



# The Risk Data Library

Opening up risk information for better risk management

Technical Steering Group #1  
19 November 2025

# Agenda



## ● Introductions

## ● Update

- Gates Foundation Funding scope and activities
- RDLS Team
- Current state of development

## ● Your questions, feedback

# Technical Steering Group

## ● Role:

- Receive updates on development of the RDLS; current focus on improving workflows and adding support for urban scale risk information and baseline / contextual datasets.
- FEEDBACK: technical updates and decision points; wherever possible we'll provide very targeted questions or requests, centred on utility for users and potential for take-up.
- Discuss how best to raise RDLS profile as a public good tool for the risk community and embed it in workflows for risk analysts.

## ● Timeframe: Until July-August 2026

## ● Members:



# Workplan under Gates Foundation funding

- |  |                               |
|--|-------------------------------|
| 1.1 Development of City Scan Web Tool                                  | Funding to end 2026           |
| 1.2 Development of City Scan Methodologies and Guidance                |                               |
| 1.3 Urban Settlement Footprint   | USD 2 million overall funding |
| 1.4 Development of Scalable City Extreme Heat Scan Product             |                               |
| 1.5 Adoption of City Extreme Heat Scan as Online Webtool               |                               |
| 1.6 Improving, testing and expanding use of NBSOS Biodiversity Modules |                               |
| 1.7 Expanding Applications of Urban NBSOS with Development Partners    |                               |
- 
- |  |  |
|--|--|
| 2.1 Development of Urban Resilience Data Skills Curricula and Training Materials |  |
|--|--|
- 
- |  |  |
|--|--|
| 3.1 Revision of Risk Data Library Standard and Functionality Improvements with Urban Focus |  |
| 3.2 Development of City-Level Dashboard for Tracking Risk Data                             |  |
| 3.3 Creation of City-Focused Platforms for Data and Resilience Understanding               |  |

# RISK DATA LIBRARY ENVIRONMENT



## ● Landing page

[riskdatalibrary.org](http://riskdatalibrary.org)

## ● Standard repository

[github.com/GFDRR/rdl-standard](https://github.com/GFDRR/rdl-standard)

## ● Documentation

[docs.riskdatalibrary.org](http://docs.riskdatalibrary.org)

## ● RDL Data Catalog

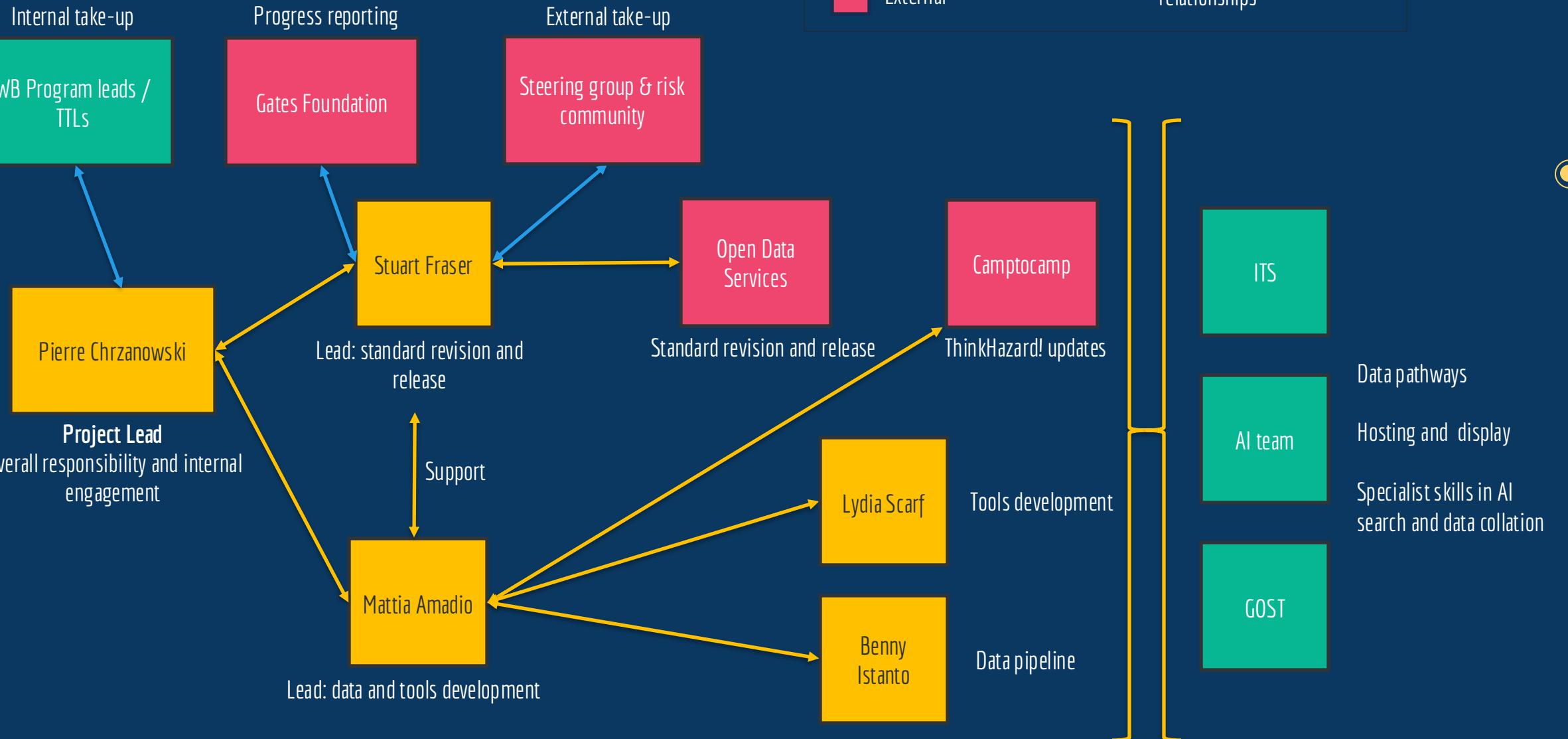
[jkan.riskdatalibrary.org](http://jkan.riskdatalibrary.org)

