



جهاز التخطيط والإحصاء
Planning and Statistics Authority
دولة قطر • State of Qatar



Regional Workshop on the Changing Role of Official Statistics in the State of Qatar: Why Data Culture Matters

21st -22nd September 2022, Doha, Qatar
Pullman Hotel, Al Thuraya Ballroom - West Bay

ورشة العمل الإقليمية حول الدور المتغير للإحصاءات الرسمية في دولة قطر: ثقافة البيانات مهمة

٢١-٢٢ سبتمبر ٢٠٢٢، الدوحة، قطر
فندق بولمان الدوحة، قاعة الثريا - الخليج الغربي





Sustainable Development and AI

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United Nations Development Programme (UNDP)*

Overview



Agenda 2030 for Sustainable Development:
A different set of challenges



SDGs & AI: **Accelerating Achievement**



SDGs & AI: **Monitoring progress**

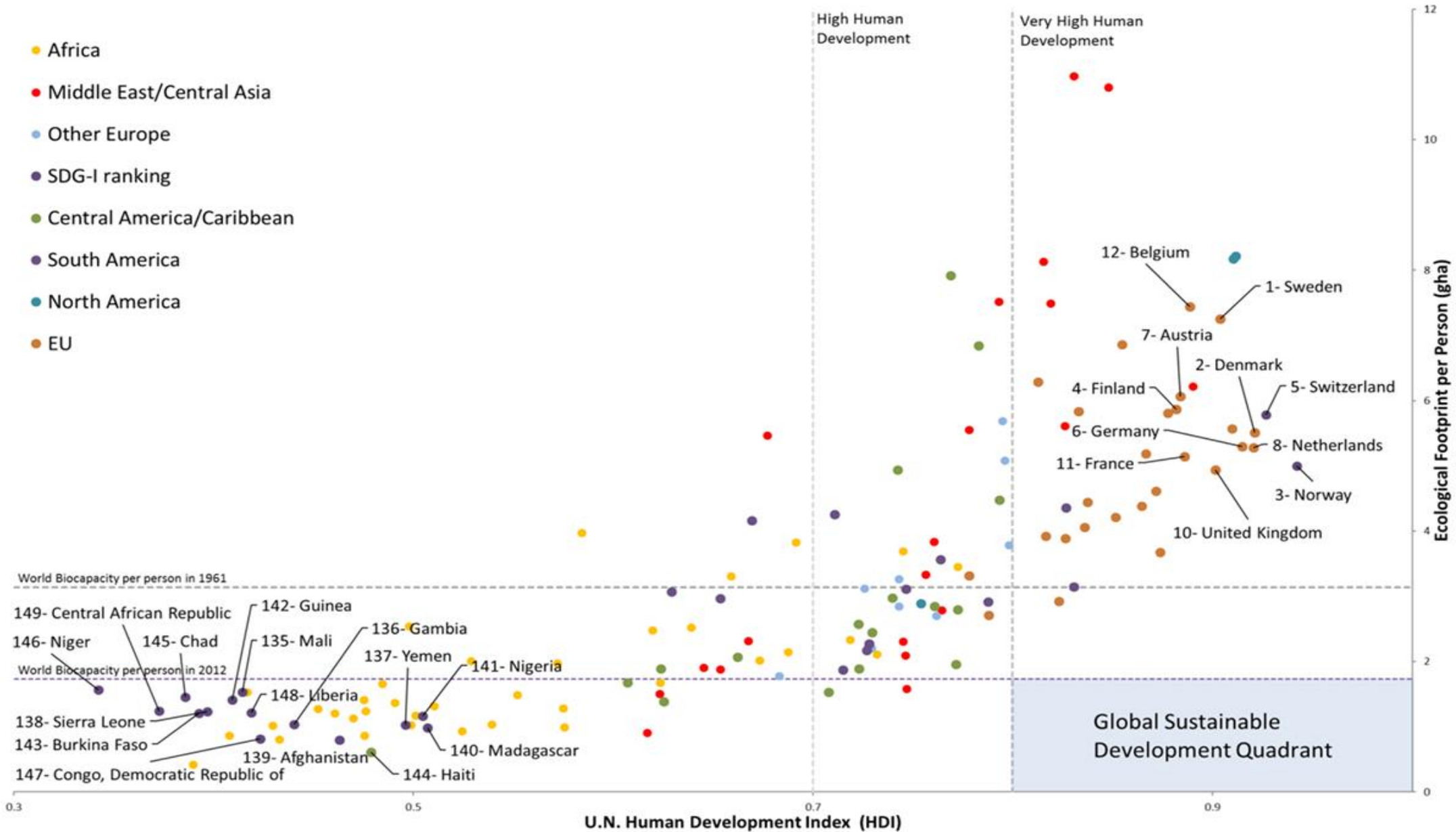




Agenda 2030 for Sustainable Development:

**A different set of
challenges**

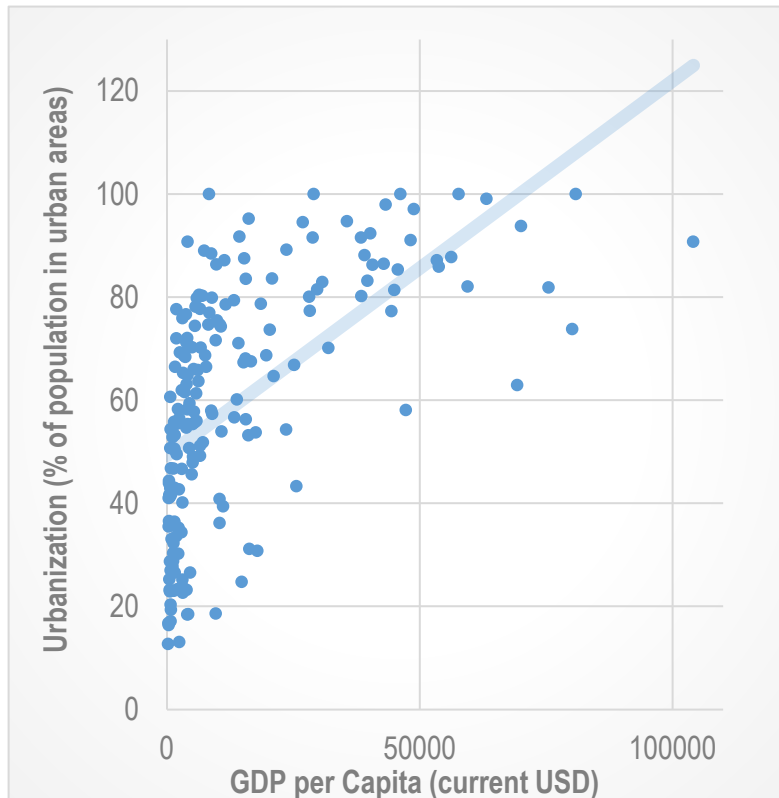
The pattern of development is not sustainable



What have we learned?

