

Governing the UN Sustainable Development Goals: interactions, infrastructures, and institutions



Three of the eight Millennium Development Goals (MDGs) concerned health. There is only one health goal in 17 proposed Sustainable Development Goals (SDGs). Critiques of the MDGs included missed opportunities to realise positive interactions between goals.¹ Here we report on an interdisciplinary analytical review of the SDG process, in which experts in different SDG areas identified potential interactions through a series of interdisciplinary workshops. This process generated a framework that reveals potential conflicts and synergies between goals, and how their interactions might be governed.

In our framework, the 17 SDGs are represented in three concentric layers, reflecting their main intended outcomes (figure). The single health goal is in the inner layer of people-centred goals that aim to deliver individual and collective wellbeing through improved health and education, ensuring equitable distribution within and between individuals and countries. The wellbeing goals are supported by second-level goals that relate to the production, distribution, and delivery of goods and services including food, energy, clean water, and waste and sanitation services in cities and human settlements. We call these infrastructure goals, as they address essential functions of modern societies necessary to deliver the wellbeing goals and provide a platform for delivering the wellbeing goals. The figure's outer layer contains three natural environment goals which relate to the governance of natural resources and public goods in land, ocean, and air, including biodiversity and climate change. The biophysical systems that underpin sustainable development are all here. Although these systems are not dependent on human activities, human activities strongly influence them.

This organisation of proposed SDGs reveals problems and possibilities for the linking of health with other goals. One key issue concerns governance—ie, the institutional form and relations of accountability. Much work in health has looked at this issue within its own sector. Our framework looks at this problem across sectors, and reveals the interdependency of the health and wellbeing goals with other goals.

The institutional structures for delivering wellbeing goals stem from the historical role of states in providing health, education, and welfare. Synergistic opportunities for implementation are associated with the alignment of goals that link education, health, and gender equality. The intersectoral cooperation needed to achieve synergies in wellbeing goals is challenging, but institutional forms to realise this exist.

However, the institutional delivery mechanisms for the outer layer, natural environment goals, are not so clear. Despite potential synergies—eg, improvements in forest conservation might reduce climate change, while tackling climate change might reduce loss of coral reefs—governance and delivery models for these goals are limited to agreements under relatively weak intergovernmental conventions. This situation

Published Online
March 30, 2015
[http://dx.doi.org/10.1016/S2214-109X\(15\)70112-9](http://dx.doi.org/10.1016/S2214-109X(15)70112-9)



Figure: Framework for examining interactions between Sustainable Development Goals
Goal 17 is excluded from this framework because it is an overarching goal.

reflects the difficulty of getting cooperation and investment in sectors in which the positive outcomes for any country might not be immediately apparent. Natural environment goals are at best indirectly connected to wellbeing goals and their outcomes. Their intergenerational benefits often make it difficult for contemporary electorates to demand appropriate action.

In our framework, the middle layer, infrastructure goals, represent a domain for global development goal setting with particularly strong effects on inner-level and outer-level goals and relevance to global health. Infrastructure goals draw on common natural resources and realising them suggests some conflict with other goals at the same and different levels. For instance, achieving the energy or agriculture goal will have clear benefits for health and education but might be most easily and quickly achieved by actions that undermine biodiversity and climate change goals.

A crucial lack of potential synergies at the level of infrastructure goals is compounded by governance issues at this level. Here decisions are typically taken by powerful elites and technical experts. The potential combination of private interests, weak accountability mechanisms, and lack of transparency means that these goals might be implemented without balancing natural environment and wellbeing goals, and in a way that exacerbates contemporary and intergenerational inequalities.

Designing systems for governing and implementing the SDGs in a manner that best delivers health and wellbeing outcomes requires two processes. First, goals in the same layer of our framework, with similar governance structures, should be closely linked in order to realise potential synergies and remove conflicts. Second, particular attention should be focused on developing effective governance mechanisms for the

middle-level infrastructure goals. Without this, wellbeing goals such as health will probably be achieved at the expense of natural environment goals until resources are virtually exhausted and ecosystem resilience breached. The pivotal role of infrastructure goals in the proposed SDGs indicates that decisions must not be taken by an unaccountable few. Governments should devise governance mechanisms at the national and subnational levels, characterised by deliberation, participation, and transparency of decision making. Community organisations already mobilised around these issues need to be engaged. Democratic debate around infrastructure goals, mediating the balance between environmental limits, and individual and collective wellbeing, is a key concern of global health.

**Jeff Waage, Christopher Yap, Sarah Bell, Caren Levy, Georgina Mace, Tom Pegram, Elaine Unterhalter, Niheer Dasandi, David Hudson, Richard Kock, Susannah Mayhew, Colin Marx, Nigel Poole*

London International Development Centre, London WC1H 0PD, UK (JW, CY); School of Oriental and African Studies, London, UK (JW, NP); Bartlett Development Planning Unit, University College London, London, UK (CY, CL, CM); Department of Civil, Environmental and Geomatic Engineering, University College London, London, UK (SB); Centre for Biodiversity and Environment Research, University College London, London, UK (GM); School of Public Policy, University College London, London, UK (TP, ND, DH); Department of Humanities and Social Sciences, Institute of Education, London, UK (EU); Department of Pathology and Pathogen Biology, Royal Veterinary College, London, UK (RK); and Department of Global Health and Development, London School of Hygiene and Tropical Medicine, London, UK (SM) Jeff.Waage@lids.bloomsbury.ac.uk

We declare no competing interests.

Copyright © Waage et al. Open access article published under the terms of CC BY.

- 1 Waage J, Banerji R, Campbell O, et al. The Millennium Development Goals: a cross-sectoral analysis and principles for goal setting after 2015. *Lancet* 2010; **376**: 991–1023.