

provisions of the Civil code. Therefore, there is no need to inquire about the right to sell or bequeath the land. Consequently, only the question relating to the first proxy, namely the presence of a legal document with the individual's name listed as owner/co-owner or holder/co-holder on the document, is asked to all members of agricultural households aged 16 years and above. The demography section of the census questionnaire is tailored to include the following 5.a.1 related questions:

Figure 2. Questions related to indicator 5.a.1 in demography section of the NSCA 2021/22

Serial No.	Name of the member of the household (Write the name of holder, household head and other members serially)	What is the Sex of the [NAME]? 1. Male 2. Female	What is the Age of the [NAME]? (Years Completed)	What is the Head's relationship to the [NAME]? (1: Spouse, 2: Son, 3: Daughter, 4: Other)	What is the Highest education attainment of the [NAME]? (5 years and above)	What is the Primary Occupation of the [NAME]? (10 years and above)	Has [NAME] ever received any formal training on agriculture? (Age 10 years and above) 1. Yes 2. No	Does [NAME] participate in decisions concerning crops and livestock (Age 10 years and above) 1. Yes 2. No	How much time does [NAME] spend working on the holding in the reference period? (Age 10 years and above) 1. Less than half (50%) 2. More than half (50%-99%) 3. Most (100%-99%) 4. All (100%) 5. Not answer at all	Does [NAME] have any legal document of ownership or secure rights of agriculture land? (Age 16 years and above) 1. Yes 2. No
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
01	Name of the holder:									
02										
03										
04										
05										

The information from columns (3), (4) and (11) of the questionnaire above are used to calculate the SDG indicator 5.a.1 and its sub-indicators.

iii. Quality control

The NSO took significant precautions to ensure the accuracy of census data by implementing a range of measures to minimize both non-sampling errors and sampling errors. In situations where there was dubious information identified during the data cleaning process, the agriculture holdings were contacted directly through phone calls or field visits for data verification. Likewise, the estimated values of the SDG indicator 5.a.1 for national and province level are also compared with available administrative data to get some indications of their reliability, while exercising some caution regarding the quality of administrative data. A reliability test involving the estimation of coefficients of variation (CVs) was also conducted for the national and provincial estimates of agricultural population having ownership or secure rights on agricultural land to ensure the data quality.

iv. Limitations

The NSCA 2021/22 is a huge statistical operation with its extensive coverage, a large sample size, and significant manpower mobilization. While the questionnaire design and data collection adhered to the recommendations provided in the metadata of the indicator 5.a.1, certain limitations and issues emerged during the survey implementation, needing careful consideration when interpreting the data and outcomes related to SDG indicator 5.a.1. These limitations include:

- Due to budget constraints and length of the questionnaire, the proxy respondent approach is used where the most knowledgeable household member is interviewed to collect information concerning all other household members's ownership status over the agricultural land.
- The ownership of agricultural land for long-term lease, but without legal documentation or not-registered in formal administrative systems are excluded during the data collection.
- The respondent might have been confused due to differences in the definition of agricultural land between the WCA recommendations and the national legal land system. Consequently, when respondents were

asked about ownership of agricultural land, additional land within the agricultural holding, beyond the specified categories (LU1-LU5), may have been reported as agricultural land under ownership.

- Nepal is a labour exporting country. Many young people, especially many young men work in the Middle East as temporary overseas workers. The overseas temporary workers may have used their earlier remittances to purchase agricultural land in their names. Due to a large volume of men absentees, the indicator 5.a.1 may have underestimated for male ownership rates (5.a.1M).

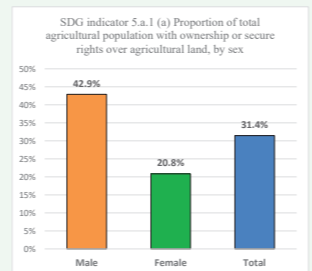
v. Results of SDG indicator 5.a.1 and conclusions

SDG indicator 5.a.1 serves to monitor the gender balance concerning the ownership or secure rights over agricultural land. Sub-indicator (a) and sub-indicator (b) are derived from the same data but they monitor agricultural land ownership or rights from two distinct perspectives. While sub-indicator (a) uses the total adult male and female agricultural population as reference population, indicating the number of adult males and females who own land, sub-indicator (b) focuses on the adult agricultural population with land ownership or secure rights, and highlights the share of women among the total land owners.

