

Joshi, Kaushal; Swaminathan, Hema; Martinez, Arturo; Addawe, Mildred; Soco, Christian Flora Mae

Working Paper

Women's asset ownership: Evidence from Georgia; Mongolia; and Cavite, Philippines

ADB Economics Working Paper Series, No. 571

Provided in Cooperation with:

Asian Development Bank (ADB), Manila

Suggested Citation: Joshi, Kaushal; Swaminathan, Hema; Martinez, Arturo; Addawe, Mildred; Soco, Christian Flora Mae (2019) : Women's asset ownership: Evidence from Georgia; Mongolia; and Cavite, Philippines, ADB Economics Working Paper Series, No. 571, Asian Development Bank (ADB), Manila,
<https://doi.org/10.22617/WPS190023-2>

This Version is available at:

<https://hdl.handle.net/10419/203413>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/3.0/igo/>

WOMEN'S ASSET OWNERSHIP: EVIDENCE FROM GEORGIA; MONGOLIA; AND CAVITE, PHILIPPINES

*Kaushal Joshi, Hema Swaminathan, Arturo Martinez Jr., Mildred Addawe, and
Christian Flora Mae Soco*

NO. 571

February 2019

ADB ECONOMICS
WORKING PAPER SERIES

Women's Asset Ownership: Evidence from Georgia; Mongolia; and Cavite, Philippines

Kaushal Joshi, Hema Swaminathan, Arturo Martinez Jr., Mildred Addawe, and Christian Flora Mae Soco

No. 571 | February 2019

Kaushal Joshi (kjoshi@adb.org) is a Principal Statistician, Arturo Martinez, Jr. (amartinezjr@adb.org) is a Statistician, and Mildred Addawe (maddawe.consultant@adb.org) and Christian Flora Mae Soco (csoco.consultant@adb.org) are Consultants at the Economic Research and Regional Cooperation Department, Asian Development Bank. Hema Swaminathan (hema.swaminathan@iimb.ac.in) is an Associate Professor at the Indian Institute of Management Bangalore.

This study was carried out under R-CDTA 8243: Statistical Capacity Development for Social Inclusion and Gender Equality. The paper has been prepared as supplemental material for the *Key Indicators for Asia and the Pacific 2017* data chapter and the report on *Measuring Asset Ownership and Entrepreneurship from a Gender Perspective: Methodology and Results of Pilot Surveys in Georgia, Mongolia, and the Philippines*. The authors benefited from the insightful comments of Yasuyuki Sawada, Rana Hasan, Lakshman Nagraj Rao, Bimal Giri, Francesca Grum, Gulab Singh, Haoyi Chen, Lauren Pandolfelli, Tengiz Tsekvava, Tamar Gulua, Teimuraz Paksashvili, Giorgi Kalakashvili, Wilma Guillen, Bernadette Balamban, Ana Jean Casanas, Amarbal Avirmed, Myagmarkhand Erdene-Ochir, Saranchimeg Byamba, Tamir Baldandorj; and research support of Melissa Pascua, Criselda De Dios, Ma. Laarni Revilla, and Clemence Cruz. The authors are also grateful to other project team members from the National Statistics Office of Georgia, the National Statistics Office of Mongolia, and the Philippine Statistics Authority who conducted the pilot surveys in collaboration with ADB.



Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO)

© 2019 Asian Development Bank
6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines
Tel +63 2 632 4444; Fax +63 2 636 2444
www.adb.org

Some rights reserved. Published in 2019.

ISSN 2313-6537 (print), 2313-6545 (electronic)
Publication Stock No. WPS190023-2
DOI: <http://dx.doi.org/10.22617/WPS190023-2>

The views expressed in this publication are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use. The mention of specific companies or products of manufacturers does not imply that they are endorsed or recommended by ADB in preference to others of a similar nature that are not mentioned.

By making any designation of or reference to a particular territory or geographic area, or by using the term “country” in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

This work is available under the Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO) <https://creativecommons.org/licenses/by/3.0/igo/>. By using the content of this publication, you agree to be bound by the terms of this license. For attribution, translations, adaptations, and permissions, please read the provisions and terms of use at <https://www.adb.org/terms-use#openaccess>.

This CC license does not apply to non-ADB copyright materials in this publication. If the material is attributed to another source, please contact the copyright owner or publisher of that source for permission to reproduce it. ADB cannot be held liable for any claims that arise as a result of your use of the material.

Please contact pubsmarketing@adb.org if you have questions or comments with respect to content, or if you wish to obtain copyright permission for your intended use that does not fall within these terms, or for permission to use the ADB logo.

Corrigenda to ADB publications may be found at <http://www.adb.org/publications/corrigenda>.

Notes:

In this publication, “\$” refers to United States dollars.
ADB recognizes “Bangalore” as Bengaluru.

The ADB Economics Working Paper Series presents data, information, and/or findings from ongoing research and studies to encourage exchange of ideas and to elicit comment and feedback about development issues in Asia and the Pacific. Since papers in this series are intended for quick and easy dissemination, the content may or may not be fully edited and may later be modified for final publication.

CONTENTS

TABLES, FIGURE, AND BOX	iv
ABSTRACT	v
I. INTRODUCTION	1
II. ASSET OWNERSHIP AND CONTROL: A GENDER PERSPECTIVE	3
III. METHODOLOGY OF ASSET SURVEYS	5
A. Who Is an Asset Owner?	6
B. Indicators of Asset Ownership	7
IV. COUNTRY CONTEXT AND KEY RESULTS	9
A. Incidence of Asset Ownership: Reported and Documented	11
B. Forms of Ownership and Alienation Rights over Assets	15
C. Mode of Acquisition	20
D. Gender Wealth Gap	23
E. Comparison of Self-Assigned Approach and Ownership Assigned by Any Respondent Approach	24
V. AREAS FOR FURTHER RESEARCH	27
VI. DISCUSSION AND POLICY IMPLICATIONS	28
REFERENCES	29

TABLES, FIGURE, AND BOX

TABLES

1	Details on the Ownership, Valuation, and Mode of Acquisition Questions in the EDGE Pilot Surveys	5
2	Example on Tabulation of Responses	7
3	Distribution of Respondents by Key Sociodemographic Characteristics	10
4	Men's and Women's Ownership Rates of Immovable Assets	12
5	Men's and Women's Reported Ownership Rates of Other Assets	13
6	Distribution of Forms of Asset Ownership	16
7	Distribution of Rights to Sell Select Assets	17
8	Distribution of Rights to Bequeath Select Assets	18
9	Form of Reported Ownership and Alienation Rights	19
10	Form of Documented Ownership and Alienation Rights	20
11	Distribution of Mode of Acquisition of Select Assets	22
12	Share of Men and Women in Total Value of Dwellings	24
13	SAO and OAAR Ownership Rates of Selected Types of Assets, by Sex and Form of Ownership	25

FIGURE

Conceptual Framework for Measuring Asset Ownership and Control from a Gender Perspective	3
--	---

BOX

Measuring Gender Differences in Asset Ownership	8
---	---

ABSTRACT

Since the implementation of the Millennium Development Goals, significant global progress has been achieved in promoting gender equality in education and health. However, progress has not been as remarkable in advancing women's rights on asset ownership and control, which is critical for securing gender equity in economic participation and opportunity, and delivering on the Sustainable Development Goals. Part of the problem comes from the lack of standards on collecting sex-disaggregated data on the topic. The Evidence and Data for Gender Equality (EDGE) initiative aims to develop standardized methods and guidelines for collecting sex-disaggregated data on asset ownership. This paper provides rich inputs to the methodological guidelines being developed by the United Nations and development partners by drawing on the key findings from the pilot surveys conducted in Georgia; Mongolia; and Cavite, Philippines. Furthermore, survey results suggest substantive gender gaps in ownership across different types of assets and countries. These variations confirm the importance of understanding the social norms governing gender roles in society and legislation that can facilitate or impede women's asset ownership.

Keywords: asset ownership, gender equality, gender gaps

JEL codes: C80, J16, Q15

I. INTRODUCTION

Globally, countries recognize the importance of closing the gaps between men and women. Goal 5 of the Sustainable Development Goals sets out several targets that aim to empower girls and women in terms of economic and political participation, educational attainment, and health outcomes. While substantial headway has been made in some of these areas, significant gender disparities still exist with respect to access to productive resources.

Hence, in any poverty reduction program, promoting greater gender equality in rights to economic resources and ownership of productive assets should be an important ingredient. In fact, numerous studies point to a strong positive correlation between socioeconomic well-being and asset ownership. Existing literature identifies ownership of specific types of assets (e.g., house or land) that determines whether a family is chronically poor or not. Other studies also show that ownership of durable assets can minimize the risk of falling into transient poverty as such assets can facilitate income diversification or be used as collateral to be able to access credit.

There is also a wealth of evidence suggesting that women who have access and command over productive assets also have greater participation in household decision-making (Garikipati 2009; Twyman, Useche, and Deere 2015; and Swaminathan, Suchitra, and Lahoti 2011). This also translates to households faring well in terms of family members' health and nutrition, and children's education outcomes (Quisumbing and Maluccio 2000; and Doss 2006). Furthermore, studies show that women who own productive assets have reduced risk of experiencing domestic violence (Panda and Agarwal 2007; Oduro and Seshie-Nasser 2016; and Bonilla et al. 2017). In other areas, research also demonstrates that more equitable distribution of land rights and security of tenure for women are associated with increased agricultural productivity and better soil conservation practices (Goldstein and Udry 2008; Ali, Deininger, and Goldstein 2014).

While statistics on asset ownership are essential for building evidence to better understand the topic and provide inputs for programs that aim to provide equal opportunities for men and women, sex-disaggregated data needed for monitoring progress on this front is scarce (ADB 2017). Conventional data collection vehicles, including surveys which are conducted by national statistical agencies collect information on assets that are owned by households. By nature, this data collection approach does not shed light on which specific household members actually own the assets. Researchers who are interested in examining gender disparities can only do so by comparing households headed by men with those headed by women. Headship analysis is often a poor proxy for gender analysis as households headed by men and those headed by women are structurally different. Some studies show that for certain categories of assets, gender inequality is overestimated by headship analysis as it ignores women in households headed by men (Deere, Alvarado, and Twyman 2012) while others suggest that gaps in agricultural productivity between plots owned by men and women could be underestimated if analysis is categorized based on the sex of the household head (Peterman et al. 2011).

To address this issue, several initiatives to collect individual-level asset data have been made. However, as most of these attempts were made independently, a common framework to compare the results emerging from these studies is missing due to differences in survey instruments, sampling design, and data collection protocols.

