Opportunities for participatory data collection	
Additional information	
References	

6.20 Insurance against catastrophic events

Project Name: UNaLab (Grant Agreement no. 730052)

Author/s and affiliations: Maria Dubovik, Laura Wendling, Ville Rinta-Hiiro, Arto Laikari, Malin zu-Castell Rüdenhausen

VTT Technical Research Centre Ltd, P.O. Box 1000 FI-02044 VTT, Finland

Catastrophe insurance	**Natural and Climate Hazards**
Description and justification	Catastrophes originating from natural and/or climate hazards are low-probability high-impact and high-cost events, and they are usually not included in the general insurance policies. Catastrophe insurances are widely used to enhance the resilience of businesses, individuals and public amenities from external pressures and aid them in restoring any financial losses.
Definition	Share of population holding insurance against catastrophic consequences of natural and climate hazards (%)
Strengths and weaknesses	+ Simple assessment that indicates the disaster preparedness - Requires access to policy holder databases
Measurement procedure and tool	The indicator is assessed as: $\frac{Population\ holding\ catastrophe\ insurance\ policies}{Total\ popultation} \times 100\%$
Scale of measurement	Municipality; country
Data source	
Required data	National records on proportion of population holding insurance policies against catastrophic events
Data input type	Quantitative
Data collection frequency	Annually

Level of expertise required	Low to Moderate
Synergies with other indicators	Directly related to all indicators the *Natural and Climate Hazards* indicator group
Connection with SDGs	SDG 9 Industry, innovation and infrastructure, SDG 11 Sustainable cities and communities, SDG 13 Climate action
Opportunities for participatory data collection	No opportunities identified
Additional information	
References	

6.21 Flood hazard

Project Name: RECONECT (Grant Agreement no. 776866)

Author/s and affiliations: Laddaporn Ruangpan[1], Zoran Vojinovic[1], Arlex Sanchez Torres[1], Slobodan Djordjevic[2]

[1] *IHE Delft Institute for Water Education, Delft, the Netherlands*

[2] *University of Exeter,UK*

Flood hazard	**Natural and Climate Hazards**
Description and justification	Flood hazard is the condition referring to the potential of the hydro-meteorological phenomena to cause harm to humans and objects.
Definition	The probability that a flood of a particular intensity will occur over an extended period. There are many dimensions (water depth, velocities, durations, debris. etc.) to flood hazard.
Measurement procedure and tool	Flood hazards typically rely upon the results from computational models. The simplest computational flood hazard models are based on hydrological models which represent the processes by which rainfall is converted into run-off. Hazard can be determined from a simulation using combined 1D and 2D hydrodynamic model models. The models that can be used are HEC-RAS 1D-2D, DHI MIKE FLOOD software, SOBEK, Delft 3D and other. 1-Dimensional (1D) models are simplified models that characterize the terrain using the channel data (i.e., a cross-section of both main ricer and tributaries, river