

Technical Note

Types and Categories of Indicators

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Managing for Results

Background on Types and Categories of Indicators

- Definition:** An indicator is a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention or to help assess the performance of a development actor¹.
- Purpose:** An indicator is a tool to help determine whether progress is made towards implementing activities and achieving objectives of an intervention. Indicators can help demonstrate progress when things go right and provide early warning signals when things go wrong; their purpose is to support effective programme planning, management and reporting by:
- Measuring progress and achievements
 - Clarifying consistency between activities, outputs, outcomes and objectives
 - Ensuring legitimacy and accountability to all stakeholders by demonstrating progress
 - Assessing project and staff performance

Types of indicators

- Input indicators:** Measure quantities of physical, human or financial resources provided to a program or project, often expressed in amounts of e.g. dollars or employee time.
- Process indicators:** Measure delivery activities of the resources devoted to a program or project and achievement during implementation. Often indicators are set as completion or milestone events taken from an activity plan, and may measure the time and/or cost required to complete them.
- Output indicators:** Track and measure the most immediate results of a program or project – that is, the goods and services provided by the project (e.g. the number of wells constructed which provide access to clear drinking water).
- Outcome indicators:** Measure the immediate, or short-term, results of program or project implementation for the beneficiaries (clients, customers) such as changes in behavior and or practices. Measures of beneficiaries' preference and satisfaction with goods/services are also considered as outcome indicators.
- Impact indicators:** Monitor the longer-term or more pervasive development changes in the wider society, economy or environment to which the program or project contributes. National sector or sub sector statistics (e.g. on poverty level, illiteracy or infant mortality rate) are often used when these indicators are defined.

Categories of indicators

- Composite indicators:** Indicators which compile individual indicators into a single indicator which reflects relative values of attainment. This indicator should measure multi-dimensional concepts which cannot be captured by a single indicator alone, e.g., competitiveness, industrialization, sustainability, single market integration, knowledge-based society, etc.
- Implementation indicators:** Track a program or project's progress at operational level – e.g. whether inputs and processes are proceeding according to work-plan schedules and within budget.
- Quantitative indicators:** Objectively or independently verifiable numbers or ratios. Measure quantity, such as the number of people who own sewing machines in a village, the wage rate or education levels.

¹ This definition is consistent with the OECD/DAC guidelines

Qualitative indicators: Subjective descriptions or categories which indicate people's judgments and perceptions about a subject, such as the confidence people have in sewing machines as instruments of financial independence.

Qualitative versus quantitative indicators

The appropriateness of quantitative and qualitative indicators depends on the performance issue. Whereas quantitative indicators are appropriate for measuring efficiency, qualitative indicators will be more appropriate for measuring customer satisfaction (subjective opinions). However qualitative and quantitative indicators are complementary and if possible a balance between the two should be sought.

In practice the choice between quantitative or qualitative indicators (and their associated methods) often involves tradeoffs – often between practicality (cost/timeliness) on the one hand and objectivity, validity (directness) and reliability (comparability) on the other.

Pros and cons: *Quantitative indicators* are typically available for more established sectors of development assistance such as education or agriculture. In sectors such as good governance or institutional capacity building the nature of results are such that qualitative indicators may be more appropriate.

Quantitative indicators are typically easier to aggregate than qualitative indicators. However qualitative information can be translated into numerical indicators through categorizing and counting the frequency of occurrences (E.g. by using approaches such as attitude surveys, rating scales or scoring systems).

Selecting indicators

Once objectives of an intervention have been clearly defined, indicators for each objective should be identified, specifying exactly what is to be measured along a scale or dimension. Clear objectives along with a base-line², enhances the reliability of indicators and the monitoring results.

It should be kept in mind that the critical issue in selecting good indicators is credibility, rather than precision in measurement. It is better to have indicators that provide approximate answers to important questions than to have exact indicators on unimportant questions.

Use a participatory approach when possible: Participation by stakeholders should be encouraged in the process of selecting indicators. It makes sense to draw on the experience of stakeholders and in addition, participation tends to promote ownership of, and responsibility for, the planned results and agreement on achievements.

Possible tradeoffs

Quality versus cost and timeliness: When selecting indicators, the data collection method and source should be considered. The availability of data and the applied method will influence the data quality - e.g. its reliability and validity but also its practicality or feasibility given cost and time restraints. Often there will be a tradeoff between the quality of data and implications for cost and timeliness.

Complexity versus simplicity: When selecting indicators, aim to develop a few credible and significant indicators that substantively capture key changes in the development situation so as to reduce the transaction costs of data-collection.

²The base-line is an analysis describing the situation prior to a development intervention against which progress can be assessed or comparisons made (OECD/DAC 2002)

However, stakeholders and the different levels of management often have narrow or partial interests in specific indicators of performance. As indicators need to cover the interests of all levels of management and major stakeholders these have to be sufficiently comprehensive. This may lead to complexity and run counter to keeping indicators simple.

Accountability
versus
management
improvements:

Indicators can address different issues such as e.g. efficiency, effectiveness, relevance or productivity. Which of these issues are selected tends to reflect the purpose of measuring performance. If *accountability* is the primary purpose, emphasis is typically on productivity and the direct relation between input and output. If *management improvement* is the primary purpose, emphasis will typically be on efficiency, relevance and the process and outcome of activities.

Limitations of indicators

Indicators are not the only factors when assessing performance. Also required is information about how a given performance was achieved; factors that influenced this positively or negatively, whether the achievements were exceptionally good or bad, who was mainly responsible and so forth.

Indicators do not provide scientific “proof” or detailed explanations about change. There is no objective truth or certainty to information represented through indicators.

Resources on indicators

UN Department for Economic and Social Affairs, Division for Sustainable Development
<http://www.un.org/esa/sustdev/index.html>

UNDP Handbook on Monitoring & Evaluating for Results
<http://stone.undp.org/undpweb/eo/evalnet/docstore3/yellowbook/index.htm>

UN Joint Inspection Unit
<http://www.unjiu.org/>

OECD DAC
http://www.oecd.org/department/0,2688,en_2649_33721_1_1_1_1_1,00.html

Sustainable Measures
<http://www.sustainablemeasures.com/>

IDEAS
<http://www.ideas-int.org/>

Sources

- JIU 2004: Reports on Managing for Results in the United Nations System (JIU/REP/2004/5, 6, 7, 8)
- OECD/DAC 2000: Results based management in the development co-operation agencies: A review of experience (Binnendijk, A.).
- OECD/DAC 2002: Glossary of Key Terms in Evaluation and Results Based Management. Evaluation and Aid Effectiveness
- UNDP 2002: RBM in UNDP: Selecting Indicators. Signposts in Development
- UNDP 2002: Handbook on Monitoring and Evaluating for Results