

REPORTING ON SDG INDICATOR 1.4.2 FOR HIGH INCOME COUNTRIES: THE CASE OF THE US

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I. Introduction

The Sustainable Development Goals (SDGs) is an ongoing United Nations initiative to set development priorities globally, and track them over time. The SDGs include a process of identifying indicators, setting targets, and collecting data to measure progress towards each goal. One of these, indicator 1.4.2, measures the percentage of the population with secure tenure rights to land, where security of tenure rights is proxied by whether people (a) have documented rights to land and (b) perceived their rights as secure. This indicator is closely aligned with the USG's development agenda- secure and enforceable property rights, particularly with respect to land, are an essential precondition for an economy's private sector to flourish. Indicator 1.4.2. currently has Tier 2 status in the SDG process, meaning that regular data collection will need to expand to at least 50% of participating countries in order for the indicator to be officially recognized as an SDG.

While it is important for all countries to report on indicator 1.4.2, little attention has been devoted to the particular set of opportunities and constraints facing high income countries (HICs). Vast amounts of data are routinely collected in HICs, which raises the possibility that existing data sources may include components of 1.4.2 and could thus provide a low-cost avenue for reporting. In the particular case of 1.4.2, real estate data and government property records are potential sources of data on the extent of legally documented land rights. This paper presents the results of an exercise to explore considerations and potential avenues for the US government to report on indicator 1.4.2, with an eye towards drawing lessons for other high income countries seeking to report on 1.4.2.

In the remainder of the report, we provide further detail on indicator 1.4.2, describe potential data sources that were considered and our recommended approach for the USG, and present implications for other high income countries' reporting efforts.

II. Background on SDG Indicator 1.4.2

Introduction to Indicator 1.4.2

Throughout the world, secure tenure rights to land are key to accessing income, food, status, housing, credit, government services, and greater household- and community-level decision-making. Recognizing the foundational and cross-cutting role of tenure rights, the SDGs include ambitious commitments to secure them under several goals: ending poverty (goal 1), ensuring food security (goal 2), achieving gender equality and empowering women (goal 5), making cities

and human settlements inclusive (goal 11), and protecting, restoring and promoting sustainable use of ecosystems, forests and land (15).

Member States across the globe agreed to track their progress toward these commitments by relying on three indicators: 1.4.2, 5.a.1, and 5.a.2. It is worth noting that in adopting these indicators Member States made a deliberate choice to push the data and evidence base forward. Instead of having the available data control the framing of priorities, they agreed to measure what is critical to assess tenure rights, knowing it would require additional efforts in data collection.

This note provides recommendations for the USG to report on indicator 1.4.2—a measure of people’s on-the-ground tenure rights to land that is universal, relies on primary data and helps governments track progress toward target 1.4 as well as toward targets 2.3, 5.a and 11.1. By reporting on indicator 1.4.2, however incrementally, the US Government will help institutionalize its own data-based tracking of tenure rights—a critical piece of information for policymakers and investors. Moreover, by reporting on indicator 1.4.2, the US can encourage the institutionalization of this measure overseas—not only by modeling how to do it but also by contributing to the reclassification of indicator 1.4.2 to Tier I.¹

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.*

Definition of the indicator

Characterizing and tracking progress on the extent to which tenure rights to land are secure is a complex and multidimensional exercise that would typically require several measures. Recognizing this complexity yet mindful of the multiple and competing demands that the SDGs place on the National Statistical Offices, indicator 1.4.2 operationalizes the concept of *secure tenure rights to land* by focusing on the twin aims of tracking:

- (a) Government’s legal, administrative and judiciary progress in recognizing and protecting tenure rights to land (legally recognized documentation); and,
- (b) People-defined progress on the security of their tenure rights to land (perceptions of rights to land as secure).

The legal recognition of tenure is important, but not always sufficient to fully guarantee that rights to land are experienced in practice. For these rights to be secure, they must be backed by effective, inclusive and gender-responsive systems of land administration and justice.

