Pradeep Singh/International Initiative for Impact Evaluation

A map of evidence maps relating to sustainable development in low- and middle-income countries

The production of evidence designed to identify effective development interventions has increased markedly over the last decade. While this growth is welcome, it also presents challenges: how to ensure that existing evidence is accessible to decision makers, that new studies avoid duplication and that evidence gaps are addressed? Evidence mapping exercises have been increasingly adopted by researchers, governments and NGOs as a means of addressing this challenge. While there are various efforts to standardise methods for systematic reviews, evidence mapping is still a relatively emergent field.

This brief summarises the findings of a map of evidence maps designed to catalogue evidence maps relating to development interventions in low- and middle-income countries (L&MICs). The authors use a modified version of the International Initiative for Impact Evaluation (3ie) evidence gap map methodology[1] to identify, categorise and display evidence maps within a framework of interventions and outcomes. The intervention sectors are adapted from the World Bank's categorisation and outcomes are classified according to the Sustainable Development Goals (SDGs).

To minimise duplication and inform the further development of methods for evidence mapping, we conducted a stock-taking exercise to provide an overview of the methods and thematic focus of existing evidence maps focusing on L&MICs.

[1]Snilstveit, B, Bhatia, R, Rankin, K and Leach, B, 2017. *Evidence gap maps: a starting point for strategic evidence production and use*. London: International Initiative for Impact Evaluation (3ie).

Highlights

- Publication of evidence maps is growing.
- Map funding and publication are being driven by a few organisations.
- The distribution of maps across intervention sectors and SDGs is relatively uneven, with some significant gaps.
- The majority of maps consider equity in some way.
- Maps employ a diverse range of methods in terms of included studies, scope, appraisal, data extraction, and analysis and presentation.
- Sustainable development evidence gaps are a guide for future maps.
- Map methods reporting can be more transparent and comprehensive.
- Maps that do not include transparent and systematic methods of synthesis should not draw substantive conclusions about the evidence and therefore are not a reliable way of informing policy.
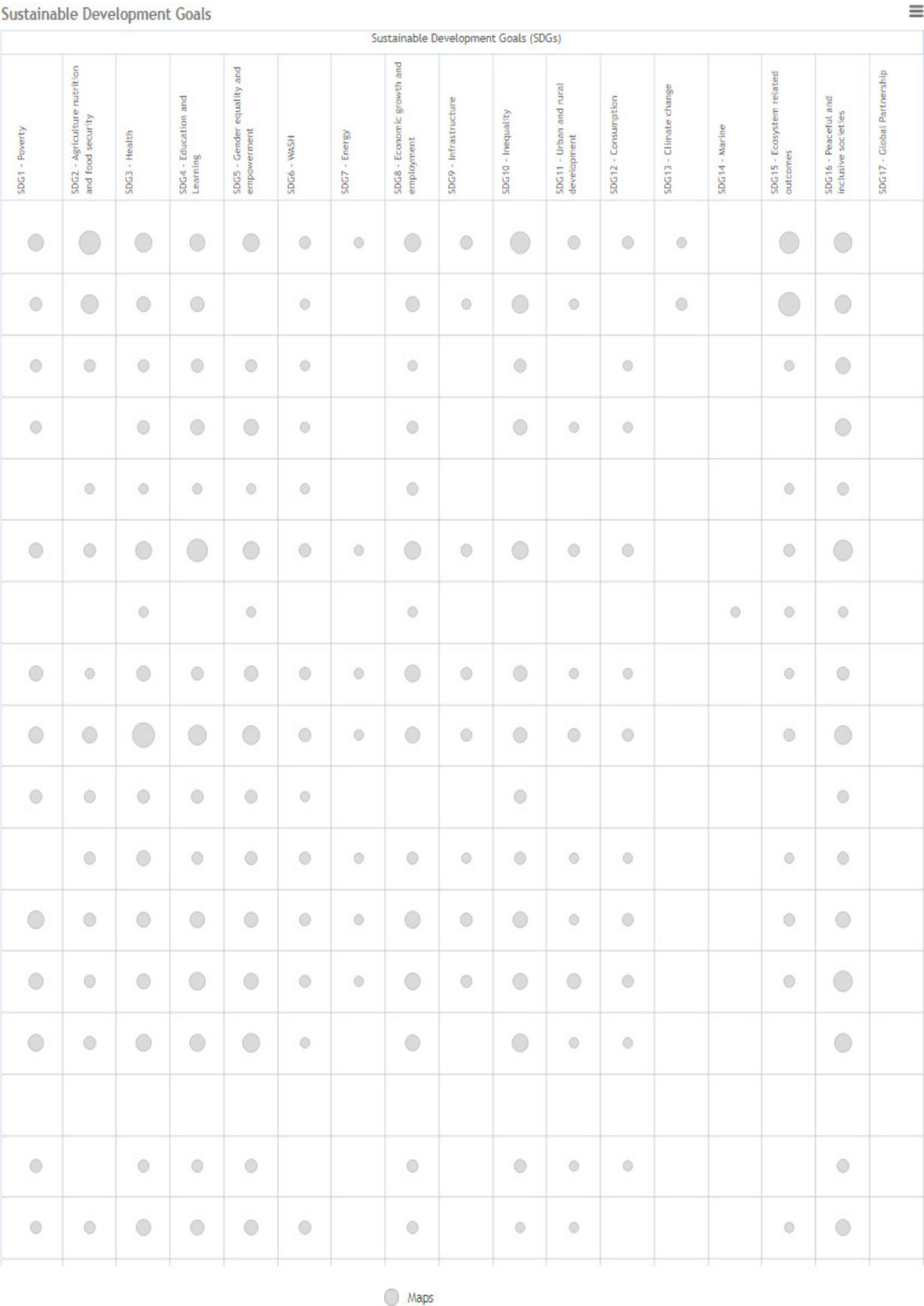
How to read the map of evidence maps

