14.12 Population growth

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Author/s and affiliations: Gerardo Caroppi[1,2], Carlo Gerundo[2], Francesco Pugliese[2], Maurizio Giugni[2], Marialuce Stanganelli[2], Farrokh Nadim[3], Amy Oen[3]

[1] *Aalto University, Department of Built Environment, Espoo, Finland (gerardo.caroppi@aalto.fi)*
[2] *University of Naples Federico II (UNINA), Department of Civil, Architectural and Environmental Engineering, Naples, Italy*
[3] *Norwegian Geotechnical Institute (NGI), Oslo, Norway*

Population Growth (Natality + Immigration)	Place Regeneration
Description and justification	If NBS are conceived and designed to provide multiple socio-economic benefits, combining natural risk mitigation with the creation of new attractive spaces and services, natural heritage enhancement with accessibility to resources, they could give new job opportunities to young people and reverse negative population trends that usually affect rural and mountainous territories. Positive demographic change can be used as an Indicator of the performance of the Design Scenario in terms of quality of life.
Definition	The Indicator can be defined as the increase, in terms of percentage, of the population living in the area where the new infrastructure (both NBS, Hybrid solutions and Grey infrastructures) is implemented.
	In the Baseline Scenario Population increasing should be calculated taking into account population trend in the previous 30 years, in order to understand if a decreasing rate in the last 10 years point out a structural or a temporary problem. Population trend is likely to increase (and elderly rate is likely to decrease) if new jobs opportunities will be created.
	To esteem increase or decrease of such demographic indexes in relationship with the realization of a project or another, it is possible to use a probabilistic scale.
	In the Long-term scenario population increasing should be calculated considering statistical data made available some years after NBS/Grey/Hybrid solutions have been implemented.
Strengths and weaknesses	It could be difficult to get the data concerning population living in the area in the Long Term Scenario
Measurement procedure and tool	Population increasing ΔP, due to both natural population balance (difference between births and deaths) and social one (varying between immigrants and emigrants), can be expressed by the following formula:

$$\Delta P = \frac{P_{LTS} - P_{BS}}{P_{BS}} \cdot 100$$

where

P_{BS} is the total population living in the area at the Baseline Scenario;

P_{LTS} is the total population living in the area at the Long Term Scenario (e.g., 5-10 years after NBS or solutions and Grey infrastructures have been implemented).

Scale of measurement	%
Data source	National Statistical Institute and/or Municipal General Register Office
Required data	Population data
Data input type	Quantitative
Data collection frequency	Annual
Level of expertise required	Medium
Synergies with other indicators	
Connection with SDGs	11
Opportunities for participatory data collection	
Additional information	
References	