## ● RDL Collection on WB Catalog

[datacatalog.worldbank.org/search/collections/rdl](http://datacatalog.worldbank.org/search/collections/rdl)



# Organisational chart



# Workplan under Gates Foundation funding

	2025						2026					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
A1 RDLS development with urban focus												
A2 City level dashboard tracking urban risk data												
A3 Data, guidance, tools for urban risk analysis												

A horizontal teal arrow pointing to the right, positioned below the timeline grid. It has a small vertical bar at its start point.

April-August 2025: Planning, recruiting, contracting. Internal technical review and consolidation.

September onwards: Main implementation with partners.

# Risk Data Library Standard: develop urban focus

	1.1 Key urban data review	1.2 Review and update RDLS for urban data	1.3 Update documentation and learning material	1.4 Integration of RDLS into WB processes							
Progress	Reviewed urban risk assessments and data	Updates planned by section, identified sources	Development starts on completion of 1.1 and progress in 1.2	Not started Continuing to promote use of RDLS outside WB, develop use cases							
Blocks	n/a	Development starts on completion urban review (1.1)	n/a	n/a							
		2025	2026								
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
	A1 RDLS functional development with urban focus										
	1.1 Key data for urban risk assessment				M1.1						
	1.2 Review and update RDLS for describing urban risk datasets					M1.2					
	1.3 Update RDLS documentation and learning material							M1.3			
	1.4 Support integration of RDLS into WB processes								To Oct		

# Risk Data Library Standard: urban data tracking

	2.1 Upgrade RDL Catalog functionality	2.2 City level dashboard - track urban data	2.3 Populate RDLS catalog; hackathons																																																																		
Progress	Updates being proposed by WB team based on urban data review and development of new workflow	Starting development for the integration of latest schema versions in RDL catalog (JKAN)	Good progress in data pipeline Baseline: 79 datasets																																																																		
Blocks	Delayed contract start	Waiting to define urban components after review and schema update	Not started identifying data collections to cover in hackathons																																																																		
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# ThinkHazard!

## 3.1 Update scores and add urban level

### Progress



Scores have been updated for 7 hazards on new boundaries for ADM2 and Urban level - in re

## 3.2 Update written content

Updates planned by section, identified sources

## 3.3 Develop and upgrade for urban risk screening

Data sources e.g., urban boundaries sourced

### Blocks



Hazard classification to be run globally for Flood types (3)

Identifying resourcing / ITS routes in WB to assist

Vendor contract started this week



	2025				2026					
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
A3 Data, guidance, tools for urban risk analysis										
3.1 Update TH scores and add urban level										
3.2 Update written content for TH										
3.3 Develop / upgrade ThinkHazard features to serve urban risk screening									M3	

# Promotion

## A Bottom-Up Approach to Building a Climate Resilience Stack

Policy Report — February 2025

**David Eaves**  
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Research Fellow, UCL Institute for Innovation and Public Purpose (IIPP)

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**Liam Orme**  
Research Assistant, UCL Institute for Innovation and Public Purpose (IIPP)

### Example 4: The Risk Data Library Standard (RDLS)

The RDLS is an open metadata standard for describing risk datasets used in climate and disaster risk assessments. This makes it easier for risk data publishers to describe datasets and for users to access this data. The RDLS also provides guidance on packaging and formatting risk datasets. The Risk Data Library serves as an open data catalogue, leveraging and demonstrating the value of the RDLS.



