How to measure sustainable progress

In September, the United Nations General Assembly adopted Sustainable Development Goals (SDGs), to be met by the year 2030. These important goals range from poverty eradication and improvements in education and health to the protection of global assets, including the oceans and a stable climate. Unfortunately, neither the SDGs nor their background documents explain how governments should judge whether the development programs they undertake to meet the goals are sustainable.

The system of national accounts (SNA) that is in common use today records resource flows such as consumption, investment, employment, and government expenditure. The SNA is designed to measure gross domestic product (GDP), which is a flow of income (so many international dollars per year). However, because GDP can increase despite the depletion of natural resources, the SNA is ill-equipped to judge the sustainability of the SDGs.

Governments will need a measurement tool that records wealth, comprehensively, including reproducible capital (roads, buildings, and machines), human capital (education and health), and natural capital (land, fisheries, forests, and subsoil resources). GDP does not record the depreciation of capital assets. Although the SNA does account for depreciation of reproducible capital, it arrives at figures for Net Domestic Product (NDP), not wealth. Economic growth should reflect growth in wealth, not growth in GDP or NDP (1). If the average wealth per person (adjusted for distribution of wealth) increases as governments attempt to meet the SDGs, the SDGs will be sustainable; if it declines, the SDGs will be unsustainable.

Economic statisticians have begun estimating past movements of wealth over time. The authors of the Inclusive Wealth Report 2014 (IWR2014) (2), for example, measured movements in the wealth of 140 nations over the period 1990 to 2010. They used official statistics to arrive at the value of reproducible capital, and they estimated human capital by using data on educational attainment. Owing to severe limitations of data, items of natural capital that were included were limited to agricultural land, forests as stocks of timber, subsoil resources, and fisheries. The national costs of global climate change, although only partially covered, increased during the period. Similarly, the ecological services that are provided routinely by, for example, forests and coastal waters, though incomplete, have decreased. Estimates of wealth changes between 1990 and 2010 were therefore, in all probability, biased upward.

The authors reported that wealth grew at a positive rate in 92% of the countries in the sample, but that the proportion of countries where growth in wealth per person was positive was only 60%. The UN ignored population growth in framing the SDGs, which should be a point of public concern. Moreover, a reliance on growth in world income to finance the SDGs would be a mistake. IWR2014 reported that GDP per capita grew in 90% of the countries in their sample, even as wealth in many of those countries declined.

As nations work to meet the SDGs, their Statistical Offices should begin to prepare wealth accounts and track movements in wealth through time. Just as firms create annual balance sheets, governments should prepare annual wealth accounts. Limiting data to GDP will hinder our ability to evaluate development programs.