The global initiative Evidence and Data for Gender Equality or EDGE led by the United Nations Statistics Division (UNSD) aims to develop methodological guidelines for collecting sex-disaggregated data on asset ownership and entrepreneurship that can be used for systematic collection of data on this topic. This initiative is in collaboration with the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), Food and Agriculture Organization of the United Nations (FAO), and other development partners such as the World Bank and the Asian Development Bank (ADB). Pilot surveys employing different methodologies were fielded in seven countries namely, Georgia, Maldives, Mexico, Mongolia, the Philippines, South Africa, and Uganda. Having the capacity to contribute to the development of standardized methodology, availability of plans to either conduct a relevant survey that could accommodate a module or a full-blown survey on asset ownership, and interest in producing better gender statistics, particularly on asset ownership were among the key criteria used in choosing pilot countries. Furthermore, the chosen pilot countries also offer diverse representation in terms of economic landscape, gender norms, and legal property rights. The World Bank provided support to the data collection in Uganda while the National Institute of Statistics and Geography (INEGI) supported the conduct of the survey in Mexico. UNSD supported the conduct of surveys in Maldives, Uganda, and South Africa. ADB contributed to this global effort especially in generating internationally comparable indicators on entrepreneurship and asset ownership by providing administrative, technical, and financial assistance to the national statistics offices of Georgia, Mongolia, and the Philippines in conducting pilot surveys.

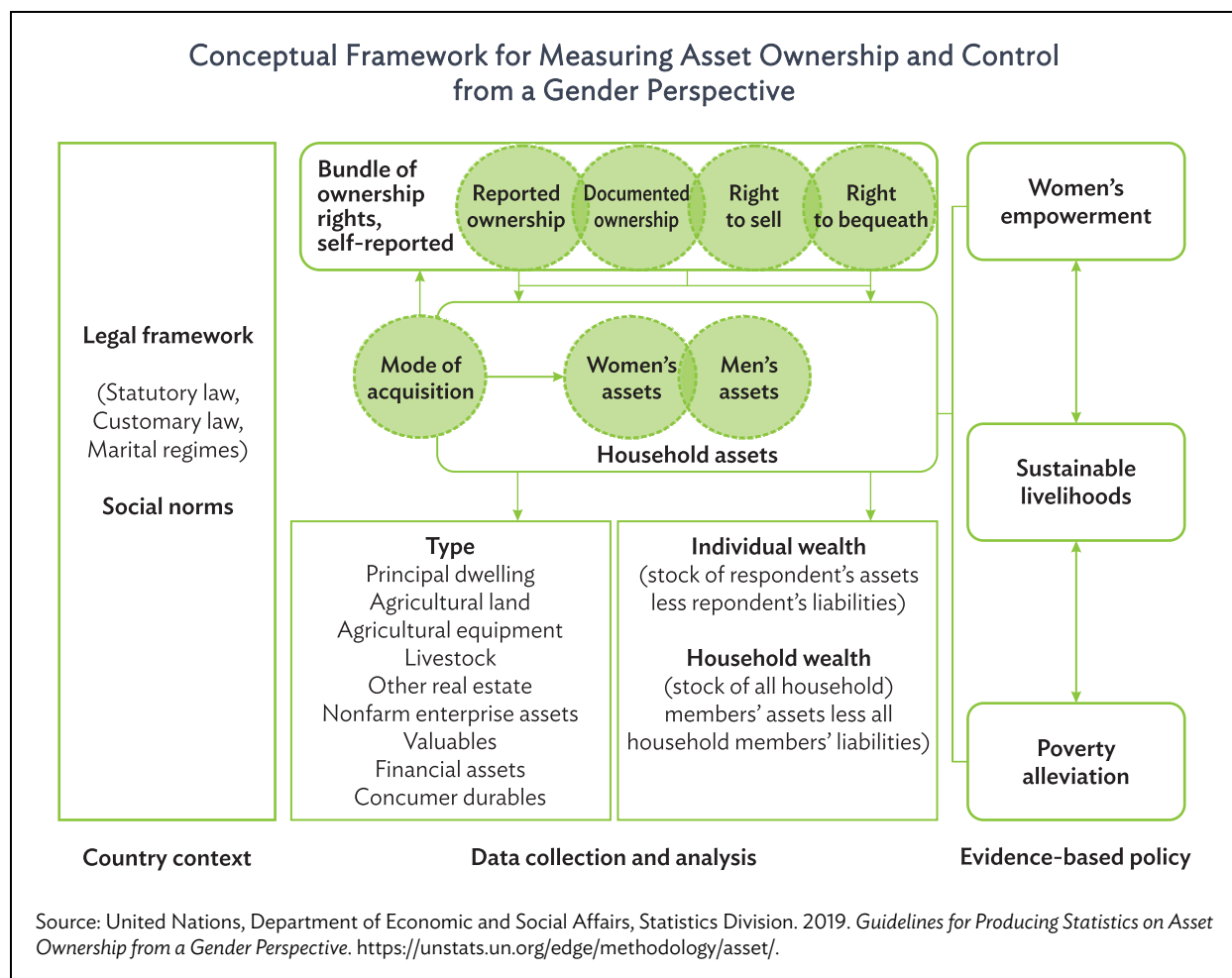
This paper presents key results on gendered patterns of asset ownership from the three Asian countries supported by ADB. The findings from the three surveys conducted in Georgia, Mongolia, and the province of Cavite in the Philippines have provided rich inputs to the methodological guidelines on the collection of sex-disaggregated data on asset ownership (ADB 2018). One of the methodological issues that was taken into consideration during the design of the surveys implemented in the pilot countries is whether the information on asset ownership can be collected by proxy or should be self-reported. Findings from the pilot surveys suggest that there are more merits in using self-reported information. Furthermore, data collected from ADB-supported pilot surveys indicate that there are substantive gender gaps in ownership, although these vary by asset types and between countries. These variations point to the importance of understanding the social norms governing men and women's roles and responsibilities in society and the legislative framework that can facilitate or impede women's asset ownership.¹

The remainder of the paper is organized as follows. Section II briefly describes the conceptual framework followed by the EDGE project while section III discusses the main features of the surveys conducted in Georgia; Mongolia; and Cavite, Philippines. In section IV, we highlight the methodological and substantive findings from the three pilot surveys while section V identifies areas for future research. In the final section, we draw broad policy implications of the results.

¹ The findings from Georgia, Mongolia, and the Philippines, along with EDGE surveys conducted in other countries, are used as inputs to the development of UNSD's methodological guidelines on the collection of sex-disaggregated data on asset ownership.

II. ASSET OWNERSHIP AND CONTROL: A GENDER PERSPECTIVE

The EDGE conceptual framework (see figure below) provides a comprehensive overview of the diverse factors underpinning asset ownership and why it is important from a policy perspective. Laying it out explicitly makes it clear that the entire spectrum ranging from asset acquisition, ownership, and use, is gendered. Thus, any attempt to reduce the gender gap has to grapple with how gender interacts along this spectrum.



Most surveys, whether collecting household or individual asset data, simply request respondents to identify if the asset is held by the household and if so, to identify individual owners. This is labeled as reported ownership and can be differentiated from documented ownership, where ownership claim is based on having one's name on some type of legal document (formal title deed, purchase agreement, and property tax records, and so on). This type of ownership may provide greater security of tenure than reported ownership. For example, in the Philippines, the system does not provide security of tenure to informal settlers who do not possess any ownership documents and who illegally occupy public and private lands (Porio and Crisol 2004). On the other hand, indigenous people (IP) in other Asian countries hold land through "customary or community-based tenure systems" but their legal rights are only limited to a small portion of the land, unless they are able to own the land through other means (e.g., in Cambodia and the Philippines, land can be officially allocated for

IPs and local groups [Rights and Resources Initiative 2015]) and have their names written as owners in legal documents. In countries where formal property rights are recognized to some degree, documented ownership are also necessary for alienation rights, right to sell, and right to bequeath.

In many developing countries, particularly in Asia and Africa, the full bundle of rights may not be vested in one individual (ADB 2017). Someone could be a reported owner, but not a documented owner. Women may be legal owners of assets, but due to gendered norms, men may actually control and manage the assets and often, never report women as owners. This is likely to arise, especially with immovable property such as land and house. In tenure systems where land is leased over long periods, alienation rights maybe restricted allowing intergenerational transfers but not sale. Such is the land tenure system in Maldives prior to the enactment of the Land Act of 2002 when the land is solely owned by the State, which provides permission to individuals to occupy the land for residential, commercial or other use. The law has, since then, granted private citizens to acquire the land by purchasing it from the State, provided that owners' and heirs' rights are considered in the acquisition (IMF 2008). Similarly, in Nigeria, the state owns the land, and the head of the state provides legal rights of tenancy. The tenant, however, is restricted from selling, leasing, or transferring the land without permission from the head of state (International Center for Nigerian Law 1990).

Another important factor affecting control over assets, including alienation rights, is whether ownership is joint or individual. This form of ownership is heavily influenced by the marital regime of the country in interaction with social norms. A marital regime regulates ownership of marital assets or assets within a consensual union. There are three common types of marital regimes: separation of property, partial community property, and full community property. Under a separation of property regime, properties brought into marriage are separately owned and any property acquired and inherited during marriage is maintained. Under a partial community property regime, properties acquired during marriage by either spouse is treated as jointly owned by both spouses. On the other hand, under a full community property regime, all individual properties brought into, acquired, and inherited during marriage is treated as the joint property of both spouses. Thus, inheritance is treated on par with marital assets in full community property, while in partial community property, inheritance is kept separate from marital assets. The influence of social norms cannot be underrated. Often, laws are egalitarian, but are rendered ineffective in the face of regressive attitudes. This is typically seen in the context of natal inheritance for women. In some Latin American countries, for instance, there is a disconnect between equality in women's and men's property rights as stipulated in the law and men's privileges in inheritance of properties (Hamilton 2004). Again, while laws may specify no discrimination between sons and daughters, patriarchal attitudes often force women to sign away their rights to their brothers.

An asset, as conceptualized here, is based on the 2008 System of National Accounts (SNA) set of definitions and is understood as *"a store of value representing a benefit or a series of benefits accruing to the economic owner by holding or using the entity over a period of time."* Thus, all assets, physical and financial, fall within the purview of data collection. The framework further highlights the complementarity of wealth data to asset ownership data in providing rich insights to socioeconomic planners when designing policies that could potentially have an impact on the well-being of individuals.

III. METHODOLOGY OF ASSET SURVEYS

The EDGE data collection covered the entire range of physical and financial assets. The physical assets included immovable property (dwellings, agricultural land, and other real estate); livestock; agricultural equipment; nonagricultural enterprise and enterprise assets; consumer durables and valuables (jewelry, precious stones, and so on). The financial assets module elicited information on savings in formal and informal sectors, equity, pension funds, insurance instruments, as well as money lent by the respondent. For a range of assets, the surveys also collected valuation data and how the asset was acquired. The value of an asset summarizes the quality of the asset and its attributes (size of the dwelling or plot, desirability of the location, etc.). Further, differences in the quantity of an asset owned across respondents are captured by value data, unlike an ownership count. The respondents reported the value of their assets at current market price. Table 1 provides details on the ownership, valuation, and mode of acquisition questions in the surveys.

