SDG Interactions, Policy Planning and Prioritization, and Leave No One Behind: new and evolving intersections.

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POTSDAM INSTITUTE FOR CLIMATE IMPACT RESEARCH

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OPHI
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Member of
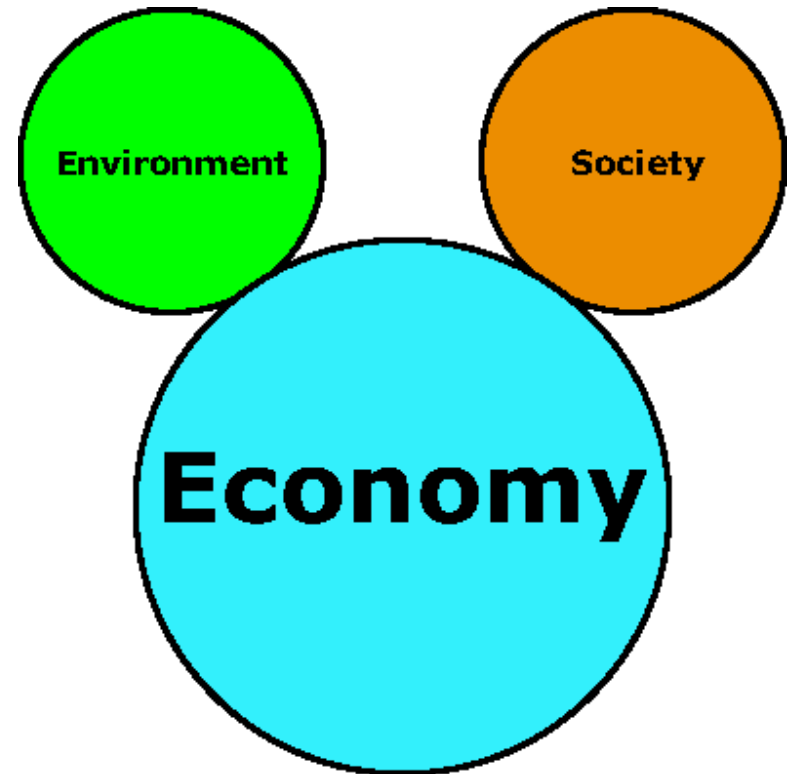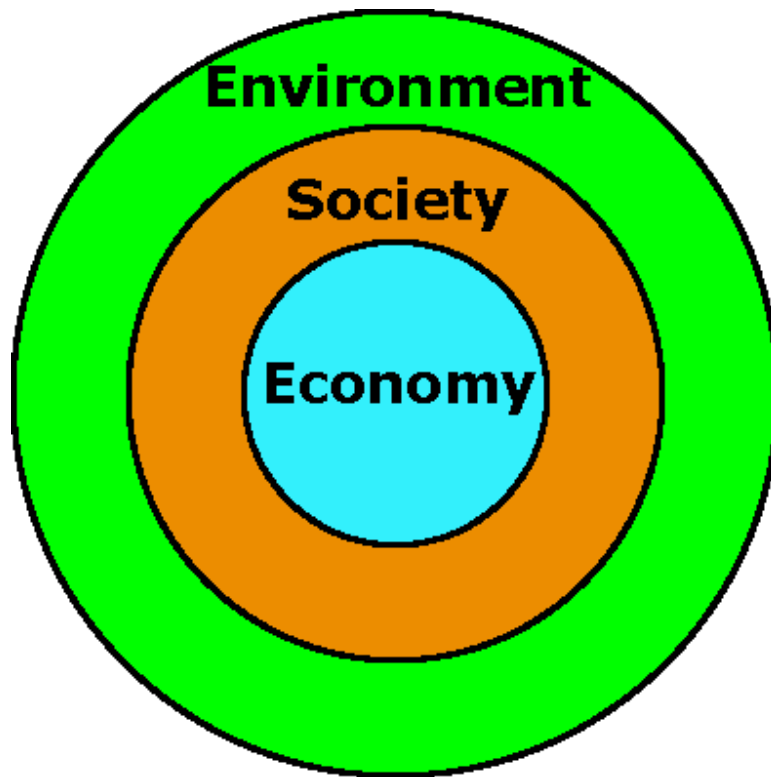Leibniz Association

Potsdam Institute for Climate Impact Research
RD2 Climate Impacts & Vulnerability

Sustainable Development

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Our Common Future (1987)

**Objective:** Prioritize action on SDGs by systematically assessing their interdependencies.

Challenge: Policy-relevant results from a high dimensional dataset (17 goals, 169 targets, 230 indicators, 240 countries).

