

SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 1: End poverty in all its forms everywhere

0.b. Target (SDG_TARGET)

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

0.c. Indicator (SDG_INDICATOR)

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

0.d. Series (SDG_SERIES_DESCR)

Metadata applies to all series under this indicator

0.e. Metadata update (META_LAST_UPDATE)

2021-08-01

0.f. Related indicators (SDG_RELATED_INDICATORS)

This indicator is Goal 1, and is also particularly related to Goal 5, 5.a.1 (access to agricultural land) and 5.a.2 (legal framework for land governance). Tenure security also matters for Goal 2, Target 2.3 (2.3.1 and 2.3.2 addressing smallholder farmers; Target 2.4 (2.4.1 on agricultural area), to Goal 11, to target 11.1 (access to affordable housing/upgrading slums) and target 11.3 (sustainable urbanization/settlement planning). Land tenure also influences land use and is thus key to achieving Goal 14 (b) to provide access to small-scale fishers and marine resources, and to Goal 15 on the sustainable use of land and natural resources. Similarly, land is a significant source of conflict, and thus also matters for Goal 16 for promoting peace and inclusive societies and institutions.

0.g. International organisations(s) responsible for global monitoring

(SDG_CUSTODIAN_AGENCIES)

UN-Habitat and World Bank

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

UN-Habitat and World Bank

2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

Definition:

Indicator 1.4.2 measures the relevant part of Target 1.4 (ensure men and women have equal rights to economic resources, as well as access to ..., ownership of and control over land and other forms of

property, inheritance, natural resources). It measures the results of policies that aim to strengthen tenure security for all, including women and other vulnerable groups.

Indicator 1.4.2 covers (a) all types of land use (such as residential, commercial, agricultural, forestry, grazing, wetlands based on standard land-use classification) in both rural and urban areas; and (b) all land tenure types as recognized at the country level, such as freehold, leasehold, public land, customary land. An individual can hold land in his/her own name, jointly with other individuals, as a member of a household, or collectively as member of group¹, cooperative or other type of association.

Secure tenure rights: comprised of two sub-components: (i) legally recognized documentation and (ii) perception of the security of tenure, which are both necessary to provide a full measurement of tenure security.

Legally recognized documentation: Legal documentation of rights 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 is therefore official. For purposes of computing SDG Indicator 1.4.2, the country specific metadata will define what documentation on land rights will be counted as legally recognized (see next section for rationale).

Perceived security of tenure: Perception of tenure security refers to an individual's perception of the likelihood of involuntary loss of land, such as disagreement of the ownership rights over land or ability to use it, regardless of the formal status and can be more optimistic or pessimistic. Although those without land rights' documentation may frequently be perceived to be under threat, and those with documentation perceived as protected, there may be situations where documented land rights alone are insufficient to guarantee tenure security. Conversely, even without legally recognized documentation, individuals may feel themselves to be protected against eviction or dispossession. Therefore, capturing and analysing these diverse ranges of situations will enable a more comprehensive understanding of land tenure security, based on a country specific context.

For purposes of constructing the indicator (see next section for rationale), we define perceptions of tenure to be secure if:

- (i) The landholder does not report a fear of involuntary loss of the land within the next five years due to, for example, intra-family, community or external threats and
- (ii) The landholder reports having the right to bequeath the land.

Total adult population: A country's adult population² is measured by census data or through surveys using an adequate sampling frame.

Interpretation:

One motivation that makes the indicator actionable is that, in many developing countries, the gap between data on the availability of documentation and on perception of tenure security can be large. For example, tenure may be perceived as secure, even though rights are not formally documented, as in the case of customary systems and trusted local land governance arrangements. Or, the opposite, tenure may be perceived as insecure even when there is a high level of formal documentation of rights. The latter situation can be caused by various factors, including limited trust in land administration services, possible duplicated documents, high cost of having state institutions protecting such rights.

¹ *Group rights* include shared or collective rights, and examples include the ejido in Mexico, indigenous territories in Honduras, perpetual DUAT for rural communities in Mozambique. Collective rights occur in a situation where holders of rights to land and natural resources are clearly defined as a collective group and have the right to exclude third parties from the enjoyment of those rights.

² Country specific legal definition of an 'adult' will be applied.

Reporting on perceived security will provide important information on people's satisfaction with the institutional quality of service, transparency, appropriateness, accessibility and affordability of land administration services and justice systems.

Concepts:

The concepts below are based 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 United Nations World Committee on World Food Security in 2012 and therefore considered an internationally accepted standard. Other international frameworks using these concepts are the African Union Agenda on Land as laid out in the 2009 Framework and Guidelines on Land Policy in Africa and the 2014 Nairobi Action Plan on Large-Scale Land-Based Investments.

Tenure: How people, communities and others gain access to land and natural resources (including 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 for public purposes (VGGT, 2012).

Tenure typology: A tenure typology is country specific and refers to categories of tenure rights, for example customary, leasehold, public and freehold. Rights can be held collectively, jointly or individually and may cover one or more elements of the bundle of rights (the right of possession, of control, of exclusion, of enjoyment and of disposition).

Land governance: Rules, processes and structures through which decisions are made regarding access to and the use (and transfer) of land, how those decisions are implemented and the way that conflicting interests in land are managed. States provide legal recognition for tenure rights through policies, law and land administration services, and define the categories of rights that are considered official.

2.b. Unit of measure (UNIT_MEASURE)

Proportion of people with legally recognized documentation of their rights to land out of total adult population, by sex (%)

Proportion of people who perceive their rights to land as secure, out of total adult population by sex (%)

2.c. Classifications (CLASS_SYSTEM)

Not applicable.

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

The data sources used are census, multi-topic household surveys conducted by national statistical Organizations and, depending on availability, administrative data on land tenure reported by national land institutions (in most cases land registries and cadastres).

Household surveys and census

Household surveys and census that have been implemented by national statistical agencies, are a key source of information for computing the indicator.

Censuses: These provide a complete enumeration of all the populations of the country at a specific time. In many recent censuses, questions on household characteristics, including short modules on security of tenure, are collected. So far, 41 countries have carried out a census in which questions on land tenure

were included. Options for expanding land-related questions in the upcoming agricultural census are being discussed together with FAO (custodians of 5.a.1).

