Data collaboratives on SDG monitoring
Climate change indicators

4th UN Conference on Big Data
Bogota, 8 -10 Nov 2017
SDGs and the Paris Agreement

The climate actions communicated in INDCs align with 90% of the SDG targets (World Resources Institute)

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SDGs and the Paris Agreement

169 INDCs ratified
142 INDCs included an adaptation component

Recommend a bottom-up approach

Specific indicators for each country

Emission trading schemes
IMO
NAZCA platform
IATA
IATA
ICAO

Other initiatives

230 unique indicators (IAEG-SDG)

2000 indicators relevant to the green economy (NETGREEN project consortium)

A good indicator:
- Policy relevance,
- Analytical soundness,
- Measurability (OECD)

Avoiding double counting

Standardization and harmonization

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UNFCCC Data relations & partnerships

Partnership for Action for Climate Empowerment

Partnership Information on climate finance and capacity building activities

Parties under Paris Agreement and Kyoto protocol

Public information

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UNEP DTU Partnership

IGES

WORLD BANK GROUP

Distributed Ledger Technologies partnership

http://unfccc.int/climatefunding/

NAZCA

Tracking Climate Action

non-Party stakeholders

#Hack4Climate
Hack4Climate - a new data collaborative initiative

#Hack4Climate

blockchain & climate

Hack4Climate aims to bring together Developers and Climate Experts in order to build innovative solutions to fight climate change.

Fight Climate Change with Data
We aim to prototype ideas that leverage Blockchain & DLT to fight climate change – to mitigate climate change, improve adaptation, and increase climate finance!

Innovative Prototypes and Apps
Build your idea and solution at Hack4Climate and help to transform our society and fight climate change today!

Nov. 12th – 16th 2017, Bonn/Germany, UN Campus, hackathon on climate + blockchain, 100 participants from around the world

https://www.hack4climate.org/

Categories
- Sustainable Transport
- Identification & Tracking of Emissions
- Carbon Pricing
- Sustainable Land Use
- Distributed Energy
Hack4Climate - a new data collaborative initiative

Enhancing the Non-State Actor Zone for Climate Action (NAZCA)

NAZCA captures climate action pledges by companies, cities, subnational, regions, investors, and civil society organizations.

Objective: to move beyond and track the implementation of registered commitments.
Hack4Climate - a data collaborative initiative

#Hack4Climate

Platform for Citizen Climate Observations

• Create incentives for citizens to report on climate observations. Particular focus on indigenous peoples and farmer.

Creating Incentives for Consumer Behavior Change

• Tracking the emission throughout the lifecycle of products.
• Monitoring consumer behavior.
New proposals in climate data collaboratives

Transportation Sector Emissions
From Tier 1 to Tier 3 based on data collaborative approaches

Tier 1

\[ \text{Total } \times \text{Default Emission Factor} + \text{Total } \times \text{Default Emission Factor} = \text{Transportation Sector Emissions} \]

Tier 2

National Fleet
Type of trips and vehicles size

\[ \text{Total } \times \text{Default Emission Factor} + \text{Total } \times \text{Default Emission Factor} = \text{Transportation Sector Emissions} \]

\[ + \text{New policies based on non-data approaches} \]

• Infrastructures analysis
• Traffic forecast
• New policies based on poor insights

Tier 1 emission factors are readily available national or international (IPCCC)
New proposals in climate data collaboratives

Transportation Sector Emissions
From Tier 1 to Tier 3 based on data collaborative approaches

Tier 3

Transportation Sector Emissions

- Infrastructures analysis
- Traffic forecast
- New policies based on rich insights
  - Special corridors & prior modes
  - Transit rules by type of vehicle
  - Renewal car campaigns
  - Risk and damage analysis
  - Public transport campaigns
  - Speed control
  - Public transport strategy

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New proposals in climate data collaboratives

Consumers behavior emissions

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New proposals in climate data collaboratives

Consumers behavior emissions

Total control of the supply chain and the footprint

Supermarket chains

National part calculated as part of the Transportation Sector Emissions

Calculated as part of the Transportation Sector Emissions

Market Research companies know how people go to buy

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New proposals in climate data collaboratives

Consumers behavior emissions

- Products’ Footprint
- Supply chain & stocks
- Household information (Fidelity cards)
- Basket cases
- Direct household information
- How the food is cooked
- Food and consumption comments

Supermarket chains → Household information → How the food is cooked → Food and consumption comments → Market Research companies

Best practices
New proposals in climate data collaboratives

Consumers behavior emissions:
From Tier 1 to Tier 3 based on data collaborative approaches

- Products' Footprint
- Supply chain & stocks
- Household information (Fidelity cards)
- Basket cases
- Direct household information
- How the food is cooked
- Food and consumption comments

Consumption Emissions

- Raise awareness on products footprint, sustainability
- New policies based on rich insights
  - School food policies
  - Footprint polices
  - Product lifecycle polices
  - Recycling and waste polices
- Defining plans for resizing consumption sector

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Conclusions, Benefits and Threats

**Conclusions:**
- The National Emission, emission reduction and many other climate indicators can be calculated without rich data.

**Benefits:**
- Possibility of generating **optimal climate change indicators and optimized polices** with data collaborative initiatives
- Data collaborative initiatives can improve the **alignment between Climate change agendas**
- Data collaborative initiatives has the potential to **speed up climate actions**

**Issues:**
- **Duplication of efforts** among countries
- **Low level of comparability** (difficulties with Standardization and harmonization)
- **Privacy**, national regulations and local **laws**
- **Private benefit vs public good**

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United Nations Framework Convention on Climate Change

Thanks for your attention

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