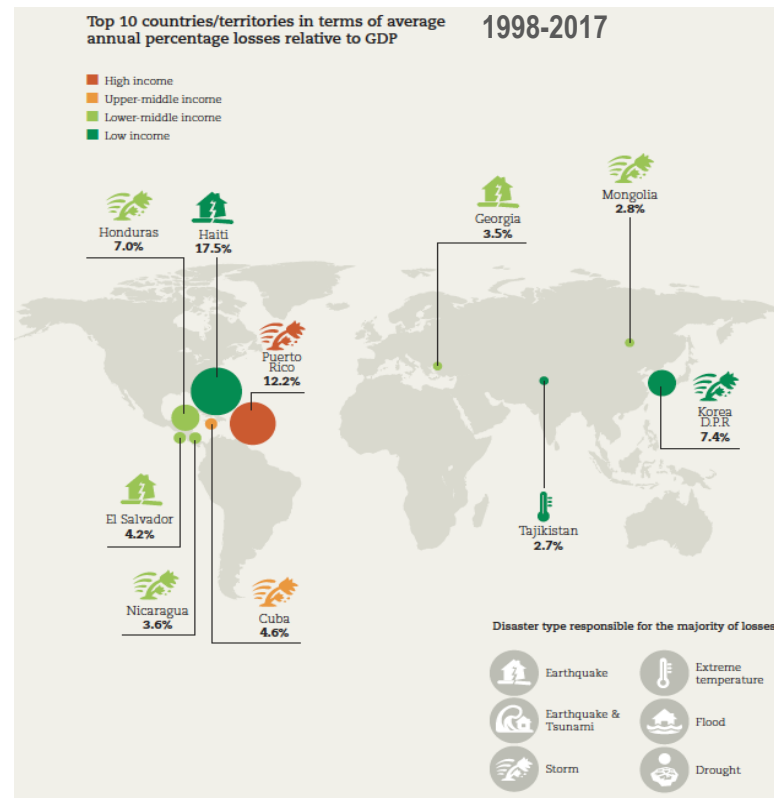


Growth is unequal

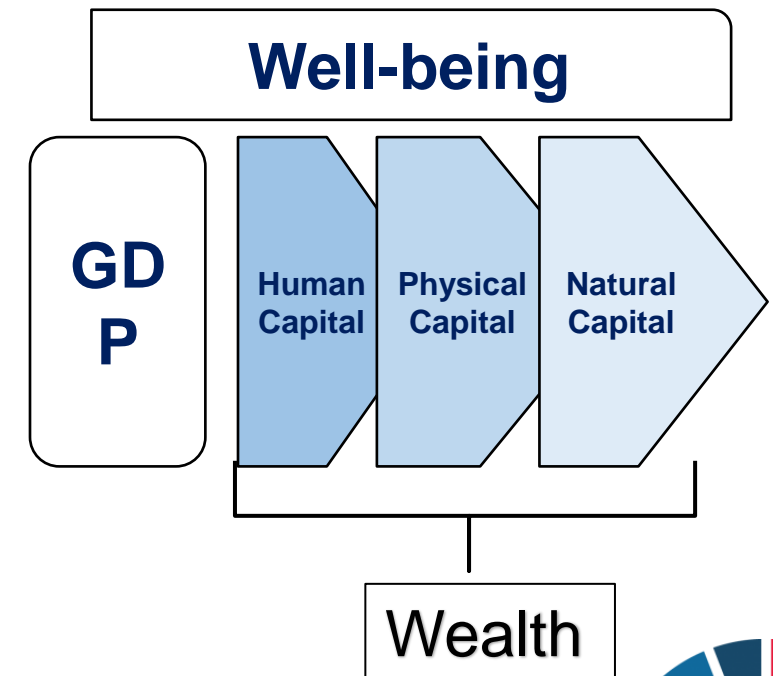


Fuente: Elaboración propia con datos de WDI

Development is volatile



Measuring flows oversees the importance of stocks



SDG Principles



UNIVERSALITY

- **Implies that goals and targets are relevant to all governments and actors:**
- Universality does not mean uniformity. It implies differentiation (What can each country contribute?)



