منتدى الدوحة للبيانات

من أجـــل الابتكـــار في التنميـــة المستدامـــة

22-23 أكتوبر 2024

DOHA DATA FORUM

FOR INNOVATION IN SUSTAINABLE DEVELOPMENT

October 22-23, 2024

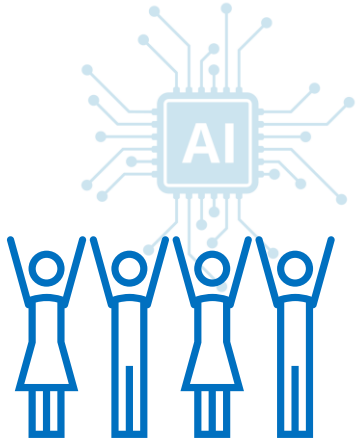
Addressing Complex Risks for De-risking Development

Contents

- Sustainable Development Goals and AI
- Complex Risks and De-risking Development
- Data analytics to Sustainable Development Impact and Examples of AI-application
- Key gaps to address

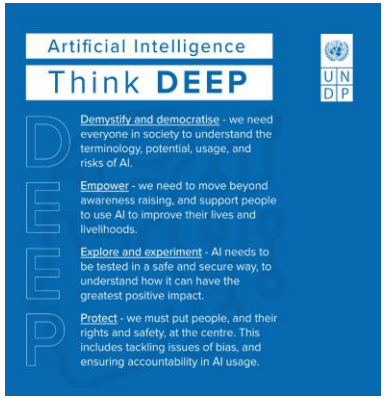
Sustainable Development Goals and AI

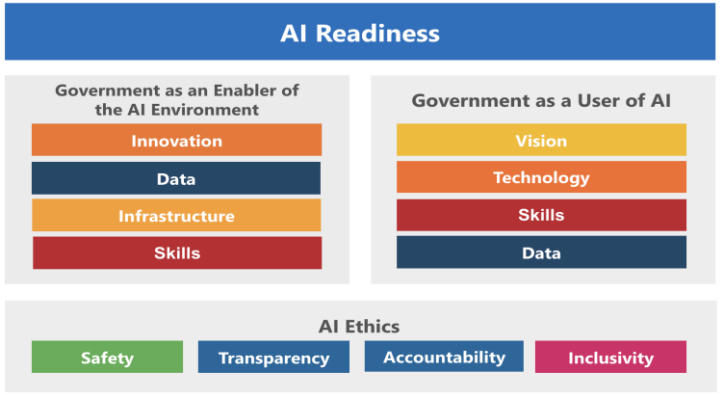
- AI and other emerging technologies is a key focus of **the Global Digital Compact**.
- Documented evidence of the potential of AI acting as a**n enabler on each of the SDGs**.
- **Significant increase** of the number of real-life AI deployments.
- *UNDP wants to be a leading voice for positive AI use for people and planet, while mitigating potential negative impact*



EU Statement – UN Global Digital Compact: Deep Dive on AI and other emerging technologies

25 May 2023, New York – Statement on behalf of the European Union and its Member States at the 77th Session of the United Nations General Assembly Global Digital Compact Deep Dive on Artificial Intelligence and other emerging technologies

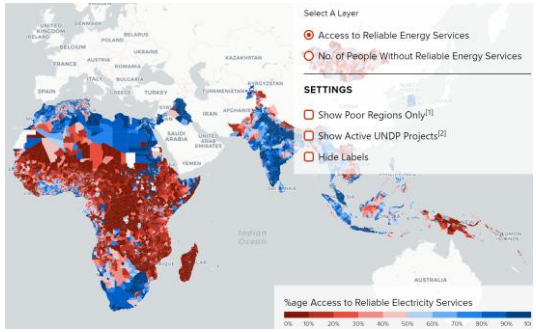




NATURE

Artificial Intelligence for Biodiversity Policy Advancement

ENERGY



SIDS

*AI is already **being used widely in UNDP across all thematic areas** like Crisis Management, Gender, and Climate, **as well as operational areas** such as Human Resources and Operations*

