

Building performance related indicators as social indicators of buildings

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Abstract

The presentation discusses the usability and justification of building performance related indicators as social indicators.

We can make a distinction between measures that express the performance of a building and measures that express the experiences or reactions of users or impacts on users. The first category includes measures that indicate the quality of a building as such. The second category includes measures that express users' reactions and experiences like experienced comfort, satisfaction, health impacts, and changes in productivity (Category 1 and Category 2 social indicators of buildings.)

Defining building performance related indicators as social indicators needs justification because building-performance indicators are quite distant to issues that are often understood as social issues or to measures that are often called social indicators. Social indicators typically try to indicate people's wellbeing on societal level. The statistics are normally the most important source of information.

SLCA is defined to assess social and socio-economic impacts and to collect information on organization and process related aspects along the value chain.

Category 1 and Category 2 social indicators of buildings - as defined here - are product (meaning buildings here) related indicators not process or organization related indicators.

If users of buildings are defined as "consumers of the end-product-building", health and safety of users of buildings could be defined as social subcategories of buildings. This is in line with the UNEP guidelines which define social impacts as consequences on the wellbeing of stakeholders; stakeholders belonging to different categories including for instance consumers.

Describing social impacts / benefits as part of the product utility gives much support for the use of building performance aspects as social indicators of buildings. The utility of a building - the service provided by the building - is based on the building performance (its acoustical, thermal and illumination conditions, safety, accessibility etc.).

BUILDING PERFORMANCE RELATED INDICATORS AS SOCIAL INDICATORS OF BUILDINGS

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Introduction

- Two categories of building performance related social indicators:
- CATEGORY 1: Measures that indicate the quality of a building as such (can be measured or calculated and/or observed in a building without making user inquiries or assessing users' satisfaction or health impacts).
- CATEGORY 2: Measures that express users' reactions and experiences like experienced comfort, satisfaction, health impacts, and changes in productivity.



Objectives

- to discuss the usability and justification of building performance related indicators as social indicators;
- to study the validity of building performance aspects as indicators of sustainable building;
- to discuss the nature of building performance related indicators compared to environmental indicators.



Justification needed

- Building-performance related indicators distant to issues often understood as social issues or measures called social indicators.
 - wellbeing and progress on societal level
 - statistics the most important
 - source of information
 - policy view-point
- UN, OECD, EEA



Social LCA (SLCA)

- SLCA assesses social and socio-economic impacts and collects information on organization and process related aspects along the value chain
 - Process attributes: Organizational governance, labour practices, fair operating practices, human rights (UNEP)
- Category 1 and Category 2 social indicators of buildings:
 - Product (building) related (not process related) indicators
 - Suggested categories of SLCA distant to C1 and C2
- IF:
 - impacts or benefits on the consumer are included
 - assessed based on product's utility
 - utility of a building (service) is based on building performance
- Explanation for the use C1 indicators as social indicators.
- Societies have a long history in regulating minimum building performance
- From descriptive regulations to performance based regulations
- Addresses the nature of C1 indicators as social issues.



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The nature of building performance indicators

- The nature of social indicators differs from that of LCA indicators
- Often an optimum level is targeted instead of min or max values
- What is an adequate level? Reasonable to distinguish adequate levels.
- Relation to the functional equivalent
- Social impacts or benefits of products should be described as part of the product utility.
- While ELCA indicators measure the impact building performance related indicators express the utility.
- We approach the eco-efficiency concept where both the impacts and the service are paid attention to at the same time.



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Validity

- Validity means that the study measures what it is intended to measure
- A set of sustainability indicators is valid when it measures impacts on SD (impacts on the issues of concern of SD)
- 1) C1 and C2 indicators - issues of concern of SD ???
- International agreements, SD strategies, commonly agreed themes of SD (UN CSD, EU, OECD)
- Health - included
- Satisfaction, comfort, aesthetic, quality, housing quality - not included
- Are well-being and housing related topics inadequately addressed ???
- International and national programmes, UN Handbook, EurLife, Eurofound: Housing quality included.
- Statistics indicate still serious deficiencies in housing quality in Europe
- 2) Do C1 and C2 issues seriously affect human health and well-being
- Evidence about the effect of indoor environment on health and well-being



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Thank you for attention

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