Table 1: Details on the Ownership, Valuation, and Mode of Acquisition Questions in the EDGE Pilot Surveys

Bundle of Ownership Rights	Relevant Assets	Questions Asked in the Survey
Reported ownership	All assets	Who owns this [asset]?
Documented ownership	Dwelling, agricultural land, other real estate	Is there an <i>ownership document</i> for this [asset]? (If yes), whose name(s) are <i>listed as owners</i> on the ownership document for this [asset]?
Right to sell assets	Dwelling, agricultural land, large agricultural equipment, nonagricultural enterprises, and other real estate	If this [asset] were to be sold, which member(s) of this household would be involved in the decision to sell?
Right to bequeath assets	Dwelling, agricultural land, large agricultural equipment, nonagricultural enterprises, and other real estate	Which member(s) of this household would be involved in the decision to bequeath this [asset]?
Mode of acquisition	Dwelling, agricultural land, large agricultural equipment, nonagricultural enterprises, and other real estate	How did the owner(s) acquire this [asset]? (If inherited or allocated by family member or gifted by nonfamily member), from whom did the owners receive the [asset]?
Asset value	Dwelling, agricultural land, large agricultural equipment, nonagricultural enterprises, other real estate, and financial asset	If this [asset] were to be sold today, how much could be received for it?

Source: Asian Development Bank using Evidence and Data for Gender Equality (EDGE) pilot surveys.

The sampling design and interview protocol were largely similar across the three sites with adaptations for the local context. In Georgia and the Philippines, a two-stage stratified sampling design was followed, while in Mongolia, it was a three-stage design. The final samples of 3,160 households for Georgia and 3,008 households for Mongolia are nationally representative; the sample of 1,536 households is representative of Cavite province in the Philippines.

A maximum of three adults, at least 18 years of age, were interviewed in each sampled household. The primary respondent, identified by the household as the most knowledgeable member

with respect to household assets; the second respondent was the spouse or partner, if any, of the primary respondent. These individuals are the principal couple. The third respondent was chosen randomly from the remaining adults. The total respondents interviewed were 5,937 in Georgia; 5,592 in Mongolia; and 3,456 in Cavite, Philippines.

A. Who Is an Asset Owner?

There is increasing recognition that one should pay attention to who is being interviewed in surveys. Household surveys conventionally collect most of their information from one member in the household, typically the head or someone identified by the household as being most knowledgeable of the relevant survey topic. Surveys like the Demographic and Health Surveys (DHS) that focus on reproductive health and sensitive issues such as prevalence of domestic violence collect data from several individuals within the household. Even so, monetary information relating to income, consumption expenditure, or asset inventory to construct wealth quintiles are obtained from one person.

Recent evidence suggests that proxy data provided by one respondent differs from data that is collected from individual household members or self-reported data. In Malawi, the wife's income tends to be underestimated by husbands (Fisher, Reimer and Carr 2010); in Tanzania, with respect to labor force participation rates, Bardasi et al. (2011) find that male employment rates are negatively biased due to proxy reporting, but with no impact on female employment rates. There may be several reasons for such divergence in estimates; there could be an information asymmetry within households either deliberately or due to gendered norms that may prevent such communication, particularly between men and women.

With regard to economic resources such as assets, gendered perceptions of ownership may also bias ownership estimates. In Uganda, Kilic, and Moylan (2016) report substantive differences in both men's and women's asset ownership estimates on comparing proxy versus self-reported data. The authors consider several assets and conclude that proxy reporting underestimates the individual asset ownership rate irrespective of the sex of the owner.

The EDGE surveys discussed in this paper collected individual-level asset information through self-reporting as well as proxy reporting which enables a comparison of these two approaches. A maximum of three respondents were interviewed in each household, wherein each respondent provided information on their own assets as well as ownership information on assets held by other household members. Thus, they self-report and also act as proxies for other household members. The survey calculates both self-assigned ownership (SAO) using self-reported data and ownership assigned by any respondent (OAAR) using proxy information from all household respondents.

The SAO approach ignores the information provided (proxy reporting) by the other respondents about the ownership of assets and is based on the premise that the respondent is in the best position to provide accurate information about the assets in which they have an ownership stake. On the other hand, the OAAR approach consolidates the information provided by all respondents to form a single set of information for the household. Statistically, it is the union of two or three sets of information. The OAAR approach is the "most inclusive" approach in that it considers all information provided by all eligible respondents in the household regarding assets ownership. "Inclusive" here refers to the broadest definition of ownership, i.e., as long as a person is identified as an owner by one eligible respondent in the household, that person is considered an owner, irrespective of what the other household members report.

To illustrate the differences between the two approaches, consider the tabulation of hypothetical responses for reported ownership of an asset in Table 2. The household has five adult household members (columns numbered 1 through 5, with their sex in parentheses), three of whom were selected as respondents. Under the OAAR approach, a household member is considered an owner as long as he/she has been identified as an owner by at least one respondent. Hence, the fourth and fifth members are considered as owners, even though they were not interviewed, since the second respondent identified them as such. Meanwhile, under the SAO approach, only the first two members are classified as owners since it is based on self-identification. However, the information provided by self-reported owners are attached with inflation factors so that they still sum up to the total target population.

Table 2: Example on Tabulation of Responses

Which household member(s) own this <ASSET>?					
Respondent	Adult Household Members				
	1 (Male)	2 (Female)	3 (Female)	4 (Female)	5 (Male)
1 (Male)	Owner				
2 (Female)	Owner	Owner		Owner	Owner
3 (Female)	Owner	Owner			
OAAR	Owner	Owner		Owner	Owner
SAO	Owner	Owner			

OAAR = ownership assigned by any respondent, SAO = self-assigned ownership.

Source: Asian Development Bank using Evidence and Data for Gender Equality (EDGE) pilot surveys.

B. Indicators of Asset Ownership

Drawing from the conceptual framework presented earlier, three sets of indicators—incidence of asset ownership, distribution of form of ownership, and the gender wealth gap—are presented by sex to explore inequalities in asset ownership from a gender perspective (see Box). Rather than rely on a single indicator, a portfolio of indicators is relevant to fully appreciate why gender disparities exist and to suggest possible policy levers to help remedy the problem.

Incidence of asset ownership is the proportion of individuals in the total population owning a particular asset and provides an easy-to-understand snapshot of the prevalence of asset ownership in a country. The data requirements are relatively light and the indicator itself is simple to calculate. However, there are also some downsides to this indicator; we do not know if a person owns an asset exclusively or jointly with other persons, or owns several pieces of the same type of asset (e.g., owns two parcels of land). Further, there is no indication of the quality of the asset owned.

To address these gaps, two additional measures are presented: the distribution of forms of asset ownership and gender wealth gap indicator. The first measure reveals how the asset is owned; whether by a single individual or jointly by several individuals. The joint ownership could be between the principal couple, with household members or even nonhousehold members. Often, whether an asset is owned individually or jointly is influenced by inheritance and marital regimes, which in turn could impact rights over the assets. The distribution measure can also look at distribution of alienation rights and mode of asset acquisition. The EDGE surveys collected data on asset value, based on the current sales price of the asset, to calculate a gender wealth gap that would account for the quality and quantity of the assets as well as individual or joint ownership. Valuation data though, is harder to obtain

as there may be missing asset markets or lack of awareness of market prices by the respondent or a reluctance to share such information.

Measuring Gender Differences in Asset Ownership

To examine patterns in ownership and detect any gender disparity, three measures were used in the Evidence and Data for Gender Equality (EDGE) pilot surveys. These were incidence of asset ownership, distribution of asset ownership, and the gender wealth gap.

Incidence of Asset Ownership by Sex

Incidence of asset ownership measures what percentage of adult female are owners as well as what percentage of adult male are owners.

$$\text{Incidence} = \frac{\text{Number of Adult Men (Women) asset owners}}{\text{Total number of adult Men (Women)}}$$

The incidence of ownership was computed by type of ownership (reported or documented) for all assets covered in the survey, and using the type of ownership approach (self-assigned ownership and ownership assigned by any respondent) for select assets.

Distribution of Asset Ownership

This measure looks at the distribution of asset ownership by forms of ownership (i.e., exclusively owned by men, exclusively owned by women, owned by principal couple, jointly owned by all household members, and other forms of joint ownership.), enabling us to compare the proportion of owners who have exclusive or joint rights over an asset. A sample formula for the percentage of exclusive male (or female) owners of a specified category of assets out of all the owners of that asset type is as follows.

$$\text{Distribution} = \frac{\text{Number of exclusive male (or female) owners of specified category of assets}}{\text{Total number of asset owners of specified category of assets}}$$

The distribution of ownership may also be examined by ownership rights (right to sell or bequeath an asset); form of ownership and right (exclusive or joint right to either sell or bequeath an asset); and mode of asset acquisition (founded or purchased, inherited, etc.), to name a few.

Gender Wealth Gap

The value of an asset is derived from its current market price. In the succeeding analysis of wealth gap, we will focus on the value of dwellings only because of high nonresponse rates on values of other types of assets. The share of the value of dwellings owned by men and by women is then computed using the formula below.

$$\frac{\text{Value of dwellings accruing to Men (Women)}}{\text{Total value of dwellings}}$$

Source: Asian Development Bank. 2018. *Measuring Asset Ownership and Entrepreneurship from a Gender Perspective: Methodology and Results of Pilot Surveys in Georgia, Mongolia, and the Philippines*. Manila.

All indicators are calculated for individuals 18 years and older. The incidence indicator is estimated for all asset categories, while other indicators are presented for select assets. The results presented in this paper are mainly based on the SAO approach. Nevertheless, we also present a comparison of the incidence estimates derived from the SAO and OAAR approaches.

IV. COUNTRY CONTEXT AND KEY RESULTS

The three countries that conducted the EDGE pilot survey vary in terms of geography, demographic features, administrative structure, and economy. The pilot countries also have diverse social and legal factors that govern asset ownership and corresponding actions such as acquisition, bequeathing, and sale. These consist of constitutional provisions and existing laws on inheritance and marital regimes, as well as social customs and practices.

Georgia. Georgia is situated at the crossroads of Europe and Asia in the Caucasus and its total population is estimated at 3.72 million in 2016. Its gross domestic product (GDP) per capita is estimated at \$3,852.5 in nominal terms and \$9,267.3 in purchasing power parity (PPP) terms in 2016. The male–female population ratio is 1.11:1 in 2015 (National Statistics Office of Georgia 2018). The country ranks 70th out of 180 countries in the Human Development Index (HDI) and is categorized in countries as having a high level of human development. The HDI for women is 0.754 and the HDI for men is 0.77, indicating a small gap of human development between the two sexes (UNDP 2016).

