
DECISION SUPPORT TOOLS FOR FOOD SECURITY

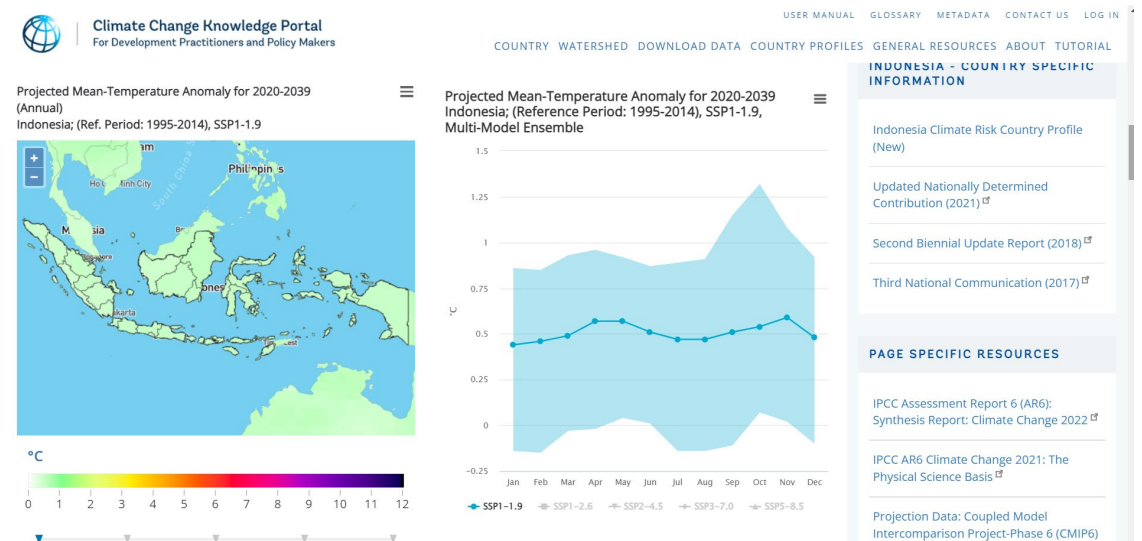
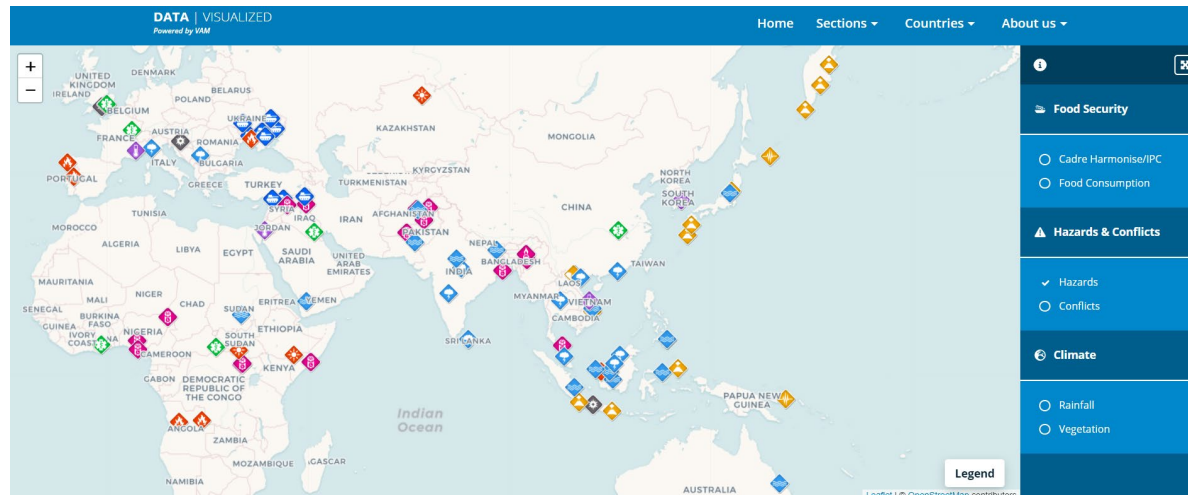
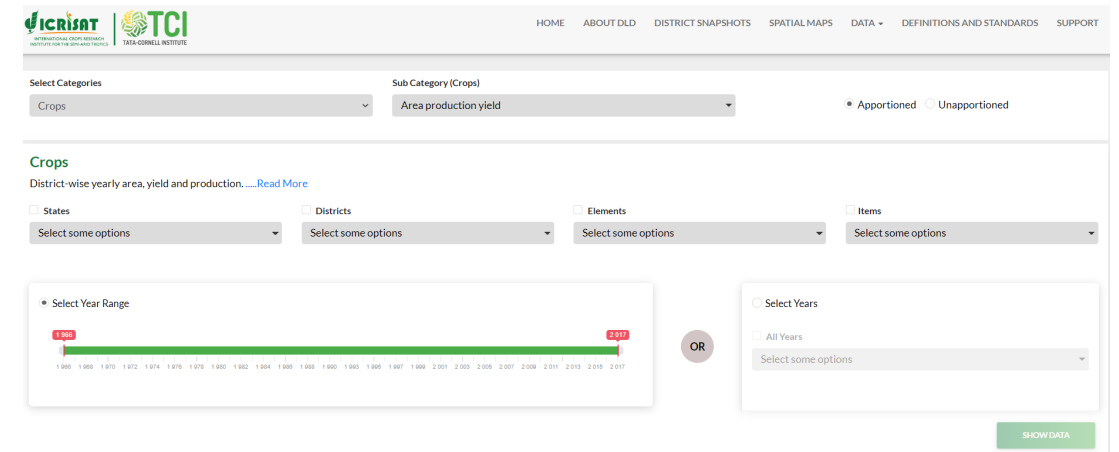