According to the results of NSCA 2021/22, a total of 31.4 percent of the agricultural population has ownership or secure rights over agricultural land. Analysis by sex reveals that 42.9 percent of the adult men living in agricultural households hold secure rights over agricultural land, whereas only 20.8 percent of adult women in the agriculture households have similar secure right over agriculture land. Furthermore, indicator 5.a.1 (b) illustrates that about 34.4 percent of all those having ownership or secure rights over agricultural land were women in Nepal. The total number of agricultural population and the estimates of SDG indicator 5.a.1(a) by provinces are presented in Table 1.

Table 1. Agricultural population with ownership or secure rights on agricultural land by sex

Geographic Area	Total number of agricultural population (aged 18 years and above)			Number of agricultural population owning or having secure rights over agriculture land		
	Male	Female	Total	Male	Female	Total
Nepal	6347936	6863412	13211349	2723625	1430719	4154343
Province						
Koshi	1136664	1239143	2375807	504851	298560	803411
Madhesh	1408334	1334796	2743130	564962	314974	879936
Bagmati	945627	1037143	1982770	450301	207440	657741
Gandaki	516845	632231	1149076	244515	152879	397394
Lumbini	1167196	1322927	2490123	501395	263018	764413
Karnali	461912	481789	943701	195580	78545	274125
Sudurpashchim	711358	815384	1526741	262020	115303	377324



At the provincial level, the 5.a.1 estimates present a varied scenario of women's ownership in agricultural land. While the value of 5.a.1(b) equals or surpasses the national value in four provinces, Gandaki, Koshi, Madhesh, and Lumbini; it falls below in three provinces, Bagmati, Sudurpashchim, and Karnali (Table 2). The different values of indicator among provinces suggest potential impacts of provincial government's economic policies on land registration, warranting further policy review and consideration for the interpretation.

Table 2. SDG indicator 5.a.1(a) and 5.a.1(b) by province

Geographic Area	Agricultural population (aged 18 years and above) SDG 5.a.1 (a)			SDG 5.a.1 (b)
	Male	Female	Total	Female
Nepal	42.9%	20.8%	31.4%	34.4%
Province				
Koshi	44.4%	24.1%	33.8%	37.2%
Madhesh	40.1%	23.6%	32.1%	35.8%
Bagmati	47.6%	20.0%	33.2%	31.5%
Gandaki	47.3%	24.2%	34.6%	38.5%
Lumbini	43.0%	19.9%	30.7%	34.4%
Karnali	42.3%	16.3%	29.0%	28.7%
Sudurpashchim	36.8%	14.1%	24.7%	30.6%

In conclusion, NSCA 2021/22 serves as the standard data source to report internationally comparable SDG indicator 5.a.1 for the first time in Nepal. Although an agriculture census is typically conducted every 10 years, the NSCA 2021/22 provided a baseline data and estimates for the indicator 5.a.1 in Nepal, with the questionnaire model meriting recommendation for subsequent replication in periodic agriculture surveys or post-census surveys.

References

- National Statistics Office. 2023. National Sample Census of Agriculture 2021/22: National Report. Kathmandu Nepal.
- National Statistics Office. 2023. National Population and Housing Census 2021: National Report. Kathmandu, Nepal.
- National Statistics Office. 2023. National Accounts of Nepal 2022/23. Kathmandu, Nepal.
- Nepal Law Commission, Civil Code of Nepal, 2074 (BS), <https://lawcommission.gov.np/np/?cat=713>
- FAO. 2015. World Programme for the Census of Agriculture 2020, Vol. 1: Program, concepts and definitions. Rome.
- FAO; The World Bank; UN-Habitat. 2019. Measuring Individuals' Rights to Land: An Integrated Approach to Data Collection for SDG Indicators 1.4.2 and 5.a.1. Washington, DC: World Bank.
- United Nations, Department of Economic and Social Affairs, Statistics Division, Sustainable Development Goals, Metadata Repository, <https://unstats.un.org/sdgs/metadata/files/Metadata-05-0a-01.pdf>