Gender equality is an important area of discourse in Georgia. The Georgian government has ratified the United Nations (UN) Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1994, and enacted the Constitution of Georgia in 1995 and the Law on Gender Equality in 2010, which all includes gender equality provisions. Article 38 of The Constitution of Georgia states that “*Citizens of Georgia shall be equal in social, economic, cultural and political life irrespective of their national, ethnic, religious or linguistic belonging.*” Article 10 of the Law on Gender Equality, on the other hand, stipulates gender equality in family relations and states that “spouses shall have equal rights to own, acquire, manage, enjoy, and administer property” (ADB 2018).

Mongolia. Mongolia is located between the Russian Federation in the north and the People's Republic of China in the south. Mongolia's total population reached 3.06 million in 2015, with women comprising more than half (51.6%). The country has a high level of human development based on the HDI and ranks 92nd out of 180 countries. The HDI for women is 0.744 and the HDI for men is 0.725, indicating a small gap in disparities of development that favors women (UNDP 2016).

In Mongolia, there are several laws with gender-related provisions on asset ownership such as the 1992 Constitution of Mongolia, the 2002 Civil Code, and the 2002 Law of Mongolia on Land. The Constitution of Mongolia states that “*men and women have equal rights in the political, economic, social, cultural life and family relations.*” The Civil Code stipulates that “*all properties accrued for the period of life together since marriage, except for personal property of family members, shall be joint property.*” This law also states that “*wife, husband, and other members of the family, who do not earn income since marriage due to engagement in household works, child caring, sickness and other sound reasons, shall be entitled to joint ownership of family property.*” The 2002 Law of Mongolia on Land, on the other hand, provides that “*Mongolian citizens 18 years and over, companies, organizations and companies with foreign investment may possess or use land in compliance with this law*” (National Statistics Office of Mongolia 2018).

Cavite, Philippines. Cavite is a province located in Region IV-A CALABARZON, which is adjacent to the National Capital Region. Its nearness to the nation's metropolis has been favorable to the economic development of the province. The province had a total population of 3.68 million in 2015, making it the fastest growing province in the region (Philippine Statistics Authority 2015). It is considered as a highly industrialized province, with around 1,250 industrial establishments registered in 2015, with businesses in export, logistic services, facilities, and information technology (Provincial Government of Cavite 2015).

The Philippines has enacted several legislations in its efforts to address gender equality and women empowerment in the country. It has ratified CEDAW, the Philippine Constitution, Magna Carta of Women (MCW), and the Family Code of the Philippines, which all provide protection and welfare for Filipino women in various concerns. The MCW stipulates equal rights of spouses in terms of “ownership, acquisition, management, administration, enjoyment and disposition of property.” The Family Code of the Philippines, on the other hand, provides supplementary clause on property regimes that may be followed in marriage settlements among spouses, i.e., absolute community, conjugal partnership of gain, complete separation of property, or any other regime (Philippine Statistics Authority 2018).

The key characteristics of the male and female respondents for Georgia, Mongolia, and Cavite are presented in Table 3. The average age of surveyed respondents ranges from 39 to 50 years old. In terms of educational level, about four in 10 respondents have attained secondary education. In all these three areas, female respondents are more educated than male respondents in general. More than 60% of the respondents in the three pilot areas are married. Meanwhile, at least 65% of male respondents in the three countries are employed. In Georgia and Cavite, half of the female respondents are employed, while the remaining half are either unemployed or not in the labor force.

Table 3: Distribution of Respondents by Key Sociodemographic Characteristics

Sociodemographic Characteristics	Georgia		Mongolia		Philippines (Cavite Province)	
	Men	Women	Men	Women	Men	Women
Average age of respondents	48	50	42	42	39	40
Educational level (%)						
Primary or lower	2.8	3.4	30.4	24.2	16.9	17.4
Secondary	46.3	41.3	46.4	44.4	46.9	46.0
Postsecondary	22.9	25.6	n.a.	n.a.	n.a.	n.a.
Tertiary and above	27.9	29.7	23.2	31.4	36.2	36.6
Marital status (%)						
Never married	20.0	10.7	7.2	19.2	24.2	17.9
Married	72.3	61.5	75.3	68.1	69.9	65.7
Widowed/divorced/separated	7.6	27.8	17.4	12.7	5.9	16.4
Status in employment – past week (%)						
Employed	66.8	49.9	65.3	57.5	77.5	50.5
Not engaged in economic activity	33.2	50.1	34.7	42.5	22.5	49.5
Total number of respondents	2,499	3,438	2,488	3,104	1,605	1,851

n.a. = not applicable.

Note: Not engaged in economic activity refers to those who have not worked at all or who have worked for less than 1 hour during the last 7 days.

Source: Asian Development Bank estimates using Evidence and Data for Gender Equality (EDGE) pilot surveys.

A. Incidence of Asset Ownership: Reported and Documented

The incidence measure gives the proportion of the total adult population who are asset owners. The incidence gap or the gender asset gap is the difference in ownership rates between men and women (Box). Table 4 presents the incidence for immovable assets (dwelling, agricultural land, and other real estate) using reported and documented ownership concepts and results of corresponding t-tests.

The levels of reported ownership of property varies across the countries reflecting differing institutional structures. Dwelling is widely owned, while agricultural land shows the least prevalence rate (except for Georgia). Dwelling is owned by 80% of men and 76% of women in Georgia, by 60% of men and 33% of women in Mongolia, and by 34% of men and equal proportion of women in Cavite. Given its relatively urban nature, Cavite province, at less than 5%, has the lowest landownership rates. Mongolia is only marginally higher, but in Georgia, nearly 50% of the men and more than one-third of the women report landownership. This is mainly due to the receipt of private land by rural households in Georgia after the collapse of the Soviet Union, while Mongolia has more communal land. Other real estate refers to residential and nonresidential buildings excluding dwelling and nonagricultural land. Real estate ownership is lowest in Cavite. In Mongolia, it is higher than ownership of agricultural land, but lower than ownership of dwelling.

With few exceptions, irrespective of the type of ownership or context, men are significantly more likely than women to own immovable property. The gap in men's and women's property ownership is smallest in Cavite (in fact, there is no statistically significant gender gap for reported dwelling and real estate ownership) and largest in Mongolia. Focusing on reported ownership, men in Mongolia are twice as likely as women to own their dwellings, four times as likely to own land, and a little more than one-and-a-half times as likely to own other real estate.

The trends in documented ownership mirror that of reported ownership, although the ownership rates are much lower for both men and women. This suggests that many reported owners do not have their names on documents, with sharper differences in Georgia (ranging from 4 to 43 percentage points) than in the other countries. Although the reasons for this discrepancy was not obtained during the survey, one could speculate that there are transaction costs to changing names on such ownership documents. During field interviews, respondents are asked about the existence of legal documents with the names of the owners but the existence of such documents are not further verified. Presumably, disparity between the incidence of reported and documented ownership could even be larger than estimated if the names of the respondents are checked in the ownership documents.

Table 4: Men's and Women's Ownership Rates of Immovable Assets

Asset	Country	Sex	Incidence of Documented Ownership	No. of Obs	Incidence of Reported Ownership	No. of Obs
Dwelling	Georgia	Men	46.3%	1,296	80.4%	2,094
		Women	33.4%	1,240	75.9%	2,710
		t-test	M>W***; t=7.58		M>W***; t=3.39	
	Mongolia	Men	50.7%	1,287	59.6%	1,545
		Women	26.9%	834	32.8%	1,021
		t-test	M>W***; t=15.05		M>W***; t=15.55	
	Philippines (Cavite province)	Men	22.7%	415	34.4%	628
		Women	19.2%	380	34.2%	694
		t-test	M>W**; t=2.16		M=W; t=0.13	
Agricultural land	Georgia	Men	30.6%	872	47.7%	1,309
		Women	12.6%	516	34.1%	1,331
		t-test	M>W***; t=11.66		M>W***; t=8.49	
	Mongolia	Men	6.3%	190	8.0%	237
		Women	1.4%	55	2.0%	85
		t-test	M>W***; t=6.05		M>W***; t=6.67	
	Philippines (Cavite province)	Men	4.1%	70	4.8%	83
		Women	2.6%	59	3.2%	71
		t-test	M>W**; t=2.24		M>W**; t=2.34	
Other real estate	Georgia	Men	10.6%	258	15.7%	381
		Women	5.9%	202	10.1%	349
		t-test	M>W***; t=5.18		M>W***; t=5.24	
	Mongolia	Men	13.8%	347	16.3%	417
		Women	8.5%	282	10.4%	330
		t-test	M>W***; t=4.76		M>W***; t=4.99	
	Philippines (Cavite province)	Men	4.4%	72	5.7%	88
		Women	3.3%	63	5.4%	99
		t-test	M>W*; t=1.82		M=W; t=0.40	

M = men, W = women.

Notes: Significant t-test result implies that the incidence of ownership among men is statistically higher than the incidence of ownership among women. *** = 1% significance, ** = 5% significance, * = 10% significance.

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

Table 5 presents the incidence of ownership of assets other than immovable properties and corresponding results of t-tests. The importance of livestock in rural areas is reflected in fairly high ownership rates in Mongolia and Georgia. Approximately 40% of both men and women adult population in Georgia own livestock; whereas at 33% for men and 18% for women, the gender gap in ownership is highest in Mongolia.

Ownership of large agricultural equipment is low in Mongolia and negligible in Cavite; but it is not uncommon to hold small agricultural equipment. This low ownership could be due to two reasons: low ownership of agricultural land, and presence of an active rental market for large equipment due to their high costs of acquisition. Small agricultural equipment tends to be owned by all household members in Georgia and hence, the ownership module was not canvassed. However, ownership pattern among men and women seems more distinct for large agricultural equipment, with only 1% of Georgian women owning such equipment compared to 6% of Georgian men.

As expected, the incidence of ownership of consumer durables is highest among all assets in all the three countries, with low or no gender gaps. In fact, there is no statistically significant gender gap on ownership of consumer durables in Georgia and Cavite. The estimates of incidence of ownership of financial assets are lower than expected, particularly for Georgia. This finding could be attributed to the limitations on how the financial assets were conceptualized in the survey instruments and during field operations. In particular, respondents mix pension funds with the existing state pension allowances and exclude bank accounts that are opened for the purpose of receiving state pension allowances in the list of financial assets. On the other hand, the results suggest that women are slightly more likely to own financial assets than men in Mongolia and Cavite.

The gender gaps for the incidence of nonagricultural enterprises are more evident in Georgia and Mongolia. Interestingly, in Cavite, the gender gap is reversed in favor of women.