¹ To be reclassified to Tier I, indicators need to be regularly produced for at least 50 per cent of countries and 50% of population per region.

By tracking the extent to which these rights are documented (documentation component), the indicator captures governments' steps to formally grant and protect the rights.

By tracking individuals' perceptions of their land rights as secure (perception component), the indicator captures the economic, social, and political risks affecting individuals, their households, and their communities as they perceive them. Individuals may face different kinds of threats to their land rights. Examples of these threats include the possibility of losing land due to adverse economic circumstances, to conflict in their communities, to large scale land acquisitions, or as it is often the case for women, to intra-family dynamics such as losing a husband.

No indicator is perfect, but documentation and perceptions provide fundamental and complementary information on tenure security. In addition, they both highlight outcomes and on-the-ground realities.

Because the SDGs are particularly concerned with promoting inclusive and gender-responsive development, these two measures have to be disaggregated by sex and by tenure arrangement.

Estimation of the Documentation Component

The documentation component is defined as:

$$\frac{\text{Number of adults with legally recognized documentation}}{\text{Total Adult Population}} \times 100$$

The denominator is the **total adult population**. This figure should be based on the latest available national census and should include the entire adult population of the country, regardless of where they live, in which sector they operate, what livelihood they have, under what tenure arrangement they access land, or what is known about them.

For the purpose of the global monitoring of this indicator, **adults** are individuals who are at least 18-years old. However, countries may decide to adapt this threshold for their national monitoring and use country specific cuts-off.

To calculate or estimate the numerator, an adult is considered as **having legally recognized documentation** of his/her tenure rights to land if three conditions are met:

- i. **The person has access to land through a type of tenure arrangement that is recognized and protected by the government.** Each country has to indicate which tenure arrangements are recognized by its government. Examples include individual, shared, joint, or collective ownership, leasing, or use rights. In the case of the US, tenure arrangements recognized by the Government could include ownership and leasing and possibly also arrangements such as covenants, easements, licenses or other agreements that provide use rights, including for Native Americans. At least in the initial stages of reporting on the indicator, rentals and short term leases will be excluded from the eligible tenure types.

- ii. **The person must possess the type of document that the government recognizes as proof of the existence of those rights.** Each country will determine what type of documentation its government deems necessary and sufficient for the individual or group-based tenure rights to land to be claimed and protected. Legally recognized documents may include, for example, title deeds, rental contracts that meet certain requirements, and certificates of use rights.
- iii. **The document must include the person's name.** To fully ensure the person's rights are documented and recognized it is important that the person's name is included in the document. In the case of group-based tenure arrangements for which documents are issued to a household, community or group and do not list all members entitled to the right, then the person must possess a document to demonstrate that he or she is a member of the group entitled to those rights.

It is important to note that people often access more than one plot of land. As long as they meet the three conditions listed above *for at least one plot*, this indicator will consider them as having legally recognized documentation that demonstrates their tenure rights to land.

As such, this indicator is not meant to provide a full picture of the land tenure system. It does not tell us, for example, the extent to which a country's land is legally documented. Nor does it reflect how land is distributed: it does not talk about the size, the quality or the number of plots people access. It is a people-centered indicator focused on tracking what proportion of the population can demonstrate tenure rights to at least one plot of land relying on the type of documents that the government recognizes.

Estimation of the Perceptions Component

The perceptions component is defined as:

$$\frac{\text{Number of adults who perceive their rights to land as secure}}{\text{Total Adult Population}} \times 100$$

Perceptions matter because they influence behavior. Whether or not people feel tenure secure influences the livelihoods they choose, the risks they take, the investments they make, how empowered they feel in their families and communities, and eventually their income, food security and quality of their lives.

