

Goal 1: End poverty in all its forms everywhere

(Updated on 2 June 2016)

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Target 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.

Indicator 1.1.1: Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)

From ILO:

Definition and method of computation

This indicator provides the proportion of the total population and the proportion of the employed population living in households with per-capita consumption or income that is below the international poverty line of US\$1.25. It is calculated by dividing the number of persons living in households below the poverty line (disaggregated by sex, age and employment status) by the total number of persons (disaggregated by the same sex, age and employment status groups).

Rationale and interpretation

This indicator combines the poverty indicator under the first target (1a) of the MDGs on the eradication of poverty with the corresponding working indicator for monitoring the second target (1b) of the MDGs on decent work. By combining poverty status with employment status, the concept of the working poor is captured, which aims to measure how many workers, despite being in employment, live in poverty.

Sources and data collection

Household surveys (LFS, HIES, LSMS, Integrated HH surveys, etc.).

Disaggregation

Data are available by sex and age.

Comments and limitations

At the country level, comparisons over time may be affected by such factors as changes in survey types or data collection methods. The use of PPPs rather than market exchange rates ensures that differences in price levels across countries are taken into account. However, it cannot be categorically asserted that two people in two different countries, living below US\$1.25 a day at PPP, face the same degree of deprivation or have the same degree of need. This poverty line is not appropriate for high-income economies and may not be appropriate for upper-middle income countries.

Gender equality issues

As this indicator is disaggregated by sex, it is well-suited for analysis of gender equality issues.

Data for global and regional monitoring

The ILO has estimates of the employed population (number and proportion) living below the US\$1.25 poverty line, disaggregated by age (youth and adult) and sex for the world as a whole and by (flexible) regional groupings. The global and regional estimates are based on estimates for 141 countries (with both reported and imputed values).

Supplementary information and references

Decent Work Indicators: ILO Manual - Second Version, available at:

www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_223121.pdf

Key Indicators of the Labour Market, 8th Edition, available at:

http://www.ilo.org/empelm/what/WCMS_114240/lang--en/index.htm

Responsible entities

World Bank and ILO.

Current data availability

The ILO has estimates available by employment status for 119 countries.

From World Bank:

Update to the ‘International Poverty Line’ (defined earlier as ‘Proportion of population below \$1.25 (PPP) per day per capita’)

As differences in the cost of living across the world evolve, the global poverty line has to be periodically updated to reflect these changes. Since 2008, the last update, the World Bank used \$1.25 as the global line using 2005 prices. The 2014 release of a new set of purchasing power parity conversion factors (PPPs) for 2011 has prompted a revision of the international poverty line. In order to preserve the integrity of the goalposts for international targets such as the Sustainable Development Goals (and the World Bank’s twin goals), the new poverty line was chosen so as to preserve the real purchasing power of the earlier \$1.25 line (in 2005 PPPs) in poor countries. Using the new 2011 PPPs, the new line equals \$1.90 per person per day. The higher value of the line in US dollars reflects the fact that the new PPPs yield a relatively lower purchasing power of that currency *vis-à-vis* those of most poor countries. Because the line was designed to preserve real purchasing power in poor countries, the revisions lead to relatively small changes in global poverty incidence: from 14.5 percent in the old method to 14.2 percent in the new method for 2011. There are changes in the regional composition of poverty, but they are also relatively small.

After a new round of internationally comparable prices were collected in 2005, the international poverty line was set based on 15 national poverty lines from some of the poorest countries in the world. These national poverty lines were converted to a common currency by using purchasing power parity (PPP) exchange rates, which are constructed to ensure that the same quantity of goods and services are priced equivalently across countries. The average of these 15 lines was \$1.25 per person per day (in 2005 PPP terms), and this became the new international poverty line.

In 2015, the poverty lines of those same 15 poorest countries from 2005 were used to determine the new global poverty line. The new global poverty line uses updated price data to paint a more accurate picture of the costs of basic food, clothing, and shelter needs around the world. As of October 2015, the new global line is set at \$1.90 using 2011 prices. The estimates have been back-casted for previous years, in order to assess the trends in poverty reduction over the last 25 years.

Note that the PPP is computed on the basis of price data from across the world, and the responsibility for determining a particular year's PPP rests with the International Comparison Program (ICP), an independent statistical program with a Global Office housed within the World Bank's Development Data Group. For the 2011 PPPs, prices were collected across 199 countries of the world.

For detailed information on this new line please consult:

<http://documents.worldbank.org/curated/en/2015/10/25114899/global-count-extreme-poor-2012-data-issues-methodology-initial-results>

For a short review see:

<http://www.worldbank.org/en/topic/poverty/brief/global-poverty-line-faq>

From ESCAP:

ESCAP proposes to monitor this indicator for persons with disabilities. The Asia-Pacific regional framework to implement the Convention on the Rights of Persons with Disabilities during the Asian and Pacific Decade of Persons with Disabilities, 2013-2022, the *Incheon Strategy to "Make the Right Real" for Persons with Disabilities in Asia and the Pacific*, contains 10 disability inclusive development goals, 27 targets and 62 indicators to track progress in achieving goals and targets. Indicator 1.1 of the Strategy is "Proportion of persons with disabilities living below the US\$ 1.25 (PPP) per day international poverty line". All ESCAP member States are requested to establish a baseline data on the Incheon Strategy indicators including 1.1, by 2017, and some have already started reviewing their existing statistical instruments (e.g. household income and expenditure survey) to generate this indicator. The Washing Group short set of disabilities questions is recommended to be included as a module in the survey. Monitoring this indicator by age group would be practically impossible given that the main source is household income or consumption survey. It would be more practical to monitor the indicator by urban/rural area, and by social or ethnic characteristics (e.g. disability status, as is the case of Incheon Strategy indicator 1.1). Same for Indicator 1.2.2.