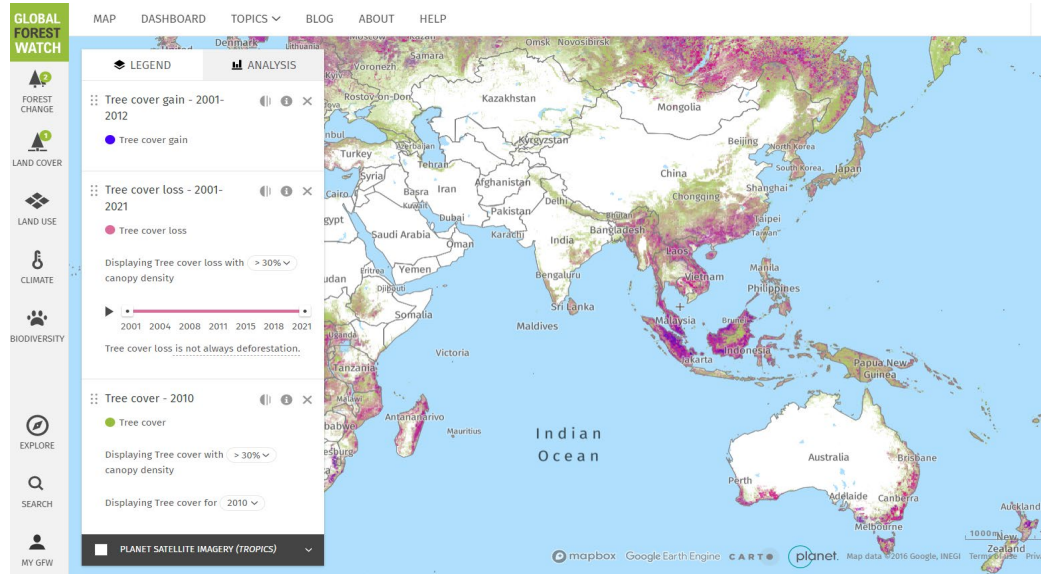
International Workshop On Land Cover/Land Use
Changes (LCLUC), Forestry, and Agriculture in
Southeast Asia , Phnom Penh

