Sustainability criteria and life cycle assessment for forestry

Background and scope of the project

Standards for bio-based products have been developed on a mandate from of the European Commission (DG GROW) to promote the growth of a bioeconomy in Europe.

To develop and facilitate implementation under Swedish conditions, the project *Sustainability criteria and life cycle assessment for forestry* was initiated.

The project was coordinated by the Swedish Institute for Standards, SIS.

The project aims to strengthen Swedish bio-based industry by raising the status of bio-based products. Through more transparent communication regarding sustainability along with credible and relevant data on Swedish forest raw materials, the Swedish industry can gain market advantages internationally. The project had three parts; sustainability criteria, product category rules and datasets. It resulted in proactive and early interpretations of the standards based on a Swedish approach to forestry.

Project partners: Bergvik skog (until the company was divided and terminated in 2018), BillerudKorsnäs, Domsjö Adityabirla, Swedenergy, Essity, Holmen, IVL, The Federation of Swedish Farmers, Mondi (during the start-up of the project), Riksbyggen, RISE, SCA, Sekab, Setra, SIS, Skogforsk, Swedish Forest Industries, Sveaskog, Södra, and The National Agency for Public Procurement.

BIO INNOVATION

Sustainability criteria and life cycle assessment for forestry – a project within the strategic innovation program BioInnovation – will strengthen the Swedish forest industry.

Hållbarhetsaspekter för svensk skogsråvara

– Vägledning till SS-EN 16751:2016
Biobaserade produkter – Hållbarhetskriterier

Ny handbok

sis Svenska Institutet för Standarder

Sustainability criteria

Within the sub-project Sustainability Criteria, a national handbook for EN 16751:2016 *Bio-based products — Sustainability Criteria* was produced. The standard contains principles, criteria, and indicators and gives a framework for sustainability communication. The handbook is a help to apply the standard in a simpler and more uniform way for Swedish forest raw materials. It was developed in consensus by a broad collection of experts from the entire forest value chain, and the sub-project was led by SIS.

The handbook does not replace existing forest certification systems as it does not set any threshold values. Instead, the focus is on systematic reporting of the organisations' sustainability performance. The handbook is helpful for anyone who wants to meet the standard in their forestry, it can act as a source of knowledge about Swedish forestry, and it can provide benefits for the entire value chain in various ways.

It is available in Swedish and the translated title is: Sustainability aspects for Swedish forest raw materials - Guidance to SS-EN 16751:2016 Bio-based products — Sustainability criteria

The standard and the handbook cover general aspects as well as environmental, social, and economic aspects. The purpose of the handbook is to create a transparent and systematic approach for providing qualitative information about the organisation's sustainability performance.

Product Category Rules (PCR)

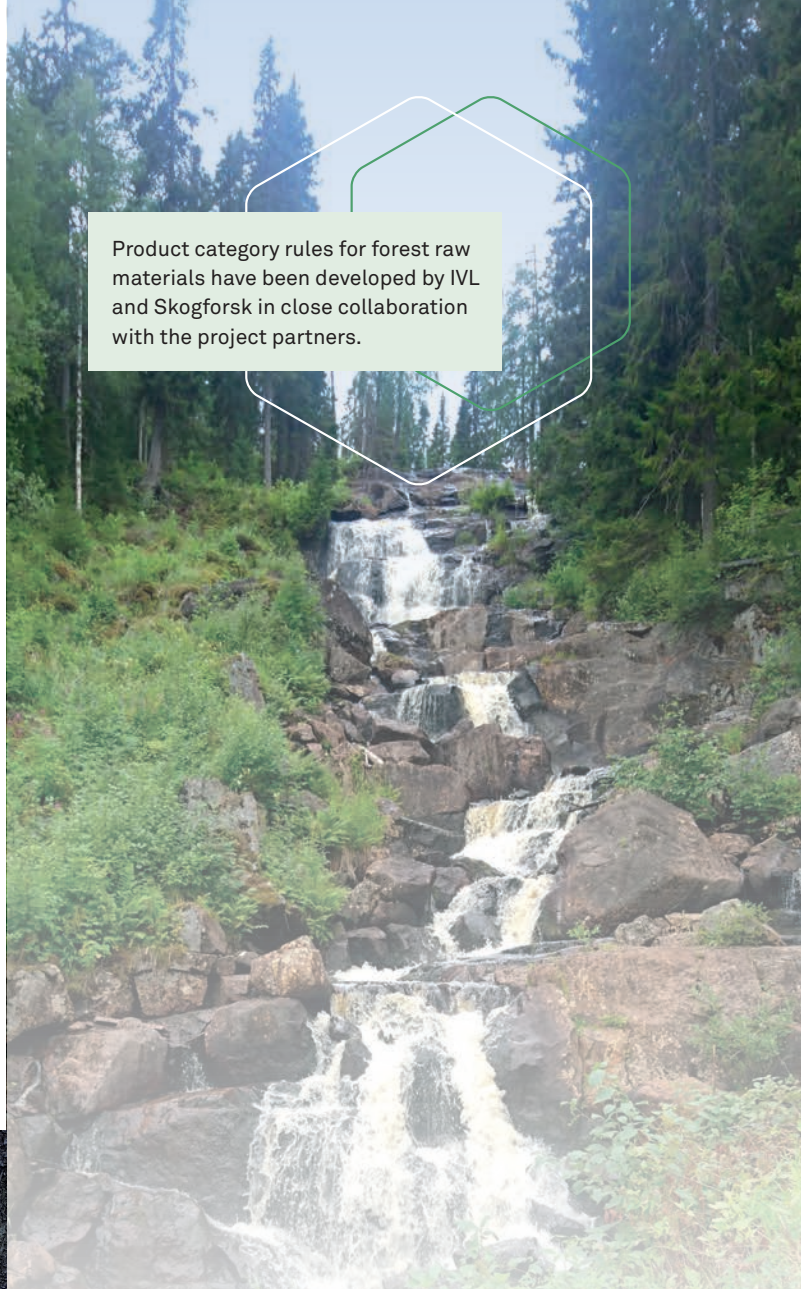
Today, Life cycle assessment (LCA) is a well-established tool for assessing products' environmental performance, and is used in a wide variety of contexts, from marketing of ones' own products and product development to policymaking and in research. Common rules for LCA calculations, so-called product category rules (PCR), were identified as a starting point for a broader use of the LCA results in different contexts.