Household-level consumption/expenditure surveys: To provide aggregate information on levels of consumption, prices and, often, estimates of GDP, many countries conduct this type of survey. As one of the key assets, this often includes questions on how residential land is accessed but rarely goes beyond this in terms of the type of documents held or the gender of rights holders. Elaborated housing modules are often included, and which already contain some questions on tenure status of the dwelling and documentation held. In consultation with the NSO, these modules will be fine-tuned to fully cover the essential land questions identified for 1.4.2.

Multi-topic household surveys: Building on the need to generate reliable poverty estimates and understand the factors that lead households to fall into poverty or escape from it in developing countries, these surveys include a roster of household members and, where agriculture is a main source of livelihood, a detailed agricultural module that in many cases obtains information on tenure status, ownership, and production at plot level. The essential questions for 1.4.2 as well as 5.a.1 have been included in the *Living Standard Measurement Surveys* approach, which includes individual surveys and puts much emphasis on measuring intra household dynamics through direct reporting.

Demographic and Health Surveys (DHS): Responding to a need for more frequent and reliable information on population and health, especially in developing countries, these types of surveys provide nationally representative data on a wide range of areas including fertility, family planning, maternal and child health, gender, HIV/AIDS, malaria, and nutrition. A standard questionnaire, regularly revised to incorporate newly emerging issues, is administered at the household and individual level. It is a nationally representative survey. In a majority of DHS surveys, people eligible for individual interviews include women of reproductive age (15-49) and men age 15-49, 15-54, or 15-59. The individual questionnaires in the latest version (round 7) includes questions on whether respondents own land, if they have formal ownership documents, and if their name is included on these documents.

Multiple Indicator Cluster Surveys (MICS): Surveys implemented by NSOs under the program developed by the United Nations Children's Fund (UNICEF) to provide internationally comparable, statistically rigorous data on the situation of children and women. They cover topics such as health, education, child protection, and water and sanitation. The survey design follows closely that of DHS questions and modules. This facilitates cross-country comparisons of estimates obtained using DHS data with those obtained using MICS data. In addition to the household questionnaire, there are questionnaires for women of reproductive ages (15-49), men aged between 15 and 49 and children (aged 0-5 and aged 5-17). The household questionnaire includes questions on ownership of land that can be used for agriculture by any member of the household, and on the size of the agricultural land owned by the household members. Also, there are questions about ownership/rental of dwelling where the household lives.

Discussions are ongoing with the teams in charge of DHS and MICS, specifically on expanding questions on land in their standardized and nationally representative surveys, in order to cover all data requirements for 1.4.2.

Urban Inequity Surveys (UIS): These specialized surveys were designed by UN-Habitat as household surveys to monitor and assess water and sanitation service coverage and other topics on urban inequities, including tenure. More recently, these surveys have been expanded to cover both rural and urban areas. The upcoming UIS surveys will be reviewed to ensure that the data requirements for SDG 1.4.2 are covered.

Administrative data

Production of land records and maps is a core function of public land registries, with legally recognized documentation being the output. Reporting on the information contained in these land records ((i) names of people holding rights, (ii) type of rights and (iii) location) is not difficult in principle if records are

kept in a computerized format. Using household surveys, this land information can be cross-checked against survey information with respect to quality and coverage. In the case of registered communal or group rights, identifying the group members who gain tenure security through its registration is equally possible.

The country specific metadata will include a description of the structure of the land information data base, available information and approach for routine SDG reporting.

3.b. Data collection method (COLL_METHOD)

The custodians of 1.4.2 together with FAO and UN Women, custodians of 5. a.1³, developed a standardized, consolidated and succinct survey instrument with essential questions as data collection requirements are partly similar (<https://glt.n.net/download/measuring-individuals-rights-to-land-an-integrated-approach-to-data-collection-for-sdg-indicators-1-4-2-and-5-a-1-english/?wpdmdl=16316&refresh=5efb342458df61593521188>). The standardization of indicator definitions improves data comparability across countries. The scope and capacity for standardized data collection, analysis and reporting across NSOs is expected to rise with progressive data collection and implementation of the methodology.

The module is made available to NSOs for integration in survey instruments already in place, and will be used by other international household survey programs working with NSOs (such as LSMS and UIS). The module can be used by any other complementary survey instrument implemented by other actors, using a data collection protocol that meets SDG 1.4.2 requirements, while the data produced are approved and reported by NSO to the custodians. In addition, both the USAID and the Millennium Challenge Cooperation (MCC), have agreed to incorporate the essential questions from 5.a.1 and 1.4.2 into future land impact evaluations and has already done so for upcoming ones. The Property Rights Index initiative has integrated the SDG questions into its data collection tools on perceptions of tenure security. This range of efforts will further expand data availability and leverage efforts by NSOs to report on this indicator.

Country-specific metadata will be elaborated that provides an inventory of the tenure types and type of documents in use, identifies which documents are legally recognized as evidence of land rights with images of each document, and elaborates on the correspondence between the two types of data sets (survey data and administrative data). This instrument will ensure consistency of definitions across countries. These country specific metadata will also be used for customizing surveys.

3.c. Data collection calendar (FREQ_COLL)

Data collection will be the responsibility of national agencies. DHS, MICS and LSMS-type surveys are conducted in a cycle of about three years, while census data is available every 10 years. Administrative data can be reported on an annual basis where land information systems are fully electronic, with the accompanying population data made available from censuses or inter-censal projections.

Via the EGMs conducted, the custodians have been able to put together a network of NSOs and land administration institutions to link to NSOs and their regional representations, and to provide administrative data. The World Bank, UN-Habitat, the GDWGL, GLTN/GLII and other partners will support capacity strengthening at regional and country level for data providers and reporting mechanisms, and promote understanding of this indicator at all levels. Concerted investments are ongoing to expand data availability by integrating the consolidated land data module with essential questions in upcoming surveys, as already indicated above.