INTEGRATION

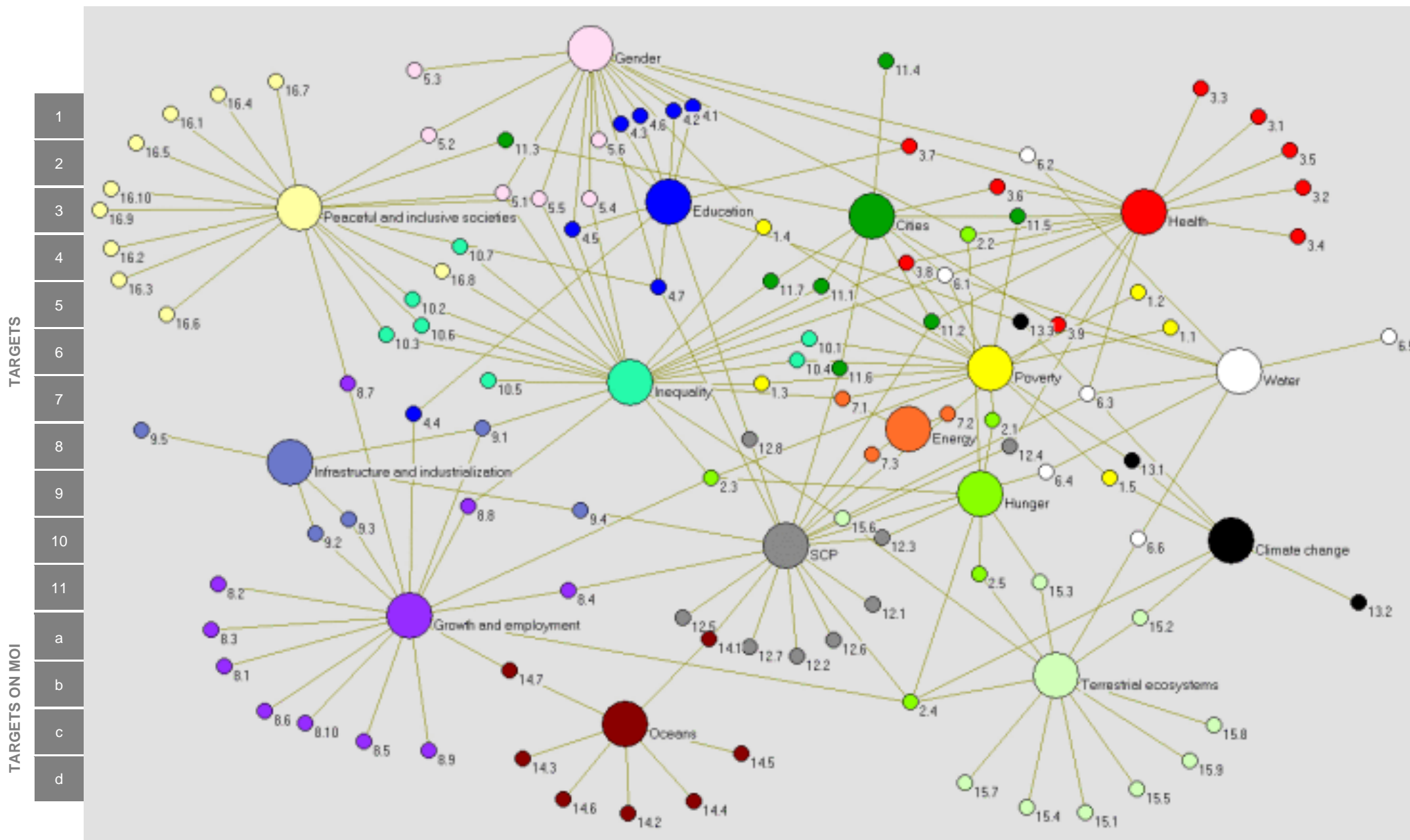
- **Policy integration means balancing all three SD dimensions: social, economic growth and environmental protection**
- An integrated approach implies managing trade-offs and maximizing synergies across targets



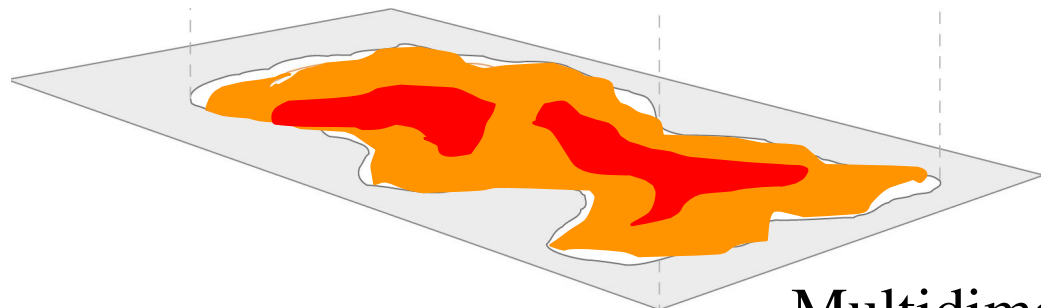
NO ONE LEFT BEHIND

- **The principle of 'no one left behind' advocates countries to go beyond averages.**
- The SDGs should benefit all – eradicating poverty and reducing inequalities.
- Promotion and use of disaggregated data is key

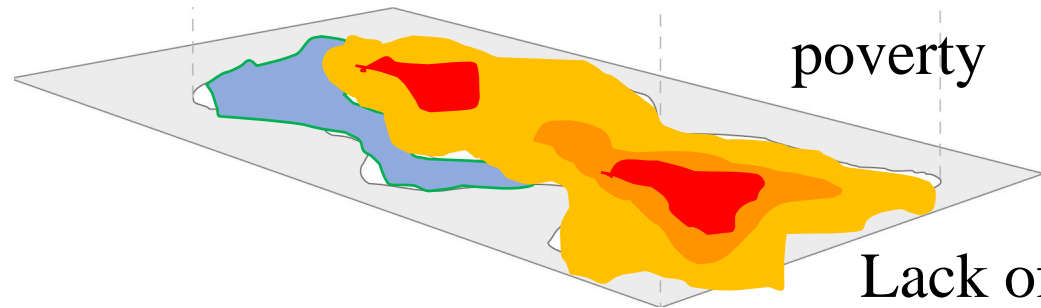
Integrity by Design



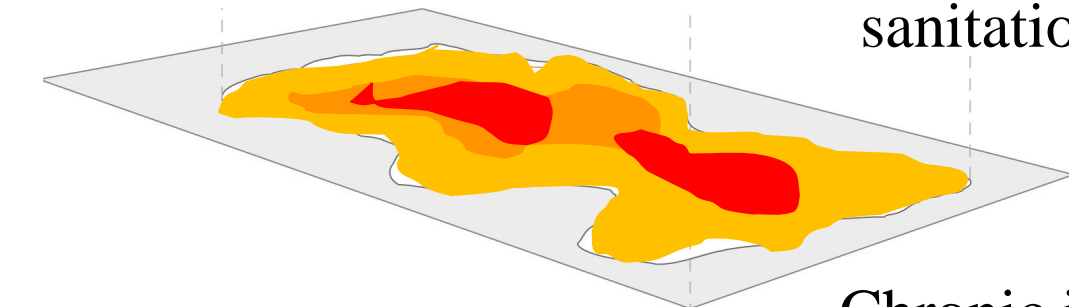
By moving from **national averages**
to **local contexts**, problem overlays
emerge