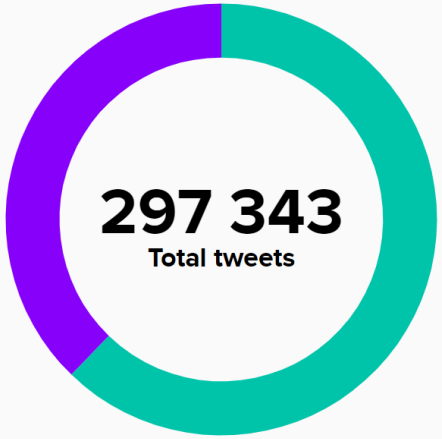
GENDER

All Education Politics Reproductive Rights

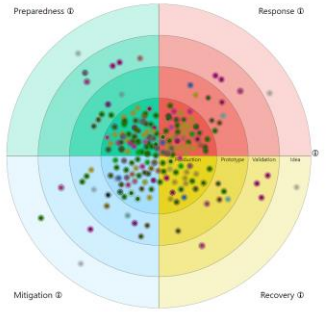
TWEETS BY USER GENDER*

Men **185 072 (62.2%)**

Women **112 271 (37.8%)**



CRISIS PREVENTION & RECOVERY



SDG-WIDE

Complex Risks in Sustainable Development

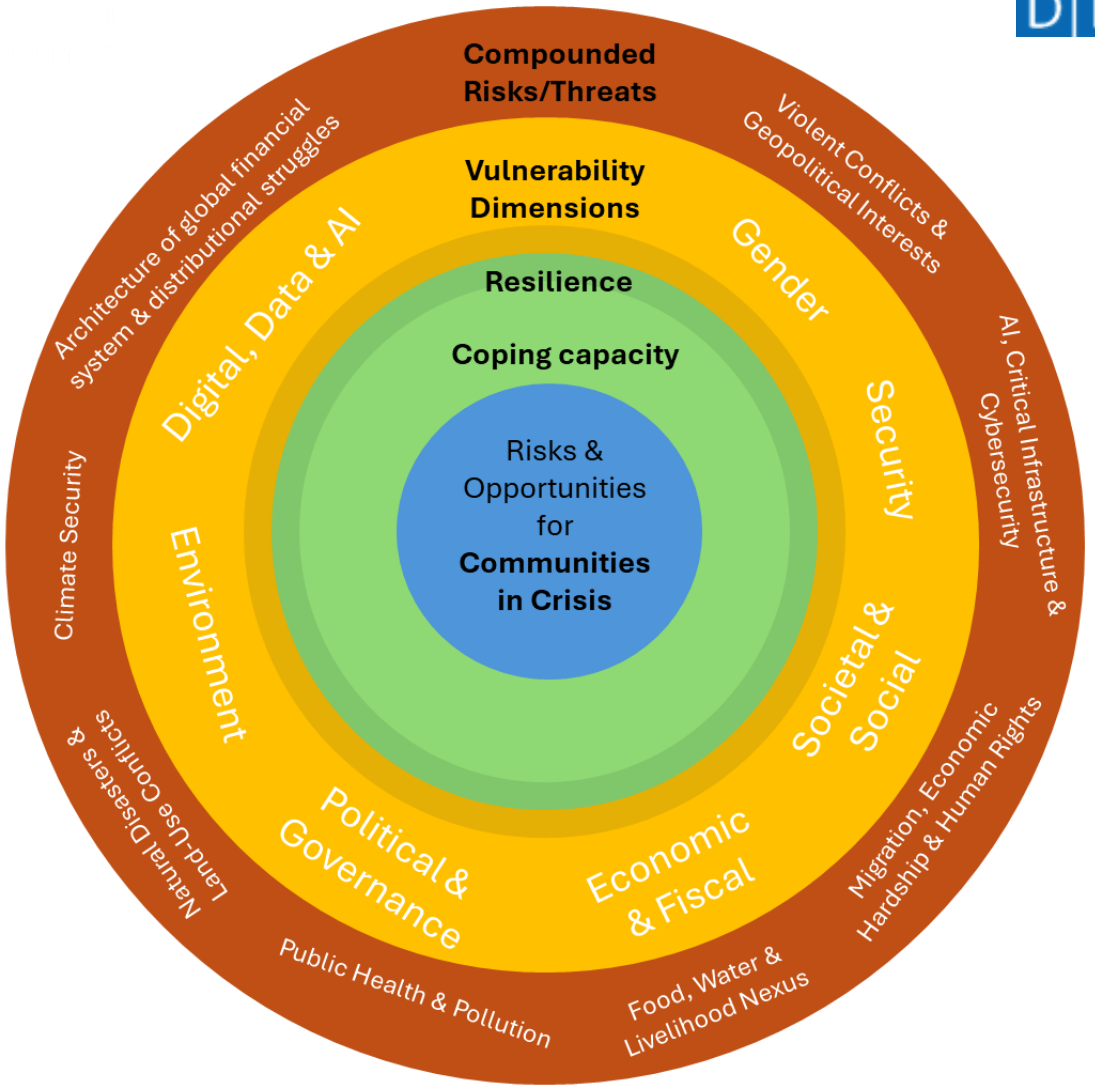
- **Systemic risks** = structural factors associated with a country's economy, society, environment and governance + its external relationships (e.g. trade, aid, investment, debt, geopolitical alignments) + the state of global public goods