³ Indicator title 5.a.1: (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) Share of women among owners or rights-bearers of agricultural land, by type of tenure.

A capacity assessment⁴ on the preparedness and ability of NSOs to report on indicator 1.4.2 indicator was conducted by the custodians, with support of GLTN/GLII. The findings show NSOs agree to build on existing national survey systems and are ready to coordinate with land agencies to generate data and report on this indicator. Capacity needs were also identified and being used to develop a country capacity development strategy for NSOs, jointly with FAO and UN Women. The custodians of 1.4.2 and 5.a.1 have agreed to work closely with country and regional statistical agencies and global partners to support for country data collection, analysis and reporting. Similar capacity building support will be developed for land agencies to set up gender disaggregated electronic reporting systems.

3.d. Data release calendar (REL_CAL_POLICY)

No fixed releases; depends on release of relevant survey data.

3.e. Data providers (DATA_SOURCE)

National data providers:

- Statistical agencies – surveys
- Government administrative sources /registries, cadastres

Compilation & reporting at the global level:

- UN-Habitat - United Nations Human Settlements Programme
- World Bank

Development of methodology and data collection tools was done with support of NSOs (Colombia, India, Jamaica, Tanzania, Uganda, Cameroon, the United States, the Africa Centre for Statistics/UNECA) and land agencies (Belgium, Brazil, Colombia, Republic of Korea, Mexico, Netherlands, Romania, Spain, United Arab Emirates and Uganda) and regional organizations of land agencies (registries, cadastres, ministries responsible for land) through international Expert Group Meetings.

The data collection tool was developed in coordination with FAO and UN Women/EDGE to harmonize instruments for 1.4.2 and 5.a.1.

The development of this SDG indicator is supported by the Global Donor Working Group on Land (GDWGL). This is a network of 24 bi- and multilateral donors and international organizations committed to improving land governance worldwide and which collectively represents virtually all global donor assistance in the land sector: the Global Land Tool Network (GLTN) and the Global Land Indicator Initiative (GLII), a network of over 70 CSOs, NGOs, professional organizations, research and training organizations; the International Land Coalition (ILC), an alliance of more than 200 intergovernmental and civil society organizations working on land; and the African Union/UNECA/AfDB Land Policy Initiative.

3.f. Data compilers (COMPILING_ORG)

- UN-Habitat - United Nations Human Settlements Programme
- World Bank

3.g. Institutional mandate (INST_MANDATE)

No set of rules or instructions available.

⁴ Reports received from 17 countries: Bhutan, Bangladesh, Cameroon, Tunisia, Tanzania, Senegal, Uganda, Mauritius, Colombia, Japan, Slovenia, Sweden, Jamaica, Singapore, Madagascar, Niger and India.

4. Other methodological considerations (OTHER_METHOD)

4.a. Rationale (RATIONALE)

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 also arise because of weak land governance, disputes due to land acquisition or large-scale land-based investments, and attempts to address tenure problems associated with dualisms to tenure regimes. Responsible governance of tenure of land is inextricably linked with access to and management of other natural resources, such as forests, water, fisheries and mineral resources. The governance of tenure is a crucial element in determining if and how people, communities and others acquire rights, and their associated obligations, to use and control land and natural resources. Legal recognition to group tenure or adopting a 'fit for purpose' land administration and using these to recognize outer boundaries of land held under communal or customary arrangements have increasingly received government attention in the recent past.

Increasing demand for pro-poor land reforms has created the need for a core set of land indicators that have national application and global comparability, and culminated in SDG 1.4.2⁵. Regular reporting on indicator 1.4.2 will provide an impetus to improve the availability of data from surveys as well as regularity of reporting on land administration service delivery to people by registries and other line agencies. Indicator 1.4.2 thus measures gender disaggregated progress in tenure security.

All forms of tenure should provide people with a degree of tenure security, with states protecting legitimate tenure rights, ensuring that people are not arbitrarily evicted and that their legitimate tenure rights are not otherwise extinguished or infringed. Perceptions of tenure security matter because they influence the way that land is used. Sources of perceived insecurity may include contestation from within households, families, communities or as a result of the actions of governments or private land claimants. Secure tenure rights for women require particular attention and could be affected by a number of factors, including intra-household power relations, community level inequalities, or different tenure regimes, and which can be cross tabulated against other factors of difference to ensure that women are not left behind. If measured at the individual level, the right to bequeath is another proxy of perception of tenure security. Women's ability to influence intergenerational land transfers is an important aspect of female empowerment (and one way in which this indicator links with indicator 5.a.1).

"Legally recognized documentation" and "perception of tenure security" are two complementary parts of this indicator and which reflects several insights, namely (i) land is a key asset that is essential for poverty reduction, human rights and equality of opportunity including by gender; (ii) secure land tenure creates incentives for investment in land, allows land to be transferred, and creates the institutional precondition for use of land as collateral to access finance for economic activity; (iii) there is a need to complement formal measures of tenure security with perception-based measures.

This indicator will inform policy and allow for the assessment of specific outcomes and practical priorities for further improvements of tenure security at the country level. Regular reporting on the two components of Indicator 1.4.2 will:

- provide incentives for governments to improve performance on progress with responsible land governance

⁵ This need for data led to a collaboration between 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; the process 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 through evidence-based policymaking through more and better data.

- inform governments and non-state actors to what extent countries' legal and institutional frameworks recognize and support different land-tenure categories
- provide information on implementation capacity to protect such rights in practice, as well as progress
- 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 land rights.

4.b. Comment and limitations (REC_USE_LIM)

In 2016, a total of 116 countries reported having electronic land information systems in place. Countries with paper-based systems will have more difficulties with reporting on administrative data and household surveys will be the main source of data for this indicator in these countries. The expansion of digitization of records and land data management is one way to facilitate the ease of reporting administrative data for this indicator. Coverage may, however, be geographically skewed, for example towards urban or specific rural regions where cadastral coverage is concentrated, and therefore sub-national dimensions should be properly considered and conveyed in narrative reporting by specific countries to accompany the headline data.