The Incheon Strategy and the ESCAP Guide on its indicators are accessible online at: <http://www.maketherightreal.net/incheon-strategy/>

Target 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

Indicator 1.2.1: Proportion of population living below the national poverty line, by sex and age

From ILO:

Definition and method of computation

This indicator provides the proportion of the total population and the proportion of the employed population living in households with per-capita consumption or income that is below the national poverty line. It is calculated by dividing the number of persons living in households below the poverty line (disaggregated by sex, age and employment status) by the total number of persons (disaggregated by the same sex, age and employment status groups).

Rationale and interpretation

By combining poverty status with employment status, the concept of the working poor is captured, which aims to measure how many workers, despite being in employment, live in poverty.

Sources and data collection

Household surveys (LFS, HIES, LSMS, Integrated HH surveys, etc.).

Disaggregation

Data are available by sex and age.

Comments and limitations

Cross-country comparisons should not be made using national poverty lines, as these do not reflect any single agreed-upon international norm on poverty. However, when the focus is narrowed to one country and the same poverty line has been used consistently over time, analyses of trends and patterns of poverty may be informative and in many cases more useful for national inferences than analysis of international poverty lines.

Gender equality issues

As this indicator is disaggregated by sex, it is well-suited for analysis of gender equality issues.

Data for global and regional monitoring

Global and regional monitoring is not feasible since this indicator is not designed for cross-country comparability or aggregation.

Supplementary information and references

Decent Work Indicators: ILO Manual - Second Version, available at:

www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_223121.pdf

Key Indicators of the Labour Market, 8th Edition, available at:

http://www.ilo.org/empelm/what/WCMS_114240/lang--en/index.htm

Responsible entities

World Bank and ILO.

Current data availability

The ILO has data available by employment status for 44 countries.

Indicator 1.2.2: Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

No metadata received on current indicator formulation.

Target 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.

Indicator 1.3.1: Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable

No metadata received on current indicator formulation.

Target 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

Indicator 1.4.1: Proportion of population living in households with access to basic services

No metadata received on current indicator formulation.

Indicator 1.4.2: Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure

From UN-Habitat and World Bank:

Metadata on SDGs indicator 1.4.2
Tier III – indicator under development
Developed by: UNHABITAT and World Bank

Goals and targets addressed

Target 1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

Indicator 1.4.2: Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure.

While this refers to goal 1, it is related to Goal 5, to 5.a.1 (agricultural people/land) and 5.a.2 (legal framework Goal 5 (5.1.a) and Goal 11 (indicator 11.1.1 & 1.3). Land tenure also influences land use, and thus the goals related to sustainable use of land and natural resources.

Definitions and method of computation

Concepts

The concepts below are based mostly on the “voluntary guidelines for the responsible governance of tenure of land, forests and fisheries in the context of national food security” (shorthand VGGT), which were endorsed by the World Commission on Food Security in 2012 and can therefore be considered as accepted globally.

Tenure: How people, communities and others gain access to land and natural resources (incl. fisheries and forests) is defined and regulated by societies through systems of tenure. These tenure systems determine who can use which resources, for how long, and under what

conditions. Tenure systems may be based on written policies and laws, as well as on unwritten customs and practices. No tenure right, including private ownership, is absolute. All tenure rights are limited by the rights of others and by the measures taken by States necessary for public purposes. Tenure rights are also balanced by duties.

- **Local Communities** is a group of individuals belonging to the same community residing within or in the same vicinity of a particular parcel, property or natural resource. The community members are co-owners that share exclusive rights and duties, and benefits contribute to the community development.
- **Indigenous land rights** - are rights specific to a particular ethnic group, having evolved through interaction of culture and environment and overseen by authorities whose legitimacy is based on occupation and spiritual ties to the locality.
- **Community land rights** - are collective rights of land ownership, access or use held or exercised in common by members of a community. A community may be designated as a village-based or more geographically dispersed community, or a clan or a lineage.
- **Collective rights**- a situation where holders of land rights are clearly defined as a group and have the right to exclude others from the enjoyment of those land rights. Collective ownership of a natural resource refers to a situation where the holders of rights to a given natural resource are clearly defined as a collective group, and where they have the right to exclude third parties from the enjoyment of those rights.

Land governance is defined as the rules, processes and structures through which decisions are made regarding access to and the use [and transfer] of land, the manner in which those decisions are implemented and the way that conflicting interests in land are managed (Palmer et al., 2009).

Legally recognized documentation: States provide legal recognition for legitimate tenure rights through policies, law, and land administration services. States define the categories of rights that are considered legitimate. Documentation refers to the recording and publication of information on the nature and location of land, rights and right holders in a form that is recognized by government, and therefore legal.

Tenure security: All forms of tenure should provide all persons with a degree of tenure security, with states protecting legitimate tenure rights, and ensuring that people are not arbitrarily evicted and that their legitimate tenure rights are not otherwise extinguished or infringed.

Perception of tenure security: This refers to an individual's perception of the likelihood of disagreement of the ownership rights over land and ability to use it, regardless of the formal status and can be more optimistic or pessimistic. Sources of perceived insecurity may include contestation from within households, families, communities etc. or as a result of government actions. Individuals holding land under customary systems may perceive their rights as secure despite the absence of legal recognition or formal documentation.

Definitions

Total adult population: Adult population, overall, and by administrative divisions, is measured by census data. An important implication is that, as the indicator refers to a country's adult population, surveys that cover only part of a country or that are conducted without a proper frame so that survey weights to permit derivation of indicators for the entire population are not available, will have limited value as data sources for the indicator even though reference to them may have to be made in some instances if more robust data are not available.

