

# The Sustainable Development Goals Confront the Infrastructure of Measurement

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## Abstract

This brief article comments on the special issue on SDGs - Knowledge and Politics in Setting and Measuring the SDGs. Acknowledging that the articles in the issue show how reliance on indicators changes the way development is conceived, Merry asks why is it so difficult to produce better indicators. If they are too narrow, why not simply produce more? She argues that conceiving of measurement as an infrastructure provides important insight into these questions.

How does reliance on quantified indicators change the way development is conceived? This important collection addresses this question, arguing that it fundamentally shifts the way we think about development. The turn to indicators has the effect of defining development narrowly in terms of specific accomplishments rather than as structural change. For example, it focuses attention on the number of people in poverty, not the extent of inequality within or between countries. The shift from the MDGs to the SDGs shows how the use of quantifiable measures restricts the vision of development. Although, as Sakiko Fukuda-Parr and Desmond McNeill (this collection) show, the SDGs were produced by a far more collaborative process that included more civil society and South government perspectives than the MDGs, the translation of the SDGs' broad, aspirational goals into concrete measurable indicators greatly reduced their transformative significance. Broad goals, such as 'access to justice for all', are measured by narrow and limited measures which fail to do justice to the conceptions behind the goals. Moreover, as Alicia Ely Yamin (this collection) points out, measures such as maternal mortality rates provide evidence of problems but fail to address the particular factors that might remedy the problem. She advocates instead measuring availability of emergency obstetric services as both easier to count and more directly related to the problem and to its solution.

Clearly, the turn to using indicators as a central technique for promoting and monitoring development raises important difficulties. The challenges of identifying the correct indicators and converting broad goals into concrete measurable phenomena are clear, as this collection of articles demonstrates. Why is it so hard to produce better indicators? If each one is too narrow, why not simply produce more? I think conceiving of measurement as an infrastructure provides important insight into these critical questions.

The infrastructure of measurement describes the material and technological basis of deciding what to count, how to

count it, and how to analyze and present the data (see Merry, 2016). It has physical, organizational, and knowledge dimensions. It encompasses the costs, expertise, personnel, organization, and models used to count. It includes access to computers or paper forms, templates of questionnaires or administrative records, the existence of bureaucrats and offices, electricity, roads, etc. Most important, it refers to the resources available to count: the people, the expertise, and the technology to gather, analyze, and share data. In order to gather national statistical data, governments must decide to spend resources on counting rather than fighting wars or providing benefits for low-income citizens. They need to have bureaucrats available to collect and manage data and they need experts to determine how to convert concepts into readily countable form. They need a public interested enough in gathering data to cooperate in providing information and agreeing to pay for it.

While broad ideas, such as 'Reduce inequality within and among countries' (Goal 10) and 'Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all' (Goal 8), are now part of the development framework, they are not all being measured thoroughly. Once the goals and targets were established, the 'technical' project of producing the indicators was turned over to the UN Statistical Commission which created an Interagency Expert Group on SDGs (IAEG-SDGs). This group confronted the difficult challenge of finding ways to count such broad goals. They developed indicators that inevitably covered only small slices of each goal.

Furthermore, many of the indicators measuring the newer, more ambitious goals remain undefined. The IAEG-SDGs committee has divided the indicators into three tiers, depending on whether there is a methodology and data to measure them. As of 15 December 2017, the tier classification contained 93 Tier I indicators, 66 Tier II indicators, and 68 Tier III indicators (UNSC, 2017). In addition to these, there were five indicators that have multiple tiers (different

components of the indicator are classified into different tiers). Tier III indicators without an active custodian agency may be refined or removed at the comprehensive review in 2020 (UNSC, 2017). Many of the indicators languishing in Tier III are the broader and more aspirational ideas of the SDGs, not previously measured. Thus, the constraints of infrastructure may tame the progressive quality of the SDGs and their conception of development much as the turn to indicators does.

One solution to the cost in time, expertise, and state resources required to measure the SDGs is the turn to so-called Big Data, or data collected by non-governmental organizations such as companies, NGOs, and universities. Internet shopping, Google searches, mobile phone calls, and taxi rides, are a small portion of human activities that are recorded by private companies and provide data that could be relevant to measuring the SDGs. As Manjari Mahajan shows in her analysis of health data (this collection), such data can be mined to produce new indicators that displace government statistics, particularly as funding for state statistical offices and global organizations such as the World Health Organization, which has long collected global health data, diminishes. This shift threatens poorer states' control over their own data. As Mahajan notes, these new sources of data and the private organizations that analyze them seem to solve the resource problem for poor countries, but raise issues of transparency, accountability, and the possibility of further weakening national statistical offices.

