

Monitoring progress on agriculture and rural development

The Sustainable Development Goals (SDGs) will amount to little unless backed by reliable indicators. Only with good metrics can the agenda be implemented and progress measured. Just like the SDGs themselves, the indicators are still in the discussion phase, with the Sustainable Development Solutions Network (SDSN) one of the many players in this process. They outline their recommendations in the following article, using rural development as an example to describe them.

The Sustainable Development Goals will confirm global aspirations for improving human well-being, while their targets will define success. To achieve these objectives clear roadmaps and robust indicators will be needed at the national and sub-national level. Indicators are both a management tool to help countries develop evidence-based implementation strategies for achieving the SDGs and a report card to measure progress and ensure accountability to a broad range of stakeholders. The Sustainable Development Solutions Network (SDSN) proposes the following principles to select strong indicators:

Limited in number: There are infinite ways to measure progress; therefore, there must be a conscious limiting of the number of metrics. Evidence-based indicators associated with well-tested methodologies and guidelines should be chosen. There will be trade-offs between metrics in terms of precision, scale and cost that are going to require a clear vision of measurement objectives at the start (Barrett, 2010).

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Clear, with straightforward policy implications: Indicators should be easy to understand and communicate to all stakeholders. For example, indicators on agriculture need to be understood by farmers, policy-makers, business executives, researchers and consumers.

Allow for high-frequency reporting: Indicators should lend themselves to accurate, consistent, and continuous collection of data across both time and space. Metrics can and should change over time as the relevant questions and challenges evolve (Sachs, 2012; Lindenmayer, 2011).

Consensus-based in their selection: All stakeholders should be en-

gaged in the selection of indicators, especially data end-users, to increase the chance of success.

Constructed from well-established data sources: Indicators should draw on well-established sources of public and private data; methodologies for data collection should be based on international standards, recommendations, and best practices to facilitate international comparison. Countries must be empowered to collect and interpret their own data.

Disaggregated as much as possible: Because a central objective of sustainable development is to ensure social inclusion, metrics should be disaggregated by gender, geogra-

Reliable data collection and data evaluation, for example concerning the quantity and quality of harvests, form the basis for the development of indicators in the implementation of strategies for achieving the SDGs and for measuring progress.



Photos: A. Dobermann

The prevalence of stunting and wasting in children under 5 years of age could serve as an indicator for achieving the targets of SDG 1, 2 and 3.

phy, socioeconomic status, disability, ethnicity, age, and other dimensions wherever possible.

Universal: The SDG indicators should apply to all countries and be supplemented by metrics tailored to national and local challenges. Not all indicators will be truly universal. For example, indicators for malaria or neglected tropical diseases (NTDs) will only apply to certain countries.

Mainly outcome-focused: It is generally preferable for indicators to track outcomes or the ends as opposed to the means; although, in some cases, input metrics may be needed for sustainable development.



■ Data and data accession gaps

Many information gaps hamper the ability to assess the progress of sustainable development, including insufficient data, inconsistent guidelines for measuring metrics, weaknesses in predictive models, and a lack of investment in new technologies for monitoring systems. One issue is the frequency and scale of data collection: aggregate national data from years ago does not aid policy decisions that must be made in real-time. Another issue is that while more and more actors – governments, international and regional organisations, research centres, private companies, etc. – are collecting data, there is often little co-ordination of activities or data sharing. In fact, businesses, academic institutions, and farmers themselves are collecting an ever-increasing amount of data, which is not yet part of official reporting mechanisms or easily accessible. We need to find new ways to co-ordinate collection and sharing data across sectors, while also controlling quality and data ownership, and protecting privacy.

Many current metrics are inadequate or contradictory; this lessens

their usefulness for policy-makers and practitioners. There are differences in methodologies and definitions for even basic measurements of crop yields, prevalence of poverty and hunger, and natural resource use or biodiversity (Bates, 2013; Heady, 2013; Barrett, 2010); therefore, misrepresentations and distortions of the current state of affairs are common. For example, aggregate national data on agricultural production, land use, food supplies, and poverty rates typically fail to include income distribution, agricultural waste, seasonal changes in production and consumption, exogenous shocks from weather or conflict, and market and climate uncertainties, all of which are important to target effective policy interventions. Statistical capacities in many sub-Saharan Africa countries are particularly dire (Jerven, 2013).

