Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable

(Updated on 3 March 2016)

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Target 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.

Indicator 11.4.1: Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)

From UNESCO:

Definition and method of computation: The percentage of the national (or municipal) budget provided for maintaining and preserving cultural and natural heritage. This indicator represents the share of national (or municipal) budget which is dedicated to the safeguarding, protection of national cultural natural heritage including World Heritage sites.

$$B_{Hi} = \frac{b_{h,i}}{B_i}$$

$BH_{,i}$ = Percentage of annual budget provided for maintaining cultural and natural heritage in the year *i*
$b_{h,i}$ = Total amount of annual budget provided for maintaining cultural and natural heritage in the year i
B_i= Total amount of annual public budget in the year i

Rationale and interpretation: Protecting and safeguarding the world's cultural and natural heritage require public investment at different level of governmental including at city level. This indicator would allow insight whether countries are maintaining, expanding or decreasing their efforts for safeguarding their cultural natural heritage.

Sources and data collection: Administrative data in particular government (or municipal) budget and expenditure data.

Comments and limitations: Availability of public budget in culture in general will vary between countries. Issues of compiling public and private finances could result in the underestimation of the value of total investment in culture. It is important to take into account national transfer funds among different level of governmental (regional, state, municipal) to avoid double counting. An alternative could be to assess the public expenditure in culture. However, the COFOG classification may not be detailed enough to identify only heritage.

Gender equality issues: None.

Data for regional and global monitoring: Internationally comparable data are currently not available. However, the UNESCO Institute for Statistics (UIS) in collaboration with the UNESCO WHC would develop an appropriate data collection tool. The cultural and natural heritage sector will be defined according to the 2009 UNESCO Framework for Cultural Statistics (FCS) methodology (Domain A: Cultural and Natural Heritage).

Financial resources would be required in order to implement this new data collection.

Supplementary information: None.

References: None.

Target 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

Indicator 11.5.1: Number of deaths, missing persons and persons affected by disaster per 100,000 people[1]

From UNISDR:

Definition:
Death: The number of people who died during the disaster, or directly after, as a direct result of the hazardous event
Missing: The number of people whose whereabouts is unknown since the hazardous event. It includes people who are presumed dead although there is no physical evidence. The data on number of deaths and number of missing are mutually exclusive.
Affected people: People who are affected by a hazardous event.
Comment: People can be affected directly or indirectly. Affected people may experience short-term or long-term consequences to their lives, livelihoods or health and in the economic, physical, social, cultural and environmental assets.
***Directly affected*:** People who have suffered injury, illness or other health effects; who were evacuated, displaced, relocated; or have suffered direct damage to their livelihoods, economic, physical, social, cultural and environmental assets.
Indirectly affected: People who have suffered consequences, other than or in addition to direct effects, over time due to disruption or changes in economy, critical infrastructures, basic services, commerce, work or social, health and physiological consequences.
In this indicator, given the difficulties in assessing the full range of all affected (directly and indirectly), UNISDR proposes the use of an indicator that would estimate "directly affected" as a proxy for the number of affected. This indicator, while not perfect, comes from data widely available and could be used consistently across countries and over time to measure the achievement of the Target B.
From the perspective of data availability and measurability, it is proposed to build a composite indicator which consists of **"directly affected",** or those who are

- Injured or ill,
- Evacuated,
- Relocated

and to measure the number who suffered direct damage to their livelihoods or assets,

- People whose houses were damaged or destroyed
- People who received food relief aid.

Injured or ill: The number of people suffering from physical injuries, trauma or cases of disease requiring immediate medical assistance as a direct result of a hazardous event.
Evacuated: The number of people who temporarily moved from where they were (including their place of residence, work places, schools and hospitals) to safer locations in order to ensure their safety.
Relocated: The number of people who moved permanently from their homes to new sites due to hazardous event. Note: This definition excludes preventive relocation before the event.
People whose houses were damaged or destroyed due to hazardous events: The estimated number of inhabitants previously living in the houses (housing units) damaged or destroyed. All the inhabitants of these houses (housing units) are assumed to be affected being in their dwelling or by direct consequence of the destruction/damage to their housings (housing units). An average number of inhabitants per house (housing unit) in the country can be used to estimate the value.
Houses destroyed: Houses (housing units) levelled, buried, collapsed, washed away or damaged to the extent that they are no longer habitable.