- **Proximate risks** = significant changes in internal and external conditions that are likely to trigger crisis or disaster in the short- to medium-term

De-risking Development = a Key Determinant of Progress or Regression on the SDGs

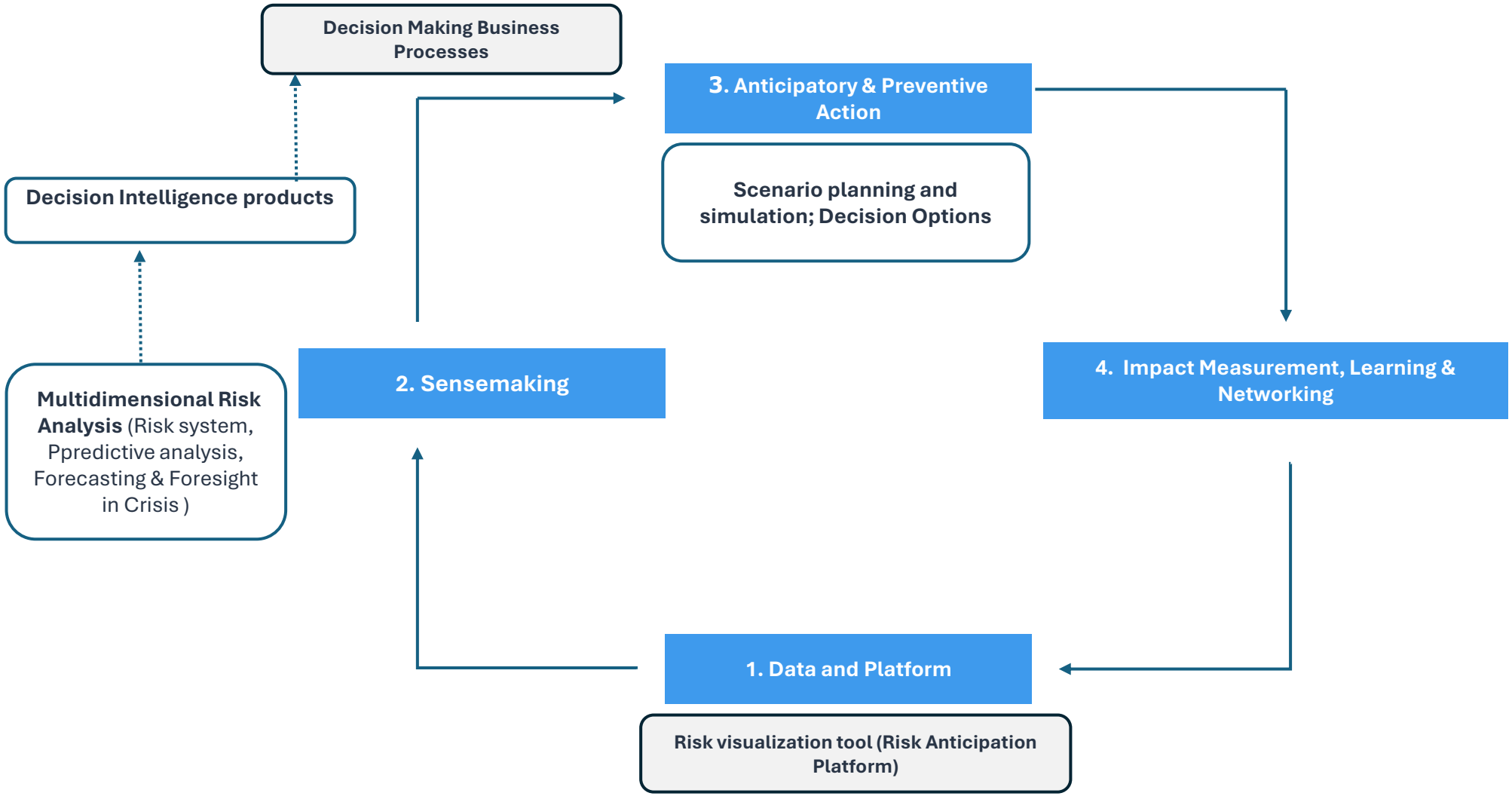
For that

past development ***gains can be protected***
there can be early ***exit from cycles of fragility and crisis***
structural dependence on ***humanitarian solutions can be reduced***
'whole-of-system' resilience *can be built or reinforced*
and ***hope sustained*** *in the most challenging circumstances*