3ie presents evidence gap maps using an interactive online platform that allows users to explore the evidence base and findings of relevant studies. Bubbles appearing at intersections between interventions and outcomes denote the existence of one or more maps. The larger the bubble, the greater the volume of evidence maps in that cell. In the online version of the map of evidence maps, hovering over a bubble displays a list of all the included maps for that cell. Clicking a link will take a user to the associated paper or online map. Users can filter by type of evidence included in the maps, by region or by population.

Sustainable Development Goals

Sustainable Development Goals (SDGs)

Columns (SDGs):
SDG1 - Poverty; SDG2 - Agriculture nutrition and food security; SDG3 - Health; SDG4 - Education and Learning; SDG5 - Gender equality and empowerment; SDG6 - WASH; SDG7 - Energy; SDG8 - Economic growth and employment; SDG9 - Infrastructure; SDG10 - Inequality; SDG11 - Urban and rural development; SDG12 - Consumption; SDG13 - Climate change; SDG14 - Marine; SDG15 - Ecosystem related outcomes; SDG16 - Peaceful and inclusive societies; SDG17 - Global Partnership

Sectors
- Agriculture and rural development
- Climate change and environment
- Conflict management and post-conflict reconstruction
- Cross-sectoral
- Economic policy
- Education
- Energy
- Finance
- Health nutrition and population
- Humanitarian
- Information and communications technology
- Private sector development
- Public sector management
- Social protection
- Transportation
- Urban development
- Water sanitation and hygiene

○ Maps

Main findings

Publication of evidence maps is growing. The number of maps published roughly doubled each year from 2014 through 2016. Fifty-five completed maps and 18 ongoing maps met our inclusion criteria.

Map funding and publication are being driven by a few organisations. DFID and USAID dominate map funding. The most active publishers are 3ie, through its Evidence Gap Map Report series; the International Rescue Committee; and the Collaboration for Environmental Evidence, through its journal, *Environmental Evidence*.