Method: Statistical formulation of *trade-offs* and *synergies* (significant negative/positive correlation between a pair of SDGs' indicators).

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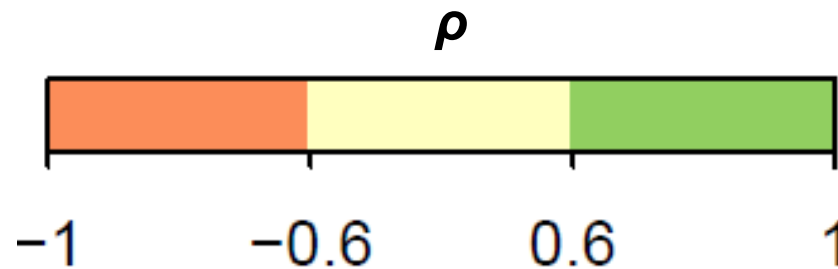
Results (within a goal)

- **Within each goal, synergies largely outweigh the tradeoffs.**

  - i.e., progress in one indicator associated with the fulfillment of other indicator.

- **More than 20% of the cases show trade-offs within some SDGs (***e.g. Affordable & Clean Energy, Industry Innovation & Infrastructure, Life on Land***).**

  - i.e., progress in one indicator may retard fulfillment of other indicators.

- **SDGs *Gender Equality, Affordable & Clean Energy* and *Peace, Justice & Strong Institutions* exhibit 20% of the cases without tradeoffs & synergies.**

  - i.e., progress in one indicator may be independent of other indictors.

(Pradhan et al. 2017 Earth's Future)
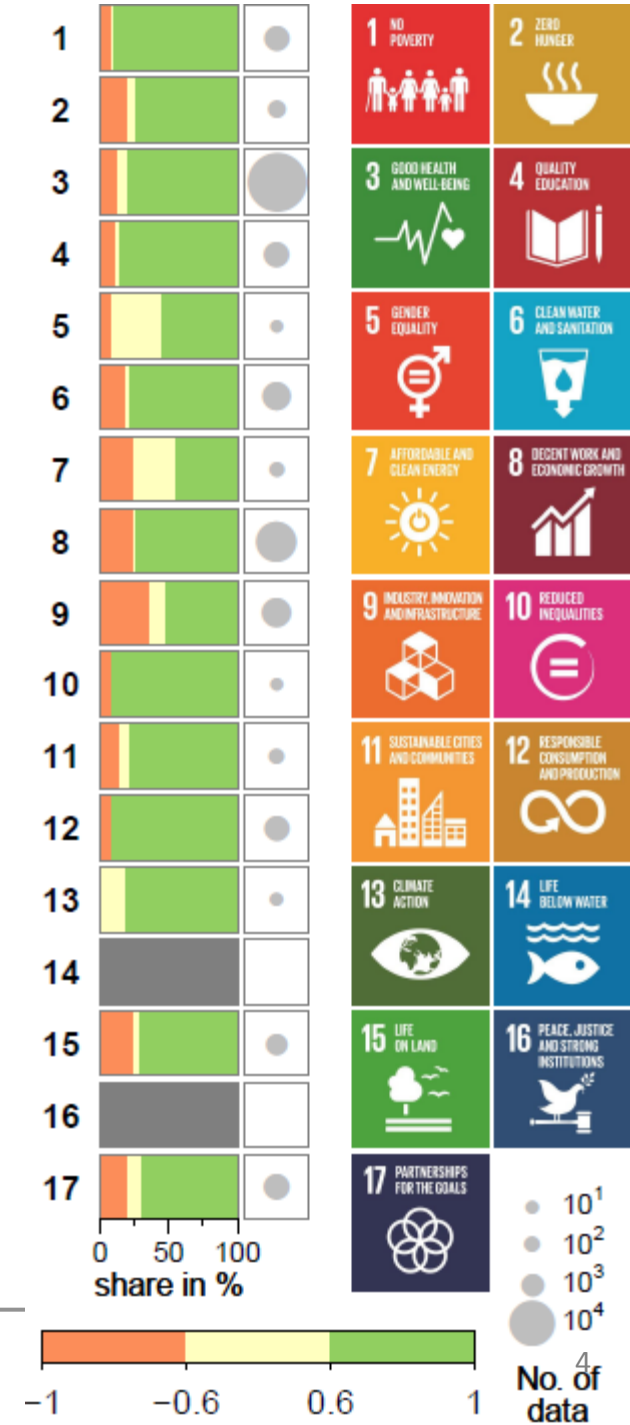
Results (across all goals)