Secure tenure rights: Secure tenure rights are use or ownership rights to land that are legally recognized, even if not a formal document is not issued, customary rights being the most prominent example and it does not require ownership (i.e. long term leases or short term ones that are routinely renewed as well as group rights qualify). Security implies that an individual cannot be deprived of his or her land rights involuntarily. This normally requires that duration, subject, and object of rights are clearly defined. For the latter, physical markers or a map or sketch (not necessarily a high precision survey) that shows the parcel's position relative to others is normally needed.

Legally recognized documentation: The most common type of such documentation are ownership documents (titles or deeds) issued by a government institution. Other types of documents (tax receipts, utility bills, private contracts confer legal recognition in the sense that they can be used as evidence of rights in a court of law. This implies that a continuum of documentary evidence needs to be recognized. For purposes of constructing the indicator, reference will be made to formal and informal documents - the former to be obtained from administrative records and the latter from household surveys that are cross-checked with formal records. Country-specific notes can provide a more detailed explanation on the types of documents.

Perceived security of tenure: We define perceptions of tenure to be secure if individual or households do not feel a threat of being deprived of legitimately acquired use or ownership rights to land or of these rights being disputed by others (either the Government of individuals). Perceived security is important in settings where formal documentation does not exist or where, largely due to gaps in institutional quality or the transparency with which land records are administered, formal documents may not increase tenure security. It is thus an important complement to the above indicator with recognition that methodological study of the extent to which perceptions can be captured will be desirable.

Method of computation:

The method of computation is under development for this tier III and information from available surveys at country level is currently being analysed with calculations being made to obtain estimates for variables of interest from micro-data.

Two methods of computation are being considered and will be tested during the phase of methodology development.

Approach 1: Outcome indicator

1. Indicator 1.4.2 as an outcome indicator to be divided in two parts: (A) measures the incidence of people with secure tenure rights over land among the total population; while (B) focuses on the perceived secure rights to land among the population or communities. Part (A) and part (B) cannot be seen as two different indicators, they rather provide two complementary pieces of information with the second (B) putting more emphasis on documenting secure tenure rights through the perception of the communities or individuals communally using land. These two parts can be computed using similar data, albeit with varying denominators (due to computation differences of deriving populations affected from communities/households).

Part (A)

$$\left(\frac{\text{People(adult) with secure rights over land}}{\text{Total adult population surveyed}} \right) \times 100$$

Part (B)

$$\left(\frac{\text{People(adult) who perceive their land rights to be secure}}{\text{Total adult population in households or communities surveyed}} \right) \times 100$$

The final combined or aggregate figure will be a combination of the numerators of A and B divided by their combined and respective denominators (computed as total number of the adult population surveyed or those in households or communities surveyed).

Approach 2: Developing an index for 1.4.2

The indicator comprises three elements, disaggregated by sex and type of tenure as much as possible, namely the share of the adult population who have (i) secure tenure rights to land (*SecRight*); (ii) legal documents to their land (*LegDoc*); and (iii) perceive their tenure to be secure (*PercSec*).

As each of these varies between 0 and 1, we define a zero one indicator on whether gender-disaggregated information on land rights held by natural persons is available and regularly reported (*GdrDisag*) and define the indicator *I* as follows:

$$I = 0.3 * \text{SecRight} + 0.3 * \text{LegDoc} + 0.3 * \text{PercSec} + 0.1 * \text{GdrDisag}$$

Where gender disaggregated data is available, land may be held either individually or jointly and in cases of joint ownership, a simple arithmetic average over male and female users will be used.

In cases where information is reported separately for residential and agricultural land (or for different types of agricultural land held by an individual), the index will be aggregated over all parcels with equal weight given to each land use class and parcels weighted by their area share.

Rationale and interpretation

Why land access and ownership is important

The overarching goals of improving the governance of tenure of land and natural resources is achieving food security, shared prosperity and sustainable development, based on the recognition of the centrality of land to development and the requirement of promoting secure tenure rights and equitable access to land and natural resources for people, communities and others. Land is a source of food and shelter; the basis for social, cultural and religious practices; and a central factor in economic growth. There is an inextricable link between land access, tenure security on one hand, and equity, income/food security on the other. This is one key transformation that the 2030 Development Agenda needs to achieve. Many of the poorest and food insecure groups are those with the most insecure land tenure rights, including female headed households, orphans, migrant farm workers, peri-urban slum dwellers, and the internally displaced persons. Secure tenure rights to land and natural

resources are a key for poor populations to access the very basic resources that would allow them to develop and sustain their livelihoods. Without secure land tenure, families and communities are vulnerable to expropriations and face numerous challenges to access financial resources, markets and other services. As a result, land tenure security has been recognized as highly relevant to the achievement of SDGs; for ending poverty, ending hunger, achieving food security, gender equality, and sustainable cities and human settlements, and for the protection and sustainable use of terrestrial ecosystems.

Equitable land governance are foundations for social stability, offer potential to drive agricultural growth and improve land management and functioning urban land markets for sustainable economic development. Inadequate and insecure tenure rights reduce investments, affect productivity, reduce resilience, and can lead to conflict and environmental degradation when competing users fight for control of these resources. Responsible governance of tenure conversely promotes sustainable social and economic development that can help eradicate poverty and food insecurity, and encourages responsible investment. Therefore securing tenure for all through a range of tenure arrangements and practices needs to be more widely documented (UN Habitat / GLTN 2014). Increasing demand for pro-poor land reforms, including measuring tenure security at country level, created the need for a core set of land indicators that have national application and globally comparability. This led to a collaboration between the UN- Habitat, the Millennium Challenge Corporation and the World Bank in 2012, facilitated by the Global Land Tool Network, to develop a set of core land indicators to measure tenure security globally and at country level; a process that saw the start of the Global Land Indicators Initiative (GLII), a platform used by the global land community to underscore the need for tenure security, taking into account the continuum of land rights; legal and institutional indicators; and the perception of tenure security while contributing to the SDG process.