The distribution of maps across intervention sectors and SDGs is relatively uneven, with some significant gaps. Health, nutrition and population is the sector most frequently covered, followed by agriculture and rural development, education, and finally cl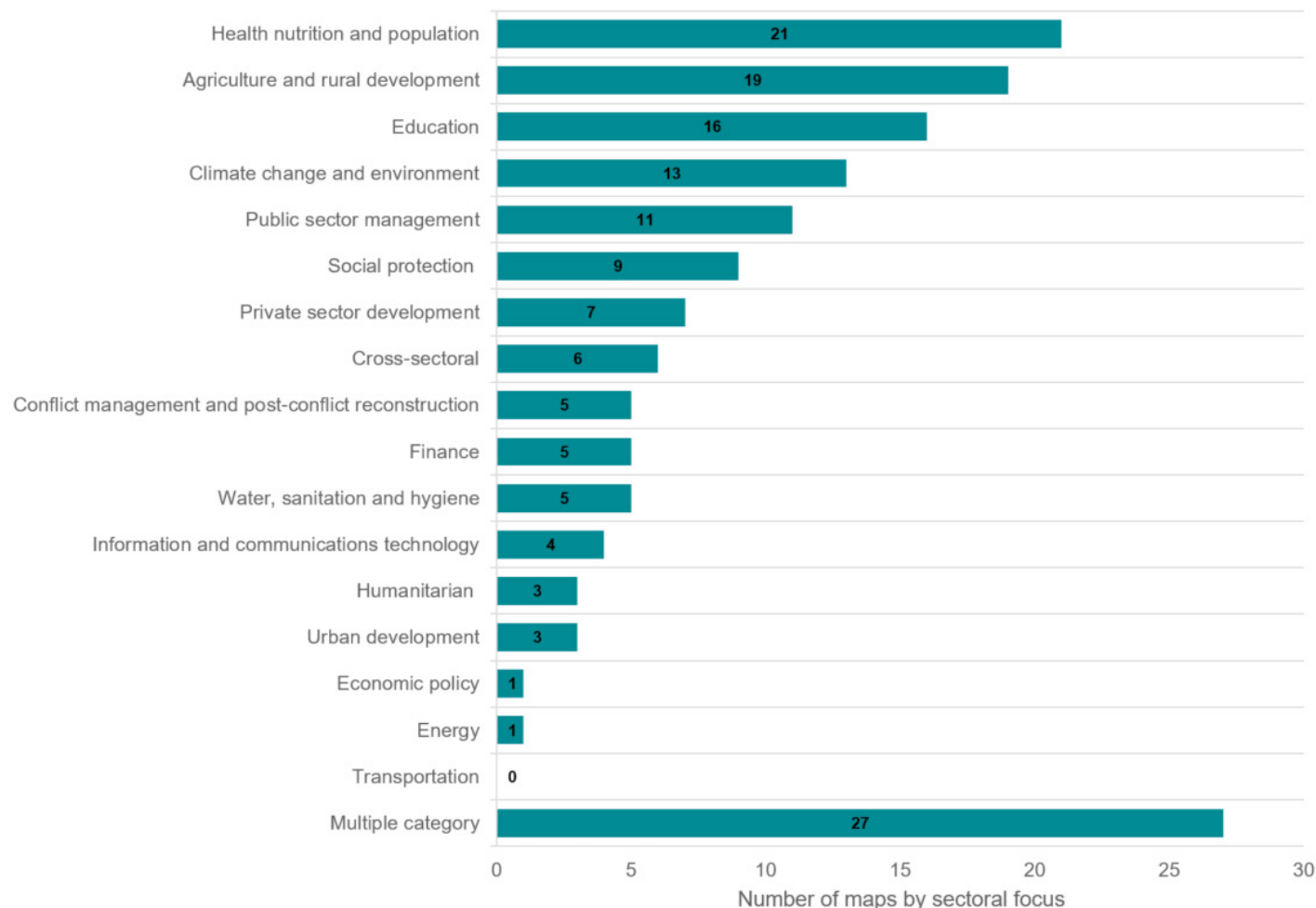imate change and environment. Sectors where there are currently limited or no evidence maps include transportation, urban development, economic policy, energy, disaster risk reduction and other adaptive measures. SDG 3 on health and SDG 4 on education and learning are the most frequently covered. There are several SDGs for which relatively few evidence maps are available. They include water, sanitation and hygiene (SDG 6), energy (SDG 7), infrastructure (SDG 9), urban and rural development (SDG 11), consumption (SDG 12), climate change (SDG 13) and sustainable use and management of the oceans (SDG 14). No maps cover global partnership (SDG 17).

A majority of maps consider equity in some way. They either have an explicit focus on a specific dimension of inequity, such as sex and gender or age, or report on research disaggregated by one or more population groups in their analysis. The highest number of maps with some form of equity focus analyse the included studies according to sex- and gender-based differences, inequality based on age, socioeconomic status, educational status, disability and place of residence.

Included evidence maps employ a diverse range of methodologies in terms of the types of studies they include, as well as the scope of their search, critical appraisal, data extraction, and analysis and presentation. Where maps describe findings from included studies, it is typically in relation to systematic review findings only and on a study-by-study basis. However, there are a small number of maps that informally synthesise findings from included studies or otherwise provide conclusions about the findings of the body of evidence as a whole. The fact that only a limited number of maps do this is encouraging, as doing so adds confusion around the objectives of evidence maps and could produce conclusions that do not have a rigorous basis.

Map by sectors

Sector	Number of maps by sectoral focus
Health nutrition and population	21
Agriculture and rural development	19
Education	16
Climate change and environment	13
Public sector management	11
Social protection	9
Private sector development	7
Cross-sectoral	6
Conflict management and post-conflict reconstruction	5
Finance	5
Water, sanitation and hygiene	5
Information and communications technology	4
Humanitarian	3
Urban development	3
Economic policy	1
Energy	1
Transportation	0
Multiple category	27