In federal countries with decentralized land registry systems and no centralized reporting yet, data reporting systems for aggregation will be put in place. For countries where the land administration system does not yet collect information on gender, and gender disaggregation cannot be computed using other core data (social security numbers, ID etc), land agencies are encouraged to start expanding this by recording also the gender of owners/users of newly registered land.

Most of the national household surveys' target samples are sufficiently large to provide the statistical power for disaggregation by sex and tenure type at rural /urban and sub-national levels. Inferring the extent to which the adult population is tenure secure based on the existing web of surveys, will require the use of a standardized set of questions so that surveys can be combined. However, even nationally representative surveys tend to cover certain segments of the population (those living in agricultural areas, families in which there are women of reproductive age, official urban areas etc.). Even when all the existing surveys are aggregated, there may be pockets of the population that are not captured by the surveys and for which there is thus no data on tenure security. This may include families living in areas that are too far or costly to reach, like forest areas.

Household surveys generally collect household-level data from proxy respondents. Family members who are not the head or the most knowledgeable person in their households are not interviewed, as is also noted in the methodological note for the IAEG-SDG Secretariat for Indicator 5.a.1. This approach is problematic for measuring tenure rights and security due to the introduction of non-random measurement errors⁶. For instance, proxy reporting by one member of the household tends to incorrectly assign rights and misjudge and underestimate both women's and men's rights and use of land. Indicator 1.4.2 should therefore be based on self-reported rather than proxy data. If not all household members are surveyed, only those surveyed should be reported, estimating the global adult population based on the smaller sample enumerated. This lack of information affects only the numerators of the indicator; it has no bearing on the denominator which should always be the total adult population. In other words, the indicator reports and tracks the proportion of the population for which there is self-reported data stating that they are tenure secure. People for whom there is no information cannot be assumed to be tenure secure and therefore are not counted in the numerator. NSOs should report the data collected

⁶ Findings from the Methodological Experiment on Measuring Asset Ownership from A Gender Perspective (MEXA) experiment revealed that data from proxy respondents yield different estimates than self-reported data, with variations by asset, by type of ownership and by the sex of the owner. For instance, the study found that self-reported data increase both women's and men's reported ownership of agricultural land in Uganda. Such increase is greater for men (15 percentage points) than for women (10 percentage points), and is less pronounced when we consider documented ownership (+7 percentage points for men and +2 percentage points for women) (Kilic and Moylan, 2016).

from household surveys as individual level data that corresponds to the respondent and is not extrapolated to the rest of his/her household. Any limitations in the representativeness of this data should be clearly noted in the country specific metadata submitted with the reporting, including who was included in the enumeration.

Data will still be used for countries that do not yet have survey instruments in place that survey individuals, while capacity for expanding sampling and individual self-reporting by NSOs is expanded progressively through DHS, MICS, LSMS and other type of surveys in coordination with FAO and UN-Women. Addressing this challenge will require combined efforts. Custodians of the land rights indicators 1.4.2 and 5.a.1, and relevant stakeholders from the land sector, will work with custodians from other SDG indicators also require surveying of individuals, and in particular the NSOs, to identify effective approaches to start filling the void on self-reported data. NSOs need to be supported to collect data by interviewing individual adult household member. The custodians will leverage the work of the UN - Evidence and Data for Gender Equality [EDGE project](#)⁷, in particular, which is the most advanced in using and testing gender sensitive methodologies and approaches. They have found the approach feasible and have developed training materials and data collection instruments suitable for this effort.

4.c. Method of computation (DATA_COMP)

Indicator 1.4.2 is composed of two parts: (A) measures the incidence of adults with legally recognized documentation over land among the total adult population; while (B) focuses on the incidence of adults who report having perceived secure rights to land among the adult population. Part (A) and part (B) provide two complementary data sets on security of tenure rights, needed for measuring the indicator.

$$\text{Part (A): } \frac{\text{People (Adult) with legally recognized documentation over land}}{\text{Total adult population}} \times 100$$

$$\text{Part (B): } \frac{\text{People (adult) who perceive their rights as secure}}{\text{Total adult population}} \times 100$$

Part A will be computed using national census data or household survey data generated by the national statistical system and/or administrative data generated by land agency (depending on data availability)⁸.

Part B will be computed using national census data or household survey data that feature the perception questions globally agreed through the EGMs and standardized in the module with the list of essential questions.

4.d. Validation (DATA_VALIDATION)

Computing of indicator by custodians based on survey data released by NSO and/ or administrative data submitted by government agency.

4.e. Adjustments (ADJUSTMENT)

Not applicable.

4.f. Treatment of missing values (i) at country level and (ii) at regional level (IMPUTATION)

NA

⁷ <https://unstats.un.org/edge/>

⁸ The decision on data source will be taken at the specific country level.

4.g. Regional aggregations (REG_AGG)

NA

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

NA

4.i. Quality management (QUALITY_MGMNT)

Only use of raw (but cleaned and quality check applied) data released by NSO or government agency; computed by statistical staff world bank.

4.j Quality assurance (QUALITY_ASSURE)

NA

4.k Quality assessment (QUALITY_ASSMNT)

Standard quality criteria are met.

5. Data availability and disaggregation (COVERAGE)

Data availability:

This indicator was reclassified from Tier III to **Tier II** during the 6th Meeting of IAEG-SDG. An internationally established methodology exists but data is not regularly produced by countries. Administrative data are routinely produced by land administration institutions. The 116 countries reporting having electronic land information systems, can generate the required data at a low cost on a routine basis, and at high levels of disaggregation, once the queries for the SDG dashboard are put in place.

Nationally representative multi-topic household surveys have collected land related data in many countries. These provide information, separately for residential and non-residential land, on (i) the share of individuals with legally documented rights; and (ii) the share of individuals who perceive their rights to be secure. Nationally representative household surveys will also provide data on two other key elements, namely (i) reported type of documentation and (ii) perception of tenure security by tenure type and other disaggregations discussed above.

Time series:

Disaggregation:

This indicator will be disaggregated by sex and type of tenure, using the standards developed by the working group on data disaggregation, which is a subgroup of the Inter-Agency Expert Group on SDGs⁹.