The governance of tenure is a crucial element in determining if and how people, communities and others are able to acquire rights, and associated duties, to use and control land, fisheries and forests. Responsible governance of tenure of land is inextricably linked with access to and management of other natural resources, such as forests, water and mineral resources. Tenure systems increasingly face stress as the world's growing population requires food security, and as urbanization, environmental degradation and climate affect land use and productivity. Many tenure problems arise also because of weak governance, and attempts to address tenure problems associated with dualisms to tenure regimes.

The rationale of indicator 1.4.2 is to promote policies towards strengthening tenure security and expand the legal recording of the range of existing rights, to protect rights and tenure security for all including women, communities and indigenous people

The data collected in the context of Doing Business demonstrate the extent of the challenge of tenure security (see table 1 below), even though it depends on the law whether an absence of records or mapping will cause tenure insecurity. Achieving tenure security at scale, and sustaining this, may require adjustments of policy and legal framework and implementation practice for land administration and land information systems. This indicator measures government's progress, both through administrative data and survey data. The legal recognition of the demarcation of communal and indigenous peoples land, for example, will result in significant progress on indicator 1.4.2 as it often concerns large areas of land and numbers of people. Effective government policy towards enhancing gender responsiveness during planning and recordation of rights and in land administration is also expected to be reflected in enhanced performance for this indicator.

Global recognition of the importance of responsible land governance is demonstrated by for example the adoption by African heads of States of the Framework and Guidelines for land policy in 2009, and guidelines for responsible land based investment in 2014; the endorsement of the “voluntary guidelines for the responsible governance of tenure of land, forests and fisheries in the context of national food security” by the World Commission on Food Security in 2012 to which 193 UN member states have subscribed the eradication of hunger and poverty and assert that sustainable use of the environment depend in large measure on how people and communities gain access to land and other natural resources; and the 2013 G8 commitment towards greater transparency in land transactions including the responsible governance of tenure of land, increased capacity in developing countries; and release of data for improved land governance.

The importance of women’s rights to land in ending poverty, achieving dignity for all and reducing gender based discrimination and violence is reflected in the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). The principles of universal access to basic rights of shelter, access to productive resources required for subsistence and livelihoods, and indigenous peoples’ land-related cultural and territorial rights are also incorporated in a wide range of international declarations and covenants including the UN Declaration on the Rights of Indigenous Peoples (UNDRIP); ILO Convention Number 169 concerning indigenous and tribal peoples in independent countries, the International Covenant on Economic, Social and Cultural Rights (adopted in 1966, in force since 1976); the African Charter on Human and People's Rights (1987), the American Convention on Human Rights, and the European Convention for the protection of Human Rights.

Regular reporting on indicator 1.4.2 will inform governments and non-state actors to what extent countries’ legal and institutional frameworks recognize and support different land tenure categories, and implementation capacity to protect such rights in practice, as well as progress made (allowing assessment of specific outcomes and practical priorities for further improvements), in order to identify the scope for additional action required at the country level as well as at a subnational level or for certain categories, geographic entities or ecosystems, and provide for equity between men and women in rights to hold, inherit and bequeath land.

Interpretation

1.4.2 is an outcome indicator, disaggregated by sex and type of tenure as much as possible, namely the share of the adult population among the total population who have secure tenure rights to land, with legally recognized documents; and perceive their tenure rights to be secure.

Monitoring of this indicator will inform policy and allow for assessment of specific outcomes and practical priorities for further improvements. Regular reporting on indicator 1.4.2 will inform governments and non-state actors to what extent countries’ legal and institutional frameworks recognize and support different land tenure categories, and implementation capacity to protect such rights in practice, as well as progress made (allowing assessment of specific outcomes and practical priorities for further improvements), in order to identify the scope for additional action required at the country level as well as at a subnational level or for certain categories, geographic entities or ecosystems, and provide for equity between men and women in rights to hold, inherit and bequeath land.

We expect that investments in improved data collection and monitoring at country level will produce data that provide incentives for governments to improve land governance performance and also greater readiness to engage with multiple stakeholders in data analysis

and in achieving better understanding of the strengths and weaknesses of existing land governance policies and practices.

Disaggregation

The scope for disaggregation depends on the data source: All elements of the indicator (i.e. those based on administrative data as well as household surveys) can be disaggregated spatially (e.g. by urban and rural or region). In addition, elements based on household surveys can be disaggregated by age, sex, tenure types, socio-economic profiles, poverty status, or wealth/income category providing insight into the social equity dimensions including the incidence of land problems and distribution of benefits amongst different social groups and changes in this over time.

Sources and data collection processes

Data sources

The main sources of data to be used are administrative records reported by national land institutions (in most cases land registries), census and multi-topic household surveys (DHS, MICS, LSMS type) conducted by National Statistical Agencies, often with technical assistance from various agencies including World Bank and UN Habitat.