People's perceptions of their tenure rights to land may be affected by a host of factors. They may perceive their households' or their communities' tenure rights as insecure because of boundary disputes, because they lack documentation to claim those rights, because they lack the capacity or resources to make use of the land, because there is a high likelihood of investors or developers acquiring the land without proper consultation and compensation, because of conflicts or displacements in the area, because they cannot afford the taxes, fees or other requirements, or because they lack political clout or connections to local or traditional leaders or authorities, among many other reasons.

Even if their households and communities are secure, people may perceive their own tenure rights as insecure if they do not know the rights they have, if their families or communities do not recognize those rights, if they do not know where and how to claim those rights, if they cannot afford legal protection, if they cannot ensure those rights are going to be enforced, or if they are vulnerable to losing those rights when their spouses die, remarry or abandon them, or when their community leaders change.

The strong advantages of relying on perceptions as a measure that can summarize so many dimensions of insecurity are tempered by the challenges of eliciting people's perceptions in a consistent way. Understanding that data on perceptions can be affected by the framing, wording and sequencing of the questions, and mindful of the burden of each additional question added to surveys, the perceptions component relies on the best available information from questions likely to produce robust and meaningful data on perceptions of tenure security.

For the perceptions component, people will be categorized as **perceiving their rights as secure** if: (1) they report that they are unlikely to experience an involuntary loss of their land in the next five years, and (2) they have the right to bequeath their land. The reported right to bequeath is particularly important for gender equity, as women's ability to influence intergenerational land transfers is an important aspect of female empowerment. Since an individual can access more than one plot of land, they will be categorized as secure if they perceive their rights *to at least one plot* as secure.

Both **adults** and the **total adult population** are defined as in the documentation component.

III. Opportunities and constraints in the case of the US

IV. Data sources assessed

To assess the USG's near term ability to report on indicator 1.4.2, we conducted a thorough review of the existing data sources. We considered: private sector data providers, US government sources at federal, state, and local levels, and data collected by non-profit

institutions. For each data source, we assessed what relevant measure(s) could be calculated with the data they track, the coverage of their data, the timing of the most recent round of data, the frequency with which the data is updated, and whether and under which conditions the data could be available to the USG. In this section, we present recommendations that will allow the USG to start reporting on indicator 1.4.2 and discuss the strengths and limitations of the approach we propose.

Tax Assessor Data – The most promising option in the near term

In the near term, the most promising data source for reporting on indicator 1.4.2 is the Tax Assessor data available from private sector vendors. We identified four vendors in the US that provide Tax Assessor datasets: First American, Attom Data Solutions, CoreLogic, and Black Knight.² These data providers compile, standardize and link publicly available county-level administrative data.

The Tax Assessor data has four critical properties. First, it has wide coverage. Tax assessments are carried out and the data is made publically available for nearly all properties in the United States—the only exception that we identified was property on Indian Reservations, which we discuss below. Second, because the data is already combined into one nationwide dataset, it eliminates the task of procuring and aggregating data across more than 3000 counties. Third, by relying on the name and tax mailing address of the property owners, the dataset enables the aggregation of data at the individual level—ensuring that owners with more than one property are only counted once. Lastly, this dataset is updated annually.

Armed with this data one can calculate the number of adults with documented ownership rights and estimate the **proportion of the US adult population that holds documented ownership rights to land**.

In addition, Tax Assessor data may shed light on the sex-disaggregation of property owners. Counties differ in the type of data they make publicly available. In some cases the data includes the gender of the owners. According to one vendor, gender of the owner is available for approximately 10% of properties. With the appropriate econometric tools, data from these counties could be used to estimate national figures.

Factors to Consider when Procuring Tax Assessor Data

Our detailed discussions with First American and Attom Data Solutions uncovered differences among the Tax Assessor datasets provided by each vendor. These differences have important implications for calculating indicator 1.4.2. Due to our short timeframe, our report is based on quick analysis and estimates by vendor staff would need to be confirmed through a more thorough assessment. Before purchasing data from any of these vendors, we would recommend more in-depth discussions with each to obtain reliable information about the following:

² Two interviewees at these firms expressed confidence that there are no other providers of Tax Assessor data in the US.