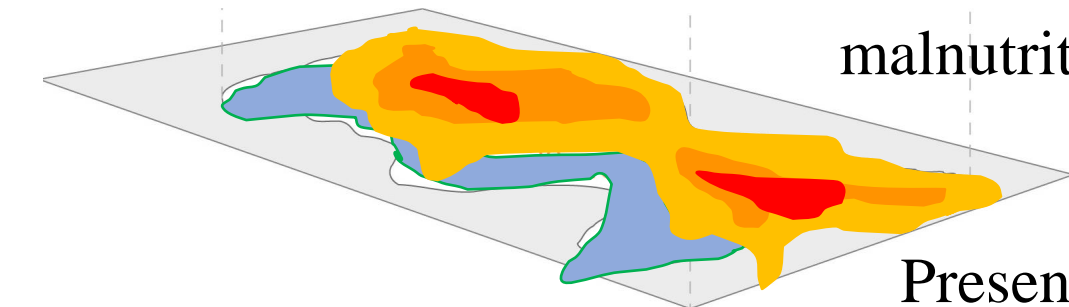
Multidimensional
poverty



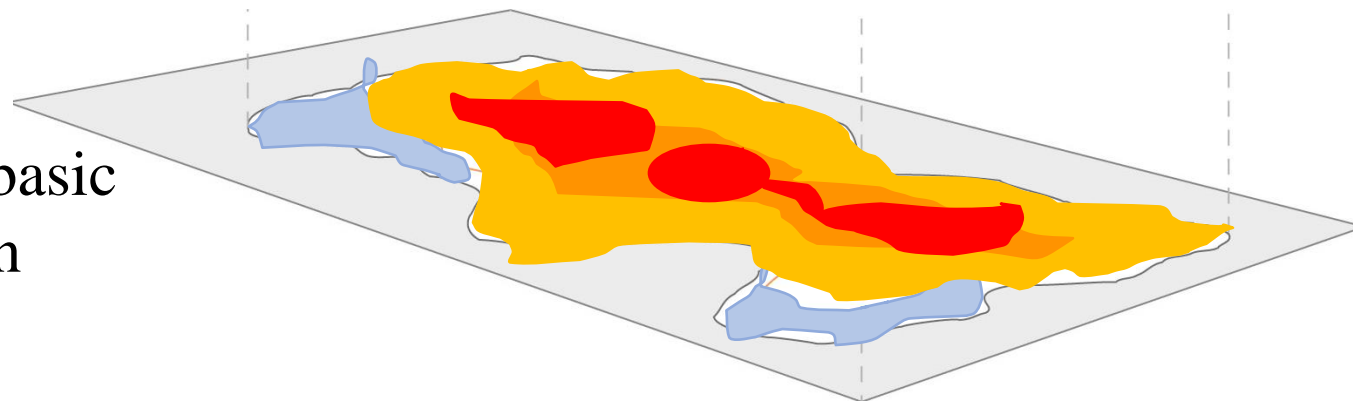
Lack of basic
sanitation



Chronic infant
malnutrition



Presence of the state



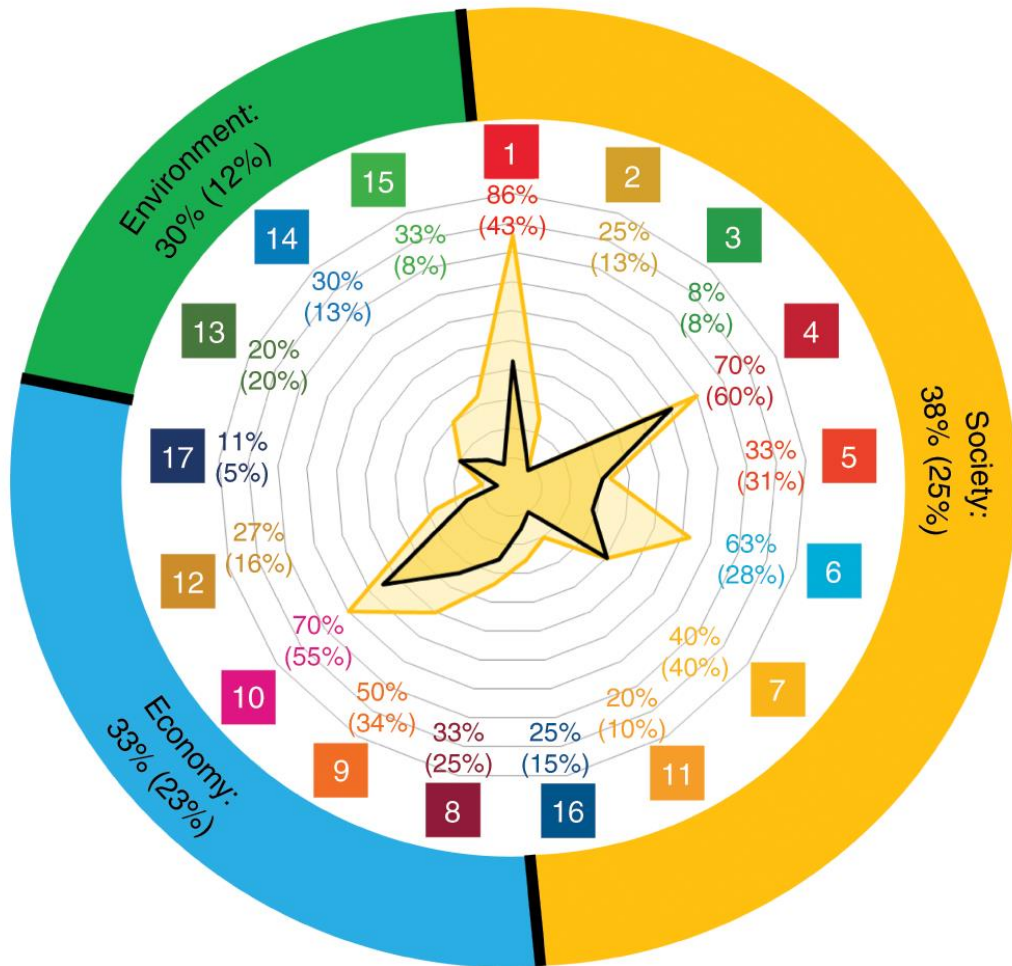
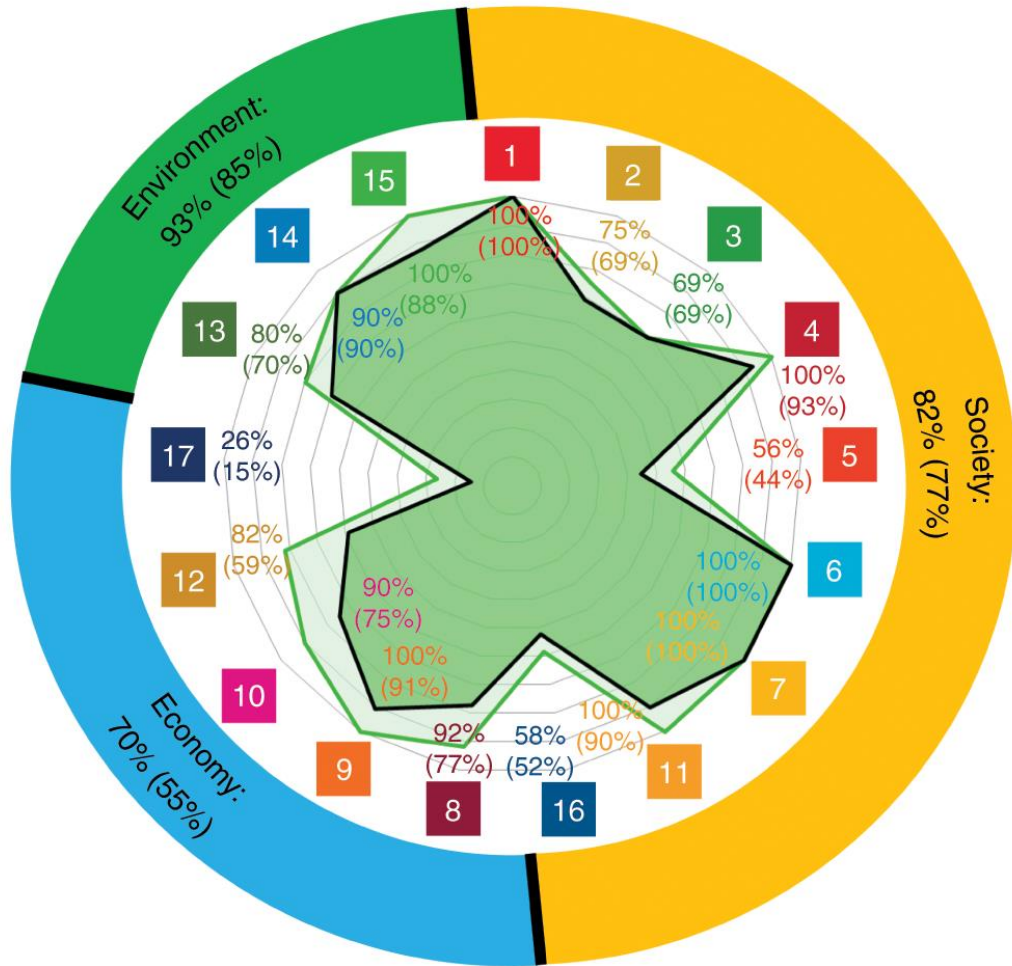
SDG Hotspot



