LCA AND EPD PRODUCTION FOR CONGO’S WOODEN PRODUCTS

ATIBT’S THINK TANK

Thomas PEVERELLI, November the 3rd, 2020, Webconference
SUMMARY

Our company (ESTEANA) [1 min]
Definitions, regulations and standardization [4 min]
Feedback from the bibliography study [5 min]
What’s at stake within the data collection [5 min]
OUR SERVICES

**Studies**
- LCAs
- EPDs
- Reviews
  ...

**Consulting**
- Comparative studies
- Ecodesign
- RE2020 guidance & strategy
  ...

**Trainings**
- How to conduct LCA and EPDs
- LCA softwares
  ...

**Research** projects
**Software** developments

OUR TEAM

5 consultants dedicated to the building concerns and LCA production; 3 out of 25 French EPD reviewers

OUR REFERENCES

Consultants for the French government and part of the reviewing process for EPD standards, RE2020, CEN TC350...
Hundreds of EPDs produced in France and a dozen of countries in Europe and USA
Hundreds of FDES (French EPDs) reviewed in France
Definitions

LCA – Life Cycle Assessment

= METHOD

- Inventory
- Impacts
- Interpretation

ISO 14040
ISO 14044

EPD - Environmental Product Declaration

= DELIVRABLE

- EPD
- Report

EN 15804+A1
EN 15804/CN
Optionally PCRs*
National programs
Regulation (FR, BE)

*Product Category Rules

Ecodesign, environmental communication, building LCA...
Definitions

Building scale
= LCA

Product
= EPD/FDES

Pre-product
= LCI

EN 15643
LCA = Life Cycle Assessment

EN 15804
EPD = Environmental Product Declaration
FDES = Fiche de Décl. Environnementale et Sanitaire

ISO 14040/44
LCI = Life Cycle Inventory
STANDARDS

2004: France : NF P01-010 – first EPDs

2012: EN 15804+A1
Harmonization through worldwide EPD programs

2014: NF EN 15804+A1/CN
French national complementary standard, but similar process in lots (if not all) of countries

2019 : EN 15804+A2

2021: NF EN 15804+A2/CN

REGULATION

2016: Experimentation of the label E+C-

2019: Consultation groups

2021: Application of RE2020 in France and FDES mandatory

??: European scheme?

Harmonization but still some particularities per country ie. Program operator, PCRs, national complementary standards

EPDs and FDESs get strongly recommended on every market
Where can the tropical wooden products be found openly, i.e. namely as tropical wood?

INIES – French database

- « Wooden door made from Congo’s bay area wood », 2017
- « Plywood made from Okoume-poplar wood, made in France », 2019
- « Windows double and triple glazing, produced in France with African, South American or Asian wood », 2020

The Netherlands

- 11 EPDs have been published on Centrum Hout website, but not yet on the official NMD (National Milieudatabase). They are only available in Dutch there.
- Though, if EPDs have been made, data are certainly available (at least they do exist!)

Other

- EPDs are also available for Chinese and Australian wooden products, but no other wood nor countries than those listed here amongst the 8 most used/important database.

Lot’s of programs all around the globe, ten majors have been studied. In the end, a very few EPDs concerning tropical wooden products have been found.
Bibliography on LCA and EPDs for tropical wooden products

LCA PUBLICATIONS/REPORTS

✓ LCA for EPD of ipe and cumaru decking strips produced in Brazil, 2015, Report prepared for the ITTO
✓ LCA for EPD of tropical plywood production in Malaysia and Indonesia, 2014, Report prepared for the ITTO
✓ LCA for EPD of tropical African mahogany (khaya) lumber produced in Ghana, 2014, Report prepared for the ITTO
✓ And several other publications and thesis from Brazil, Ghana mainly.

Statement

• Lack of transparency
• Data old as much as 2000, no less than 2012
• Much variations in carbon storage accounting
• Lots of different techniques of drying the wooden products, as well as the fate of coproducts

How this inspires us

• Need to re-do the data collection
• Need to get a complete and reliable data collection: review, carbon footprint, study quality, communication
How we proceed

EPD PRODUCTION PROCESS

1. GENERAL FRAME
   - Goal of the study
   - Functional unit
   - Reference service life
   - Perimeter of the study

2. INITIAL DATA COLLECTION
   - Simplified data collection
   - First LCA model
   - Existing documentation

3. FIRST ANALYSIS
   - Gravity and sensitivity analysis
   - First results

4. COMPLEMENTARY DATA COLLECTION
   - Variability
   - Main data well managed
   - Additional informations

5. LCA MODEL
   - Primary and secondary datasets
   - Deliverables templates

6. CALCULATIONS AND REVIEWING
   - LCA and EPD Report
   - Reviewing process

Meeting
Reviewer