 30 audits in 3 French regions).

The results of the survey:

- Over-representation of large properties (> 25 ha = 50% responses vs. 5% in national survey) ⇒ 'bias' in our results
- An image of a '**representative forest owner**'
 - ✓ Over 60 years old, geographically close to the forest received by inheritance: "a family **heritage** to preserve", but also to "produce wood"
 - ✓ Management of the forest by himself
 - ✓ Two key operations: wood harvesting and cleaning/clearing
 - ✓ **Timber sale**
 - is **not a priority** because "the forest is not a source of income"
 - is related to forestry considerations but also some financial concerns (selling price, but also opportunities to be able to do unprofitable forestry operations)
 - ✓ The sale of forest chips (from residues) ? Ok to sale, but more during silviculture operations (83%) than during cutting (50%) – not much environmental concern