Administrative records are a low-cost way of accessing data that reflects changes in real time and, in light of high granularity, can be eminently actionable. Production of land records and maps is a core function of public registries and reporting on the number of registered parcels or the number and area of parcels mapped is not difficult in principle and, where household surveys are available, can be cross-checked against survey information including administrative data in a land indicator which all countries are required report on can thus provide a key impetus towards greater transparency and accountability that is directly actionable. They will be used to provide two elements of the indicator:

Number of households/individuals with formally documented rights: Land registry records provide data on the number of individually registered parcels that can in most cases be linked to the number of individuals (who may own the land jointly) and is in some cases also disaggregated by gender or type of land use (residential, agric., industry/business). In the case of registered group rights, identifying the number of owners should equally be possible.

Reference will be made to formal and informal documents - the former to be obtained from administrative records and the latter from household surveys, cross-checked with formal records as much as possible. The correspondences between the two types of records may be further elaborated in country-specific notes that are developed in collaboration between local experts and other stakeholders including the Global Donor Platform on Land, FAO, UN-Women, ILC, GLII/GLTN, RRI, WRI. Beyond ensuring consistency of definitions across countries, this will greatly improve the scope for the indicator to lead to action.

Nationally representative multi-topic household surveys will provide information, separately for residential and non-residential land, on (i) the share of individuals with secure tenure rights; and (ii) the share of individuals who perceive their rights to be secure. Secure tenure rights are meant to imply that rights are legally recognized and the subject as well as boundaries clearly identified. Tenure is perceived as secure if the household does not perceive a risk of land use or ownership being threatened or disputed. Nationally

representative household surveys will also provide two key elements, namely (i) Informal documentation and boundary documentation: Type of informal documents can be obtained. And (ii) Perception of tenure security: Separately for land and non-residential

Existing data sources and envisaged data collection processes

Existing data sources

Administrative data: Data on the extent to which plots in the main city or the entire country are registered and mapped is available for 189 countries from the World Bank's 'Doing Business; survey. This is currently being followed up to obtain data on the number of parcels and total area mapped. This baseline exercise will include a follow up with registries to ensure complete information, and identify request for strengthening capacity for national reporting. In countries that do not record the gender of a land holder, approaches for determining this will be discussed on a country by country basis.

Table 1; Formal rights recognition for private plots

	Tot.	SSA	ECA	LAC	MNA	OECD	SAS	EAP
All Priv. plots in city reg'd	0.22	0.04	0.32	0.03	0.14	0.68	0.25	0.24
All Prv. plots in city mapped	0.46	0.13	0.60	0.31	0.48	0.97	0.25	0.52
All Priv. plots in ctry reg'd	0.22	0.04	0.32	0.03	0.14	0.68	0.13	0.24
All Prv. plots in ctry mapped	0.24	0.02	0.40	0.03	0.14	0.71	0.13	0.28
No. of countries	189	47	25	32	21	31	8	25

Source : World Bank, Doing business – 'Registering Property' Indicator

Household surveys: The World Bank and UN-Habitat have access to an extensive archive of more than 2,000 nationally representative household surveys (some, such as Urban Inequities Survey, MICS and DHS publicly available), mostly for developing countries at multiple points in time. A review of these indicates that existing surveys in many countries provide information on **land access:** 140 countries collect data on buildings, 94 on residential land, 128 on agricultural land ownership. At the same time, existing household surveys provide all of the information only in few countries. For example, 39 countries collect data on legal documentation for buildings, 8 for residential land, 35 for agricultural land and 37 collect data at individual level to allow sex disaggregation.

The World Bank is currently extracting relevant information from these surveys at country level and make calculations to obtain estimates for variables of interest from micro-data. This will not only help to provide evidence on baseline levels but also help with indicator construction. On this basis, a methodology document with data appendix will be developed and discussed with relevant stakeholders. In particular, this will allow cross-checking with urban/rural and city-level data maintained by UN Habitat (see below).

Table 2; Coverage of key variables by household surveys in different regions

	Tot.	SSA	ECA	LAC	MNA	OECD	SAS	EAP
Dwelling ownership	140	22	22	28	11	3	8	46
... if yes, indiv. level	28	3	2	3	0	0	5	15
... legal title/document	39	2	6	11	1	1	4	14
Res. land ownership	94	15	14	20	5	1	7	32
... if yes, indiv. level	25	3	2	2	1	0	3	14
... legal title/document	8	1	2	1	0	0	0	4
Agricultural land data	128	17	21	26	9	2	7	46
Land ownership status	114	12	18	24	7	1	7	45
Legal title/document	35	3	2	13	0	0	0	17
Size of land	119	14	21	25	9	1	7	42
No. of ctries covered	143	22	22	29	12	3	8	47

No. of surveys included	1957	218	309	574	103	62	129	562
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Note: Figures refer to the no. of countries with at least one survey with information on the variable in question.

Source: World Bank, International Household Survey Network

UN Habitat has been monitoring security of tenure at urban level for more than 20 years in a sample of 1000 cities worldwide, (as part of Habitat Agenda, Urban Indicators Program (1996-2002) and MDGs/SDGS Slum indicator component 2002-2016). This exercise has been undertaken for data from over 124 countries from the developing regions. The results of this analysis are available in the Urban Indicators database maintained by UN-Habitat. These data were derived from census and survey data that were conducted in the last 10 years. Additional data came from specially designed survey tools (Urban inequities survey) that were implemented in selected countries. UN-Habitat is currently updating this data with other spatial measures, and perceived land rights estimations.

New data collection processes

Responsibility for administrative data collection will be with line ministries or land registries, with methodological support provided through international organizations and regional bodies. For administrative data, the World Bank's 'Doing Business' collects data on coverage with administrative records for 189 countries on an annual basis from an expansive roster of officials in country land registries or relevant institutions. This data collection is closely coordinated with regional bodies and professional organizations. Option to include the number of individuals with registered land documents will be explored.

