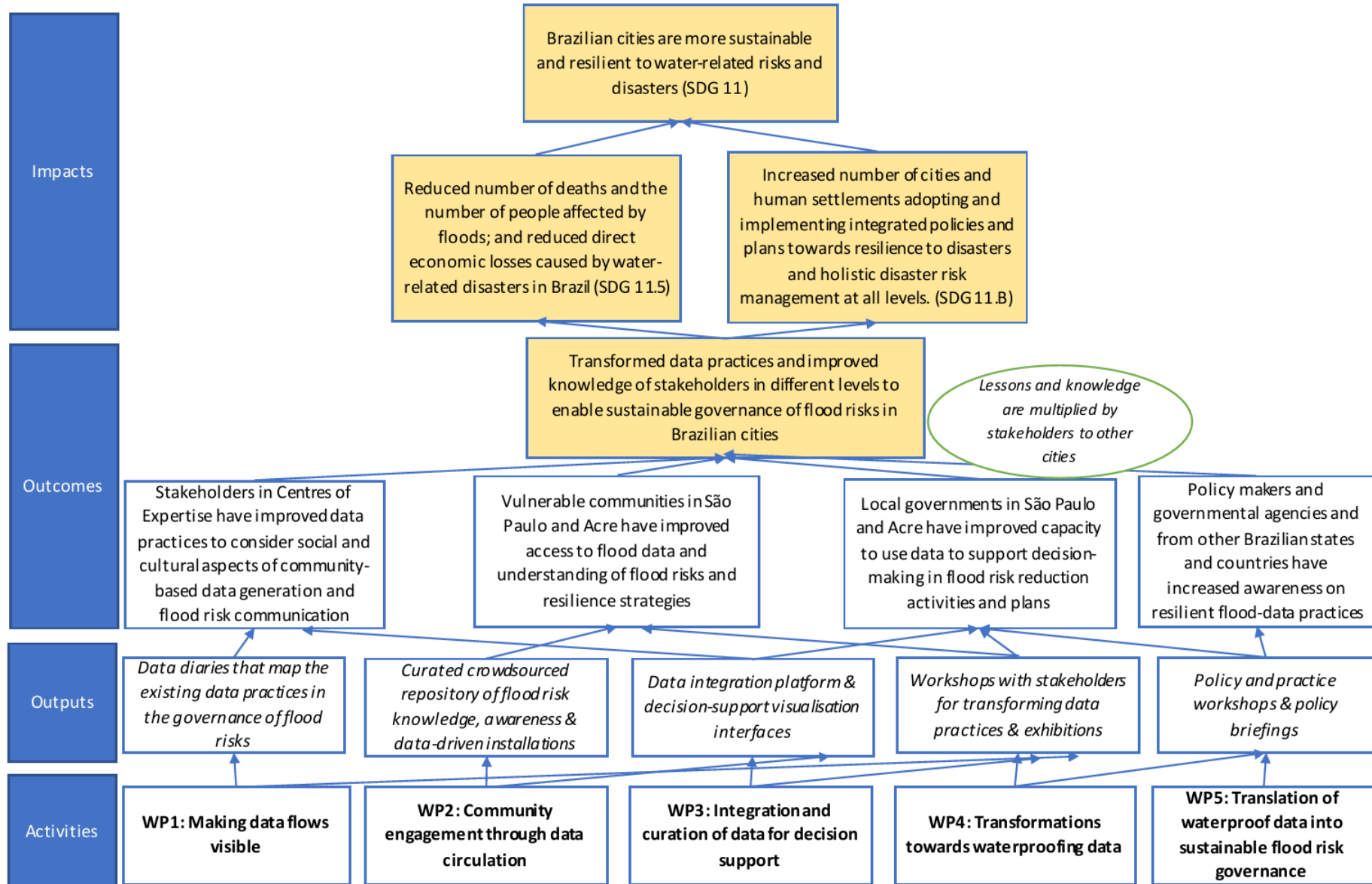


Waterproofing Data: Theory of Change in Project Proposal (Belmont Forum/Norface)



Waterproofing Data – brief outline of project

Waterproofing Data investigates the governance of water-related risks, with a focus on social and cultural aspects of data practices. Typically, data flows up from local levels to scientific "centres of expertise", and then flood-related alerts and interventions flow back down through local governments and into communities. Rethinking how flood-related data is produced, and how it flows, can help build sustainable, flood resilient communities.

This project develops three innovative methods around data practices, across different sites and scales:

- Making visible existing flows of flood-related data through tracing data;
- Generating new types of data at the local level by engaging citizens through the creation of multimodal interfaces, which sense, collect and communicate flood data, and;
- Integrating citizen-generated data with other data using geo-computational techniques.

These methodological interventions will transform how flood-related data is produced and flows, creating new governance arrangements between citizens, governments and flood experts and, ultimately, increased community resilience related to floods in vulnerable communities of Sao Paulo and Rio Branco, Brazil. The methods and results of this case study will also be the basis for a transcultural dialogue with government organisations and local administration involved in flood risk management in Germany and the United Kingdom.

Theory of Change

The intended outcomes and impacts of the project are summarised in the diagrammatic Theory of Change in the figure above. The central hypothesis of this project is that a deeper understanding of how flood-related data is produced, and how it flows, will enable transformations to build sustainable, flood resilient communities.

This will be enabled by the deeper understanding gained about the socio-cultural aspects of data practices from the main activities of the project related to the centres of expertise (WP1), communities (WP2) and local governments (WP3). They will enable capacity development of local communities and governments of São Paulo and Acre, as well as dissemination to improve awareness of stakeholders of other regions and countries (WP4 and WP5). As a resulting outcome, the project will enable the transformation of flood risk governance practices and improve the knowledge related to flood risks in all levels.

Based on the outputs of its five work packages, Waterproofing Data will produce outcomes for the transformation of flood risk governance practices and improve the knowledge related to flood risks in different levels in Brazil: institutions responsible for disaster forecasting operational monitoring and research: the National Disaster Monitoring and Early-Warning Centre (CEMADEN) and Brazil Geological Survey (CPRM); vulnerable communities in flood-prone areas of São Paulo and Acre; and local policy and decision makers of the São Paulo City Council and the State Government of Acre; policy makers and governmental agencies from other Brazilian states and DAC-eligible Latin American countries.

The expected long-term impact of this outcome is a contribution to the goal of making Brazilian cities more sustainable and resilient to flood risks (SDG 11) by supporting the targets of: reducing the number of deaths and people affected by water-related disasters and reducing direct economic losses caused (SDG 11.5); and increasing the number of cities and human settlements adopting integrated policies and plans towards resilience to disasters and holistic disaster risk management (SDG 11.B).