- **Coverage of owner’s name and mailing address:** while tax assessment data is available for all properties in the US,³ in some cases the owner’s name and mailing address are missing from Tax Assessor datasets. There were substantial differences in the percentage of missing cases across vendors—First American reported 22%, while Attom Data Solutions reported 13%. More complete coverage provides higher and more accurate estimates, and thus fewer missing cases should be seen as an advantage when comparing Tax Assessor datasets from different vendors.
- **Allowable number of owner’s names and mailing addresses:** in cases of multiple owners of the same property, the Tax Assessor datasets may not include the names and addresses of all owners. The First American dataset was limited to a maximum of two owners for each property, while Attom Data Solutions allowed for four. Thus, in cases where properties have more owners than the datasets allow, some owners will be excluded from the dataset. We do not expect this to be a major concern, but Tax Assessor datasets that allow for more owners will produce higher and more accurate estimates.
- **Coverage of gender of property owner:** as described above, the gender of the property owner can be obtained for some counties. Coverage across vendors may differ. For example First American indicated that their Tax Assessor data do not include any information about gender. Disaggregation by gender is an important emphasis of the SDGs, and thus more coverage of gender should be seen as an important advantage.
- **Cost:** none of the vendors offer information on their websites that enable us to estimate how much it will cost to obtain the data needed to initially report on indicator 1.4.2. The rough estimates we obtained from them were: \$50,000 from First American and \$150,000 from Attom Data Solutions.

Limitations of the Tax Assessor Data

- **It does not systematically cover Indian Reservations.** There is considerable variation in how the 326 Indian Reservations in the US define and record property rights. In some cases, parcels are allocated to individuals and households who hold rights and documentation similar to property owners elsewhere in the US. In other cases, the tribe maintains ownership of the land, and issues more limited leaseholds to residents. As a result, the Tax Assessor data, which relies on county-level administrative data on private ownership, will not consistently record the rights of Native Americans.
- **It does not cover other tenure arrangements beyond ownership.** As a result, the measure obtained will under report tenure security because it will ignore the millions of adults who may have secure tenure rights through arrangements such as tenancy and leasehold agreements, covenants, easements or licenses.
- **It does not enable reporting of perceptions of tenure security.** Neither the Tax Assessor Data nor any other currently available data on the US includes nationally-representative information on tenure security.

³ With the exception of properties on Indian Reservations.

- **It is unclear whether and to what extent it will enable the disaggregation of the indicator by sex.** This is an important requirement of the indicator. As described above, how feasible it will be to disaggregate the indicator depends on whether the dataset obtained includes information on sex and how representative are the counties for which that data is available.

Our research indicates that no other currently available data source addresses these challenges. However, there are options the USG should consider to report comprehensively on SDG 1.4.2 in future years. We discuss these options next.

The sources we considered and reviewed for this note are:

Private Sector Data

- **On-line real estate companies:** companies such as Zillow, Trulia, and Redfin provide property owner information online, with wide coverage. However, a vendor we interviewed indicated they purchase their information from the same four vendors that sell Tax Assessor data.
- **Title companies:** One of the persons we interviewed reported that these companies use Tax Assessor data and supplement it as needed by getting information on individual properties directly from county records. They do not expand and maintain their own databases and therefore their coverage does not expand the Tax Assessor data in a significant or systemic way.
- **Google maps:** A Google interviewee with knowledge of their spatial data work indicated that Google does not maintain data on property ownership since that data is publicly available—albeit decentralized and/or not free.
- **Other datasets available from real estate data vendors:** we reviewed other datasets maintained by the Tax Assessor dataset vendors as well as other real estate data available from private vendors. Our review of their websites and interviews with the Tax Assessor vendors suggest that there are no other commercially available datasets that satisfy any of the (a)-(e) criteria listed above.

