Area-based risk assessments

Conference "Innovation in Disaster Prevention"
Krakow, 9th May 2023

Nataliia Makaruk

Climate and Disasters Assessment Officer
HQ IMPACT Initiatives
Geneva, Switzerland

IMPACT
Shaping practices
Influencing policies
Impacting lives
REACH PANDA AGORA

ABOUT IMPACT

NGO

Swiss non profit humanitarian research organisation (Geneva-based), founded in 2010

Applied research to support better decision-making by aid actor

Data collection and analysis

Partnerships

Capacity building

ACTED = sister organisation

→ Synergies in the field / Logistics capacity

To act as **a catalyst for change** of aid practices and policies in order to sustainably impact individuals and their communities.

SHAPING PRACTICES
INFLUENCING
POLICIES
IMPACTING LIVES

To enable better and more effective decision-making **by generating and promoting knowledge, tools and best-practices** for humanitarian and development stakeholders.

IMPACT
Shaping practices
Influencing policies
Impacting lives
REACH PANDA AGORA

IMPACT Contribution to Sendai Framework

The Sendai Framework for Disaster Risk Reduction 2015-2030

1	2	3	4
Understanding disaster risk	Strengthening disaster risk governance to manage disaster risk	Investing in disaster risk reduction for resilience	Enhancing disaster preparedness for effective response and to "Build Back Better"

IMPACT expertise in risk analysis

Problem statement and solution

Humanitarian response is not risk-informed, Especially at a local level

Fragile states often lacking resources and capacity to prepare and respond to disasters

Data on community vulnerabilities and capacities is missing

IMAPCT has an expertise in hazard and risk analysis in the granular level by using remote sensing and GIS technologies

IMPACT has an extensive field presence in fragile states, most of each are ranked being at very high or high level of risk and vulnerable to climate change

[Of the top 15 countries most vulnerable to climate change, 12 had a Humanitarian Response Plan (HRP) in 2022 (OCHA, ND-GAIN)]

IMAPCT has an expertise in primary data collection on vulnerability on a local level, even in a hard-to-reach areas
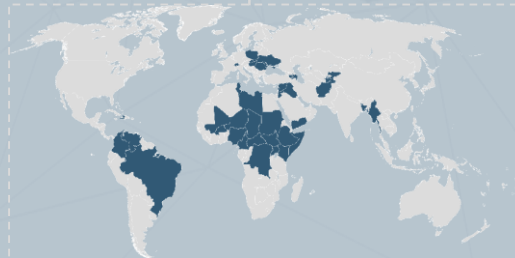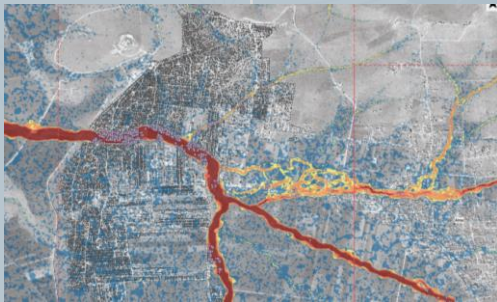
Variations of DRR Outputs
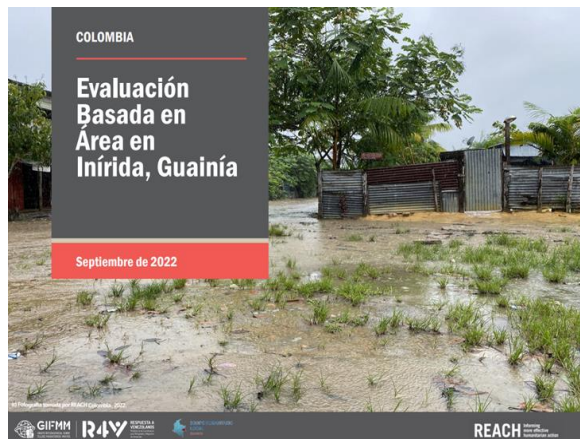
ABA with risk
analysis section
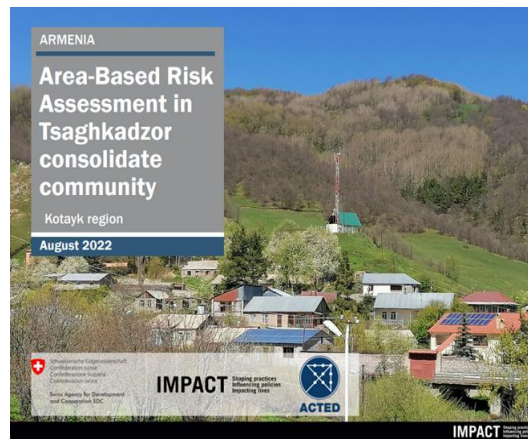
Multi hazard Area-
Based Risk
Assessment

Single hazard risk
assessment

Area-based Risk Assessment (ABRA)
Mariupolskyi raion

Localized

Participatory

Evidence-Based

Multi-Hazard/
Multi-Sector

Risk methodology

For risk analysis IMPACT is using the **World Risk Index** approach:

ABRA Methodology

Risk = **Hazards** × **Exposure** × **Vulnerability**

Data:

Geospatial analysis of satellite images: Sentinel 5P, Landsat 8, MODIS

OSM buildings and infrastructure layers, and REACH data

Statistical data from Mariupol municipality & geospatial analysis

Innovation opportunities

| PARTICIPATORY | URBAN | FORWARD-LOOKING |

Increase participatory research approach and facilitate **local DRR planning**

Design a tool specifically for **urban** multi-hazard risk assessment + MCR2030

Include climate-related **risk trends** and potential impact **(L&D)** for community

Thank you for your attention

Nataliia MAKARUK

Climate and Assessment Officer
nataliia.makaruk@impact-initiatives.org