Session II - Agriculture-Crop mapping, monitoring, acreage
estimation, and modeling

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Towards Data-Driven Decision Making



“Data is only as valuable as the decisions it enables”

- Ion Stoica

Do these platforms meet the needs of Decision Makers (DMs)- public and private- in food systems? The response to this question provides us with an understanding of current data gaps and data needs

- **Quality issues**- Right granularity, comprehensiveness, and Silos of critical information and data.
- **Quantity issues**- certain blocks of critical information/ data are never collected, and when they are collecting their utilization remains low.



System Thinking For Food Security



Public sector- PDS shops, Godowns, logistical support from PSUs, central and state governments, and others.

Private sector – farmers, operators of collection and distribution systems, warehouse owners, retailers, etc.

System thinking for Food Security

Complex decisions of food systems in the real world, such as choice of crops, investments in storage and transport infrastructure, and siting of access points for food grains, require tools that

1. Create complete situational awareness- climatic, social, economical, and spatial
2. Provide guidance on the best course of action.

Factors that influence decisions are many, but decisions and decision pathways are fewer- **Systems thinking in decision making.**

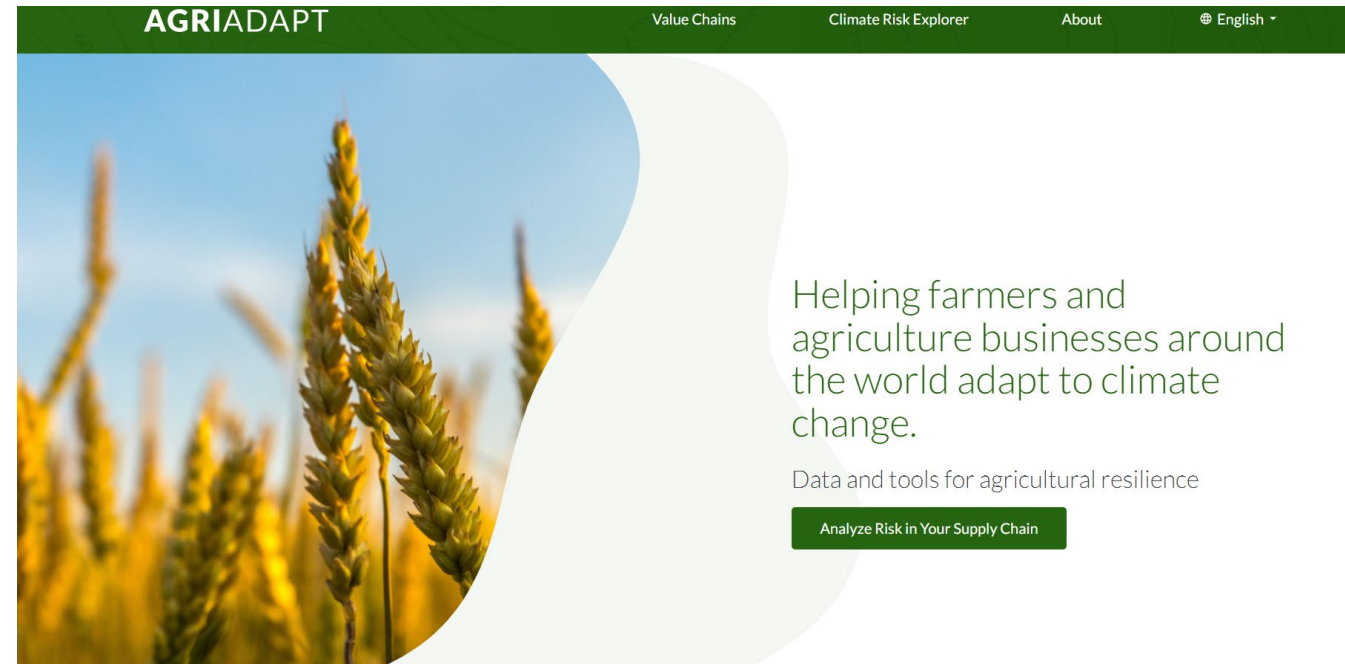


Agri Adapt Toolkit: climate risks in Value chains, one of the data gaps

To help farmers and agriculture businesses around the world adapt to climate change. The aim of this work is to inform policymakers and practitioners to integrate climate risk and resilience into plans, policies, and programs.

Using the impact of climate hazard in rice value chain in India- on inputs (land suitability seedlings, and labor), production (changes in yield, etc.), and trade (transmission of risks from commodity trade to consumers, etc.).