- **SDG** *No Poverty* **is linked with synergies across most SDGs.**

- **SDGs** *Responsible Consumption & Production* **and** *Life on Land* **come usually linked with trade-offs across SDGs.**

- **Mix results for SDGs** *Decent Work & Economic Growth* **and** *Industry Innovation & Infrastructure*

(Pradhan et al. 2017 Earth's Future)

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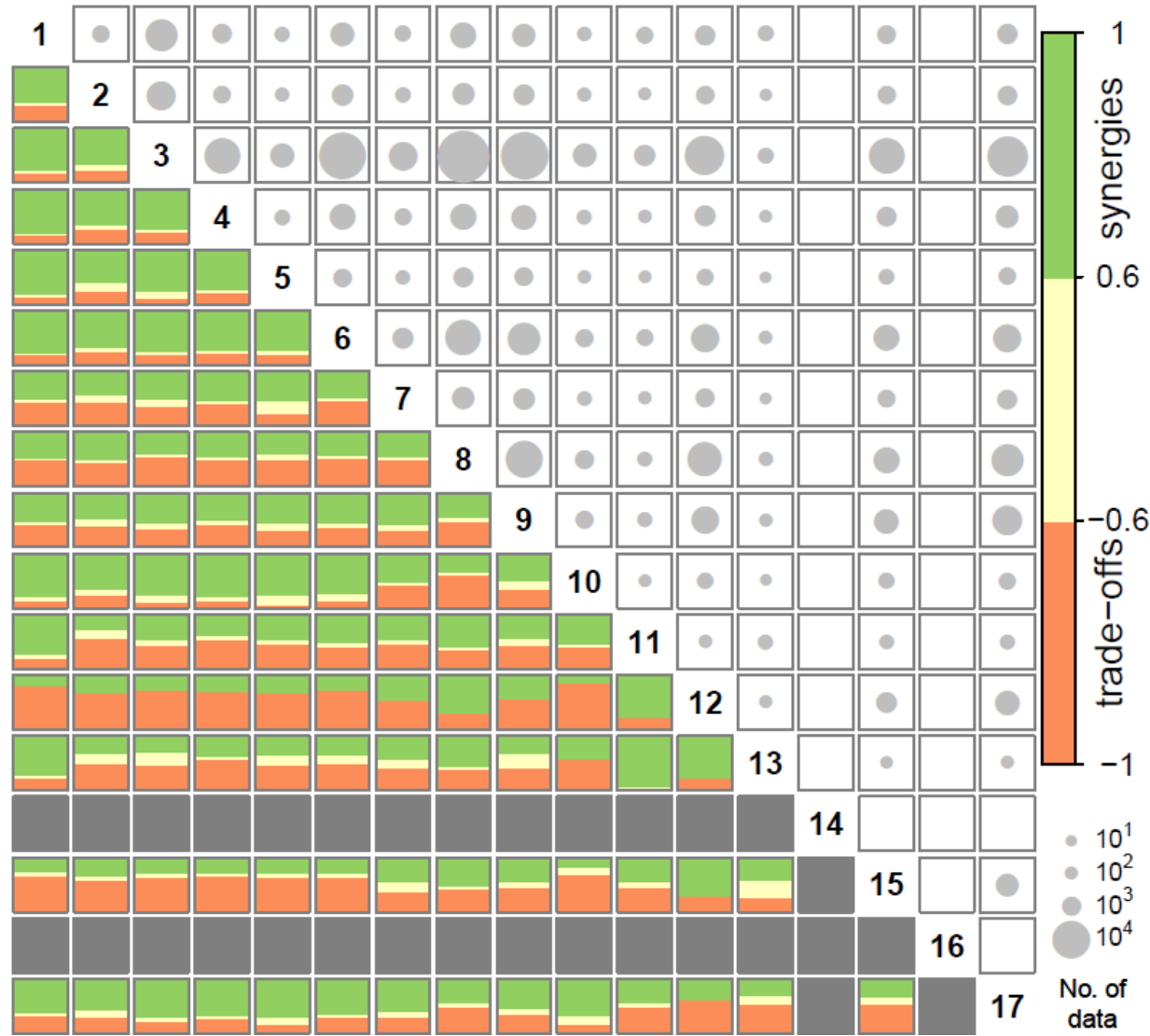
Tabita, Kenya — *Rabiya, India* — *Stephanie, Madagascar* — *Agathe, Madagascar* — *Dalma, Kenya* — *Ann-Sophia, Kenya* — *Valérie, Madagascar*

