



## Indicators to keep track of sustainable development

**A recent paper** presents an overview of a selection of indicators that measure sustainable development. Sustainability indicators are easy-to-understand tools that can summarise or quantify complicated information in a meaningful way. They are useful substitutes when dealing with complex systems and can also be combined into a single comparable index.

**Policy makers and wider society** need to be able to assess whether activities are sustainable. As sustainability is a long-term concept, sustainability indicators are useful in gauging whether progress is being made towards sustainable living by assessing current conditions and anticipating long-term trends. In addition, sustainability indicators can provide an early warning of problems, help formulate strategies, communicate ideas and support decision-making.

Indicators can be developed for all levels of activities: for example, corporate performance, regional development programmes, national initiatives, 'green' GDP and international efforts to negotiate environmental protection.

Many indicators have been developed to measure progress in environmental, economic and social areas. Composite indices, however, combine a number of individual indicators to capture the essential components and complex relationships between the environment, the economy and society. For example, composite indices can be used to compare the performance of various sustainability measures of different countries.

It is necessary to work within a well-designed, suitable framework when developing composite indices and choosing suitable indicators. Two main approaches can be distinguished: a 'top-down' approach where experts and researchers define the framework and select the indicators and a 'bottom-up' approach where input is received from a wide variety of stakeholders.

Guidelines are given in the study for the development of composite indices. Policy goals should be clearly defined before constructing a framework and choosing the type and number of indicators that make up the parts of the composite index. This involves making choices which can be subjective at this stage. However, when the selected indices are combined into the composite index there are rules to guarantee consistency and meaningfulness of the composite indices. In addition, composite indices must be reliable and tested for robustness to ensure the messages they communicate are not misleading.

An example of a composite index is the Well-Being Index (WI), which is based on the idea that a healthy environment is necessary for healthy humans. The WI is the average of a Human Well-being Index (HWI) and an Ecosystem Well-Being Index (EWI). The indices HWI and EWI each consist of five sub-indices. The HWI comprises indices for Health and Population, Welfare, Knowledge, Culture and Society and Equity. The EWI comprises indices for land, water, air, species and genes and resources deployment. The five dimensions of the HWI are based on 36 indicators, those of the EWI on 51 indicators.

**Source:** Singh, R.K., Murty, H.R., Gupta, S.K., Dikshit, A.K. (2009) An overview of sustainability assessment methodologies. *Ecological Indicators*. 9:189-212.

**Contact:** [rajesh1969@iitb.ac.in](mailto:rajesh1969@iitb.ac.in)

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