Table 5: Men's and Women's Reported Ownership Rates of Other Assets

Asset	Country	Sex	Incidence of Reported Ownership	No. of Obs
Livestock	Georgia	Men	41.6%	1,144
		Women	38.6%	1,470
		t-test	M>W**, t=2.17	
	Mongolia	Men	32.7%	943
		Women	18.3%	674
		t-test	M>W***, t=11.32	
	Philippines (Cavite province)	Men	14.3%	240
		Women	5.4%	119
		t-test	M>W***, t=8.89	
Large agricultural equipment	Georgia	Men	6.4%	170
		Women	1.0%	39
		t-test	M>W***, t=7.29	
	Mongolia	Men	2.7%	79
		Women	0.2%	11
		t-test	M>W***, t=5.19	
	Philippines (Cavite province)	Men	0.4%	6
		Women	0.3%	5
		t-test	M=W; t=0.39	

continued on next page

Table 5 *continued*

Asset	Country	Sex	Incidence of Reported Ownership	No. of Obs
Small agricultural equipment	Georgia	Men	n.a.	
		Women	n.a.	
		t-test	n.a.	
	Mongolia	Men	54.8%	1,477
		Women	36.2%	1,220
		t-test	M>W***; t=11.78	
	Philippines (Cavite province)	Men	50.6%	921
		Women	43.5%	887
		t-test	M>W***; t=3.53	
Consumer durables	Georgia	Men	98.3%	2,477
		Women	98.4%	3,391
		t-test	M=W; t=0.11	
	Mongolia	Men	93.7%	2,347
		Women	91.4%	2,851
		t-test	M>W***; t=2.67	
	Philippines (Cavite province)	Men	88.0%	1,453
		Women	86.8%	1,658
		t-test	M=W; t=0.73	
Financial assets	Georgia	Men	1.8%	38
		Women	1.6%	50
		t-test	M=W; t=0.44	
	Mongolia	Men	18.0%	448
		Women	19.4%	654
		t-test	M=W; t=1.07	
	Philippines (Cavite province)	Men	14.0%	229
		Women	19.3%	346
		t-test	M<W***; t=-4.01	
Nonagricultural enterprises	Georgia	Men	10.7%	273
		Women	6.0%	203
		t-test	M>W***; t=5.86	
	Mongolia	Men	14.8%	384
		Women	11.1%	379
		t-test	M>W***; t=3.55	
	Philippines (Cavite province)	Men	15.8%	283
		Women	19.9%	394
		t-test	M<W***; t=-3.22	

M = men, W = women.

Notes: Significant t-test result implies that the incidence of ownership among men is statistically different from the incidence of ownership among women. *** = 1% significance, ** = 5% significance, * = 10% significance.

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

B. Forms of Ownership and Alienation Rights over Assets

In addition to examining the incidence of ownership of assets among men and women, it is also important to study whether an asset is owned individually or jointly as it can have implications for an individual's control and rights over the asset. However, there is no linear mapping between ownership and control over assets; there are many mediating factors that are often encapsulated as “context” and refers to macro (laws, norms, and so on) and micro (household structure, marital relations, and so on) processes.

Forms of Ownership

Joint ownership can be with spouses or partners, other household members, and often with nonhousehold members too. These ownership patterns are generally influenced by the legislative framework (inheritance and marital regimes) as well as current social norms and practices. Marital regime refers to the set of laws that govern property ownership within marriage or cohabitation. Georgia and Mongolia follow a partial community of property marital regime which means that all property acquired during the marriage is treated as joint property of the couple. But property that was acquired before the marriage and any inheritances are treated as individual property. The Philippines follows a full community property regime where all property, irrespective of when and how they were acquired is treated as jointly owned by the couple. Thus, one could expect ownership by the principal couple to dominate in the province of Cavite in the Philippines compared to the other two countries.

In all three countries, there is no legal discrimination in inheritance between sons and daughters, but prevailing norms reveal biases in favor of men. For instance, Georgian men are more than twice as likely to acquire dwelling units as an inheritance than Georgian women, and this reflects the traditional perceptions that men are more privileged in inheritance (National Statistics Office of Georgia 2018). Meanwhile, existing law in Mongolia provides that all adult household members should be registered as owners in land titles, but members have the prerogative to renounce this right. Women's insufficient knowledge of their legal rights on landownership leads to more men owning majority of land in Mongolia (National Statistics Office of Mongolia 2018). The Philippines' Magna Carta for Women upholds equality on ownership, acquisition, and disposition of property among men and women. However, a “closer analysis of certain provisions of the laws and its interaction with customs and tradition reveals constraints on women's asset ownership and accumulation” (Philippine Statistics Authority 2018).

Considering owners of dwelling (Table 6), we see a striking impact of the marital regime playing out with ownership by the principal couple as the most prevalent in Cavite, Philippines (63% and 33% for reported and documented, respectively). The corresponding figures for Georgia are 17% and 10%, respectively and for Mongolia are 22% and 15%, respectively. Individual ownership by men is dominant in Mongolia (43% and 44% for reported and documented, respectively); in Georgia, there is a switch from all household members as reported owners to exclusive male owners for documented ownership (31%), suggesting that the perception of ownership is more inclusive than the documented reality.

Table 6: Distribution of Forms of Asset Ownership

Asset	Country	Type of Ownership	Exclusive Male	Exclusive Female	Principal Couple	All House-hold Members	Other Joint Owner-ship	Joint Ownership with Non-household Members	No. of Obs	
			(%)							
Dwelling	Georgia	Reported	6.1	6.2	16.9	55.2	7.1	8.5	4,804	
		Documented	30.7	20.3	9.7	17.8	9.5	12.0	2,536	
	Mongolia	Reported	43.0	17.8	21.9	7.9	5.4	4.0	2,566	
		Documented	44.0	19.8	15.5	6.8	6.0	7.9	2,121	
	Philippines (Cavite province)	Reported	13.6	14.7	63.0	1.2	4.0	3.5	1,322	
		Documented	23.8	19.7	33.3	0.9	1.3	21.1	795	
Agricultural land	Georgia	Reported	15.4	5.4	18.2	40.5	10.1	10.5	2,640	
		Documented	47.9	16.3	7.7	9.6	7.9	10.6	1,388	
	Mongolia	Reported	63.5	10.3	11.7	3.2	3.2	8.1	322	
		Documented	71.3	9.1	5.0	2.9	2.5	9.3	245	
	Philippines (Cavite province)	Reported	31.0	18.0	17.4	0.0	1.4	32.1	154	
		Documented	18.2	13.4	12.6	0.0	3.7	52.1	129	
Other real estate	Georgia	Reported	20.0	11.9	15.5	25.8	6.3	20.5	730	
		Documented	44.0	27.2	3.8	3.3	4.3	17.4	460	
	Mongolia	Reported	47.4	31.4	9.2	2.1	4.4	5.5	747	
		Documented	47.4	31.7	8.3	1.8	4.1	6.7	629	
	Philippines (Cavite province)	Reported	14.8	18.1	47.1	1.0	7.1	11.9	187	
		Documented	24.9	16.7	25.4	0.7	5.2	27.0	135	

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

Turning to agricultural land, one sees more variation across ownership types. Exclusive male ownership of at least 15% cuts across ownership types and countries. In Cavite and Mongolia, landownership rates are very low; thus, the forms of ownership figures should be interpreted with caution due to the small sample size. Reported and documented ownership with non-household members is common in Cavite. This could be due to the relatively urban nature of the province where urban households co-own agricultural land in rural areas with extended family members. The proportion of exclusive male owners is higher for documented than reported dwelling owners in Mongolia, and mainly comes at the expense of women as exclusive owners, and principal couple owners. On average, the gender gap in exclusive ownership is highest in Mongolia for reported and documented owners of immovable property and is also high for documented ownership for agricultural land in Georgia. Interestingly in Georgia, far fewer women are reported as exclusive owners of property than what the documents seem to indicate.

Alienation Rights

Certain patterns emerge with respect to alienation rights (right to sell and bequeath) over property (Tables 7 and 8). Two broad trends are clear regarding rights, assets, and locations. First, a higher proportion of women owners than men owners have no alienation rights. Second, women owners' exclusive right to sell or bequeath is lower than men owners; however, in most instances, women owners' consultative rights are on par if not higher than men owners' consultative rights.

A larger proportion of Mongolian men and women owners have exclusive alienation rights over sale and bequeathes compared to owners in the other countries. With respect to dwelling for example, nearly three-quarters of Mongolian men owners have exclusive rights to bequeath their dwelling compared to 25% and 38% in Georgia and Cavite, respectively. Similar trends are observed with women owners as well. About 52% have an exclusive right to bequeath their dwelling, compared to 19% and 34% in Georgia and Cavite, respectively (Table 8). This can be attributed to the relatively strong individual ownership patterns that one observes in Mongolia.

Georgian women owners are the most disadvantaged in terms of having no rights over their property. Approximately 20% of women owners do not have any right to sell their dwelling or land, while a quarter do not have any bequeathing rights over these assets. However, the results also suggest that consulting rights are more prevalent in Georgia for both men and women. This could presumably be related to the manner in which the property was acquired and is discussed in the following section.

Table 7: Distribution of Rights to Sell Select Assets

Country	Asset	Sex	Jointly with Others (Consultative Right)			No. of Obs
			Exclusive Right	(%)	No Right	
Georgia	Dwelling	Men	21.8	68.0	10.2	2,094
		Women	16.3	64.1	19.6	2,710
	Agricultural land	Men	32.7	59.2	8.0	1,031
		Women	13.9	68.7	17.4	1,342
	Large agricultural equipment	Men	61.3	34.1	4.6	171
		Women	12.5	72.5	15.0	39
	Other real estate	Men	41.2	53.2	5.5	385
		Women	30.8	57.6	11.5	356
Mongolia	Dwelling	Men	72.2	24.8	2.9	1,545
		Women	51.6	38.5	9.9	1,021
	Agricultural land	Men	84.4	13.7	1.8	238
		Women	53.4	31.4	15.3	86
	Large agricultural equipment	Men	78.1	20.8	1.1	79
		Women	a	a	a	a
	Other real estate	Men	81.3	18.1	0.6	428
		Women	79.3	15.9	4.8	333
Philippines (Cavite province)	Dwelling	Men	38.6	54.5	6.9	628
		Women	33.6	54.8	11.6	694
	Agricultural land	Men	57.6	41.1	1.3	84
		Women	50.8	44.5	4.7	72
	Large agricultural equipment	Men	a	a	a	a
		Women	a	a	a	a
	Other real estate	Men	31.2	68.8	0.0	88
		Women	40.6	54.7	4.8	100

^a The number of sample observations is fewer than 25, hence, not enough to generate reliable estimates.