ACKNOWLEDGEMENT

The National Statistics Office of Nepal acknowledges the technical support and the methodological guidance provided by the Food and Agriculture Organization of the United Nations (FAO) for the compilation of the SDG indicator 5.a.1 from the National Sample Census of Agriculture 2021/22, Nepal.

Phone: +977-15345913, 5329406, 5345947
 Website: www.nsonepal.gov.np; www.agricensusnepal.gov.np
 Email: info@nsonepal.gov.np

Women's Ownership of Agricultural Land in Nepal

Results of SDG indicator 5.a.1 from National Sample Census of Agriculture 2021/22 Nepal



Government of Nepal
 Office of the Prime Minister and Council of Ministers
National Statistics Office
 Kathmandu, Nepal
 November 2023



WOMEN'S OWNERSHIP OF AGRICULTURAL LAND IN NEPAL

1. Background

The agricultural industry holds a significant weight within the Nepalese economy contributing to about 24.7 percent of Gross Domestic Product (GDP) in 2022. Findings from the Agriculture Census 2022 reveal that about 62 percent of households are actively involved in the agricultural sector, with 32 percent being managed by female heads of households. Notably, agriculture serves as the primary source of employment and livelihood for many Nepalese. According to the Population Census 2021, among total economically active population 10 years and above, 57.3 percent are engaged in Agriculture, Forestry and Fishing sector, of them 53.6 percent are female, and 46.4 percent are male. The agricultural land serves as both a means of subsistence and a primary form of asset for the agricultural population of the country. Beyond its role in cultivation, the agricultural land is utilized as collateral for investments or loans, and supporting immediate needs of families. In this context, the access to ownership and control over agricultural land are particularly pronounced in the development of the agricultural population, with a specific emphasis on the empowerment of women. However, it is evident that the access to ownership or secure rights over land, including agriculture land, remains uneven in many countries, often favoring men. Nepal is not an exception to this trend. Consequently, it becomes imperative to closely monitor the disparities between men and women in terms of their access to ownership or secure rights over agricultural land.

The SDG indicator 5.a.1, comprising two sub-indicators 5.a.1(a) and 5.a.1(b), aims to measure gender disparities in ownership or secure rights over agricultural land. Sub-indicator 5.a.1(a) measures the prevalence of people in the agricultural population with ownership or secure rights over agricultural land, disaggregated by sex, and the sub-indicator 5.a.1(b) measures the extent to which women are disadvantaged in agricultural population owning or holding secure rights over agricultural land.

The target population of the SDG indicator 5.a.1 is the agricultural population, underscoring the suitability of an agriculture survey or a census as among the preferred data collection methods for compiling the indicator¹.

Nepal had not officially reported data on the SDG indicator 5.a.1 until the year 2022, aligned with the internationally agreed methodology. Consequently, the Agriculture Census 2021/22 was designed to collect data on individual's ownership of agricultural land for computation and reporting of the SDG indicator 5.a.1. In this report, the estimation of SDG indicator 5.a.1 is based on the data collected from the National Sample Census of Agriculture 2021/22 (NSCA 2021/22) Nepal.

2. SDG indicator 5.a.1 and its sub-indicators

The SDG indicator 5.a.1 focuses on ownership or secure rights over agricultural land of the adult members of agricultural households by sex. The indicator comprises two distinct sub-indicators, each defined as follows²,

- In addition, the indicator can be compiled using household surveys. The choice of the survey instrument depends on the availability of existing surveys. The best suitability among those surveys is assessed at the country level.
- SDG indicators metadata repository (<https://unstats.un.org/sdgs/metadata/>), Goal 5, Target 5.a, Indicator 5.a.1.