[1] An open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction established by the UN General Assembly (A/RES/69/284) is developing a set of indicators to measure global progress in the implementation of the Sendai Framework. These indicators will eventually reflect the agreements on the Sendai Framework indicators.

Houses damaged: Houses (housing units) with minor damage, not structural or architectural, which may continue to be habitable, although they may require some repair or cleaning.
People who received food relief aid: The number of persons who received food /nutrition, by government or as humanitarian aid, during or in the aftermath of a hazardous event.
Hazardous event*: The occurrence of a natural or human-induced phenomenon in a particular place during a particular period of time due to the existence of a hazard.*
Hazard: *A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.*
UNISDR recommends setting NO threshold for recording hazardous event in order to monitor *all* hazardous events. Small-scale but frequent hazardous events that are not registered in international disaster loss databases account for an important share of damages and losses when they are combined, and often go unnoticed by the national and international community. These events, when accumulated, are often a source of poverty in developing countries but can be effectively addressed by well-designed policies. The scope of the Sendai Framework for Disaster Risk Reduction 2015-2030 is "the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or man-made hazards as well as relate environmental, technological and biological hazards and risks".
Regarding the inclusion of biological and environmental hazards in natural hazards category and whether and how to integrate man-made hazards, UNISDR will discuss the issue with WHO and other organizations (for example, WHO would be in a better position in terms of data, knowledge and relationship with Member States and other stakeholders to monitor biological events including epidemics. However, we generally do not expect biological disasters will cause physical damages to facilities.).
Note: Terminology will be discussed and finalized in the Open-ended Intergovernmental Working Group for Sendai Framework for Disaster Risk Reduction.

Method of computation:
Summation of data on related indicators from national disaster loss databases. Make the sum a relative figure by using global population data (World Bank or UN Statistics information). Relativity is important because population growth (expected to be 9 billion in 2050) may translate into increased hazard exposure of population.
The Expert Group recommends not using the indicators related with the people whose houses were damaged/destroyed in the computation. UNISDR and IRDR groups recommend using them as they can be estimated from widely available and verifiable data and reflect vulnerability and livelihood issues. Data on housing damage and destroyed is essential for economic loss, so using these indicators would not impose additional data collection burden.
Double-counting: From practical perspective, double counting of affected people is unavoidable (for example, injured and relocated) in many countries. Minimum double counting is summing "number of injured" and Number of people whose housings were damaged or destroyed. Relocated is sub-set of number of people whose housings were destroyed.
The data can be disaggregated by hazard type. When applied to proposed target 13.1 and 15.3, hydrological, meteorological and climatological and indirectly biological disasters are monitored.

Rationale and interpretation (mainly based on TST Issue Brief 2, 5, 20 and 23-26)**:**
Cities around the world, as well as rural populations, witness growing disaster risks. Impacts of climate change on sustainable development are observed through both slow-onset events (e.g. sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification) and extreme weather events. Human loss can be measured by the number of deaths, missing, injured or ill, evacuated, relocated, people whose houses were damaged/destroyed and people who received food relief aid as a direct result of the hazardous events.
Cities are some of the most vulnerable areas to natural disasters. Unplanned urban development (e.g. informal settlements, overcrowding, inadequate infrastructures) exacerbates urban vulnerability to climate change impacts and hydro-meteorological and geological hazards. Over half of all coastal areas are urbanized and 21 of the world's 33 mega cities lie in coastal flood zones. SIDS and coastal regions are particularly affected by sea level rise, coastal flooding and erosion, and extreme events (e.g. tsunamis and storm surges) due to undermining natural protective barriers, low levels of development combined with rapid population growth in low lying coastal areas and inadequate capacity to adapt. Poor urban populations must often resort to unsustainable coping strategies and mechanisms.
Large numbers of people remain perilously close to falling into poverty, experiencing shocks that they are unable to cope with. For the poor, a shock of even a relatively short duration can have long term consequences. Several dimensions of poverty are closely related to environment, which is often affected by natural disasters. The poverty reduction agenda could include well-designed social protection scheme to help protecting the poor against sudden shocks and the development of capacities to better predict and prepare for such shocks. Better