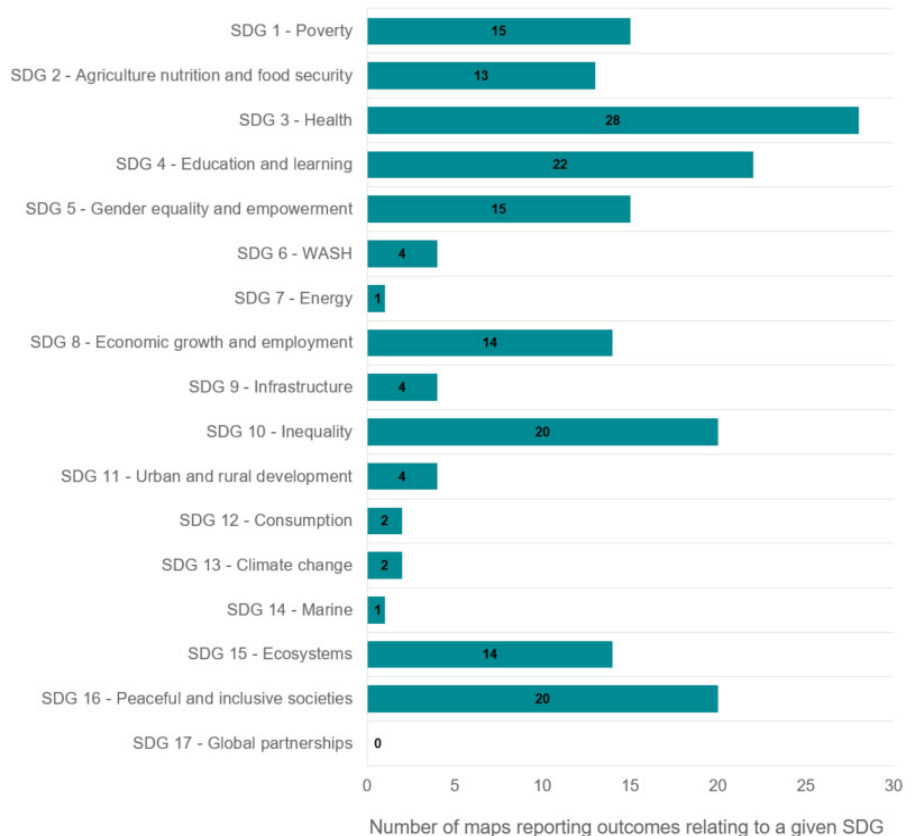Number of maps by sectoral focus

Conclusions and recommendations

Sustainable development evidence gaps are a guide for future maps. We encourage researchers and commissioners to inspect the interactive online map to identify the specific gaps in priority areas and explore the size of the literature before pursuing new evidence maps.

Map methods reporting can be more transparent and comprehensive. Maps' varying objectives mean that they will continue to adopt differing approaches to sourcing and presenting evidence. However, they should specify methods in advance via a study protocol and transparently report final methods in a replicable way.

Maps that do not include transparent and systematic methods of synthesis should not draw substantive conclusions about the evidence and therefore are not a reliable way of informing policy.

Map by Sustainable Development Goals

Number of maps reporting outcomes relating to a given SDG

SDG	Value
SDG 1 - Poverty	15
SDG 2 - Agriculture nutrition and food security	13
SDG 3 - Health	28
SDG 4 - Education and learning	22
SDG 5 - Gender equality and empowerment	15
SDG 6 - WASH	4
SDG 7 - Energy	1
SDG 8 - Economic growth and employment	14
SDG 9 - Infrastructure	4
SDG 10 - Inequality	20
SDG 11 - Urban and rural development	4
SDG 12 - Consumption	2
SDG 13 - Climate change	2
SDG 14 - Marine	1
SDG 15 - Ecosystems	14
SDG 16 - Peaceful and inclusive societies	20
SDG 17 - Global partnerships	0

About this map

This brief is based on *A map of evidence maps relating to sustainable development in low- and middle-income countries,* 3ie Evidence Gap Map Report 10, by Daniel Phillips, Christopher Coffey, Stergiani Tsoli, Jennifer Stevenson, Hugh Waddington, John Eyers, Howard White and Birte Snilstveit. The report and the interactive version of the map are available on 3ie's website.

The 55 completed and 18 ongoing evidence maps that met our inclusion criteria needed to self-identify as 'evidence or evaluation or systematic map or mapping' or some similar identification. They also needed an objective of mapping or cataloguing evidence. Studies also had to provide a list of included studies and do either of the following:

- For each included study, provide details on any of the following metadata: intervention type, sectoral area, outcomes or exposures, study designs; or
- Provide descriptive analysis across the body of studies included in a map. Descriptive analysis could provide metadata for any of the following information: intervention type, sectoral area, outcomes or exposures, study designs.

The full map of evidence maps report cited above provides all the supporting documentation for the map, including methods, results and analysis. 3ie led the production of the map and report with funding and technical contributions from the Centre of Excellence for Development Impact and Learning, which is a consortium initiative undertaken by UK aid through DFID.