■ The need for a “data revolution”

A new, global information system built on the principle of open data sharing and real-time learning would help drive rural development and support achievement of the SDGs. Many data gaps (real or perceived) could

be filled if existing information and methodologies were better aligned and available to all.

The systematic, reliable collection of data to track progress will require significant investments in local, national, and global data collection and processing in all sectors. International agencies and Official Development Assistance (ODA) should support these investments. Governments should embrace digitally-enabled exchange of information and learning to accelerate the pace of development, democratise information, and empower farmers, consumers and investors to make informed choices. Our ultimate ambition should be to monitor nearly every hectare of existing farmland by 2030.

This “data revolution” could better track long-term trends or seasonal patterns in poverty, food consumption and production, nutrition, climatic and economic shocks, land use change, and more. The vast amounts of data collected would feed into a well-designed and well-directed global monitoring network to track, anticipate, and manage changes in the biophysical, economic, and social components of agriculture

and food systems around the world (Sachs, 2010; Sachs, 2012). This system would allow scientists, farmers, entrepreneurs, and policy-makers to find solutions to pressing problems, direct public and private investments in agriculture, allow for aspects of agriculture and food systems to be quantified and compared across time and space, and track progress towards meeting the SDGs.

Ultimately, all SDGs should be supported by online, real-time, place-based, and highly disaggregated data.

■ Indicators for the post-2015 development agenda

Discussion of which specific indicators will be chosen is still in the early stages. Dozens of governments, NGOs, UN agencies, academics and other stakeholders have put forward proposals. Most recommendations have focused on a particular issue or sector. The Sustainable Development Solutions Network has submitted a comprehensive proposal which makes recommendations for each of the 17 SDGs currently under consideration while limiting the number of indicators to 100. An excerpt of the indicator and monitoring framework proposed by the SDSN is presented in the box on the right.

There are many other groups proposing indicators for the SDGs, as well as groups advocating for changes to the targets. Many of them have offered comments to the SDSN during

Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture (7 proposed targets)

Potential and indicative indicator	Other goals indicator applies to
Proportion of population below minimum level of dietary energy consumption (MDG indicator)	3
Prevalence of anaemia in women of reproductive age (including pregnant)	3
Prevalence of stunting and wasting in children under 5 years of age	1, 3
Crop yield gap (actual yield as per cent of attainable yield)	
Number of agricultural extension workers per 1,000 farmers [or share of farmers covered by agricultural extension programmes and services]	
[Nitrogen use efficiency in food systems] – to be developed	
[Phosphorus use efficiency in food systems] – to be developed	12
[Access to drying, storage and processing facilities] – to be developed	
Annual change in degraded or desertified arable land (% or ha)	15
[Crop water productivity (tons of harvested product per unit irrigation water)] – to be developed	6

two rounds of public consultation, and we welcome additional comments and feedback on proposed indicators. It is crucial that final decisions be made through consensus and based on sound science. It is also important that this be done in a timely manner to reduce the lag between agreeing on the SDGs and being ready for action and implementation.

The new goals, targets, and indicators offer a flexible action framework that combines co-ordinated global action with country-specific, tailored

strategies and policy at the national level. This versatility is especially crucial in meeting rural development goals, which are highly dependent on local contexts such as climate, culture, or level of economic development. Such a framework defines a set of global priorities, which will be achieved by a diverse set of policy interventions. We are therefore optimistic that the SDGs can accomplish what they set out to do, and look forward to contributing towards their implementation.

For references, see: > www.rural21.com

The Sustainable Development Solutions Network

The Sustainable Development Solutions Network (SDSN) was launched by UN Secretary-General Ban Ki-moon in August 2012. Its aim is to mobilise scientific and technical expertise from academia, civil society and the private sector in support of sustainable development problem solving at local, national and global scales. It aims to promote integrated approaches to the interconnected economic, social, and environmental challenges that are addressed in the SDGs. The SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society. The SDSN Secretariat is hosted by Columbia University with staff in Paris, New York, and New Delhi.

For more information on the SDSN's work on indicators, including a complete set of their principals for setting indicators and opportunities to participate in public consultations, please visit > www.unsdsn.org/indicators.

More information on the work of the Thematic Group on Sustainable Agriculture and Food Systems is available at > <http://unsdsn.org/what-we-do/thematic-groups/sustainable-agriculture-and-food-systems>.

The Open Working Group proposal is available at > <https://sustainabledevelopment.un.org/focussdgs.html>.