INDUSTRIAL DEEP DECARBONISATION
AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION
Progress by innovation

HARMONIZING REPORTING FOR GREEN PUBLIC PROCUREMENT AND GREEN BUILDING PROGRAMS

Using Type I Ecolabels and Type III EPDs

About IDDI

The Clean Energy Ministerial Industrial Deep Decarbonisation Initiative (IDDI), hosted by UNIDO, is a global coalition of governments and private sector organizations working to create an enabling environment for deep decarbonization of heavy industry, starting with steel, cement and concrete.

The IDDI aims to achieve this by

- Stimulating demand for low and near-zero emission materials through green public procurement commitments, and
- Harmonizing emissions accounting methodologies for low and near-zero emission materials

Read more about the IDDI **here**.

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Acknowledgements and disclaimer

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The contents of this document are not to be construed as endorsements by or reflective of the official positions of member governments or the contributing organizations.

IDDI government members are the Federal Government of Brazil, Government of Canada, Federal Government of Germany, Government of India, Government of Japan, Kingdom of Saudi Arabia, Federal Government of the United Arab Emirates and the United States Government.

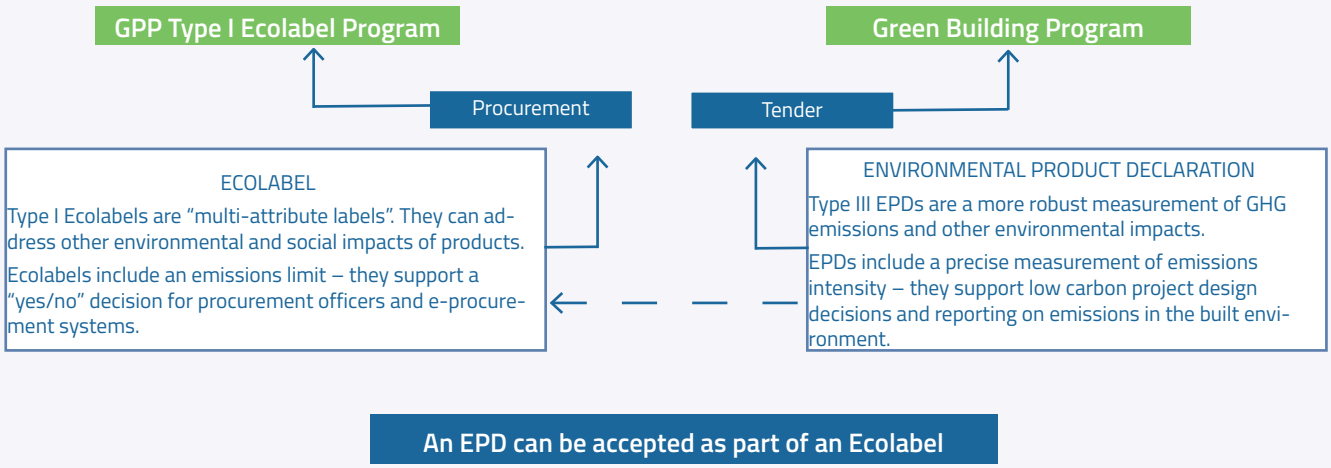
This paper discusses the use of Type I Ecolabels for green public procurement (GPP) programs, and the use of EPDs in construction projects, and makes a recommendation to include EPDs in Type I Ecolabels for priority construction materials and products such as concrete and steel, for streamlined and interoperable reporting.

Governments procure a vast array of goods and services to support the delivery of services to citizens, each of which may have multiple environmental impacts. To minimize these impacts, many governments create or support development of Type I Ecolabels as a basis for their enterprise-wide green or sustainable procurement policies. Type I Ecolabels are third-party verified labels that indicate a product, or service meets a threshold for specific environmental criteria. They streamline GPP and minimize administrative burden. Data from Ecolabels is most often used for estimates-based reporting such as for enterprise-wide green procurement or Scope 3 reporting. When Ecolabels include a criterion for embodied greenhouse gas emissions, then an estimate of emissions reductions for the total amount of that product purchased x the threshold can be extrapolated.

Type III Environmental Product Declarations (EPDs) include an actual measurement of greenhouse gas emissions for the product, using the Global Warming Potential (GWP) metric, but they do not include a threshold. Many governments specify the use of EPDs for construction projects, to support green project design and infrastructure planning. EPDs will be required in upcoming EU product regulations and are already core components in green building certification programs such as LEED and BREEAM. Data from EPDs is most often used for actuals-based accounting of embodied emissions of materials and products to support whole (construction) project life cycle assessment and GPP commitments to buy low-emission materials.

Type I Ecolabels and Type III EPDs are distinct yet compatible environmental reporting instruments, allowing for both top-down and bottom-up accounting for GPP, construction, and real estate portfolios.

How does your government buy low emission construction materials?