**Table 3.** How the Risk Data Library Standard can support climate resilience stack capabilities

Capability	Value of open standard
<b>Data Collection</b>	<b>Integration with KoboToolbox/ODK:</b> KoboToolbox and ODK are primarily used to gather field data. If integrated using the RDLS, field data could be more easily catalogued with existing data (like historical hazard data, vulnerability data, or socio-economic factors) to provide more comprehensive situational awareness and even pre-populate or prompt questions to enrich data.
	<b>Centralized Repository for Baseline Data:</b> The RDL can serve as a repository of pre-existing risk data, offering a starting point for understanding the specific vulnerabilities of affected populations and enabling quicker, more data-informed decisions.
<b>Analytics and Machine Learning</b>	<b>Enhanced Analytics with RDL:</b> RDL's structured datasets can be used with analytics tools to create predictive models that assess risk exposure and project future needs. For example, combining RDL data on past flood occurrences with real-time weather data could help model future flood risks, guiding emergency response planning.
	<b>Customizable Risk Indicators:</b> Using RDL's data, organizations can establish indicators for specific crises (e.g., flood vulnerability or disease spread risk) that can then be fed into machine learning models to predict high-risk areas, thus enabling targeted intervention.
<b>Geospatial Mapping</b>	<b>Integration with mapping:</b> The geospatial nature of many RDL datasets makes them directly useful in mapping tools like QGIS, enabling visualizations of risk-prone areas. By layering RDL data with real-time crisis data, responders can get a detailed view of areas with the highest need.
	<b>Enhanced Visualization for Decision-Making:</b> Visualizing RDL data spatially can help identify at-risk populations, plan resource allocation, and set priorities.

### 3.1 Leveraging open standards in the climate resilience stack

# Activity / feedback

- [NEW] Metadata Editor to help users populate and validate metadata of risk datasets

The screenshot displays the RDLS Metadata Editor interface, which includes the following sections:

- Schema Configuration:** Shows "Schema Version: RDLS 0.3" and "RDLS 0.3 loaded". It lists "Dataset Sections": General Metadata (Required), Hazard Metadata, Exposure Metadata, Vulnerability Metadata, and Loss Metadata.
- RDLS Metadata Form:** A large central area titled "General Metadata" containing fields for "Title" (with placeholder "The title of the dataset") and "Description" (with placeholder "A short description of the dataset"). Examples for both fields are provided. Below these are sections for "Dataset version" (placeholder "The version indicator (name or identifier) of the dataset") and "Dataset purpose" (placeholder "The purpose for which the dataset was created").
- Live Preview & Validation:** On the right, it shows "Validation Status: Not validated" and "0/0 fields valid". It displays a JSON preview of the generated metadata schema, which includes fields like "schema", "risk\_data\_type", "attribution", "sources", "referenced\_by", "resources", and "links".

[https://gfdrr.github.io/CCDR-tools/\\_static/RDL\\_MDE.html](https://gfdrr.github.io/CCDR-tools/_static/RDL_MDE.html)

# Activity / feedback

Risk Data Library catalog (beta) Datasets RDL Project

## Risk Data Library catalog

A simple catalog to find datasets compliant with the Risk Data Library

Start browsing

Browse by Category



Hazard



Exposure



Vulnerability



Loss

Already had suggestions from Tom around scripting the creation of metadata and merging into JKAN

Exploring application to disaster loss database

<https://jkan.riskdatalibrary.org/>

Risk Data Library catalog (beta) Datasets RDL Project

Home / Datasets

## Categories

Exposure	x 20
Hazard	48
Loss	4
Vulnerability	7

## Countries

Afghanistan	8
Burkina Faso	1
Burundi	1
Central African Republic	1
Chad	1
Show 25 more...	

## Geographical Scale

Global	17
Regional	20
National	14
Sub-national	28

20 datasets

Search...

### Afghanistan Asset exposure

Collection of exposure datasets for risk assessment purpose in Afghanistan. Includes: - Location, area and USD value of rainfed and irrigated agricultural crops. - Total exposure value of buildings for different occupancy types: urban and rural structures, residential, non-residential, and industrial area. Values expressed as replacement cost (USD), area (m<sup>2</sup>), or number of elements (count). - Location, count and USD value (when available) for the following infrastructures in Afghanistan: airports, bridges, dams, health centers, hospitals, power plants, roads, schools and universities. - Population count and GDP value in USD for three macrosectors (Industry, Agriculture and Services) in Afghanistan.

Developed by (version): GFDRR (2018)

Geo Coverage: Afghanistan

License: Creative Commons Attribution 4.0

### Central Asia exposure dataset - agriculture (wheat and cotton)

Cotton and wheat cropland in Central Asia. The dataset has been developed based on cropland data (cotton, wheat) collected from local data provided at sub-national level.

Developed by (version): Chiara Scaini (2022)

Geo Coverage: Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan, Uzbekistan

License: Creative Commons Attribution Share-Alike 4.0

### Central Asia exposure dataset - airports

Collection of airport location and extent.

Developed by (version): Chiara Scaini (2022)

Geo Coverage: Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan, Uzbekistan

# Next meeting

- **January (date TBC)**
- **Urban data review will be complete; ODS will have reviewed proposed changes**
  - In January begin to iterate those proposals / embed into v1
- **The ask for then:**
  - Feedback on urban data collection when complete (data categories, attributes we're including)
  - List of urban risk projects that could be proposed for the data pipeline (WB / non-WB) - w/ brief description, contact person and data location
  - Try the metadata editor on a small example, let us know how you get on