SDGs and AI: **Accelerating Achievement**

Potential Impact of AI on SDGs

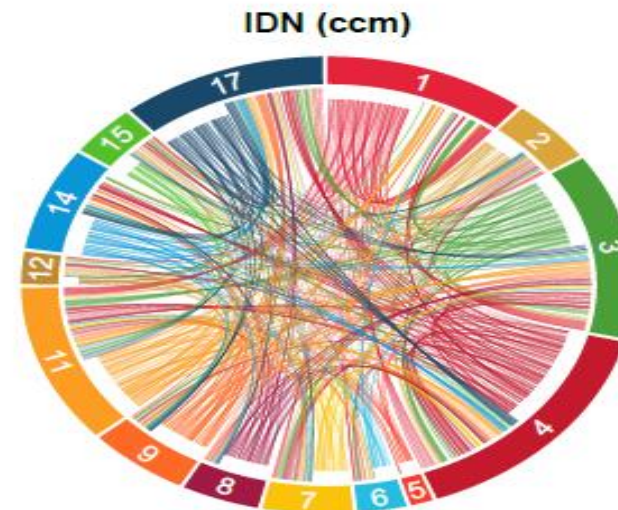
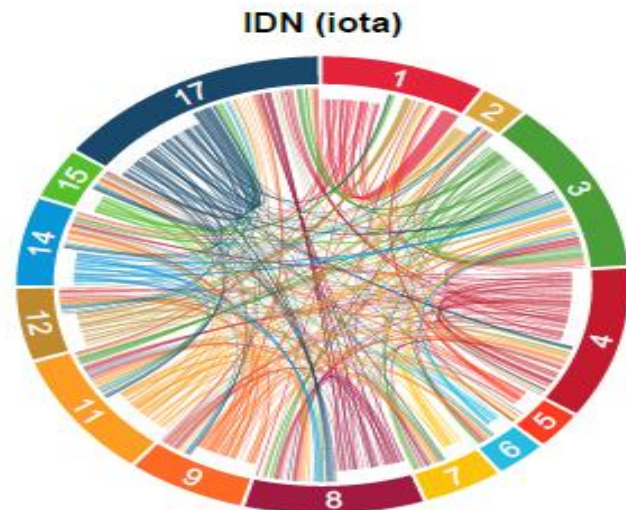
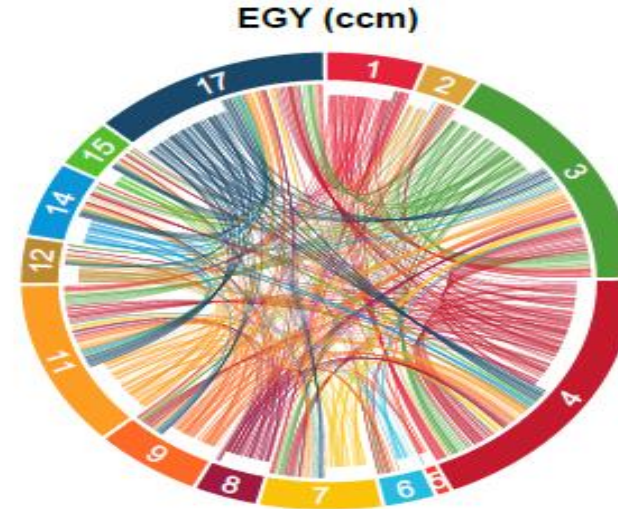
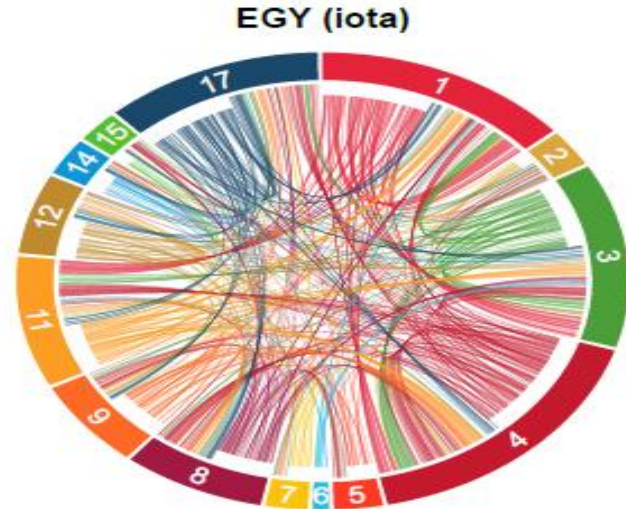
a Positive impacts of AI: 79% (71%) **b** Negative impacts of AI: 35% (23%)