Usually we measure who is being left behind in each SDG indicator, <u>one by one.</u>

Leave No One Behind

But who is being left behind in <u>several poverty indicators at the same time?</u>
They are the poorest
Interconnections are strongest

<u>ONLY</u> the MPI – 1.2.2 - measures this.

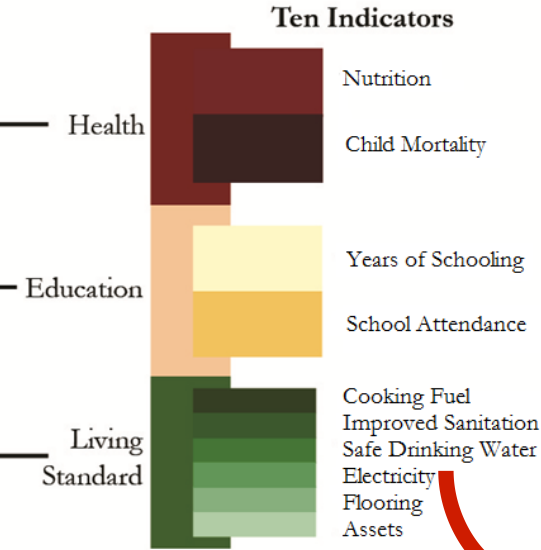# All MPIs look across at multiple SDG Indicators: (here Nepal)
Why does this help?

Dimension	Indicator	Related SDG
Health	Nutrition	SDG 2 (Zero Hunger)
	Child Mortality	SDG 3 (Health & Well-being)
Education	Years of Education	SDG 4 (Quality Education)
	School Attendance	SDG 4 (Quality Education)
Living Standard	Cooking Fuel	SDG 7 (Affordable & Clean Energy)
	Sanitation	SDG 6 (Clean Water & Sanitation)
	Drinking Water	SDG 6 (Clean Water & Sanitation)
	Electricity	SDG 7 (Affordable & Clean Energy)
	Floor	SDG 11 (Sustainable Cities & Communities)
	Assets	SDG 1 (No Poverty)

MPI: made of each person's profile of indicators

1. Look at these deprivations

Ten Indicators

Health — Nutrition, Child Mortality

Education — Years of Schooling, School Attendance

Living Standard — Cooking Fuel, Improved Sanitation, Safe Drinking Water, Electricity, Flooring, Assets

3. Identify as Poor if left behind in many

Grace is Deprived In

Health 1/2 — Nutrition, Education

Living Standard 2/3 — Toilet, Water, Electricity, Assets

Two Dimensions

Education

Nutrition, Toilet, Water, Electricity, Assets

One Dimension

33%

4. Compute MPI & its Information Platform
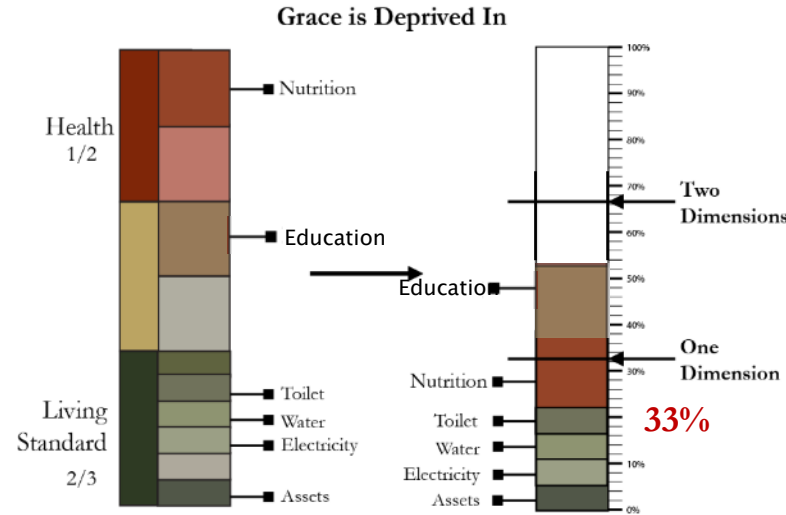
2. Make a Deprivation profile for each person