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

Table 8: Distribution of Rights to Bequeath Select Assets

Country	Asset	Sex	Exclusive Right	Jointly with Others (Consultative Right)	No Right	No. of Obs
				(%)		
Georgia	Dwelling	Men	24.8	58.5	16.8	2,094
		Women	18.8	54.2	27.0	2,710
	Agricultural land	Men	35.1	51.1	13.8	1,332
		Women	18.6	57.4	24.0	1,347
	Large agricultural equipment	Men	63.0	30.1	6.9	171
		Women	12.5	68.0	19.5	39
	Other real estate	Men	43.6	46.1	10.3	387
		Women	30.1	50.0	19.8	354
Mongolia	Dwelling	Men	74.2	21.1	4.7	1,545
		Women	51.5	36.6	11.9	1,021
	Agricultural land	Men	85.1	13.1	1.8	238
		Women	51.2	32.1	16.7	86
	Large agricultural equipment	Men	80.3	18.9	0.7	79
		Women	a	a	a	a
	Other real estate	Men	81.8	16.0	2.2	426
		Women	77.7	15.7	6.6	332
Philippines (Cavite province)	Dwelling	Men	38.4	55.7	5.9	628
		Women	33.5	56.3	10.2	694
	Agricultural land	Men	59.4	38.1	2.4	84
		Women	51.9	41.3	6.9	73
	Large agricultural equipment	Men	71.1	28.9	0.0	6
		Women	a	a	a	a
	Other real estate	Men	34.0	66.0	0.0	88
		Women				

^a The number of sample observations is fewer than 25, hence, not enough to generate reliable estimates.

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

Do Forms of Ownership and Rights Move Together?

The implications of individual or joint ownership is likely to vary across asset types and countries. While it is likely that joint ownership involving women is better than no ownership, it cannot be presumed all women owners will benefit to the same extent or enjoy equal rights over their assets as their co-owners. Exploring the relationship between forms and alienation rights for dwelling (Tables 9 and 10), the results suggest there exists a positive relationship between form of ownership and right to sell or bequeath. Focusing first on reported ownership, exclusive ownership confers the strongest rights irrespective of the sex of the owner. When there is ownership by the principal couple, there is greater consultation in decisions, but women do not seem to enjoy equal rights as their partners. Women are more likely to have no rights, while men are more likely to have exclusive rights even when the asset is jointly held by the couple. Interestingly, men most likely have no rights over the assets when it is held

jointly with other household or nonhousehold members. A comparison of rights between reported and documented ownership is revealing; consistently, across the three countries, having one's names on documents strengthen rights for women who own assets jointly, either with their partners or others. They are likely to have greater consultative rights as suggested by the substantive reduction in the proportion of women owners with no rights. This effect also holds for men; in the case of other joint ownership, men with documents have greater consultative rights than men who are reported owners. In sum, the results suggest that documented ownership does indeed have a stronger relationship with right to sell and right to bequeath than reported ownership.

Table 9: Form of Reported Ownership and Alienation Rights (%)

Country	Sex	Type of Ownership	Right to Sell			Right to Bequeath		
			Exclusive	Joint	No Right	Exclusive	Joint	No Right
Georgia	Men	Exclusive	99.5	0.0	0.5	98.9	0.0	1.1
		Principal couple	16.7	81.0	2.3	18.8	77.6	3.6
		Other joint ownership	8.6	77.3	14.1	12.5	64.4	23.1
	Women	Exclusive	97.9	0.0	2.1	97.9	0.0	2.1
		Principal couple	3.4	78.6	17.9	3.4	75.9	20.6
		Other joint ownership	6.0	71.3	22.7	9.5	58.1	32.4
Mongolia	Men	Exclusive	98.8	0.0	1.2	98.7	0.0	1.3
		Principal couple	12.5	85.2	2.3	19.9	79.1	1.0
		Other joint ownership	18.0	69.5	12.5	23.2	50.4	26.4
	Women	Exclusive	97.5	0.0	2.5	95.4	0.0	4.6
		Principal couple	3.0	82.0	15.0	2.7	82.2	15.1
		Other joint ownership	16.8	64.5	18.7	20.8	56.1	23.1
Philippines (Cavite province)	Men	Exclusive	95.7	0.0	4.3	97.0	0.0	3.0
		Principal couple	18.5	75.2	6.2	17.3	77.4	5.4
		Other joint ownership	7.9	75.8	16.3	9.4	74.3	16.3
	Women	Exclusive	98.7	0.0	1.3	98.2	0.0	1.8
		Principal couple	6.1	78.5	15.4	6.5	80.4	13.1
		Other joint ownership	16.0	63.7	20.4	12.8	67.8	19.4

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

Table 10: Form of Documented Ownership and Alienation Rights (%)

Country	Sex	Type of Ownership	Right to Sell			Right to Bequeath		
			Exclusive	Joint	No Right	Exclusive	Joint	No Right
Georgia	Men	Exclusive	99.4	0.0	0.6	99.2	0.0	0.8
		Principal couple	7.8	89.0	3.2	11.5	85.3	3.2
		Other joint ownership	12.2	80.5	7.3	14.4	70.6	15.1
	Women	Exclusive	98.5	0.0	1.5	96.9	0.0	3.1
		Principal couple	1.2	88.9	9.9	1.2	89.3	9.5
		Other joint ownership	9.8	79.1	11.1	13.9	68.2	18.0
Mongolia	Men	Exclusive	99.4	0.0	0.6	99.0	0.0	1.0
		Principal couple	9.4	88.3	2.3	19.2	80.6	0.2
		Other joint ownership	22.0	69.4	8.5	27.4	54.7	17.9
	Women	Exclusive	98.2	0.0	1.8	96.8	0.0	3.2
		Principal couple	2.6	87.1	10.2	2.5	85.0	12.5
		Other joint ownership	19.9	67.8	12.3	25.5	53.7	20.8
Philippines (Cavite province)	Men	Exclusive	98.3	0.0	1.7	98.7	0.0	1.3
		Principal couple	6.0	91.1	2.9	6.0	91.1	2.9
		Other joint ownership	39.4	59.7	0.9	31.7	66.0	2.2
	Women	Exclusive	97.7	0.0	2.3	97.3	0.0	2.7
		Principal couple	2.0	95.6	2.5	2.0	95.5	2.5
		Other joint ownership	24.6	70.1	5.3	26.9	66.5	6.5

Source: Asian Development Bank estimates using Evidence and Data for Gender Equality (EDGE) pilot surveys.

C. Mode of Acquisition

Asset acquisition patterns shed some light on the complex interactions between legislation and broad gendered norms governing men's and women's social roles. Assets may be acquired in one of several ways: through market transaction, state transfer, inheritance or gift or within marriage (which could involve any of the other mechanisms).

A broad observation is that, with the exception of agricultural land in Mongolia, markets account for a substantive portion of property acquisition for men and women (Table 11). There are some exceptions to this pattern. Interestingly for other real estate, a greater proportion of women owners in Cavite have purchased their property than men owners (67% versus 55%, respectively).

Acquiring property due to marital law or custom is important for Georgian women across property types (39% for dwelling, 33% for land, and 21% for other real estate), whereas for men, gifts or allocations range from 38% to 46% as a means of property acquisition. This reflects the existing marital

law in Georgia, where a woman enjoys equal rights to own her spouse's property after marriage (ADB 2018).²

Inheritance, whether natal or marital, while not totally unimportant, is also not a typical means of acquiring property, except in acquiring agricultural land in Cavite (39% and 42% for men and women, respectively). The data suggest a gender bias in inheritance toward men in Georgia and Mongolia (excluding land); in Cavite on the other hand, a greater proportion of women owners report inheriting their dwelling and land.

Government programs as a means of property are particularly relevant in Mongolia. Presumably, due to the communal nature of land, purchase is least common with almost 60% of men and 45% of women reporting government allocation as their mode of acquisition. Such programs also account for roughly one-third of other real estate owned by men and women.

In general, with regard to dwellings, our results suggest that the modes of acquisition are not gender biased in Cavite. On the contrary, the proportion of female owners who acquired their dwellings by purchasing the asset is higher than that of men. Acquisition of dwelling through marital custom is also slightly biased toward women, while inheritance shows a slight male bias in Mongolia. In Georgia, one finds more significant gender biases. Women are less likely than men to inherit or receive a gift from household members, but more likely to acquire via marital law and custom.

² Article 10 of the Law on Gender Equality stipulated gender equality in family relations and stated that "spouses shall have equal rights to own, acquire, manage, enjoy, and administer property" (The Law of Georgia on Gender Equality 2010. <https://matsne.gov.ge/en/document/download/91624/3/en/pdf>).

Table 11: Distribution of Mode of Acquisition of Select Assets

Asset	Country	Sex	Founded or Purchased	Inherited	Acquired Due to Marital Law or Custom (%)	Allocated or Gift	Government Program	Others	No. of Obs
Dwelling	Georgia	Men	33.9	15.4	2.9	46.1	1.1	0.7	2,094
		Women	32.3	9.4	39.4	17.0	1.2	0.7	2,710
	Mongolia	Men	42.0	12.8	0.9	1.6	14.5	28.2	1,545
		Women	47.7	10.4	2.4	1.5	13.5	24.5	1,021
	Philippines (Cavite province)	Men	51.7	11.7	0.9	17.4	10.9	7.4	628
		Women	50.1	15.0	1.8	16.1	10.8	6.1	694
Agricultural land	Georgia	Men	42.9	15.6	1.8	38.2	0.5	1.0	1,517
		Women	36.2	10.4	33.0	18.9	0.4	1.1	1,495
	Mongolia	Men	13.4	13.5	1.2	1.4	57.5	13.1	241
		Women	9.9	15.6	2.5	2.6	45.3	24.1	85
	Philippines (Cavite province)	Men	29.6	39.3	0.0	22.8	3.3	5.1	91
		Women	31.4	42.1	3.8	19.8	2.8	0.0	77
Nonagricultural enterprises	Georgia	Men	93.0	2.0	0.0	4.4	0.0	0.5	274
		Women	80.9	1.4	9.7	7.6	0.0	0.4	203
	Mongolia	Men	90.9	2.4	0.8	1.2	0.8	3.8	391
		Women	91.9	2.4	0.5	0.3	0.5	4.4	381
	Philippines (Cavite province)	Men	86.3	4.7	0.0	7.3	0.8	0.9	292
		Women	92.1	1.8	0.1	4.9	0.8	0.2	402
Other real estate	Georgia	Men	42.8	13.9	3.2	38.5	0.6	1.0	398
		Women	40.5	11.6	20.8	26.3	0.5	0.4	368
	Mongolia	Men	37.2	11.3	0.1	1.5	32.2	17.7	446
		Women	38.4	7.9	1.0	1.8	37.6	13.3	341
	Philippines (Cavite province)	Men	55.2	18.6	0.0	8.3	8.9	9.1	90
		Women	66.6	13.5	0.0	8.0	10.4	1.4	100

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

D. Gender Wealth Gap

Valuation data, although challenging to collect, provide greater depth to our understanding of the gender gap in economic resources. Asset values in the EDGE survey were based on the market price of the asset on the day of the interview as reported by the respondents. We briefly discuss concerns around missing data as it could potentially impact reliability and usefulness of estimates derived from the data.