An inventory and analysis of existing calculation rules for the three basic assortments of sawn timber, pulpwood and energy assortment showed that many PCRs for products based on forest raw materials only state that forestry should be considered, but not how this should be done. Through the developed common PCR, the LCA calculations will now be easier to carry out and give more credible and comparable results.

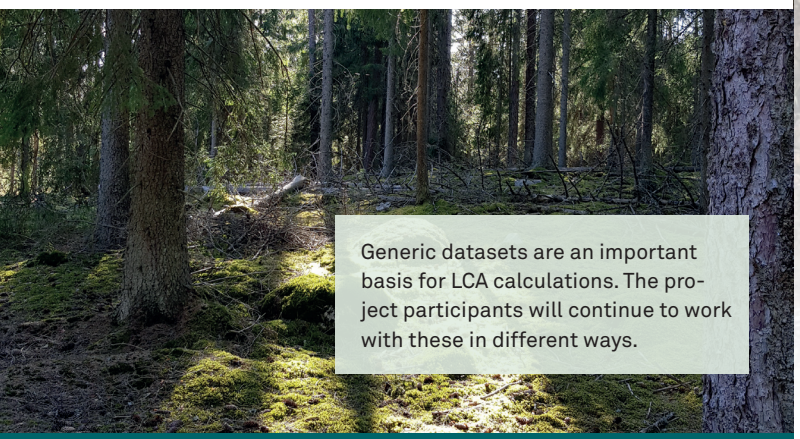
The sub-projects on Product Category Rules were led by IVL and Skogforsk.

The PCR on *Basic products from forestry* was developed within the EPD system and have been subject to public consultation and review and by EPD International. The PCR document is published and publicly available at the EPD website.

See: www.environdec.com/PCR/Detail/?Pcr=17807



Product category rules for forest raw materials have been developed by IVL and Skogforsk in close collaboration with the project partners.



Generic datasets are an important basis for LCA calculations. The project participants will continue to work with these in different ways.

Datasets

Both primary and secondary/generic data are used to perform an LCA. At present, many of the generic data used are old and some data are missing. If existing secondary data are used, the calculations would probably give a poorer result than the case would be in reality.

The project has therefore worked to produce generic datasets for four basic assortments from the forest: timber, pulpwood, GROT (branches and tops) and other energy assortments.

This sub-project was carried out by RISE and Skogforsk in close collaboration with IVL and the companies in the project.

The results are project-internal and will be used by the project participants for further testing and may eventually become publicly available.

The project *Sustainability criteria and life cycle assessment for forestry* was funded by BioInnovation and the project partners. **Read more at:** www.bioinnovation.se/en/projekt/sustainability-criteria-and-life-cycle-assessment-for-forestry/

BIO INNOVATION

WWW.BIOINNOVATION.SE/EN

BioInnovation is a strategic innovation program initiated by the Forest Industries, IKEM and TEKO. The program is financed by Vinnova, the Swedish Energy Agency and Formas as well as the participating stakeholders. The goal is to create the best possible conditions for increasing the pace of innovation. We do this by connecting ideas, actors and capital to create competitive and bio-based materials, products and services.

SIS Swedish Institute for Standards

With support from VINNOVA Sweden's Innovation Agency, Swedish Energy Agency, FORMAS, Strategic innovation programmes