10 Indicators

Nutrition | Child Mortality | Years of Schooling | School Attendance | Cooking Fuel | Sanitation | Water | Electricity | Flooring | Asset Ownership

Health | Education | Standard of Living

3 Dimensions

Alkire & Foster JPubE 2011

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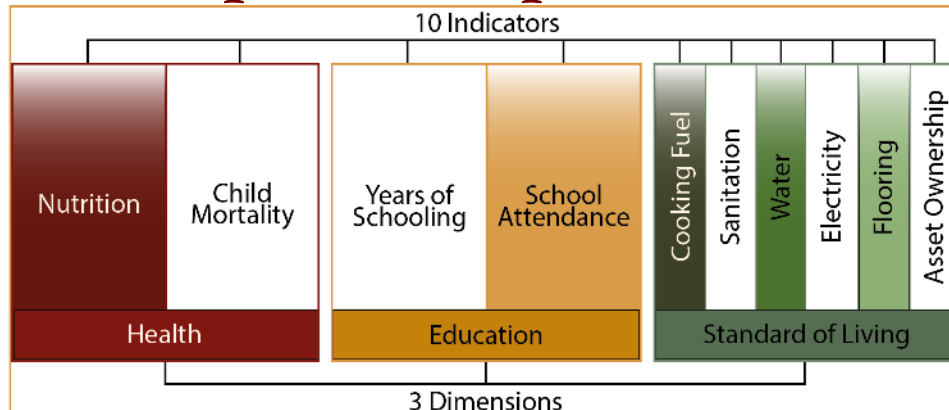
Interesting development:

Colombia's Presidents and Ministers
Decided to <u>select</u> among SDG indicators

16 <u>cross-cutting goals</u> 2018-2030
To be used to Leave No One Behind

By closing disaggregated gaps, through
Mobilizing action & Shaping allocation

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For Goal 1, they chose their Multidimensional Poverty Index (MPI) that covers 15 SDG-related indicators

Documento

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CONSEJO NACIONAL DE POLÍTICA ECONÓMICA Y SOCIAL
REPÚBLICA DE COLOMBIA
DEPARTAMENTO NACIONAL DE PLANEACIÓN

ESTRATEGIA PARA LA IMPLEMENTACIÓN DE LOS OBJETIVOS DE DESARROLLO SOSTENIBLE (ODS) EN COLOMBIA

Departamento Nacional de Planeación
Presidencia de la República
Ministerio de Relaciones Exteriores
Ministerio de Hacienda y Crédito Público
Ministerio de Ambiente y Desarrollo Sostenible
Departamento Administrativo Nacional de Estadística
Departamento Administrativo para la Prosperidad Social
Agencia Presidencial de Cooperación APC - Colombia
Departamento Administrativo de Ciencia, Tecnología e Innovación
Departamento Administrativo de la Función Pública

Tabla 2. Metas trazadoras para cada ODS, 2018 y 2030

ODS	Indicadores nacionales, línea base y metas trazadoras[a]	
1 FIN DE LA POBREZA	Indicador nacional: índice de pobreza multidimensional (%)	
	Línea base (2015): 20,2 %	Meta nacional a 2018: 17,8 % Meta nacional a 2030: 8,4 %

A Systematic Study of Sustainable Development Goal (SDG) Interactions

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Key Points:
- Synergies, defined by positive correlations between indicator pairs, outweigh trade-offs (negative correlations) for most sustainable development goals (SDGs) and countries
- SDG 1 depicts synergies with most goals while SDG 12 shows trade-offs; SDG 3 has synergies with other SDGs in most countries and populations
- For attaining the SDGs, the synergies can be leveraged and the trade-offs need to be overcome by deeper changes in the current strategies

Abstract Sustainable development goals (SDGs) have set the 2030 agenda to transform our world by tackling multiple challenges humankind is facing to ensure well-being, economic prosperity, and environmental protection. In contrast to conventional development agendas focusing on a restricted set of dimensions, the SDGs provide a holistic and multidimensional view on development. Hence, interactions among the SDGs may cause diverging results. To analyze the SDG interactions we systematize the identification of synergies and trade-offs using official SDG indicator data for 227 countries. A significant positive correlation between a pair of SDG indicators is classified as a *synergy* while a significant negative

Thank You….

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🐦 @prajdhan