Type I Ecolabels and Type III EPDs are distinct yet compatible environmental reporting instruments. Combining them can reduce reporting burden by supporting both enterprise-wide GPP and green building programs.

Context

Ecolabels

Ecolabelling refers to a method of certifying a product's environmental performance based on a set of criteria and thresholds. In general, Ecolabels are standardized by ISO 14024:2018[11]. Type I Ecolabels offer three features that make them best practice for GPP policy: they are multi-criteria labels, based on a lifecycle approach and third-party certified. A product's priority environmental impacts are identified in a hotspot analysis and must then be covered in the Ecolabel. See UNEP's **One Planet Network Ecolabel Hub** for more information on Ecolabels.

The UNEP project **EcoAdvance: Ecolabels and Sustainable Public Procurement** funded by German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Consumer Protection (BMUV), aims to increase the use of sustainable public procurement (SPP) and Type-1 Ecolabels as tools to improve climate mitigation, biodiversity, and resource protection, through ambitious ecolabels, improved policy and legal frameworks, increased engagement of the private sector, as well as regional and global exchange.

By supporting Type-1 Ecolabels, the project helps to create incentives for cleaner production, focusing on the building and construction sector, by addressing a major barrier to changing consumption and production patterns: the complexity of conveying the environmental impacts of products and services to consumers and public authorities.

Any entity can create a Type I Ecolabel, whether the entity is government or private. Examples of government sanctioned Ecolabels are the China Environmentally Friendly Certification, and Blue Angel – the German Ecolabel, examples of privately operated Ecolabels are the EPEAT label for electronics and technology products and the FSC label for forest products. In either case, the entity that creates an Ecolabel is typically referred to as the Ecolabelling Body, which subsequently oversees creating and implementing an eco-labelling programme.

ISO 14024:2018 provides a standard for Type I Ecolabels which focuses on transparency and quality control of data and information used in an eco-labelling programme and in the Ecolabel itself. The standard defines "Product Environmental Criteria" and "Life Cycle Considerations" (see Section 6.4.1 of ISO 14024:2018), but the text acts more as a guidance compared to a definitive list of requirements. Section 6.4.1 foreshadows the types of requirements that are generally specified in detail in standards for Environmental Product Declarations (EPDs).

Environmental Product Declarations

In contrast to Type I Ecolabels, Type III Environmental Product Declarations (EPDs) are standardized by ISO 14025:2006 but refer specifically to quantifiable environmental information that must be in accordance with ISO 14040:2006. Like Type I Ecolabels, EPDS must be independently verified by a third party. Similarly, an organization is required to oversee creating and implementing EPDs, which is referred to as a Programme Operator, and a Programme Operator can be a public or private entity.

ISO 14025:2006 defines a Type III EPD Programme which creates the declaration and set of programme operating rules, which are then implemented by the Programme Operator.

1 https://www.iso.org/standard/72458.html

All declarations need to be supported by data that have been generated by a life-cycle assessment (LCA) as outlined by ISO 14040:2006 and ISO 14044:2006. Additional requirements might be needed depending on the 'product category'. For example, the construction sector has its own EPD Standards in the EU (EN15804:2012+A2:2019)[2] and North America (ISO 21930:2017)[3] as well as Product Category Rules developed by certain Programme Operators[4] (e.g. PCR 2019:14)[5].

Many governments specify the use of EPDs that comply with EN15804 and ISO 21930, or equivalent, in building standards and during the construction procurement process.

Product-Carbon Footprints

Some governments specify disclosure with Product Carbon Footprints. PCFs are very similar to EPDs in their overall approach and concept, however PCFs only focus on emissions to air from GHG emissions and climate change indicators (e.g. GWP), while EPDs provide a more comprehensive environmental profile. PCFs are standardized by ISO 14067:2018 and the Greenhouse Gas Protocol's Product Standard, among others.

Recommendations

When criteria are developed for Ecolabels, all existing target policies, such as any relevant product or building regulations and GPP policies, should be considered to ensure Ecolabels will meet market requirements.

It is recommended that the Ecolabelling Body should consider using a Type III EPD as the basis of product-level greenhouse gas emissions reporting in a Type I Ecolabel for priority construction materials and products such as concrete and steel. The intended outcome is to streamline requirements and support interoperable reporting for both green public procurement and embodied emission reduction commitments for construction projects, and infrastructure and real estate portfolios.

2 https://www.en-standard.eu/bs-en-15804-2012-a2-2019-sustainability-of-construction-works-environmental-product-declarations-core-rules-for-the-product-category-of-construction-products/

3 https://www.iso.org/standard/61694.html

4 CRs such as PCR 2019:14 are to be used together with a normative reference such as EN15804 and to specify requirements that go beyond the normative reference and/or to demonstrate alignment with a normative reference like ISO 21930

5 https://api.environdec.com/api/v1/EPDLibrary/Files/fe17e14b-3ff4-4ab3-07a6-08dc685f3598/Data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