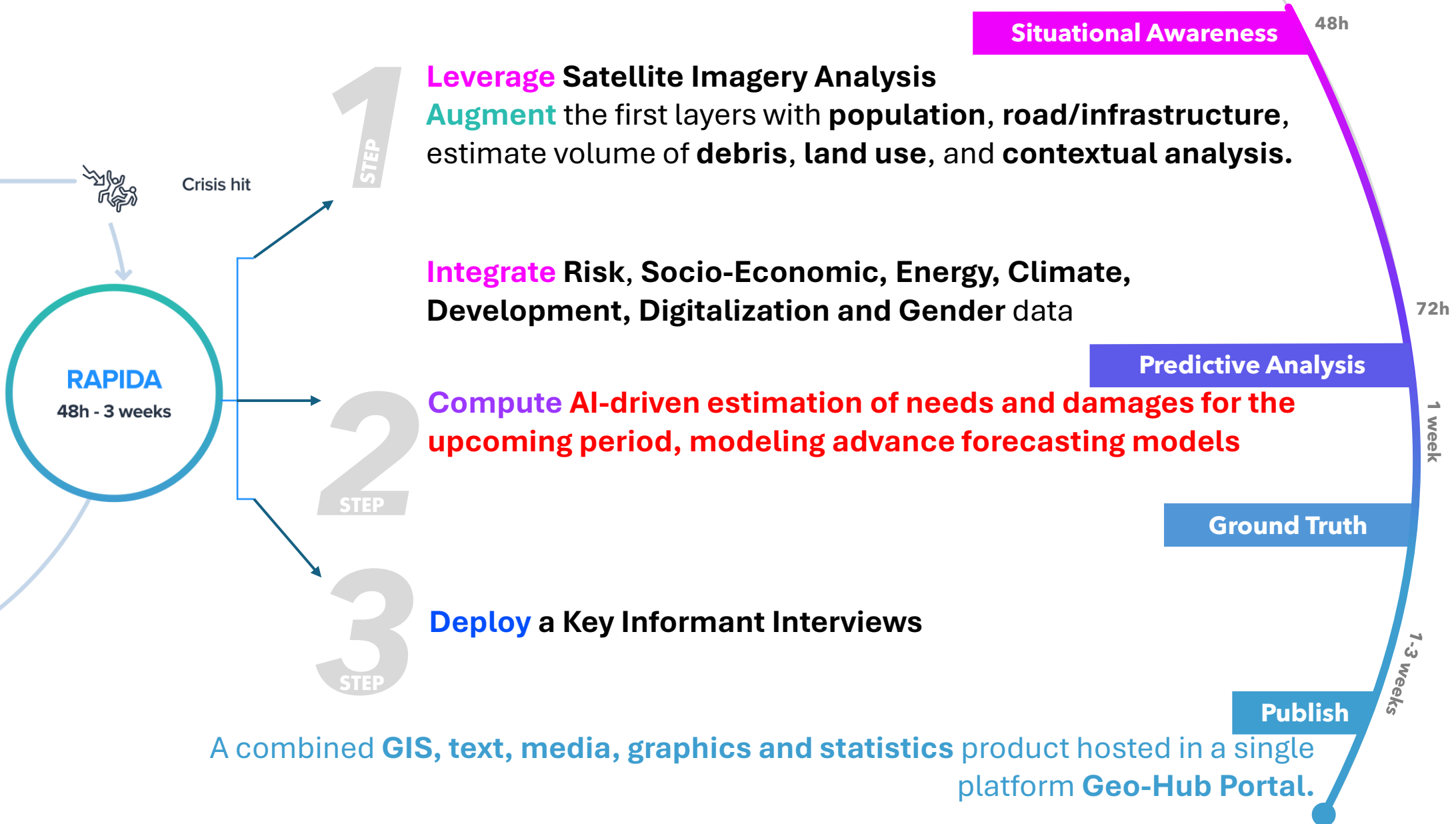


Data analytics to Sustainable Development Impact

Providing futures-informed decision intelligence to transform warnings about at-risk situations into anticipatory and preventive action.



1. Data: AI application to Rapid Assessments



Leverage **Satellite Imagery Analysis**
Augment the first layers with **population**, **road/infrastructure**, estimate volume of **debris**, **land use**, and **contextual analysis.**

Integrate **Risk**, **Socio-Economic, Energy, Climate, Development, Digitalization and Gender** data

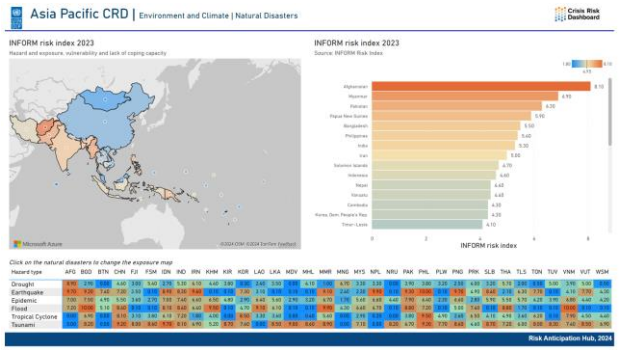
Compute **AI-driven estimation of needs and damages for the upcoming period, modeling advance forecasting models**