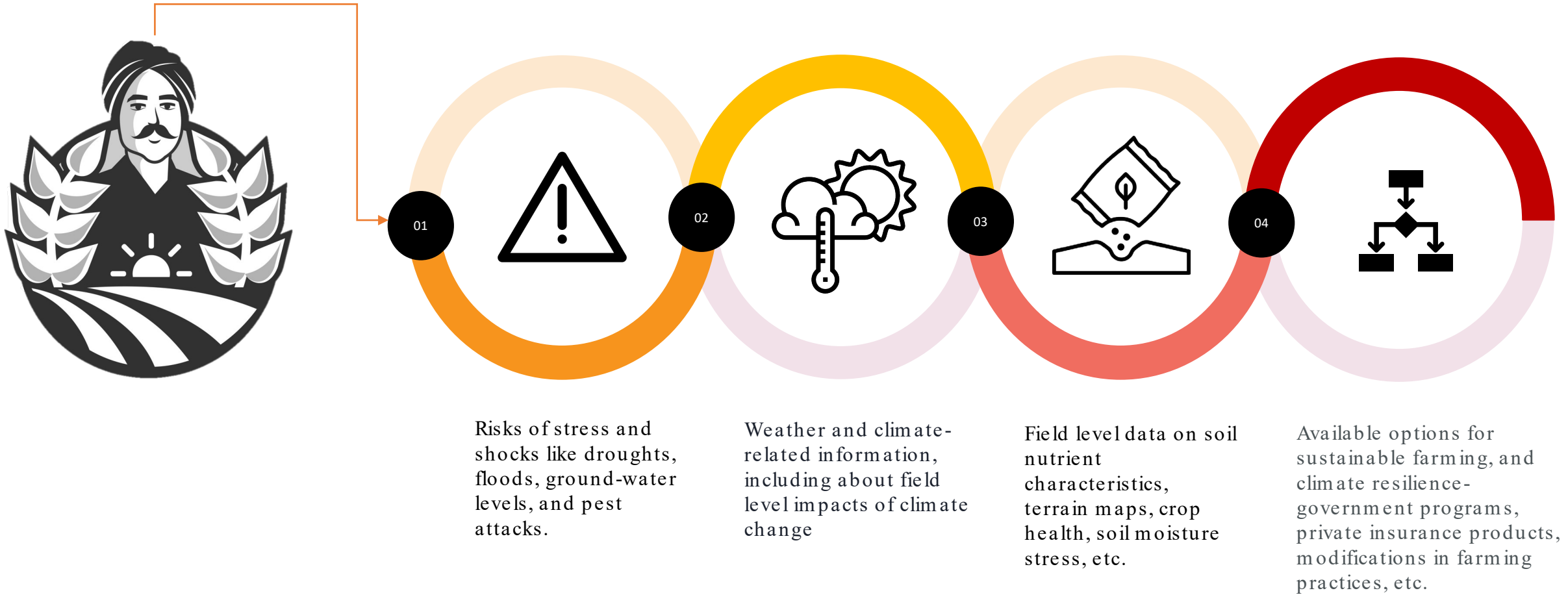
To be officially launched in **October 2022**





There are multiple decisions with Short-term and long implications at each of the nodes. These create different data and information requirements, and there are different capacities to use them.