Source: Vinuesa et al, 2020

Integrity by Context

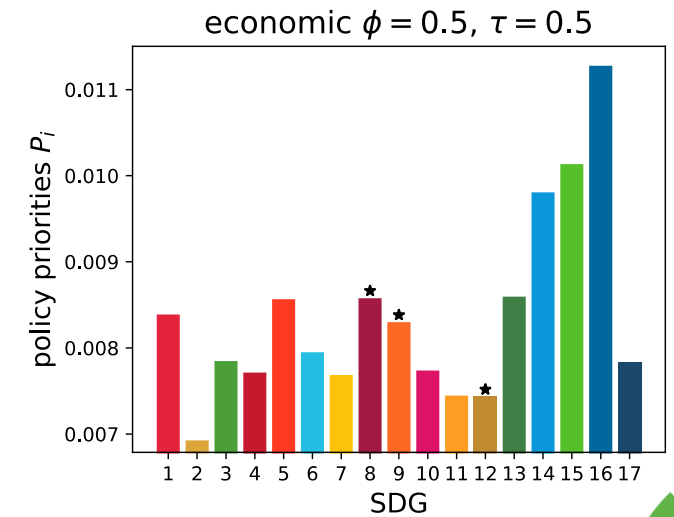
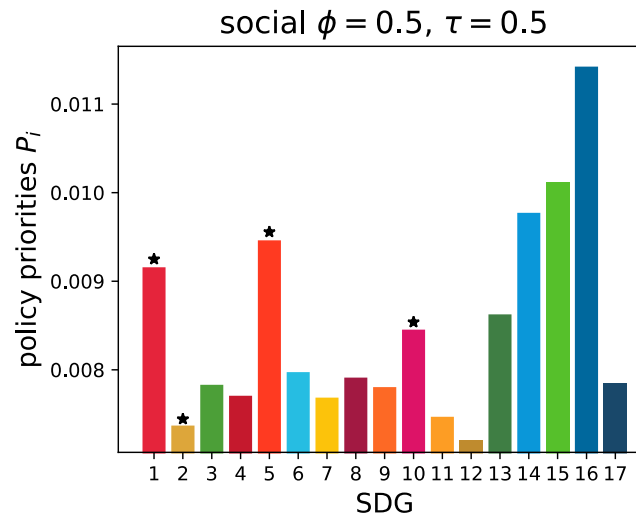
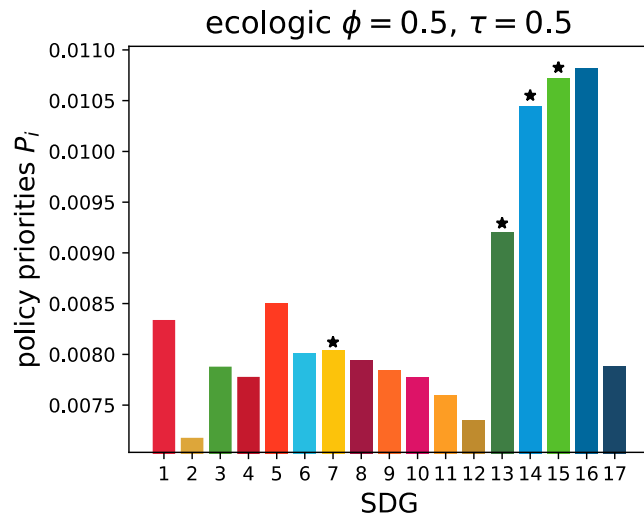
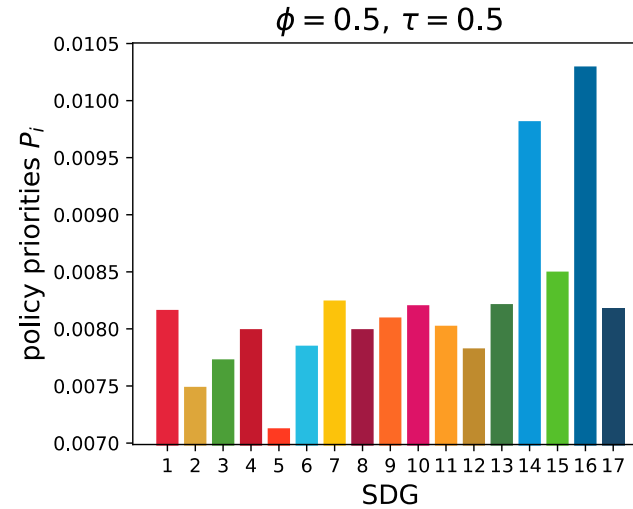
- Interdependency network: Inner composition alignment (iota)
- Causal network: Cross convergent mapping (ccm)



Optimizing budget allocations



- 2 - zero hunger
- 3 - good health and well-being
- 4 - quality education
- 5 - gender equality
- 6 - clean water and sanitation
- 7 - affordable and clean energy
- 8 - decent work and economic growth
- 9 - industry, innovation and infrastructure
- 10 - reduced inequalities
- 11 - sustainable cities and communities
- 12 - responsible consumption and production
- 13 - climate action
- 14 - life below water
- 15 - life on land
- 16 - peace, justice and strong institutions
- 17 - partnerships for the goals