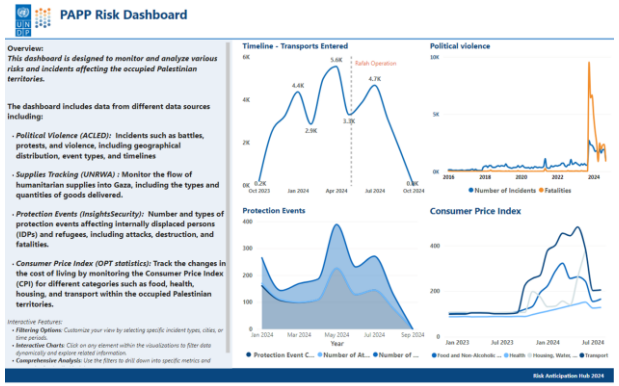
Deploy **a Key Informant Interviews**

A combined **GIS, text, media, graphics and statistics** product hosted in a single platform **Geo-Hub Portal.**

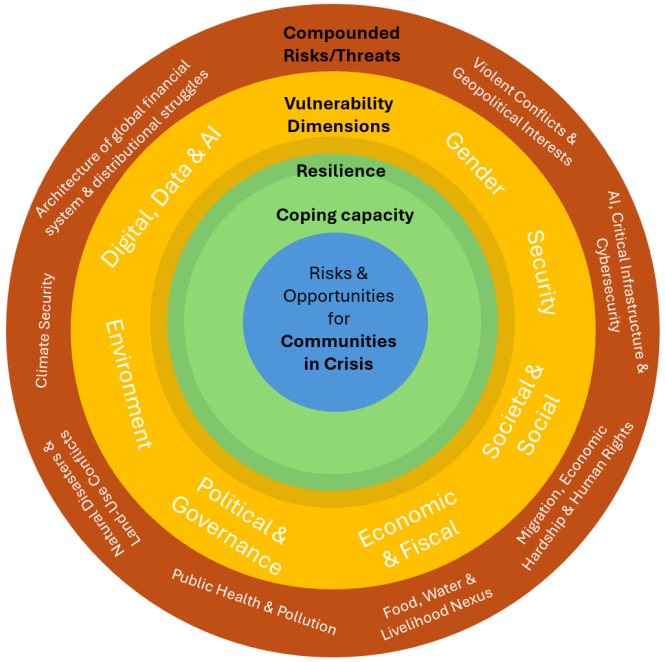
2. Dynamic Risk Analysis with Application of AI