Missing values are not uniform across countries. For example, with dwellings, the data show variation in the proportion of missing values across countries as well as by sex. On average, women are less likely than men to provide a value for the dwelling. At 15% for men and 18% for women, the nonresponse for dwelling valuation is lowest in Mongolia, followed by Cavite (48% for men and 60% for women); then Georgia (65% for men and 72% for women). About 51% of the respondents in Georgia and 74% of the respondents in Cavite who did not provide sales value of dwelling declared that there are no market or sales transactions in the community.³ While imputation is a possibility, it requires detailed information on the asset attributes that are likely to affect its value.

Keeping these data limitations in mind, it is nevertheless useful to examine the descriptive results based on reported market values. In this paper, we only consider the gender wealth gap calculated from the market value of the dwelling unit based on reported and documented ownership of assets (Table 12).⁴ For dwellings that are jointly owned, the value of a dwelling is apportioned equally among all owners.

Considering reported ownership, at 49%, women's share of dwelling wealth is almost equal to that of men in Georgia, followed by Cavite at 45%, and Mongolia at 37%. Contrasting women's share of wealth to their representation among owners provides some insights. In Georgia and Cavite, women represent more than half of all reported dwelling owners (53% and 51%, respectively), but their share of dwelling wealth is lower than 50%, suggesting that the dwellings owned by women may be less valuable than those owned by men. Compared with reported ownership, the gap becomes more pronounced for documented ownership in Georgia and Cavite, while it is more or less the same in Mongolia. It may be noted that similar patterns are observed in Table 4 where the gender gaps in the incidence of ownership of dwelling, regardless of the type of ownership, is almost the same in Mongolia, whereas in Georgia, and in Cavite, Philippines, the gender gaps in documented ownership are much higher than the gender gaps in reported ownership.

³ Among those who did not report values of owned dwellings, at least half think that the market for selling houses is absent in their respective areas.

⁴ Although wealth gap between men and women can be calculated for other types of assets too, there are technical issues associated with doing such calculations. For instance, consider a case when a male respondent reported ownership of a specific parcel of land and another female respondent reported owning a parcel of land too. There is not enough information collected from the survey that can indicate whether these two respondents are referring to the same land or not (asset matching), making it difficult to estimate the total value of assets. The same line of argument applies to other types of assets except main dwelling. Thus, we focus on main dwelling only.

Table 12: Share of Men and Women in Total Value of Dwellings

Country	Sex	Documented (%)	No. of Obs	Reported (%)	No. of Obs
Georgia	Men	65.0	474	51.5	733
	Women	35.0	384	48.5	799
Mongolia	Men	61.9	1,141	62.7	1,350
	Women	38.1	723	37.3	868
Philippines (Cavite province)	Men	62.1	241	55.0	382
	Women	37.9	170	45.0	305

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

E. Comparison of Self-Assigned Approach and Ownership Assigned by Any Respondent Approach

Comparing SAO and OAAR approaches, the results suggest that estimates of incidence of reported and documented owners are generally higher using the OAAR approach than using the SAO approach. This is slightly different from the findings in Uganda (Kilic and Moylan 2016), but it is worth noting that the country context of this research is hugely different and varied in terms of legal provisions governing assets and social norms. Hence, the results from the two studies are not directly comparable.

The largest differences between the two estimation approaches are found in Georgia, where the SAO approach gives lower estimates for dwelling and agricultural land incidence rates for men and women (Table 13) implying that individuals who do not consider themselves as owners are still being identified as such by other household members. Meanwhile, estimated incidence of reported and documented ownership for dwelling in Mongolia using the SAO approach is slightly higher than the numbers produced using the OAAR approach.

In Cavite, the incidence of reported owners of all immovable assets and the incidence of documented owners of agricultural land and other real estate using SAO and OAAR approaches are not statistically different. Similar findings are noted in the incidence of reported owners of agricultural land and other real estate, and documented owners of dwelling and agricultural land in Mongolia, as well as documented owners of other real estate in Georgia.

Table 13: SAO and OAAR Ownership Rates of Selected Types of Assets, by Sex and Form of Ownership

Asset	Country	Approach	Reported Ownership			Documented Ownership		
			Total	Men	Women	Total	Men	Women
Dwelling	Georgia	SAO	78.0%	80.4%	75.9%	39.3%	46.3%	33.4%
		OAAR	83.6%	84.7%	82.6%	45.9%	52.3%	40.6%
		t-test	SAO<OAAR***; t=-3.46	SAO<OAAR***; t=-2.38	SAO<OAAR***; t=-3.72	SAO<OAAR***; t=-3.86	SAO<OAAR***; t=-2.88	SAO<OAAR***; t=-3.65
	Mongolia	SAO	45.8%	59.6%	32.8%	38.4%	50.7%	26.9%
		OAAR	43.9%	54.9%	34.0%	37.8%	48.1%	28.6%
		t-test	SAO>OAAR*; t=1.4	SAO>OAAR***; t=2.6	SAO=OAAR; t=-0.70	SAO=OAAR; t=0.49	SAO>OAAR*; t=1.6	SAO=OAAR; t=-1.1
	Philippines (Cavite province)	SAO	34.3%	34.4%	34.2%	21.0%	22.7%	19.2%
		OAAR	35.8%	35.6%	35.9%	23.1%	24.5%	21.7%
		t-test	SAO=OAAR; t=-0.84	SAO=OAAR; t=-0.58	SAO=OAAR; t=-0.90	SAO<OAAR*; t=-1.35	SAO=OAAR; t=-0.98	SAO<OAAR*; t=-1.30
Agricultural land	Georgia	SAO	40.3%	47.7%	34.1%	20.8%	30.6%	12.6%
		OAAR	45.3%	51.0%	40.5%	23.7%	32.2%	16.5%
		t-test	SAO<OAAR*; t=-1.63	SAO=OAAR; t=-0.99	SAO<OAAR**; t=-2.07	SAO<OAAR**; t=-1.68	SAO=OAAR; t=-0.68	SAO<OAAR***; t=-2.51
	Mongolia	SAO	4.9%	8.0%	2.0%	3.8%	6.3%	1.4%
		OAAR	5.3%	8.4%	2.4%	4.3%	7.3%	1.5%
		t-test	SAO=OAAR; t=-0.50	SAO=OAAR; t=-0.30	SAO=OAAR; t=-0.90	SAO=OAAR; t=-0.71	SAO=OAAR; t=-0.80	SAO=OAAR; t=-0.30
	Philippines (Cavite province)	SAO	4.0%	4.8%	3.2%	3.4%	4.1%	2.6%
		OAAR	4.2%	4.6%	3.7%	3.6%	3.9%	3.3%
		t-test	SAO=OAAR; t=-0.24	SAO=OAAR; t=0.27	SAO=OAAR; t=-0.78	SAO=OAAR; t=-0.39	SAO=OAAR; t=0.24	SAO=OAAR; t=-1.0

continued on next page

Table 13 *continued*

Asset	Country	Approach	Reported Ownership			Documented Ownership		
			Total	Men	Women	Total	Men	Women
Other real estate	Georgia	SAO	12.7%	15.7%	10.1%	8.1%	10.6%	5.9%
		OAAR	14.8%	17.2%	12.8%	8.5%	10.4%	6.8%
		t-test	SAO<OAAR*; t=-1.44	SAO=OAAR; t=-0.79	SAO<OAAR**; t=-1.93	SAO=OAAR; t=-0.50	SAO=OAAR; t=0.17	SAO=OAAR; t=-1.10
	Mongolia	SAO	13.2%	16.3%	10.4%	11.1%	13.8%	8.5%
		OAAR	14.2%	18.0%	10.8%	12.2%	15.3%	9.5%
		t-test	SAO=OAAR; t=-1.0	SAO=OAAR; t=-1.1	SAO=OAAR; t=-0.40	SAO<OAAR*; t=-1.30	SAO=OAAR; t=-1.1	SAO=OAAR; t=-1.1
	Philippines (Cavite province)	SAO	5.6%	5.7%	5.4%	3.8%	4.4%	3.3%
		OAAR	6.2%	6.3%	6.1%	4.5%	4.9%	4.1%
		t-test	SAO=OAAR; t=-0.82	SAO=OAAR; t=-0.64	SAO=OAAR; t=-0.82	SAO=OAAR; t=-0.98	SAO=OAAR; t=-0.52	SAO=OAAR; t=-1.25

OAAR = ownership assigned by any respondent, SAO = self-assigned ownership.

Notes: Significant t-test result implies that the incidence of ownership using SAO approach is statistically different from the incidence of ownership using OAAR approach. *** = 1% significance, ** = 5% significance, * = 10% significance.

Source: Asian Development Bank estimates using the Evidence and Data for Gender Equality (EDGE) pilot surveys.

There are several disadvantages in using the OAAR approach. First, there may be inadequate sharing of information within households. In addition, there are existing gender norms about asset ownership that may result to bias in proxy responses about the ownership status. There are also countries which do not clearly differentiate the ownership rights among household members and hence, responses of individual household members on who owns a particular asset may differ. Furthermore, other household members may not be fully aware of reported ownership of a particular asset as opposed to documented ownership. From a policy perspective, it might also be useful to collect self-reported data on asset ownership because the success of intervention program is more likely to be driven by people's own perception of what assets they own rather than what other people think they own (United Nations Department of Economic and Social Affairs 2019).

V. AREAS FOR FURTHER RESEARCH

While findings from the EDGE pilot surveys conducted in Georgia; Mongolia; and Cavite, Philippines provide rich inputs to the development of methodological guidelines on the collection of sex-disaggregated data on asset ownership, there are several areas that warrant further research. From a data collection perspective, it is insightful to look deeper into the gender disparities on intrahousehold reporting of asset ownership and understand the cost and benefit of covering multiple respondents versus limiting it to the primary respondent only, principal couple only, household head only, and other types of respondents in the surveyed households. In a household with principal couple respondents, for instance, the perception of men could be compared to the perception of women and investigate if women are less likely to identify themselves as owners due to gender norms. It is also important to study whether the asset owners are correctly or incorrectly identified by different household members and understand the sociodemographic profile of these asset owners. From an analytical lens, it is important to explore how total value of assets owned by individual members of the household could be estimated in light of data issues confronted. In particular, high item nonresponse rates were observed for survey questions collecting information on values of different types of assets. While missing values could be imputed, such calculations would require additional information which may not be readily available. Furthermore, estimation of values of co-owned assets requires allocation assumptions, which are highly subjective. As explained earlier, matching of assets is also needed to avoid duplication in the estimates. The possibility of coming up with indices of asset ownership, similar to the HDI or multidimensional poverty index, is another area of research that could also be explored. From a socioeconomic point of view, there are also interesting issues for further investigation. For instance, it is instructive to examine the profile of women who own specific types of assets and identify what policy makers can learn from them when designing intervention programs targeted at women who lack access to such types of productive assets.