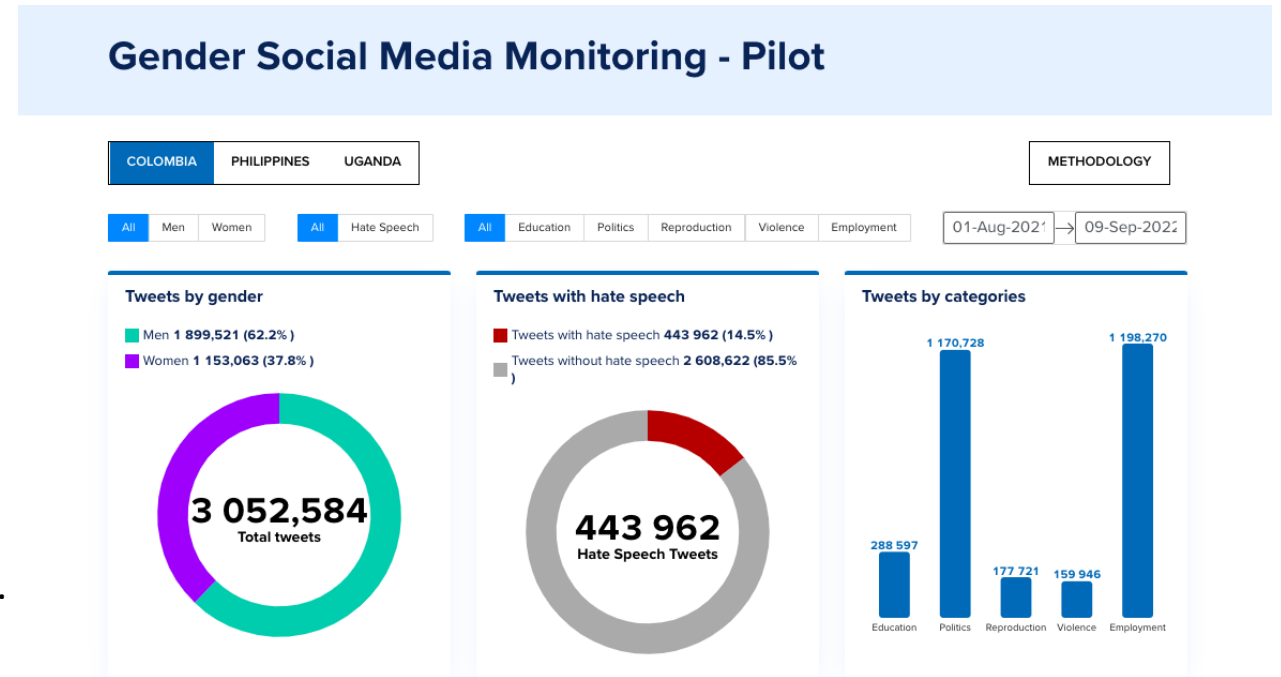


Gender backlashes AI Early Warning System

EWS pilot (Colombia, Uganda and Philippines)

- **Main goal:** Tracking hate speech against women and girls across several categories: based on World Values Survey and Gender Social Norms Index (hate speech in education, employment, reproduction, politics, violence against women)
- **Methodology:** Neural-based Natural Language Processing.
- **Current Features:**
 - End-to-end data pipeline and data infrastructure to source real-time Twitter data across the 3 pilot countries.
 - Machine learning algorithms to detect and classify hate speech in multiple languages (English, Spanish, Tagalog) as well as predicting user gender and location.
 - Interactive monitoring tool/dashboard that visualizes Twitter trends.
- **Availability:** Phase I privately available via the Data Futures Platform

Monitoring tool screenshots (Phase I)



Can we think of individualized public policies?

Hh 3455: Family of 5:
Single informal
working mother, 2
working children in the
services sector,
disabled grandchild,
elderly without pension



Hh 1234: Family of 6:
Unemployed father,
temporary working mother,
2 children at school, 1
working child, 1 baby.

**Citizen insecurity
problems: gangs
and conflicts**

Hh 1242: Family of 3
migrants: peddler father,
gang member son,
daughter in high school

Lack of care systems

**Energy deficit, lack of access
to water and sanitation**




SDGs and AI: **Monitoring Progress**

Mining SDGs in Text Documents

Diagnostic Simulator: Current Priorities

Mock-up Streamlit Web Application (Beta)




Data Futures Platform

VISIT DATA FUT...

South Africa ▾

Current Gaps Current Priorities SDG Push


UPLOAD AND ANALYZE ANOTHER DOCUMENT >



High Priorities (5)

4 QUALITY EDUCATION

Current Status **Identified Gap**




Click on the card to see the related key terms

Key terms in the document for **SDG 8**

- economic growth
- unemployment rate
- job creation
- labour market
- economic development
- inclusive growth
- science technology
- decent work
- productive employment
- digital economy
- productive employment decent
- high quality
- labour force
- work programme
- productivity growth

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Current Status **For Review**

