Choosing Indicators

Indicators are signs that can identify vulnerable communities and individuals, and show changes that have happened in a community over time. Just as road signs direct travelers toward the places they need to go, and tell them when they have arrived, good indicators can help us to know more specifically what a project is trying to achieve, and whether the expected results were actually achieved.

Choosing the right indicators can be a difficult task. Different indicators are right in different situations. Targeting indicators should tell us which people or communities are vulnerable and give us information that can be used in developing a program. Results indicators should be sensitive to change over time and show whether or not the program made a difference.

While the specific characteristics of good indicators will be different in each community and program, the 'right' indicators are **relevant, believable, sensitive, and affordable.**

Relevant Indicators

Relevant indicators provide information that is directly linked to the needs of the community and the program. Indicators that are not relevant are a waste of time and money, as the information they provide will probably never be used to evaluate the program or improve conditions in the community. In the past, many development projects have been accused of using a **'blunderbuss approach**.' A blunderbuss was an early type of gun, which shot a great number of bullets in many directions at once. Only a few bullets would hit the target while the rest were wasted. In the same way, using a large number of indicators may mean they 'hit the target' once or twice, but much of the effort is wasted collecting irrelevant information. This can be avoided with **'optimal ignorance'** -- only collecting information that is really needed. This saves time, money and frustration.

> "The government is very keen on amassing statistics. They collect them, add them, raise them to the n^{th} power, take the cube root and prepare wonderful diagrams. But you must never forget that every one of those figures comes in the first instance from the village watchman, who just puts down what(ever he) pleases."
>
> -- Sir Josiah Stamp, Inland Revenue Dept, Great Britain 1886-1919

Two important ingredients for choosing relevant indicators are **clearly stated project objectives**, and a **high level of community involvement**.

Canadian Foodgrains Bank members are responsible to the communities involved in food programs, and to the people who donate food and money to these projects. Sometimes these two groups have different views of what is relevant. People close to the communities want information that will help them to maintain and improve programs. People who donate food and money would like to make sure that the resources are being used in the best possible way. It is very important that these groups come to an agreement on what information is relevant. People will not take care in collecting information they feel is irrelevant. Too often, the community's voice is ignored in project planning. Community visits, relationship building and consultation are very important, as they allow local people to participate more directly in planning and evaluation.

Believable Indicators

What indicators actually mean often requires interpretation. For instance, a high number of households selling off their assets is often interpreted to mean that the population faces food insecurity. Believable indicators are more clearly interpreted. When the meaning of a particular indicator is clear, it is easier to believe that the interpretation is correct.

The meaning of indicators can be understood through theory. Scientific theory suggests certain believable food security indicators. The Canadian Foodgrains Bank has resource people and materials to help its partners understand some of the scientific theory in areas like health, nutrition and economics. It is important that these scientific theories be used along with local theories and understanding. Everyone learns when there is good dialogue.

Past experience and community stories also help people to interpret the meaning of certain indicators. If certain conditions or signs have been associated with food insecurity in the past, people will expect those conditions or signs to identify food insecurity in the future. An important part of the process is listening to community stories and experiences of food insecurity.

This is especially important for understanding **proxy indicators**. Proxy indicators are not direct measures. They provide information about conditions that are harder to measure. For example, school attendance may be a proxy indicator of energy levels among children. Scientific theory, local theory and stories should be used to assess whether a proxy indicator is believable.

Believable indicators must be based on good quality data collected using sound methods. Important issues include sample selection (*tips* 201), questionnaire design (*tips* 203), and the way the indicators are measured. As the quotation in the box points out, even the most sophisticated sounding indicators are only as good as the quality of the original data collected. The Canadian Foodgrains Bank offers its partners advice and feedback on their methods of evaluation.

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Sensitive Indicators

Sensitive indicators detect differences over time and between different groups. Good results indicators can detect change between an initial (baseline) measurement and later (follow-up) measures taken during and/or after a project has been implemented. If an indicator does not respond to change, it may give the false impression that a project made no difference even though in reality the project did make a difference. For example, height-for-age (stunting) is sometimes used as an indicator of child nutrition. However, research shows that children who experience food shortage during their first two years of life will probably never fully catch up in height, even if they have plenty of food in later years. Even if a project makes a big change in child nutrition, we may not see a big change in height-for-age in the short term.

Sometimes indicators are insensitive to change over time because they only tell part of the story. For example, weights and heights are often used to evaluate nutrition. However, some research suggests that only about 15% of the energy in food targeted to a child will actually help that child grow and develop. The rest goes toward the child's activity and family members. Here, weights and heights measure only part of the impact that a program might have. This makes them less sensitive to change over time.

It is also important to note how quickly indicators will respond to change over time. Some indicators -- often called leading indicators -- reflect change quite quickly. Examples of leading indicators include market prices, asset sales, and changes in food source (e.g. eating famine foods). These often predict changes that will be reflected in other indicators later on. For example, death rates may take longer to change. It is important to keep in mind the time frame of the evaluation when choosing indicators that will be sensitive to change within that period.

Good targeting indicators detect the differences between groups of people who need extra food and those who do not. Sometimes, measures for groups of people hide true differences within those groups. For example, measures of household food availability may not tell us about households where there is unequal sharing of food within the household. In some areas, women and children may have very different levels of food security than the men in the same household. In the same way, measuring total food availability for whole regions or nations does not tell us about specific groups who suffer food insecurity because of inequitable distribution within those regions or countries.

Affordable Indicators

Cost in time and money often limits the number and type of indicators that can be used. Large surveys and rigorous evaluations can be very expensive. Some groups ask why they should spend time and money on evaluation when those valuable resources could be used to feed more people. This is an important question, which is often hard to answer. If done well, evaluation can actually reduce the cost of programming through better targeting of assistance and increasing the effectiveness of programs. As discussed in the first section, evaluation can also help organizations be more responsive and responsible to the communities receiving assistance.

One way of making indicators more affordable is to use '**appropriate imprecision**.' This means that measures should not be more rigorous or precise than they need to be. Just as it is a waste of time and money to measure indicators that are not relevant, it is a waste of time and money to collect information that is more detailed than required.

Reduce the cost of evaluation by:

- Using existing data where available
- Collecting only relevant information (optimal ignorance)
- Collecting only the level of detail required (appropriate imprecision)
- Using wise sampling methods

The **Sphere Project** is a recent initiative that seeks to improve the quality of humanitarian responses to disasters. The project involves a large number of organizations worldwide and has consulted with a range of experts in five main areas: water and sanitation, nutrition, food aid, shelter and site planning, and health. The Sphere Project Manual is a good resource for any organization planning an emergency response project, as it provides indicators for situation assessments and program evaluations within each of the five themes.

Selecting indicators that are relevant, believable, sensitive and affordable requires some thought and attention at the outset of a project. However, a few good indicators can go a long way toward simplifying and strengthening situation assessment and project evaluation.

Resources

Riely F et al. (1995) Food Security Indicators and Framework for Use in the Monitoring and Evaluation of Food Aid Programs. *FANTA Guide:*

www.fantaproject.org

The Sphere Project: Humanitarian Charter and Minimum Standards in Disaster Response:

www.sphereproject.org

For more information on selecting indicators, or other issues related to planning, monitoring, and evaluation, contact the Canadian Foodgrains Bank (cfgb@foodgrainsbank.ca).

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