⁹ https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-05/12_14.%20Data%20disaggregation_plenary.pdf

6. Comparability / deviation from international standards (COMPARABILITY)

Sources of discrepancies:

NA

7. References and Documentation (OTHER_DOC)

Kilic, T., and Moylan, H. (2016). "Methodological experiment on measuring asset ownership from a gender perspective (MEXA): [technical report](#)." Washington, DC: World Bank

Selected Land policy normative documents

Africa Union, African Development bank and United Nations Economic Commission for Africa (1999). *Land Policy in Africa: A Framework to Strengthen Land Rights, Enhance Productivity and Secure Livelihoods*. Available at: <https://www.uneca.org/publications/framework-and-guidelines-landpolicy-africa>

Africa Union, African Development bank and United Nations Economic Commission for Africa (2014). *Guiding Principles on Large-Scale Land-Based Investment in Africa*. Nairobi. Available at: https://www.uneca.org/sites/default/files/PublicationFiles/guiding_principles_eng_rev_era_size.pdf

Food and Agriculture Organization of the United Nations (2012). *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security*. Available at: <http://www.fao.org/docrep/016/i2801e/i2801e.pdf>

Proceedings EGMs for SDG 1.4.2

Expert Group Meetings on methodology development using survey data:

<https://gltm.net/home/download/international-expert-group-meeting-on-land-tenure-security-to-develop-a-set-of-household-survey-questions-for-monitoring-sdg-indicator-1-4-2/?wpdmdl=111>

Expert Group Meetings on methodology development using administrative data

(<http://documents.worldbank.org/curated/en/482991505367111149/pdf/119691-WP-P095390-PUBLIC-SDGEGMproceedingsuseofadministrativedatalandagencies.pdf>)

Consolidated essential questions land module for 1.4.2 and 5.a.1 (FAO, UN-Habitat, UN Women, World Bank). Module for individual interviewing under preparation; Version for household surveys with proxy respondents; available at: <http://documents.worldbank.org/curated/en/812621505371556739/Land-tenure-module-essential-questions-for-data-collection-for-1-4-2-and-5-a-1>).

ANNEX:

Full methodology development narrative (including list of pilot countries, data and other results from pilot studies)

METHODOLOGICAL DEVELOPMENT

Global consultations on the methodological developments of this indicator were conducted with a diverse range of participants and partners. The custodian agencies, working directly with NSOs and land agencies, developed tools and capacity development packs, followed by computation of data points for relevant variables for this indicator for several countries on a pilot basis, using existing data sources from nationally representative surveys and census and, in exceptional cases, rigorous impact evaluations without national coverage.

Methodology development and piloting results

Formulas and combining different elements

The process used for methodology development are presented above. As discussed in detail there, indicator 1.4.2 comprises two parts: (A) measures the incidence of adults with legally recognized documentation over land among the total adult population; while (B) focuses on the incidence of adults who report having perceived secure rights to land among the adult population. Part (A) and part (B) provide two complementary data sets on security of tenure rights, needed for measuring the indicator.

Part (A):

$$\frac{\text{People (Adult) with legally recognized documentation over land}}{\text{Total adult population}} \times 100$$

Part (B):

$$\frac{\text{People (adult) who perceive their rights as secure}}{\text{Total adult population}} \times 100$$

The computation formula has built in system for computing the individual components of this indicator.

- a) Where survey data are collected separately for agricultural and residential land, double counting is avoided by adjusting for households that access both types of land simultaneously.
- b) Strata title: cases where a residence is in an apartment building, the rights to the residency are counted as rights to the land.
- c) For purposes of retrospective data collection, parcels that are already affected by a dispute are also included in the reporting below on fear for involuntary loss of land.

As required by the indicator definition, any component can be disaggregated by gender and tenure type.

The national censuses or household surveys by the national statistical system were used to assess the number of people to access any land either through individual or joint ownership or via rental. Gender was calculated from surveys or calculated by land agencies using administrative data.

More detailed technical issues, e.g. ways to deal with proxy reporting by one member of the household on and when and how administrative data can be used are explained in the draft meta data for SDG 1.4.2.

Piloting results

Results from applying the methodology to select data are summarized in Table 1. They demonstrate not only the viability of the methodology, including the scope for how survey and administrative data to complement each other in a useful way, as well as the ability to derive a meaningful and actionable indicator. Rather than discussing substantive implications and actionability at country level, we focus on cross-cutting and data issues, illustrating in particular how different data sources can usefully complement each other.

Table 1: Selected countries with data on indicator 1.4.2

Country/Region	Data Source(s)	Year	Land access via		Formal	Perceived	Index	Gender
			Ownership	Rental	Document	Security		
Africa								
Benin	INSAE, MCC & Admin	2011	0.809	0.047	0.113	0.903	0.51	0.123
Lesotho	MCC	2013	0.914	0.029	0.611	0.929	0.77	
Mozambique	INE	2011	0.882	0.033	0.498	0.811	0.65	0.112
Malawi	NBS	2015	0.868	0.023	0.019	0.697	0.36	0.226
Nigeria	NBS	2013	0.741	0.025	0.021	0.741	0.38	0.162
Rwanda	LSMS-ISA & admin data	2015	0.886	0.002	0.858	0.969	0.91	0.864
Tanzania	LSMS-ISA	2013	0.839	0.123	0.250	0.960	0.61	0.339
Uganda	LSMS-ISA	2014	0.902	0.080	0.080	0.919	0.50	0.525
Asia								
Korea, Rep.	Census & Admin	2016	0.723	0.237	1.000	0.960	0.98	
Mongolia	MCC-SHPS	2012	0.809	0.163	0.654	0.966	0.81	0.268
Americas								
Costa Rica	Census & Admin	2011	0.699	0.279	1.000	0.978	0.99	
Europe								
Belgium	Census & Admin	2011	0.628	0.362	0.948	0.939	0.94	0.543
Netherlands	Census & Admin	2011	0.539	0.429	1.000	0.968	0.98	0.640
Oceania								
New Zealand	Census & Admin	2013	0.607	0.327	0.990	0.925	0.96	

Source: SDG Indicator 1.4.2 Global Database

Selected data comments

The data on formal documentation of land rights of the indicator are self-reported from household surveys for most low-income countries or from land agencies' records. Ranging from less about 2% in

Malawi and Nigeria to full coverage in Costa Rica, the Netherlands, and Korea, there is enormous variation in this part of the indicator across countries.