Government Data

- **US Census:** the 2010 US Census questionnaire included a question on whether the respondent's primary residence was owned or rented. However, the questionnaire did not include any information on whether the arrangement was documented, nor did it have questions on perceptions of tenure security. Adding questions on documentation and perceptions to the 2020 census is feasible and would be helpful to the sector, but because it is only carried out every 10 years it will fall short of the SDG data needs.
- **US Agricultural Census:** as part of the US Agricultural Census program, a survey called Tenure, Ownership, and Transition of Agricultural Land (TOTAL) was administered in 2014. The survey included a module to collect detailed information on tenure arrangements, including ownership and rental data. Unfortunately, these data only cover

agricultural land and therefore cannot yield representative data on tenure rights for the entire population⁴.

- **County-level records:** can substitute or complement Tax Assessor datasets. By not being limited to data that is publicly available, relying on county-level records can improve over Tax Assessor datasets in at least three ways: (i) it can include data from property owners who requested that their information not be disclosed and from counties who do not want to release this information publicly (these are all cases that appear as missing data in the Tax Assessor datasets); (ii) it need not be limited to two or four owners per property; and (iii) by relying on social security numbers, the data can be traced to individuals and the sex-disaggregation can be complete. While these benefits are noteworthy, relying on county-level records will entail instituting a system for procuring this information from all counties, collating it, cleaning it, and analyzing it. It will require a complex software application and a process that would have to be repeated annually. In addition, accessing social security numbers may raise privacy and/or security concerns. We assume the extra effort will not compensate for the new benefits, particularly since this information will still be limited to one component of the indicator (documentation) and to one type of tenure (ownership). With a comparable investment the USG can report on all aspects of the indicator by relying on surveys.
- **State governments and other Federal government agencies:** our extensive internet searches and reviews of state and federal government websites (such as those from the Bureau of Land Management) did not yield information on potential sources of data that can improve over the Tax Assessor data according to any of the criteria listed above.

Data from Non-Profit Organizations

- **LOVELAND technologies:** an innovative non-profit that among other services seeks to compile and provide open-source data on property in the US, LOVELAND technologies offers a dataset with information on property ownership. However their dataset covers only 60-70% of properties and is therefore a sub-optimal option compared to Tax Assessor data.

V. Recommended approach for USG reporting on 1.4.2

Addressing the limitations identified above requires the collection of primary data on land rights documentation and perceptions from a nationally-representative sample of adults. This can be done by leveraging existing initiatives such as:

- **PRIndex:** a recent initiative funded by Omidyar Foundation, DfID, and other donors to collect nationally representative survey data on property rights in countries around the world. The PRIndex survey includes questions on perceived tenure security as well as on documentation of all legally recognized forms of tenure. The data it generates can be

⁴ While the TOTAL data could not be used here, it could potentially be used to measure indicator 5.a.1 on women's ownership of agricultural land. However, it is not clear whether the US Agricultural Census program is planning to conduct further rounds of TOTAL in future years that would allow progress on the indicator to be tracked over time. As a result, using TOTAL to measure indicator 5.a.1 may require coordination with the US Agricultural Census program and/or additional funding.

disaggregated by sex and type of tenure and would allow for full reporting of indicator 1.4.2. PRIndex will be rolled out in approximately 30 countries in 2018. With funding and interest on the part of the USG, we expect that PRIndex would be receptive to including the US in future years.

Both of these initiatives are attractive because they allow for full reporting on indicator 1.4.2, they can be implemented in the near future and repeated with some frequency, and they are likely to be cost-effective options.

In pursuing either of these options further, an important initial step will be to undertake some analytical work in order to assess whether the sample sizes are sufficient to provide accurate national estimates of perceived tenure security, tenure type, and documentation. Previous unpublished work by one of the authors of this report found that the Gallup Global Poll sample size was not sufficient to accurately measure perceived tenure security for several countries. In the event that the sample size is found to be insufficient, the USG could potentially provide funding to increase it to provide the needed precision.

VI. Implications for other industrialized countries