As the demand for statistics for the SDGs grows, some governments are entering into public/private partnerships with private organizations to collect information. Many countries are enthusiastic about partnerships with private providers of Big Data such as phone companies and internet companies, but need help negotiating contracts with private data providers and managing and analyzing this data (Adams and Judd, 2018). Several European countries and the US are providing support for these initiatives. It is clear that finding the resources to measure the SDGs is a critical problem, but the turn to private sources risks undermining government capacity (Adams and GPW Team, 2018). There is long-term concern as well about the ownership of this data, which varies with the particular agreements states make with private organizations but in some cases will rest with the private companies rather than the state. There is also concern that it is governments that are accountable to their citizens for SDG compliance while the foundations, companies, and civil society organizations that provide private funding are not (Adams and Judd, 2017). Coicaud and Tahri (2014) note that in contrast to national statistics, which are generally publicly available and in theory promote the public good, private companies collect digital information for profit and the data are proprietary. They point to a gap between the content, actors, and methodology of the official statistical culture and the new information one (Coicaud and Tahri, 2014). A seminar on the 'data revolution' at the UN Statistical Commission in March 2018 emphasized the importance of national statistical offices in gathering SDG data and their responsibility for validating data, adopting

internationally agreed standards, and assuring quality. Thus, inequalities in the infrastructure of data collection and analysis mean that rich countries and companies exercise disproportionate control over the data and analysis of poor countries and the role of official statistics as the central source of information may be at risk in poorer states.

Another important concern is the proxy problem. Many things are hard to measure directly so that other things are measured as proxies for what is important but uncountable. For example, Target 5a on women's 'equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws' are measured by two indicators, one of which specifies 'Percentage of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control'. In April 2017 this indicator was classified as Tier III, needing methodological and data development. The custodial agency for this indicator, the Food and Agricultural Organization of the UN (FAO) developed a guide for measuring this indicator (FAO 2018). The 67-page document notes that since the indicator is not directly measurable, proxies will be used to measure dimensions of the issue. It relies on six proxies such as, 'Is the joint registration of land compulsory or encouraged through economic incentives?' (FAO 2018, p. 15).

Yet, as Yamin points out, the existence of a law does not provide information about behavior: it does not tell you how many women in fact own land. It is widely recognized that what the law says does not necessarily describe what people do. The availability of laws about land ownership is a proxy for actual ownership of land. Laws may say that women can own land, but kinship systems, economic or racial inequalities, or gender ideologies prevent them from doing so. The indicator will be misleading. Any alleged benefits will be non-existent and the harm unaddressed. For example, if this indicator shows that women have rights to land when they do not actually own it, this finding could undermine the important conclusion by Bina Agarwal (1994) that the incidence of violence against women is reduced by women's ownership of land. A misleading proxy measure for ownership of land could contradict her theory. This is a conclusion with significant implications for development policy.

Costs affect how states gather their statistics. They rely on either administrative data, collected in the course of state operations such as crime rates, and survey data which asks about particular issues of concern such as victimization surveys. Administrative data are generally less expensive than survey data. But they also offer only proxies for what one really wants to measure. If, for example, a state wants to measure the incidence of violence against women, it can use state statistics on rape, domestic violence, harassment, and trafficking cases, but these are notoriously underreported. Moreover, this data covers only those violations defined as crimes within a state's legal system. A survey, on the other hand, covers a wider range of forms of violence and is not limited to those defined as crimes or to those

who choose to report the incidents. While surveys are clearly inadequate also since they depend on willingness to report, they do avoid the proxy problem of administrative data by asking directly related to the question at hand (see Merry, 2016). The proxy problem of big data is even larger than it is for state statistics since it is collected for very different purposes, typically to develop markets, shape advertising, or maintain security, in the case of camera surveillance.

Measuring development is clearly an important strategy for promoting it, but it should not be the only one, particularly considering how it shapes what development means and how it is implemented. Such a heavy reliance on quantification ignores the constraints on accurate knowledge resulting from the infrastructure of measurement.

### Note

This paper benefited from support to the special issue project from: Friedrich-Ebert-Stiftung New York Office; UNDP; University of Oslo Centre for Environment and Development and the Environment; Julien J. Studley Grant to The New School Graduate Programs in International Affairs.

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