Data on perceived tenure security, which is from survey data and self-reported for all except the European countries and Costa Rica. In the latter case, we used the share of the population who, according to the population census or household surveys, either report owning or renting land or their residence to represent the share of the population who enjoy legally recognized documentation and by implication whose tenure is legally secure.

Benin: Administrative data indicate that the population have received individual documents based on the Plan Foncier Rural, but also suggest that, with about 12% of documents registered in their name, women have not benefited to the extent that may be expected.

Costa Rica: Administrative records suggest that in Costa Rica, all land is covered with land records. But census data indicate that some 2.5% of the population still suffers from precarious tenure, highlighting that even in cases where administrative data are available, they need to be linked to population-based evidence to give a fuller picture.

Malawi: Although the Government is engaged in an ambitious effort to digitize available records that would provide a basis for better land administration and reporting, only information from household survey data is available. The survey data point to high levels of tenure insecurity that are mostly gender related.

Nigeria: As a federal country, several states in Nigeria have administrative data that are of sufficient quality for reporting for the pilot. Data suggest that insecurity is high and, in many cases, is caused by the state due to expropriation.

Rwanda: A representative survey is available and points towards high levels of tenure security. However, information on the gender distribution of legally recognized documentation can be more reliably obtained from administrative data that show that more than 86% of women have land registered in their name either individually or jointly and perception of tenure security is high.

The Netherlands: This case shows that administrative data can be gender-disaggregated, and that in an advanced economy the share of individuals accessing land through various forms of institutions is high.

The Questionnaire Module with essential question for reporting on SDG 1.4.2

The module with essential questions for reporting on 1.4.2 is discussed in detail below. The module is developed by the UN Habitat and the World Bank, together with FAO and UN Women, with inputs from other stakeholders through GDWGL and GLII, and supported by the Living Standard Measurement Survey (LSMS) team.

The results of the EDGE project and other recent evidence suggest that individual level data collection is preferred to potential proxy respondents (where feasible).

Because of the scalability benefits of collecting data for both indicators simultaneously, the module is designed to provide the data required to compute indicators 1.4.2 as well as 5.a.1. Only the essential questions for indicator computation are included, however, the module may be expanded upon as needed by NSOs to address a wider range of land tenure issues relevant at the country level.

The module example, appended to this note is designed as a household level questionnaire in which a full roster of parcels is collected at the household level and the module is then implemented for each parcel, where the respondent is the most knowledgeable household member for the given parcel.

The module incorporates lessons learnt from methodological experiments¹, as well as from implementation at national scale by the national Statistical Office of Malawi in its 2016/17 Integrated Household Survey (IHS4). The IHS4 interviewed 12,480 cross-sectional households across 780 EAs, and in parallel, revisited a national sub-sample of 2,516 households that had been previously interviewed in 2010 and 2013. As part of the IHS4 panel component, the survey administered up to 4 adult individual interviews per household. The modules asked separately questions regarding (i) reported ownership, (ii) economic ownership, (iii) documented ownership, and rights to (iv) sell, (v) bequeath, (vi) use as collateral, (vii) rent out, and (viii) make improvements/ invest.

Indicator 1.4.2 considers two aspects of tenure security: documentation and perception. Only documentation that is official, and therefore provides legally protected tenure rights, is considered under indicator 1.4.2. That is combined with perception of tenure security, which is captured through the respondent-estimated probability of involuntary loss of land rights in the next five-year period and the reported right to bequeath.

While the module has been carefully designed to be as universal as possible to maintain comparability of the computed indicator across time and space, certain questions, marked in the questionnaire, will require customization at the country level. Customization cannot be avoided in full due to the varying legal systems and land tenure arrangements across countries. Collection of metadata, including the identification of legally recognized documentation in the particular country context must take place prior to implementation of the module.

The Questionnaire Module

The questionnaire module assumes a survey that has households as the unit of enumeration and analysis, and where a household roster is used to identify household members and collected basic information on their demographics including age and gender. In this process, each household member is assigned a unique identifier (HHID). In the Annex, the questions are color-coded to identify those required for indicator 1.4.2 only, for indicator 5.a.1 only, for both indicators, and those included for disaggregation or other analytical purposes. In what follows, practical issues for implementation are discussed, and explanatory notes on each individual question presented.

Scalability & Up-Take

While it is to be expected that the module will be usually implemented in conjunction with a larger survey operation, nothing prevents users to implement it independently. Implementing the module in the context of multi-topic surveys will increase its analytical value as, beyond generating an indicator for the SDG monitoring process, countries would be in a position to explore how land tenure issues relate to other development outcomes, including other SDG goals. The custodians foresee implementing the module as part of Living Standard Measurement Study (LSMS) surveys and the Urban Inequality Survey (UIS), and will be discussed with the USAID-funded Demographic and Health Surveys (DHS) programme, and UNICEF Multiple Indicator Cluster Surveys (MICS). Any nationally representative sample survey can of course become a vehicle for implementing the module. The custodians envisage working with National Statistical Offices to engage in dissemination and capacity development, as integrating the module in national statistical programs is the only viable way to ensure sustainability of the data collection process and ownership of the results by countries.

Implementation Method

The questionnaire module has been designed for paper assisted personal interviewing (PAPI) implementation to have the widest reach. However, an electronic version of the questionnaire will be created by the custodians for use in computer assisted personal interviewing. The application will be created using the World Bank's open access CAPI platform, Survey Solutions (solutions.worldbank.org), and will be made publicly available. The CAPI application can be customized from the base module as necessary. Implementation of the module via CAPI is recommended, as this can minimize data entry errors, allow for more immediate data review and analysis, and enable quick use of photo aids (which can improve data quality).