UN Habitat has a database of security of tenure data and perceptions of secure tenure for 124 countries with the database expected to have over 160 countries by the end of 2016.

For household surveys, the World Bank has committed to 3-yearly multi-purpose household surveys in all 78 IDA countries, with a strong element of capacity building. A standard land tenure module will be included in this effort. The goal is that 80% of all new surveys include standardized land data, but the ultimate decision on their inclusion is by national statistical agencies. Methodological support to statistical agencies is essential for quality of data and there are some illustrative examples of how difference in training of enumerators produced different and erroneous data on the type of records held by people as evidence of rights to land. The survey also needs to include a question of households understanding on whether the documentation that they hold is legally recognized or perceived to be secure.

In addition, the opportunity of using data sets developed by civil society, such as ILC, WRI, RRI and the private sector (Gallup), will also be assessed with respect to their contribution to measurement of indicator 1.4.2.

A working group of land data experts and statisticians will be established to provide advisory support to methodology development for indicator 1.4.2 and ensure coordination with Land indicators: under goal 5 and 11.

The final methodology and selected data sources will be discussed with member states.

Comments and limitations

Considering that secure tenure over land and natural resources is an essential driver for change towards sustainability, it is imperative that Goals 1, 5, and 11, which have explicit

reference to ownership, land and associated real estate and other resources, include indicators to measure this driver of change as measured in this indicator.

Tenure insecurity is partly caused by limited capacities for land management, data collection and monitoring, and inadequate existing land information systems, poorly kept land registries, and limited data on large or densely populated geographical areas. This is the reason for complementarity in data reporting combining administrative and survey data. Regular reporting on indicator 1.4.2 will provide an impetus to improve the availability of data on land tenure from surveys and to improve the regularity of reporting by registries and other line agencies holding administrative data, contributing also to in-country accountability. The expansion of digitization will facilitate the ease of reporting.

Current data availability/indicator tier

A methodology document and summary of available data will be developed before the end of 2016. This will be discussed with relevant stakeholders including statistical institutes, registries/ cadasters, UN institutions, civil society, and the Global Donor Working Group to finalize a methodology and ways for dissemination.

Responsible entities

National data providers:

- Statistical agencies – surveys
- Government/registries, cadasters

Compilation & reporting at the global level: UN-Habitat and World Bank

This indicator 1.4.2 is the product of work by a coalition of institutions, including FAO, Global Donor working Group on Land, Global Land Indicators Initiative – Global Land Tool Network (GLII/GTN) IFAD, International Land Coalition (ILC), UNEP, UN- Habitat, and World Bank. These institutions , all felt that indicators addressing land tenure should be in the SDG and have contributed to defining concepts, rationale and definitions, to meta data and will also support measurement, reporting and policy dialogue at the country level, based on the indicators.

Data collection and data release calendar

Data collection will be the responsibility of national agencies. Data collection for administrative data will be on an annual basis; Survey data will be available every 3 to 5 years depending on the frequency.

UN Habitat and World Bank will work closely with country and regional statistical agencies and global partners; provide capacity development support for country data collection, analysis and reporting.

FAO, the World Bank, IFAD, UN Habitat, the Global Donor Working Group on Land, and other partners collaborating in the GLII platform will support capacity strengthening at regional, and country level for data providers and reporting mechanisms ; and promoting understanding of this indicator at all levels.

Treatment of missing values

All countries are expected to fully report on this indicator with few challenges. At the survey and data collection level, survey procedures for managing missing values will be applied based on the unit of analysis/ primary sampling units. In some cases, missing values can reasonably be assumed to reflect zeros but this is not always the case. For this reason, some weight (e.g. 0.05 or 0.1) may be given to whether or not data on a certain indicator is available, at least in the initial phase.

Sources of differences between global and national figures

For this indicator, national data will be used to derive global figures. As national agencies are responsible for data collection, no differences between country produced data and international estimated data on the indicator are expected to arise if administrative records are well kept and the methodology for conduct of household surveys is clear. Where such discrepancies exist, the scope for providing methodological training will be explored.

Civil and military conflicts or periods of heightened political tension can be expected to disrupt both the institutional arrangements for land governance and for data collection and monitoring to track its outcomes, quality and performance.

Regional and global estimates and data collection for global monitoring

Regional and global estimates will be derived from national figures with an appropriate disaggregation level. Systems of quality assurance on reporting will be deployed regionally, and global to ensure that standards are uniform and that definitions are universally applied. Together with FAO, IFAD, UN Habitat and the World Bank already there are existing and maintained household survey and administrative data repository to which the proposed data can easily be added.

13. References

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Target 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Indicator 1.5.1: Number of deaths, missing persons and persons affected by disaster per 100,000 people¹

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

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.

- 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.

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 management of natural resources can themselves strengthen the resilience of the poor, by both reducing the likelihood of natural hazardous events and offering resources to help cope with them.

Biodiversity provides ecosystem resilience and contributes to the ability to respond to unpredictable global changes and natural disasters. Healthy ecosystems act as buffers against natural hazards, providing valuable yet underutilized approaches for climate change adaptation, enhancing natural resilience and reducing the vulnerability of people, for example to floods and the effects of land degradation. These ecosystem services improve the sustainability and economic efficiency of built infrastructure, and are critical for sustainable and resilient urban areas.

This indicator will track human-related loss. The disaster loss data (particularly mortality) are significantly influenced by large-scale catastrophic event, which represent important outliers. UNISDR recommends countries to report the data by event, so complementary analysis can be done by both including and excluding such catastrophic events.

The indicator will build bridge between SDGs and the Sendai Framework for Disaster Risk Reduction because the reduction of human related loss is included in the Sendai Framework global targets and will also be monitored under the Sendai Framework Monitoring Mechanism.