- Sub-indicator 5.a.1 (a): Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex

Mathematically it is expressed as,

$$5.a.1(a) = \frac{\text{Number of people in agricultural population with ownership or secure rights over agricultural land}}{\text{Total agricultural population}} \times 100, \text{ by sex}$$

- Sub-indicator 5.a.1 (b): Share of women among owners or rights-bearers of agricultural land, by type of tenure

Mathematically it is expressed as,

$$5.a.1(b) = \frac{\text{Number of women in agricultural population with ownership or secure rights over agricultural land}}{\text{Number of people in the agricultural population with ownership or secure rights over agricultural land}} \times 100, \text{ by type of tenure}$$

The agricultural land defined in the metadata of SDG indicator 5.a.1 follows the classification recommended by the World Program for the Census of Agriculture 2020 (WCA 2020)³. According to the WCA 2020, the agricultural land includes 'land under temporary crops', 'land under temporary meadows and pastures', 'land under temporarily fallow', 'land under permanent crops' and 'land under permanent meadows and pastures'. In the case of Nepal, the ownership of farm buildings and farmyards are also counted in the estimation of the indicator if the farm building is located in the holding, or the farm building has been used for livestock raising or tending purposes.

Figure 1. Classification of Land Use for the Agriculture Census (WCA 2020).

Basic land use classes		Aggregate land use classes			
LU1. Land under temporary crops	LU1-3 Arable land	LU1-4 Cropland	LU1-5 Agricultural land	LU1-6 Land used for agriculture	
LU2. Land under temporary meadows and pastures					
LU3. Land temporarily fallow					
LU4. Land under permanent crops					
LU5. Land under permanent meadows and pastures					
LU6. Land under farm buildings and farmyards					
LU7. Forest and other wooded land					
LU8. Area used for aquaculture (including inland and coastal waters if part of the holding)					
LU9. Other area not elsewhere classified					

An additional variable crucial for computing the indicator is the agricultural population which refers to the adult individuals living in agricultural households. The concept of agricultural household is delineated as a household that operated land for agricultural purposes and/or raised livestock within the preceding 12 months, irrespective of the final purpose of the production. For international comparability, the recommended criterion for defining an adult is an individual aged 18 years or older. However, in Nepal, an individual aged 16 years and over is legally eligible to possess land ownership. Consequently, a separate computation of the indicators for household members aged 16 years and over has also been derived from the census data for national reporting purposes.

3. National law related to land ownership and land rights in the country

Nepal has a private property system for land ownership wherein land ownership predominantly resembles a freehold tenure. In this system,

- World Programme for the Census of Agriculture 2020, Vol. 1: Program, concepts and definitions, Page 68.

land ownership is formally acknowledged by the state, and administrative structures are in place to guarantee the enforceability of property rights. Land rights are duly registered in local land administration offices and officially certified with the individual's name on the document. The land owner, the individual whose name is specified in the land document, holds the authority to determine the land utilization and also has the rights to sell, rent, or transfer the land.

In Nepal, the Civil Code 2074 (BS) plays a pivotal role, particularly, Part 1, Chapter 3 "Civil Rights Provisions", wherein every citizen is granted the right to acquire, use, transfer, and engage in other property transactions in compliance with existing Nepal's laws and regulations. Notably, possession of a Citizenship card (certificate) is mandatory for individuals aged 16 years and above to purchase or hold land in the individual's names. Furthermore, the Civil Code allows minors under the age of 16, to hold land in their name if it is inherited, gifted, or transferred by parents. However, as clarified in Part 2, Chapter 1 "Provisions relating to natural persons" of the Civil Code, any individual reaching the age of 18 is considered an adult (capable person) and as such shall be deemed to be legally competent to exercise rights, fulfill responsibilities and meet duties as outlined by the law. Thus, even individuals aged 16 or 17 years can hold land under their name, but with the consent and guidance of a parent or a guardian during land transactions. This suggests that individuals aged 18 years and above typically acquire land in their name in Nepal.