Before Going to the Field: Collecting Metadata

In this context, metadata refers to the classification of land documentation into legally recognized and unrecognized types as defined for indicator 1.4.2. The metadata will vary by country and will therefore, need to be released along with the computation of the indicator for transparency, and update in the case of changes in the regulatory frameworks. The metadata will identify which types of documentation are legally recognized, and therefore, what constitutes secure tenure. Questions on unrecognized and/or informal documentation can be asked separately, but is not considered in the computation of Indicator 1.4.2.

Question-by-Question Guidance

The implementation of the questionnaire included in the Annex is fairly intuitive, yet it is recommended that prior to its implementation, adequate training is provided and an enumerator manual is produced to

guide data collection, including with images of the range of tenure related documentation in use by land holders. Detailed explanatory notes on each question are found below, which can be used to develop such manuals. Where customization is necessary, this is indicated. Annex I also indicates skip patterns (indicated by the arrow sign '>>').

Guidance for sample questionnaire annex 1 (household survey with parcel roster)

RESPONDENT ID:	<p>The respondent ID is the ID of the person responding for the respective parcel, recorded from the household roster. The respondent should be the most knowledgeable household member for each parcel. Therefore, the respondent may differ for each parcel.</p> <p>The optimal respondent should be identified through a discussion amongst the enumerator and all adult members of the household (or as many as possible) prior to beginning the module. During this meeting, the full roster of parcels should be recorded and the optimal respondent identified for each.</p>
Q1:	<p>The roster of parcels should contain all parcels used by, owned by, or occupied by any household member(s) at the time of the interview. Alternatively, a single set date could be identified for a given survey. This option is especially applicable in when fieldwork is conducted over an extended period of time (such as a 12-month rolling fieldwork design). The first parcel listed should be the parcel on which the household resides.</p> <p>The parcel name must be unique to each parcel, as it will be used to refer to the specific parcel throughout the remainder of the module. In the case of panel surveys, or surveys with multiple visits, parcel names referring to a crop grown, for example, should be avoided as that may change over time.</p>
Q2:	<p>Parcel area has been included in the module to allow for disaggregation of the indicator (for example, for smallholder farmers only). Farmer estimation of parcel area should be collected for all parcels. Additionally, GPS measurement of parcels is strongly advised, wherever feasible. Recent evidence points to systematic bias in farmer estimates of land area¹.</p> <p>Land area units must be customized for the country context.</p>
Q3:	Parcel acquisition type is used as a filter question for the following questions, allowing for maximum efficiency in skipping questions where possible. Response code to be reviewed in light of the country context.
Q4:	The tenure system of the parcel is used to disaggregate indicator 1.4.2. Response codes to be reviewed in light of the country context.
Q5:	The primary use of the current parcel is used to disaggregate indicator 1.4.2, and to identify land subject to indicator 5.a.1, which pertains to agricultural land. In some cases, such as when land is rented out, the actual use may not be known, hence the inclusion of the "Don't Know" response. However, wherever possible, the actual use of the land, rather than current ownership or use arrangements, should be recorded.
Q6:	Question 6 identifies the owner(s) or use right holder(s) of the parcel, as reported by the respondent. Multiple household members may be listed, as joint ownership/use right holding is common.
Q7:	This module only seeks to identify the possession of documents that are pre-determined to be legally recognized in the given context. Question 7, therefore, asks about the possession of documents from a specific government agency(ies). Examples of relevant documents are embedded in the question to provide context to the respondent and to clarify that documents other than title deeds are relevant.

	<p>The government agency(ies) and example documents embedded in the question must be customized for the country context. Refer to the section above on metadata for guidance on determining what is to be classified as legally recognized.</p>
Q8:	<p>If the response to Question 7 is “yes”, question 8 is answered to record the specific type of documents held by the household, and which members are named on each. Codes must be customized at country level to include all legally recognized documents (as determined through the pre-survey preparation of metadata). Rental contracts of some form should be included, as long as rights are legally protected.</p> <p>To minimize errors in naming and classifying documents, a photo aid containing an image of all legally recognized documents should be constructed and shown to the respondent. The integration of visual aids (e.g. a photo of an actual document of the reproduction of a facsimile) is most easily done in a CAPI application, but can also be integrated in traditional PAPI interviews.</p>
Q9:	<p>The right to sell the parcel is captured in questions 9 and 10. Question 9 is a filter question, asking if any household member has the right to sell the parcel, either alone or jointly. That is, if any household member has the right to sell (or believes they have the right to sell) whether that be alone or with the approval/signature/etc. of another person either within or outside the household, the respond should be “yes”. This question is skipped for parcels acquired through short-term rentals (<3 years) and sharecropping-in. Questions on the right to sell are used for computation of indicator 5.a.1 only.</p>
Q10:	<p>List the ID codes of the household members that have the right to sell the parcel. If there are any external members that have the right to sell, enter the code accordingly. This question is skipped for parcels acquired through short-term rentals (<3 years) and sharecropping-in.</p>
Q11:	<p>The right to bequeath the parcel is captured in questions 10 and 11. Question 10 is a filter question, asking if any household member has the right to bequeath the parcel, either alone or jointly. That is, if any household member has the right to bequeath (or believes they have the right to bequeath) whether that be alone or with the approval/signature/etc. of another person either within or outside the household, the respond should be “yes”. This question is skipped for parcels acquired through short-term rentals (<3 years) and sharecropping-in. Here, bequeath is defined as the ability to transfer rights to the parcel either in life or in death.</p>
Q12:	<p>List the ID codes of the household members that have the right to bequeath the parcel. If there are any external members that have the right to bequeath, enter the code accordingly. This question is skipped for parcels acquired through short-term rentals (<3 years) and sharecropping-in.</p>
Q13:	<p>Question 13 identifies the likelihood of involuntarily losing ownership/use rights to the parcel in the next five years. Responses are made on a scale from 1 to 7, with 1 being not at all likely and 7 being extremely likely.</p> <p>This question is asked about each owner/use right holder separately that was identified in Question 6 (but asked all to the same parcel-level respondent). This formulation of the question allows for the observance of intra-household insecurity, for example involuntary transfer of rights from female to male household members. For parcels acquired through short-term rental (<3 years), the question will be asked for likelihood of involuntary loss in the remaining duration of the contract.</p>

Version 1A (SDG ONLY) – No separate agriculture instrument, and proxy respondent OK. Assuming separate HH roster with gender.