Sources and data collection: National disaster loss database, reported to UNISDR

Disaggregation: by country, by event, by hazard type (e.g. disaggregation by climatological, hydrological, meteorological, geophysical, biological and extra-terrestrial for natural hazards is possible following IRDR* classification), by death/missing/injured or ill/evacuated/relocated/people whose houses were damaged/people whose houses were destroyed/people who received food relief aid.

*Integrated Research on Disaster Risk (2014), *Peril Classification and Hazard Glossary (IRDR DATA Publication No.1)*, Beijing: Integrated Research on Disaster Risk

Additionally, the Expert Group recommended disaggregation by age, sex, location of residence and other characteristics (e.g. disability) as relevant and possible. Aggregation of “location of residence”: ideally by sub-national administrative unit similar to municipality.

Comments and limitations:

- ✓ This is proposal by UNISDR based on our experience and knowledge built in the period under the Hyogo Framework for Action (2005-2015). The proposed indicator was further reviewed and examined by other UN agencies including FAO, GFDRR, IOM, UNCCD, UNDP, UNESCAP, UNESCO, UNFPA, UNHCR, UNOCHA, UNOOSA, UNOPS, UNU, UNWOMEN, WHO and WMO (though not all organizations listed here provided comments for this indicator) and submitted to the IAEG process in early-July 2015, then again reviewed by the Technical Expert Group consisting of more than 60 experts from UN system, academic and research, civil sector and private sector in 27-29 July 2015 and submitted and examined by the Member States in the 1st Open-ended Intergovernmental Expert Working Group on Indicators and Terminology on Disaster Risk Reduction held in 29-30 September 2015. The suggested indicator is currently under review by the Member States and UNISDR is receiving written inputs from the Member States.
- ✓ The proposed indicators will be also used to monitor Sendai Framework global targets and therefore the detailed definitions shall be discussed and agreed in Open-ended Intergovernmental Expert Working Group on Indicators and Terminology on Disaster Risk Reduction, as outlined in Sendai Framework for Disaster Reduction 2015-2030. The Working Group is likely to finalize the discussion and submit the final report to the GA in December 2016.

- ✓ Not every country has a comparable national disaster loss database that is consistent with the UNISDR guidelines (current coverage is 85 countries. Additional 32 countries are expected to be covered in 2015-16). Therefore, by 2020, it is expected that all countries will build/adjust the database according to the UNISDR guidelines and report the data to UNISDR.

Gender equality issues: Disaggregated by gender (if agreed by country in the Open-ended Intergovernmental Expert Working Group)

Data for global and regional monitoring: Summation of data from national disaster loss databases

Main linkage with SDG Targets:

This indicator is proposed as “multi-purpose indicator”.

Target 1.5:

By 2030, build **the resilience of the poor and those in vulnerable situations** and reduce their **exposure and vulnerability to climate-related extreme events** and other economic, social and environmental shocks and **disasters**

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

Target 13.1:

Strengthen **resilience and adaptive capacity to climate-related hazards and natural disasters** in all countries

Target 1.3:

Implement nationally appropriate **social protection systems and measures** for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

Target 14.2:

By 2020, sustainably manage and protect **marine and coastal ecosystems** to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

Target 15.3:

By 2030, combat desertification, restore degraded land and soil, including **land affected by desertification, drought and floods**, and strive to achieve a land-degradation-neutral world

Target 3.9:

By 2030, substantially reduce the number of **deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination**

Target 3.6:

By 2020, halve the number of **global deaths and injuries from road traffic accidents**

Target 3.d:

Strengthen the capacity of all countries, in particular developing countries, for **early warning, risk reduction and management of national and global health risks**

Supplementary information:**Related targets in the Sendai Framework for Disaster Risk Reduction 2015-2030:**

Substantially reduce global disaster *mortality* by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015.

Substantially reduce the number of *affected people* globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015.

Sendai Framework for Disaster Risk Reduction 2015-2030:

(http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf)

Indicator 1.5.2: Direct disaster economic loss in relation to global gross domestic product (GDP)²**From UNISDR:****Definition:**

Direct economic loss: Direct loss is nearly equivalent to physical damage. *The monetary value of total or partial destruction of physical assets existing in the affected area.* Examples include loss to physical assets such as damaged housings, factories and infrastructure. Direct losses usually happen during the event or within the first few hours after the event and are often assessed soon after the event to estimate recovery cost and claim insurance payments. These are tangible and relatively easy to measure. Direct Economic loss in this indicator framework consists of agriculture loss, damage to industrial and commercial facilities, damage to housings and critical infrastructures.

We limit the economic loss into direct economic loss, excluding indirect loss (e.g. loss due to interrupted production) and macro-economic loss. The reason is that there is not yet universally standardized methodology to measure indirect and macro-economic loss while direct loss data monitoring is relatively simpler and more standardized.

Global gross domestic product: Summation of GDP of Countries. GDP definition according to the World Bank.

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

² Ibid

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:

The original national disaster loss databases usually register physical damage value (housing unit loss, infrastructure loss etc.). Need conversion from physical value to monetary value according to the UNISDR methodology. After converted, divide global direct economic loss by global GDP (inflation adjusted, constant USD) calculated from World Bank Development Indicators.

Rationale and interpretation (mainly based on TST Issue Brief 2, 3, 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. The economic loss indicator would track loss to agricultural, industrial and commercial sectors and damage to housing and critical infrastructure.

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 management of natural resources can themselves strengthen the resilience of the poor, by both reducing the likelihood of natural hazardous events and offering resources to help cope with them.