While national law stipulates equal liability for both men and women to acquire land in their names, the reality demonstrates a gender-biased preference for male land ownership. To address this disparity, various economic policies have been established and implemented by provincial governments aiming to reduce the gap in land ownership between men and women. For example, to increase women's ownership in land, a reduction of approximately 25% to 35% in the registration fee is applied during land transactions if the land is recorded under a female's name. As a result, recent years have witnessed a notable increase in women's land ownership in Nepal, largely attributed to these favorable economic policies enacted by provincial governments.

4. National Sample Census of Agriculture 2021/22 and SDG indicator 5.a.1

The National Statistics Office (NSO) of Nepal conducted the National Sample Census of Agriculture 2021/22 (NSCA), encompassing all regions of the country. Nepal has longstanding tradition of conducting agriculture census once every decade since 1961/62. The NSCA 2021/22 is the seventh census in this series and the first one conducted under the country's new federal setup. Its primary objective is to provide data on the enduring structural aspects of agriculture, including parameters like farm size, land use, land tenure, crop areas, irrigated area, number of livestock, farm labour, use of machinery and other inputs at the local level (municipality).

For administrative purposes, Nepal is segmented into seven provinces, 77 districts, and 753 municipalities. The NSCA 2021/22 ensures precise estimates at the municipality level, using the 753 municipalities as domains of estimation for the sampling design. The census draws on a sizeable sample of 330,112 holdings nationwide, representing 8% of all holdings, selected from 13,576 enumeration areas (EAs).

i. Sampling method

The sampling method used in the census is stratified two-stage sampling. The enumeration areas within the municipality served as the primary stage

units (PSUs), while the agricultural households in selected enumeration areas functioned as the second stage units (SSUs) of the sampling process. The EAs are selected using probability proportional to size (PPS) systematic sampling while the SSUs were chosen through equal probability systematic sampling. The selection process implicitly stratified holdings into four categories based on size of land and the number of livestock kept.

The sampling frame for PSUs was prepared from the list of enumeration areas prepared for the National Population and Housing Census 2021 (NPHC 2021). Following recommendations from the Food and Agriculture Organization (FAO), the NPHC 2021 integrated an agricultural module collecting fundamental agriculture-related information from all households across the country including total area of operational holding, number of livestock, and number of poultry birds.

The primary reference period for the data collected in the census was the calendar year 2021. However, information regarding land area, the number of livestock, and the status of land ownership for household members were collected with reference to the day of enumeration.

ii. Customization of the questionnaire

The NSCA 2021/22 adheres to the guidelines outlined by the World Program for the Census of Agriculture 2020 (WCA 2020), developed by the FAO for the methodology, concepts, definitions, classifications and content of the census. The census primarily encompasses activities related to crop and livestock production, while also encompassing ancillary activities associated with the selected holdings and demographic information concerning all household members. In NSCA 2021/22 the agricultural households are already identified through screening questions during agricultural holding listing operation. The minimum set of information required to identify ownership or secure rights over agricultural land for household members and the calculation of indicator included:

- Sex and age of agricultural household members,
- Whether agricultural household member possesses a legal document of land ownership or secure rights,
- Whether agricultural household member has right to sell any agricultural land,
- Whether agricultural household member has the right to bequeath any agricultural land,

The legal document of land ownership or secure rights refers to official documentation featuring individual's name as listed on the land document, or encompasses various types of official documents deemed valid to defend an individual's rights before the law, such as certificates of ownership, sales agreement, registered rental contracts, and long-term leasing contracts. In order to generate a globally applicable indicator, the SDG indicator 5.a.1 considers as owners or holders of secure rights, all the individuals living in agricultural households who meet at least one of the following criteria:

- Presence of legally recognized documents in their name,
- The right to sell agricultural land,
- The right to bequeath agricultural land

The proxies b and c are considered as alienation rights. Given Nepal's formal land title system, where all agricultural lands are documented, and the legal documents specify the owners, it is understood that possession of a legal document automatically entails the possession of alienation rights, as per the