

Individual Asset Holding Patterns: District Level Estimates from Karnataka

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The Gender Asset Gap Project is a joint initiative of an international research team that was formed in 2009 with four objectives: 1) to collect individual-level asset data from three different countries (Ecuador, Ghana and India) in order to demonstrate the importance and feasibility of collecting data on women's access to and ownership of property; 2) to identify the minimal set of questions on individual level asset ownership that are needed in multi-purpose household surveys to calculate the gender asset and wealth gaps; 3) to develop various measures of gender asset and wealth gaps that can be used by national governments to track progress toward Millennium Development Goal 3 on gender equality and women's empowerment; and 4) to identify the critical enabling or constraining social, economic, and institutional factors affecting women's asset ownership in order to help policymakers and others to improve women's claims to productive assets.

The project is housed at the Centre of Public Policy (CPP) at the Indian Institute of Management Bangalore (IIMB). The project team leaders are Hema Swaminathan, IIMB; Abena D. Oduro, University of Ghana; Carmen Diana Deere, University of Florida; Cheryl Doss, Yale University; and Caren Grown, American University. FLACSO-Ecuador hosted the field work in Ecuador.

The Gender Asset Gap Project Working Papers present preliminary results and have not been formally peer reviewed. They are circulated in order to stimulate discussion and critical comment. The authors hold the copyrights to the contents of the papers and any opinions expressed are solely theirs.



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ABSTRACT

Using a unique data set, the Karnataka Household Asset Survey (KHAS, 2010-11), we examine asset ownership patterns for men and women. Unlike standard household surveys, KHAS collected individual-level asset information which is used to develop two sets of measures, the gender asset gaps (based on asset incidence) and the gender wealth gaps (based on asset values) for selected districts in Karnataka. For the first time, individual-level asset inequality measures are also computed. The results reveal that there are substantial gender disparities in asset ownership and are greatest among high-valued assets. We also find that incidence-based asset inequality analysis underestimates the extent of the gender gap. It is also seen that individual Ginis are substantially higher than household Ginis suggesting that within asset owning households, resources are concentrated among few individuals. It is hoped these results will encourage greater discussion on sex-disaggregated data collection efforts.

1. INTRODUCTION

What do we know about asset ownership patterns by men and women? Surprisingly little as it turns out. In fact, data on assets is not as frequently collected as data on income or expenditure. Of late, there has been a push for household asset data, due to a greater appreciation of the inter linkages between assets, poverty, income, and overall wellbeing. For poor households in particular, their current asset portfolio can impact their short term as well as their long term welfare. Assets are a source of livelihood, generate income, and facilitate access to capital and credit. They can aid income diversification which in turn can strengthen households' ability to cope with, and respond to negative shocks (Quisumbing, 2008). Exploring poverty in the asset space as opposed to income or consumption poverty alone is also gaining traction. An asset-based approach provides a long term view to understanding poverty; asset levels are subject to much less fluctuation on a day-to-day basis than income levels, and thus better reflect structural well-being. An asset poverty line could help distinguish between those that have temporarily slipped below the poverty line and those that have no means to generate sufficient income that will enable them to become non poor (Carter & Barrett, 2006; McKay, 2009).

In making the connection between assets, poverty, and welfare, gender has not received adequate attention. Deere and Doss (2006) outline the reasons why adopting a gender lens is not only essential from an equity perspective but is also critical to understand and enhance household and individual welfare. Intrahousehold models have firmly established that household welfare cannot necessarily be equated with individual welfare and that resource distribution within the household has implications for bargaining power and welfare outcomes (Anderson, S., & Eswaran, 2009; Haddad *et al.*, 1997). Current data collection practices are partly to blame for a lack of understanding on the gender dimensions of asset ownership. Asset data is usually collected only at the level of the household. Consequently, any gender analysis is only possible using the headship concept of male-headed households and female-headed households. Such an analysis paints a rather misleading picture of gender inequalities in assets

as it does not reveal the ownership patterns of men and women within these households. A recent study of eleven Latin American countries finds that a gender headship analysis in Nicaragua would overestimate the extent of gender inequality in house ownership (Deere, Alvarado, & Twyman, 2010).

In this paper, we present preliminary results from a unique dataset, the Karnataka Household Asset Survey 2011-11 (KHAS), collected by the Indian Institute of Management Bangalore. Unlike previously collected household asset data, this survey of over four thousand households contains information on who within the household owns any given asset, the value of the asset, and for a subset of household members, information on how the assets they own were acquired. Thus, for the first time in India we are able to examine differences in asset ownership for men and women.