Implementation / CAPI Notes	Use "currently" or set a specific date – country level decision	Local/traditional area unit codes to be customized at country level	Codes to be customized at country level	Codes to be customized at country level	Ask 'owned' if parcel is purchased or inherited, otherwise 'holds use rights'	Named agencies and examples to be customized for context
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ENUMERATOR: AFTER CREATING THE ROSTER OF PARCELS, GO THROUGH THE ENTIRE MODULE ONE PARCEL AT A TIME.

PARCEL ID	RESPONDENT ID	1. PARCEL NAME Please tell me about each parcel of land currently belonging to, used by, or occupied by members of your household. Please describe or give me the name of each parcel, starting with the parcel you reside on.	2. What is the area of this [PARCEL]?		3. How was this [PARCEL] acquired? GRANTED BY CUSTOMARY/ COMMUNITY AUTHORITIES...1 ALLOCATED BY GOVERNMENT...2 ALLOCATED BY FAMILY MEMBER...3 INHERITED BY THE DEATH OF A FAMILY MEMBER...4 PURCHASED...5 RENTED IN, SHORT-TERM (< 3 YEARS)...6 >> 5 RENTED IN, LONG-TERM...7 SHARECROPPED IN...8 >> 5 BORROWED FOR FREE...9 BRIDE PRICE...10 GIFT FROM NON-HOUSEHOLD MEMBER...11 MOVED IN WITHOUT PERMISSION...12 >> 5 OTHER (SPECIFY)...13	4. Under which tenure system is this [PARCEL]? CUSTOMARY...1 FREEHOLD...2 LEASEHOLD...3 STATE...4 COMMUNITY/GROUP RIGHT...5 COOPERATIVES...6 OTHER (SPECIFY)...7	5. What is the primary current use of this [PARCEL]? RESIDENTIAL...1 AGRICULTURAL...2 PASTORAL...3 FOREST...4 BUSINESS/ COMMERCIAL...5 DON'T KNOW...6 OTHER (SPECIFY)...7	6. Who in the household [owns/ holds use rights to] this [PARCEL]?				7. Does your household have a document for this [PARCEL] issued by the Land Registry/Cadastral Agency, such as a title deed, certificate of ownership, certificate of hereditary acquisition, or rental contract? YES...1 NO...2 >> 3		
			FARMER ESTIMATION					GPS MEASURE		HH# CODE #1	HH# CODE #2		HH# CODE #3	HH# CODE #4
			AREA	UNIT				AREA IN ACRES						
			a.	b.										
1														
2														
3														
4														
5														

Color Codes: SDG 1.4.2 SDG 5.1.1 Both 1.4.2 & 5.1.1 Analytical purposes only

Version 1

Codes to be customized at country level - to include all legally recognized documents. Rental contracts of some form should be included, as long as rights are legally protected

skipped for short term rental & sharecropped in

skipped for short term rental & sharecropped in

skipped for short term rental & sharecropped in

skipped for short term rental & sharecropped in

skipped for short term rental & sharecropped in

Asked for each owner/use right holder separately, where [NAME of owner/use right holder] is linked to all persons reported in Q6. If short term rental, rephrase as [in the remaining duration of the rental contract].

Photo aid to be shown to respondents.

PARCEL ID	8. What type of documents does your household have for this [PARCEL], and which household members are listed as owners or use rights holders on each? LIST UP TO 3, SHOW PHOTO AID <u>DOCUMENT TYPE</u> TITLE DEED.....1 CERTIFICATE OF CUSTOMARY OWNERSHIP.....2 CERTIFICATE OF OCCUPANCY.....3 CERTIFICATE OF HEREDITARY ACQUISITION LISTED IN REGISTRY.....4 SURVEY PLAN.....5 RENTAL CONTRACT, REGISTERED.....6 OTHER (SPECIFY).....7	9. Does anyone in the household have the right to sell [PARCEL], either alone or with someone else? YES...1 NO...2 >> 13	10. Who can decide whether to sell [PARCEL]? LIST UP TO 4 ID CODES FROM HOUSEHOLD ROSTER AND 1 CODE FROM OUTSIDE HOUSEHOLD, IF APPLICABLE. <u>CODE FOR NON-RT MEMBERS</u> RELATIVE.....1 LOCAL OFFICIAL.....2 CUSTOMARY LEADER.....3 OTHER.....4	11. Does anyone in the household have the right to bequeath this [PARCEL], either alone or with someone else? YES...1 NO...2 >> 13	12. Who can decide whether to bequeath this [PARCEL]? LIST UP TO 4 ID CODES FROM HOUSEHOLD ROSTER AND 1 CODE FROM OUTSIDE HOUSEHOLD, IF APPLICABLE. <u>CODE FOR NON-RT MEMBERS</u> RELATIVE.....1 LOCAL OFFICIAL.....2 CUSTOMARY LEADER.....3 OTHER.....4	13. On a scale from 1 to 7, where 1 is not at all likely and 7 is extremely likely, how likely is [NAME of owner/use right holder] to involuntarily lose ownership or use rights to this [PARCEL] in the next 5 years? REFER TO ID CODES IN Q6	INDIVIDUAL 1		INDIVIDUAL 2		INDIVIDUAL 3		INDIVIDUAL 4																
							DOC. TYPE	HHID CODE #1	HHID CODE #2	HHID CODE #3	HHID CODE #4	DOC. TYPE	HHID CODE #1	HHID CODE #2	HHID CODE #3	HHID CODE #4	DOC. TYPE	HHID CODE #1	HHID CODE #2	HHID CODE #3	HHID CODE #4	ID	RESPONSE	ID	RESPONSE	ID	RESPONSE	ID	RESPONSE
1																													
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3	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••			
4	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••			
5																													

1. G. Carletto, S. Gourlay, S. Murray, and A. Zezza (2016), Land Area Measurement in Household Surveys, Washington DC, The World Bank.