1. Data

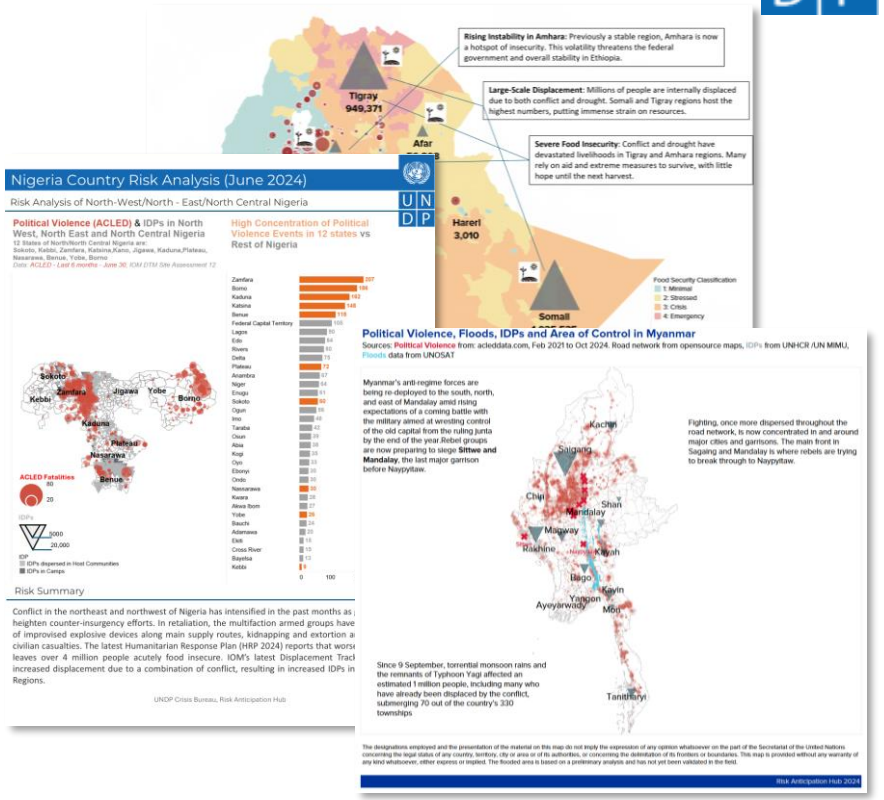




2. Complex System Lens to Multi-dimensional Risks



3. Early Warning & Risk Analysis



Data & Platform

Sensemaking

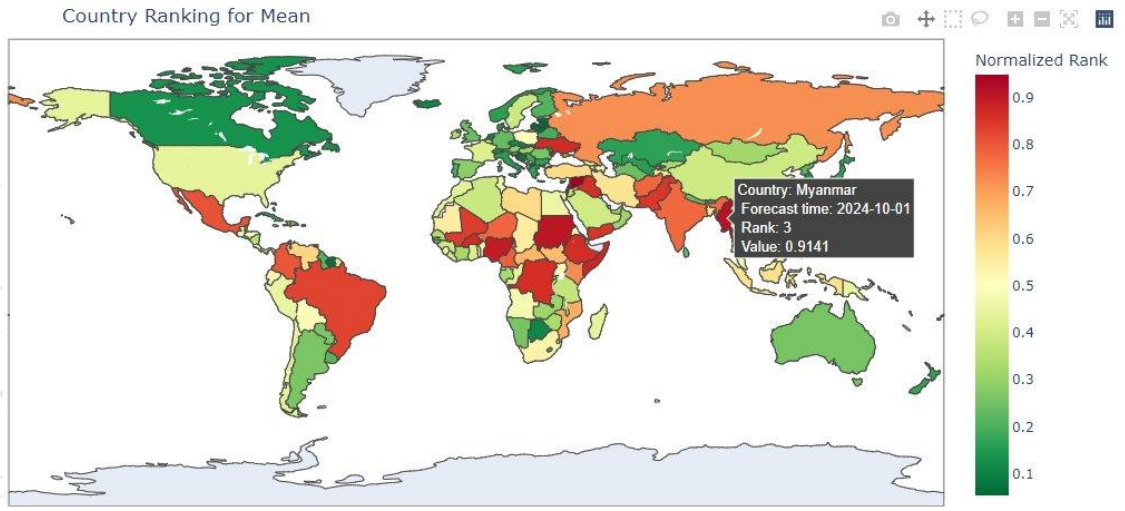
2. Experiments with Advanced Analytics and AI

Social Media Analysis

- Monitor and analyze public discussions about a specific topic, such as elections
- Understand the changing dynamics of local contexts using NLP

News Media Listening

- Conduct social listening on news media collected through GDELT to monitor the pulse of events
- Utilize OpenAI technology to summarize articles to quickly convey content



Forecasting

- Experiment with and aggregate models of conflict forecasts to understand future risks and inform anticipatory policy making

Multi-Dimensional Analysis

- Produce multi-faceted analyses using various traditional and machine learning methods to shed insights into crises contexts

Key gaps to address

Data gap: Expanding diverse, quality and accurate datasets, potentially tapping into big data sources

Interconnection gap: Applying system lens and exploring inter-system boundaries of different systems

Data and Decision gap:

i. Combining qualitative analysis and foresight with AI-deployed data analytics;

ii. Availing policy and decision cases/options;

iii. Integrating horizontally and vertically the organisational processes; and

iv. Integrating human cognitive aspects (story-telling, applying local/field knowledge, etc.)

Thank You

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