The environment for food production is increasingly challenging, particularly for smallholders, due to environmental and climate-related factors. Similar to extreme income poverty, food insecurity continues to be predominantly concentrated in rural areas of developing countries, and disproportionately affects poor farmers, agricultural workers, pastoralists and rural communities. Common conditions for protracted crisis situations include frequent or continued exposure to shocks that undermine livelihoods, food and market systems. Special consideration needs to be given to population living in areas prone to environmental and natural disaster shocks.

Biodiversity provides ecosystem resilience and contributes to the ability to respond to unpredictable global changes and natural disasters. Healthy ecosystems act as buffers against natural hazards, providing valuable yet underutilized approaches for climate change adaptation, enhancing natural resilience and reducing the vulnerability of people, for example to floods and the effects of land degradation. These ecosystem services improve the sustainability and economic efficiency of built infrastructure, and are critical for sustainable and resilient urban areas.

This indicator will track direct physical loss expressed in economic term. The disaster loss data (particularly mortality) are significantly influenced by large-scale catastrophic event, which represent important outliers. UNISDR recommends countries to report the data by event, so complementary analysis can be done by both including and excluding such catastrophic events.

The indicator will build bridge between SDGs and the Sendai Framework for Disaster Risk Reduction because the reduction of direct economic loss is included in the Sendai Framework global targets and will also be monitored under the Sendai Framework Monitoring Mechanism.

Sources and data collection: National disaster loss database, reported to UNISDR

Disaggregation: by country, by event, by hazard type (e.g. disaggregation by climatological, hydrological, meteorological, geophysical, biological and extra-terrestrial for natural hazards is possible following IRDR* classification), by asset loss category.

*Integrated Research on Disaster Risk (2014), *Peril Classification and Hazard Glossary (IRDR DATA Publication No.1)*, Beijing: Integrated Research on Disaster Risk

Ideally, in addition, by sub-national administrative unit.

Comments and limitations:

- ✓ This is proposal by UNISDR based on our experience and knowledge built in the period under the Hyogo Framework for Action (2005-2015). The proposed indicator was further reviewed and examined by other UN agencies including FAO, GFDRR, IOM, UNCCD, UNDP, UNESCAP, UNESCO, UNFPA, UNHCR, UNOCHA, UNOOSA, UNOPS, UNU, UNWOMEN, WHO and WMO (though not all organizations listed here provided comments for this indicator) and submitted to the IAEG process in early-July 2015, then again reviewed by the Technical Expert Group consisting of more than 60 experts from UN system, academic and research, civil sector and private sector in 27-29 July 2015 and submitted and examined by the Member States in the 1st Open-ended Intergovernmental Expert Working Group on Indicators and Terminology on Disaster Risk Reduction held in 29-30 September 2015. The suggested indicator is currently under review by the Member States and UNISDR is receiving written inputs from the Member States.
- ✓ The proposed indicators will be also used to monitor Sendai Framework global targets and therefore the detailed definitions shall be discussed and agreed in Open-ended Intergovernmental Expert Working Group on Indicators and Terminology on Disaster Risk

Reduction, as outlined in Sendai Framework for Disaster Reduction 2015-2030. The Working Group is likely to finalize the discussion and submit the final report to the GA in December 2016.

- ✓ Not every country has a comparable national disaster loss database that is consistent with the UNISDR guidelines (current coverage is 85 countries. Additional 32 countries are expected to be covered in 2015-16). Therefore, by 2020, it is expected that all countries will build/adjust the database according to the UNISDR guidelines and report the data to UNISDR.

Gender equality issues: Not included.

Data for global and regional monitoring: Summation of data from national disaster loss databases and World Bank Development Indicators

Main linkage with SDG Targets:

This indicator is proposed as “multi-purpose indicator”.

Target 1.5:

By 2030, build **the resilience of the poor and those in vulnerable situations** and reduce their **exposure and vulnerability to climate-related extreme events** and other economic, social and environmental shocks and **disasters**

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

Target 13.1:

Strengthen **resilience and adaptive capacity to climate-related hazards and natural disasters** in all countries

Target 2.4:

By 2030, ensure sustainable food production systems and implement **resilient agricultural practices** that increase productivity and production, that help maintain ecosystems, that strengthen capacity for **adaptation to climate change, extreme weather, drought, flooding and other disasters** and that progressively improve land and soil quality

Target 14.2:

By 2020, sustainably manage and protect **marine and coastal ecosystems** to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

Target 15.3:

By 2030, combat desertification, restore degraded land and soil, including **land affected by desertification, drought and floods**, and strive to achieve a land-degradation-neutral world

Target 3.d:

Strengthen the capacity of all countries, in particular developing countries, for **early warning, risk reduction and management of national and global health risks**

Target 13.b:

Promote mechanisms for raising capacities for effective **climate change-related planning and management**, in least developed countries, including focusing on women, youth, local and marginalized communities

Supplementary information:

Related targets in the Sendai Framework for Disaster Risk Reduction 2015-2030:

Reduce *direct disaster economic loss* in relation to global gross domestic product (GDP) by 2030.

Sendai Framework for Disaster Risk Reduction 2015-2030:

http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf

Indicator 1.5.3: Number of countries with national and local disaster risk reduction strategies³

No metadata received on current indicator formulation.

³ Ibid

Target 1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions.

Indicator 1.a.1: Proportion of resources allocated by the government directly to poverty reduction programmes

No metadata received on current indicator formulation.

Indicator 1.a.2: Proportion of total government spending on essential services (education, health and social protection)

No metadata received on current indicator formulation.

Target 1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender sensitive development strategies, to support accelerated investment in poverty eradication actions.

Indicator 1.b.1: Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups

No metadata received on current indicator formulation.