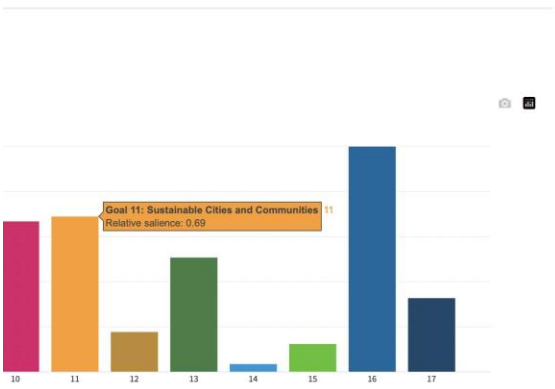


Click on the card to see the related key terms


11 SUSTAINABLE CITIES AND COMMUNITIES

Current Status **For Review**

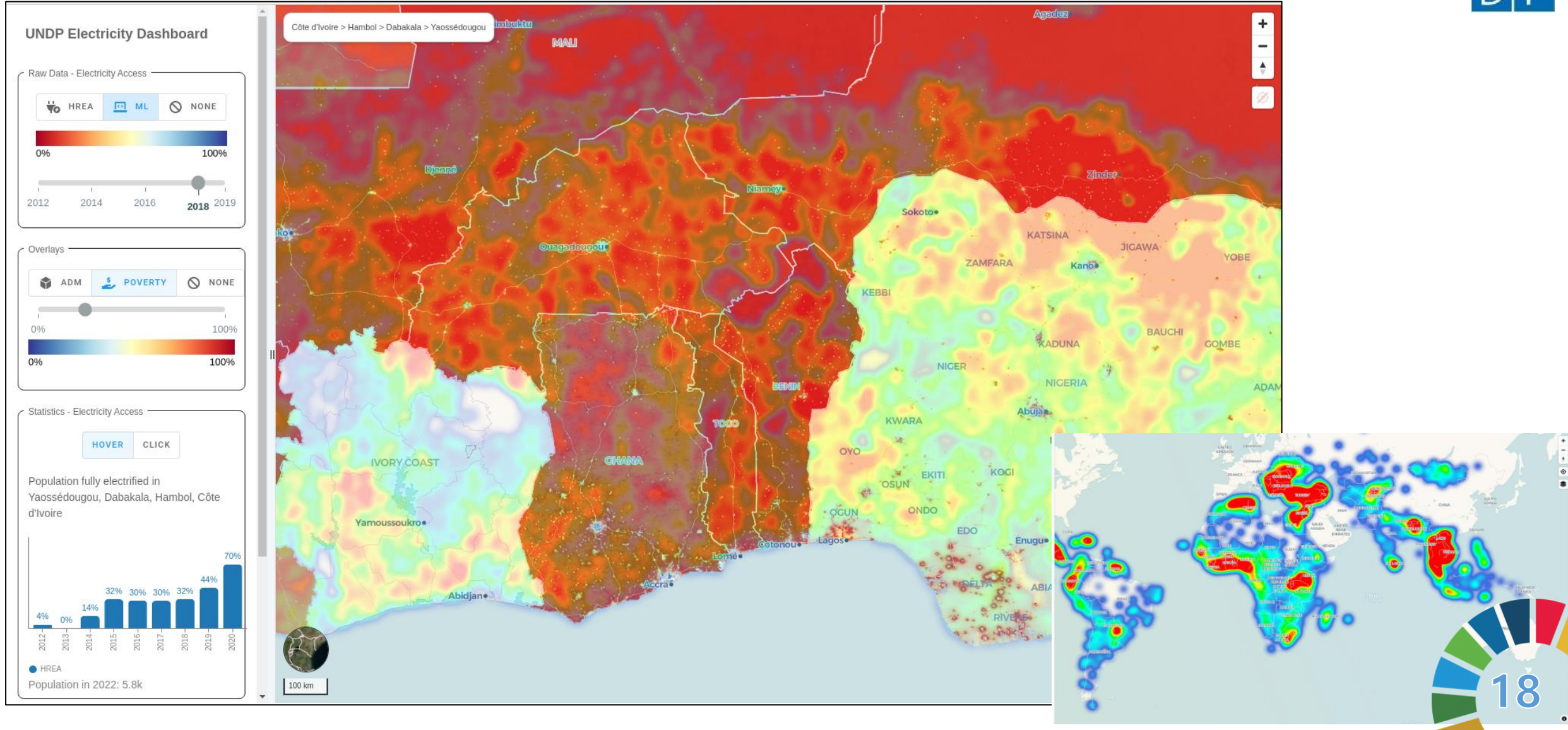
16 PEACE, JUSTICE AND STRONG INSTITUTIONS



SDG	Relative Salience
10	0.15
11	0.69
12	0.10
13	0.25
14	0.05
15	0.12
16	0.40
17	0.20



High resolution Energy Access (HREA)



Mapping Informal Settlements

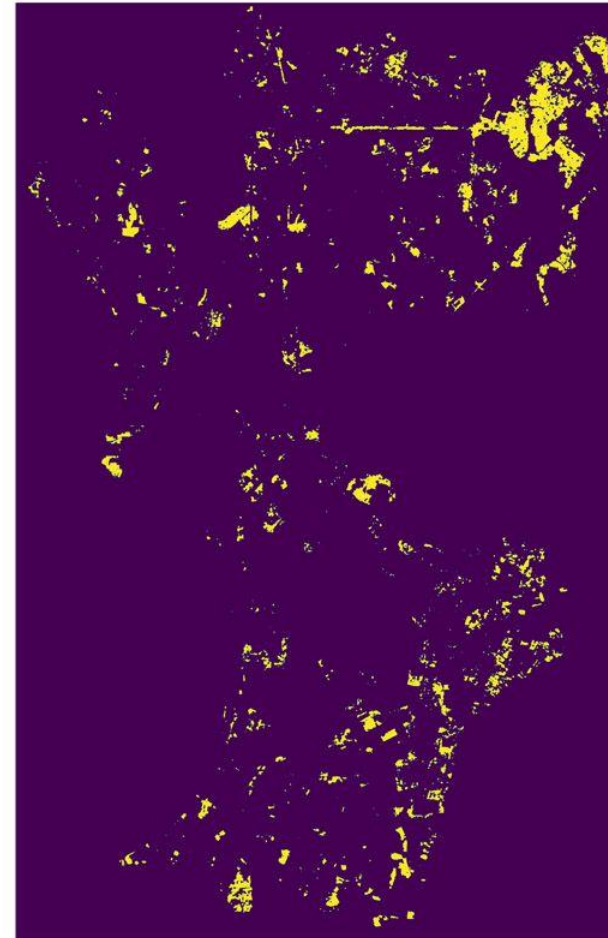
Manila

RGB Satellite imagery



© European Space Imaging GmbH

AI-powered informality map



Thank you

BARRIOS DE MARÍA TRINIDAD



Río María Trinidad Sánchez



Jefa: Altagracia Martínez
 1/2 km a 1 km del río
 1 niño (de 5 a 9 años)
 1 adolescente (10-14 años)
 Conyugue
 Techo de concreto
 Pared de block
 IVACC: 0.524



Jefa: María Gómez
 1/2 km del río
 2 niños (de 0 a 4 años)
 1 adulto mayor
 Techo de zinc
 Pared de concreto
 IVACC: 0.757



Jefa: Juan Pérez
 1/2 km del río
 3 niños (de 5 a 9 años)
 Conyugue
 Techo de zinc
 Pared de yagua
 IVACC: 0.853



Municipios de María Trinidad Sánchez

- 0.54 - MUNICIPIO CABRERA
- 0.59 - MUNICIPIO RÍO SAN JUAN
- 0.62 - MUNICIPIO NAGUA
- 0.67 - MUNICIPIO EL FACTOR