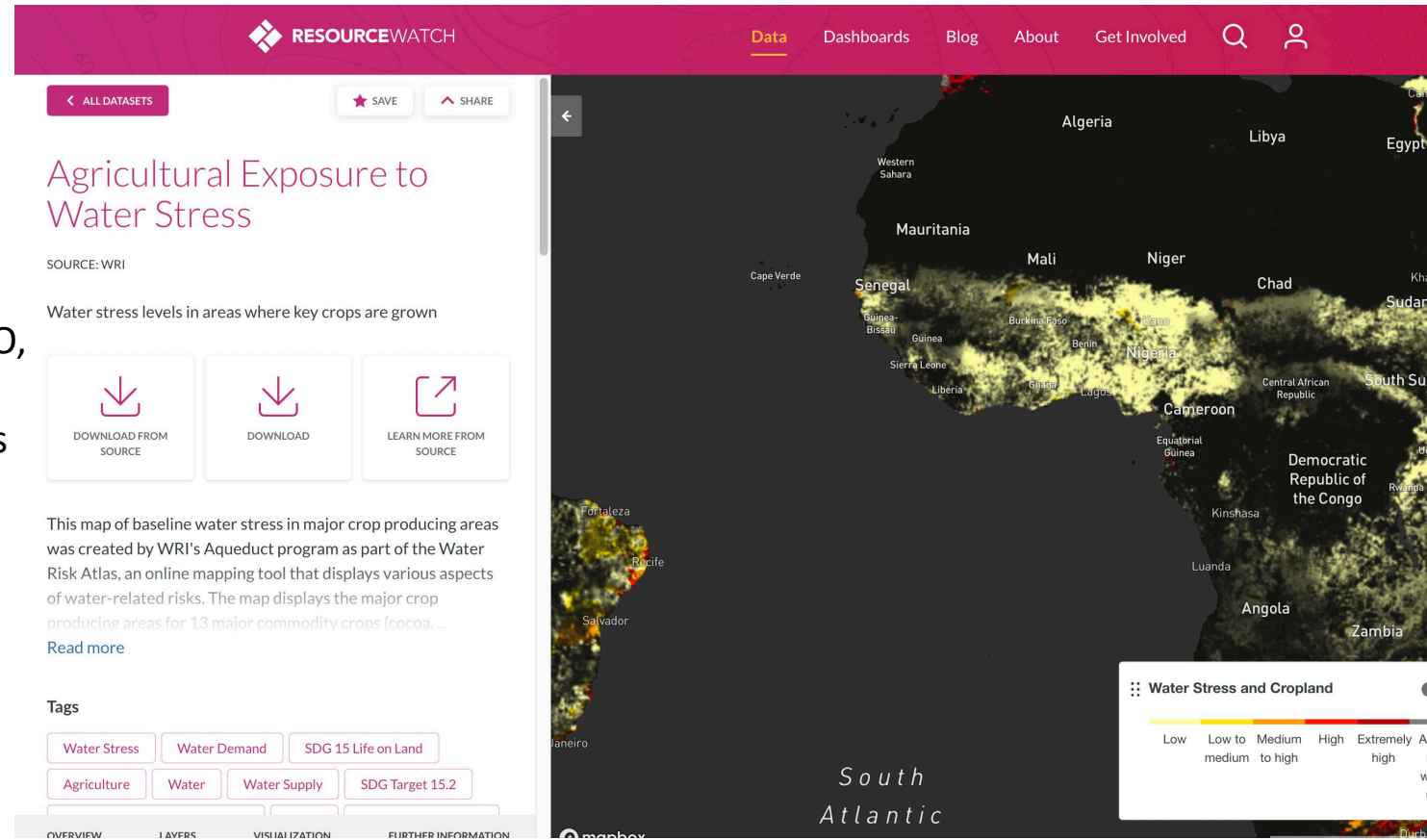
System Thinking For Food Security



Platforms for Data Integration and Decision support

Resource Watch (currently in Beta)

- Hundreds of datasets from multiple sources- FAO, IOM, UNEP, and others.
- Improve adoption and uptake of data-driven tools for decision making
- Enhance access to information and data
- Bring attention to existing data gaps





Building Blocks Of a digital Ecosystem For DMs



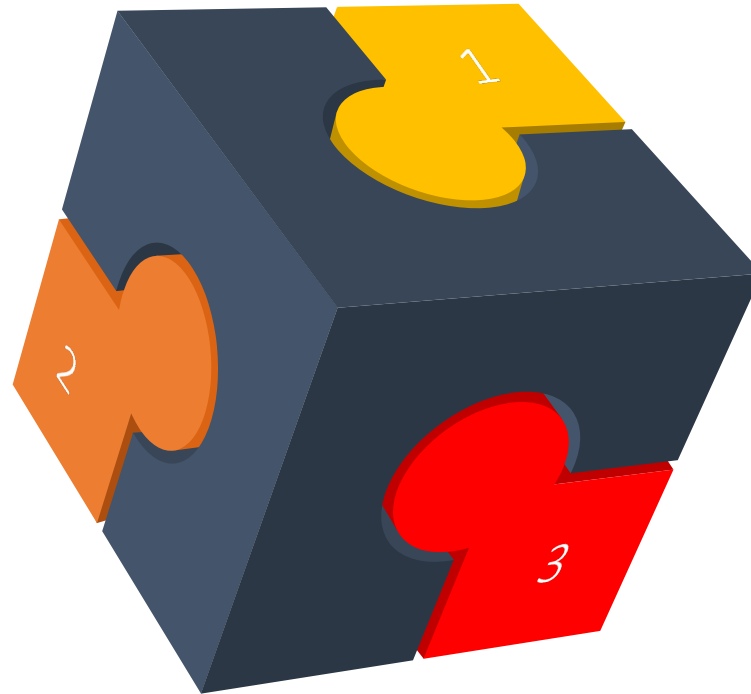
Humanising data

Platforms that enable an easier understanding of the social, economical, spatial, and climatic context while using digital tools. Smart interfaces that are as functional as a calculator.



Data integration

- Collating data from multiple sources- socio-economic, environmental,
 - Allowing local data firms and enthusiasts to bridge the data gaps through crowd-sourcing and other innovations



Establishing principles for a digital ecosystem that enables locally-led innovations

- Open-source allowing local, regional, and global researchers, and other stakeholders to collaborate and share datasets, and algorithms
- Accessibility and flexibility to local developers (to ease integration of datasets, establish the credibility of data, and promote innovations)

- How to collect credible socio-economic data across countries?
- How to integrate public datasets with privately owned datasets, and crowd-sourced data?





Thank you