In addition to physical assets, it is also important to examine the gender dimension of nonphysical assets such as human capital and how it interacts with ownership of physical assets. For instance, in some societies, women have slightly better educational outcomes than men as families; however, men hold more physical assets, which are often acquired through intergenerational transfer (Behrman, Pollak, and Taubman 1995; Quisumbing 1994). For a holistic understanding of gender issues in welfare and well-being, it is important to understand such dynamics through further research.

VI. DISCUSSION AND POLICY IMPLICATIONS

To provide inputs for intervention programs that aim to narrow the gap between men and women with respect to access and control over productive resources, collecting relevant sex-disaggregated data is an indispensable step. Lack of comparable individual-level data on ownership of assets is a serious constraint in shaping policy and programs that promote gender equality. However, in addition to the long duration needed to administer a household survey, financial and technical capacity constraints, and the need to contextualize data collection with varying cultural notions of how property or assets may be owned, one of the major reasons why national statistical agencies do not routinely collect sex-disaggregated data on asset ownership is the lack of standardized methodological approaches for collecting data on this topic.

The EDGE pilot surveys conducted by the national statistics offices of Georgia, Mongolia, and the Philippines, in collaboration with ADB, are powerful case studies as they have demonstrated that with the availability of standardized methods and guidelines, collecting sex-disaggregated data on asset ownership is feasible. The major contribution of these pilot surveys (along with other methodological surveys and approaches piloted in Maldives, Mexico, South Africa, and Uganda) is the inputs they provided for the development of methodological guidelines by the United Nations Statistics Division efforts under the global EDGE initiative. The resulting guidelines are based on field experience, and with minimal adaptation, can be applied by national statistics offices of other countries that have diverse geographies and social contexts.

There are several valuable lessons that can be drawn from conducting the EDGE pilot surveys. First, one needs a diverse array of indicators (e.g., incidence, distribution, forms, wealth) to facilitate a comprehensive gender analysis of asset ownership. Depending on what is being examined, the mode of data collection can be aligned with its objectives while taking each of the data collection modes' strengths and limitations into careful consideration. Second, with clarity on the survey objectives and information needs, it is possible to prioritize collecting data for a specific indicator or basket of indicators and accordingly align the survey design, survey questionnaires, and sampling methodology. Third, collecting information on values of assets through household surveys is not a simple task and it may be necessary to combine survey data with other administrative information, or to adopt sophisticated data imputation procedures.

Overall, the pilot surveys have produced extremely rich sex-disaggregated data on asset ownership and provided operationally relevant lessons for future data collection efforts. For this initiative to become a sustainable part of national statistics offices' regular data collection activities, both data producers and data users have to work together and exert a conscious effort to ensure that such data is produced regularly, is of the highest quality, and is disseminated in a timely manner. It is also incumbent on policy makers, researchers, and the development community to capitalize on the availability of such type of data to monitor the progress of gender equality.

REFERENCES

- Ali, Daniel Ayalew, Klaus Deininger, and Markus Goldstein. 2014. "Environmental and Gender Impacts of Land Tenure Regularization in Africa: Pilot Evidence from Rwanda." Policy Research Working Paper No. 5765.
- Asian Development Bank (ADB). 2017. *Key Indicators for Asia and the Pacific 2017*. Manila.
- . 2018. *Measuring Asset Ownership and Entrepreneurship from a Gender Perspective: Methodology and Results of Pilot Surveys in Georgia, Mongolia, and the Philippines*. Manila. <https://www.adb.org/publications/measuring-asset-ownership-entrepreneurship-gender-survey>.
- Bardasi, Elena, Kathleen Beegle, Andrew Dillon, and Pieter Serneels. 2011. "Do labor statistics depend in how and to whom the questions are asked? Results from a survey experiment in Tanzania." *World Bank Economic Review* 25 (3): 418–47. <https://doi.org/10.1093/wber/lhr022>.
- Behrman, Jere, Robert Pollak, and Paul Taubman. 1995. *From Parent to Child: Intrahousehold Allocations and Intergenerational Relations in the United States*. Chicago: University of Chicago Press.
- Bonilla, Juan, Rosa Castro Zarzur, Sudhanshu Handa, Claire Nowlin, Amber Peterman, Hannah Ring, David Seidenfeld, and Zambia Child Grant Program Evaluation Team. 2017. "Cash for Women's Empowerment? A Mixed-Methods Evaluation of the Government of Zambia's Child Grant Program." *World Development* 95: 55–72. <https://doi.org/10.1016/j.worlddev.2017.02.017>.
- Deere, Carmen Diana, Gina Alvarado, and Jennifer Twyman. 2012. "Gender Inequality in Asset Ownership in Latin America: Female Owners vs Household Heads." *Development and Change* 43 (2): 505–30.
- Doss, Cheryl. 2006. "The Effects of Intrahousehold Property Ownership on Expenditure Patterns in Ghana." *Journal of African Economies* 15 (1): 149–80.
- Fisher, Monica, Jeffrey Reimer, and Edward Carr. 2010. "Who Should be Interviewed in Surveys of Household Income?" IFPRI Discussion Paper No. 949.
- Garikipati, Supriya. 2009. "Landless but Not Assetless: Female Agricultural Labour on the Road to Better Status, Evidence from India." *Journal of Peasant Studies* 36 (3): 517–45.
- Goldstein, Markus, and Christopher Udry. 2008. "The Profits of Power: Land Rights and Agricultural Investment in Ghana." *Journal of Political Economy* 116 (6): 981–1022. University of Chicago Press.
- Hamilton, Sara. 2004. "Empowering Women: Land and Property Rights in Latin America (review)." *The Americas* 60 (4): 644–45.
- International Center for Nigerian Law. 1990. Land Use Act. <http://www.nigeria-law.org/Land%20Use%20Act.htm>.

- International Monetary Fund (IMF). 2008. *Maldives: Poverty Reduction Strategy Paper*. Washington. <https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Maldives-Poverty-Reduction-Strategy-Paper-21624>.
- Kilic, Talip, and Heather Moylan. 2016. *Methodological Experiment on Measuring Asset Ownership from a Gender Perspective (MEXA): Technical Report*. Washington, DC: World Bank.
- National Statistics Office of Georgia. 2018. *Pilot Survey on Measuring Asset Ownership and Entrepreneurship from a Gender Perspective: Georgia*. <http://www.geostat.ge/index.php?action=wnews&lang=eng&npid=632>.
- National Statistics Office of Mongolia. 2018. *Pilot Survey on Measuring Asset Ownership and Entrepreneurship from a Gender Perspective: Mongolia*. http://1212.mn/BookLibraryDownload.ashx?url=EDGE_report_eng.pdf&ln=En.
- Oduro, Abena, and Helen A. Seshie-Nasser. 2016. "Delayed Primary School Enrolment among Boys and Girls in Ghana." *International Journal of Educational Development* 49:107–14. <https://doi.org/10.1016/j.ijedudev.2015.12.004>.
- Panda, Pradeep, and Bina Agarwal. 2007. "Toward Freedom from Domestic Violence: The Neglected Obvious." *Journal of Human Development* 8 (3): 359–88. <https://doi.org/10.1080/14649880701462171>.
- Peterman, Amber, Agnes Quisumbing, Julia Behran, and Ephraim Nkonya. 2011. "Understanding the Complexities Surrounding Gender Differences in Agricultural Productivity in Nigeria and Uganda." *The Journal of Development Studies* 4 (10): 1482–509.
- Philippine Statistics Authority. 2015. *Population and Annual Growth Rates for the Philippines and Its Regions, Provinces, and Highly Urbanized Cities*. August. <https://psa.gov.ph/content/population-region-iv-calabarzon-based-2015-census-population>.
- . 2018. *Measuring Asset Ownership and Entrepreneurship from a Gender Perspective: Cavite, Philippines*. http://psa.gov.ph/system/files/kmcd/Philippine%20EDGE%20Report_FINAL.pdf
- Porio, Emma, and Christine Crisol. 2004. "Property Rights, Security of Tenure and the Urban Poor in Metro Manila." *Habitat International* 28 (2): 203–19. [https://doi.org/10.1016/S0197-3975\(03\)00068-7](https://doi.org/10.1016/S0197-3975(03)00068-7).
- Provincial Government of Cavite. 2015. *Socio-Economic and Physical Profile 2015*. Trece Martires City, Cavite. <http://cavite.gov.ph/home/sepp-2015/>.
- Quisumbing, Agnes. 1994. "Intergenerational Transfers in Philippine Rice Villages: Gender Differences in Traditional Inheritance Customs." *Journal of Development Economics* 43 (1): 167–96.
- Quisumbing, Agnes, and John Maluccio. 2000. "Intrahousehold Allocation and Gender Relations: New Empirical Evidence from Four Developing Countries." Food Consumption and Nutrition Division Discussion Paper No. 84.

- Rights and Resources Initiative. 2015. *Who Owns the World's Land? A Global Baseline of Formally Recognized Indigenous and Community Land Rights*. Washington, DC. https://rightsandresources.org/wp-content/uploads/GlobalBaseline_web.pdf.
- Swaminathan, Hema, Suchitra J. Y., and Rahul Lahoti. 2011. "Karnataka Household Asset Survey: Measuring the Gender Asset Gap." Bangalore: Indian Institute of Management Bangalore.
- Twyman, Jennifer, Pilar Useche, and Carmen Diana Deere. 2015. "Gendered Perceptions of Land Ownership and Agricultural Decision-Making in Ecuador: Who are the Farm Managers?" *Land Economics* 91 (3): 479–500.
- United Nations, Department of Economic and Social Affairs, Statistics Division. 2019. *Guidelines for Producing Statistics on Asset Ownership from a Gender Perspective*. New York. <https://unstats.un.org/edge/methodology/asset/>.
- United Nations Development Programme (UNDP). 2016. *Human Development Report 2016*. New York. http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf.

Women's Asset Ownership: Evidence from Georgia; Mongolia; and Cavite, Philippines

This publication provides insights to help develop methodological guidelines on collecting sex-disaggregated data about asset ownership. It draws on findings from pilot surveys in Georgia, Mongolia, and Cavite province in the Philippines. Survey results suggest some gender gaps in ownership across different types of assets and countries. These variations confirm the importance of understanding the social norms governing gender roles and laws that can facilitate or impede women's asset ownership. Women's rights to own and control assets are critical for securing gender equity in economic participation and opportunity, and delivering on the Sustainable Development Goals.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



ASIAN DEVELOPMENT BANK

6 ADB Avenue, Mandaluyong City

1550 Metro Manila, Philippines

www.adb.org