In the following section, we provide a brief review of what is known about women's asset ownership and discuss its importance for both women and their families. In Section 3 we describe the data, sample areas and the survey design. Our definitions and construction of the gender asset and gender wealth gap measures are discussed in Section 4. We describe the sample and present the main results on the gender asset gaps, gender wealth gaps and inequality measures in Section 5. The final section concludes the paper.

2. WOMEN AND ASSETS

National-level sex-disaggregated asset data is not available in India. Asset data for India is available from the All India Debt and Investment Surveys (AIDIS) collected decennially by the NSSO. Following standard survey procedures, asset ownership information is collected only at the household level with no details available on individual-level asset ownership. However, smaller studies offer some insights into women's asset ownership patterns. These data broadly suggest that women are less likely than men to own and control assets, especially productive assets. A study in two states found that of 402 women respondents in Kerala, 36 percent

owned immovable property (land or a house) while in West Bengal, this figure was 35 percent out of a sample of 450 women (ICRW, 2006). A survey of 400 households conducted in four districts in Karnataka in 2001 found that women in households that owned land had access to land, but rarely had ownership rights to land (Brown, Ananthpur, & Giovarelli, 2002). At 9 percent, Kolar district reported the highest number female individual land owners. It was also rare to find women reporting joint ownership of land with their husbands.

Surveys from South Asia found that women who owned land had greater say in household decision-making than women without land (Agarwal, 1998; Allendorf, 2007; Mason, 1998). A few studies suggest it may also reduce women's experience of domestic violence (Friedemann-Sánchez, 2006; ICRW, 2006; Panda & Agarwal, 2005). Garikipati (2009) finds from data collected from 291 households in Andhra Pradesh, India during 2001-2003 that women controlled few family assets, and had negligible influence on household decisions and various bargaining outcomes that affect their welfare. At the other end, she finds that women with access to productive assets (land, livestock, and other assets that can help generate an income) made a perceptible difference to their depressed status within both the household and the labour market.

There has been recognition at policy levels that women are disadvantaged in asset ownership and even when they do own assets, they may not have complete rights over it. The Task Force Report of the Eleventh Five Year Plan (2007-12) noted that while almost 75percent of all female workers are employed in agriculture (compared to 53percent of all male workers), women do not own or have effective rights over land. Women's lack of ownership of or control over productive assets is not documented or monitored because the agricultural census does not collect sex-disaggregated data on asset ownership. The report called for the creation of sex-disaggregated data bases to guide policy formulation and programme implementation aiming at gender-neutral and inclusive growth.

Over the past couple of decades, there have been initiatives aimed at increasing women's property ownership in India. For instance, the Hindu Succession Amendment Act (HSAA), 2005 removed the discrimination against women in inheriting joint family property.² Karnataka was one of the few states that implemented equal inheritance rights (in certain types of property) for daughters and sons as far back as 1994. Recently, there has been an interest in understanding the impact of changes in inheritance laws on women's empowerment. Using 2006 data from Karnataka and Maharashtra,³ Deininger, Goyal, and Nagarajan, (2010) find that progressive legislation can be an instrument for reducing gender inequality by positively impacting women's likelihood of inheriting land, enhancing educational attainment, and strengthening her bargaining power. Using data from the National Family Health Survey 3 (2005-06) for the five states⁴ that enacted the inheritance amendment earlier than the national one, Roy (2009) finds a positive effect on female autonomy in their marital homes.

Several central and state government housing schemes have also made efforts to target women. The central government's Indira Awas Yojana encourages joint titling of the houses in the name of husband and wife while Karnataka's subsidised state housing programmes for poor households (Ashraya Yojana and Dr.Ambedkar Housing Scheme), mandate that the houses be registered in women's names. However, the lack of systematic individual-level data on asset ownership is a serious constraint in monitoring the effectiveness of such policy interventions and the impact they may have on women's welfare.

²India does not have a uniform civil code. Inheritance practices and succession laws are guided by the personal laws which are based on religion. There are four main personal laws – the Hindu personal laws, the Muslim personal laws, the Christian personal laws and the Parsi personal laws. From a legal viewpoint, a Hindu is defined as “one who is not a Muslim, Christian or a Parsi”. The large majority of the country's population is thus governed under the Hindu personal laws.

³Similar to Karnataka, Maharashtra implemented equal inheritance rights for daughters in 1994.

⁴In addition to Karnataka and Maharashtra, the other three states were Kerala, Andhra Pradesh, and Tamil Nadu that amended their laws in 1976, 1986, and 1989, respectively. In fact, Kerala abolished the joint family property system with individual family members holding their share separately (Agarwal, 1994).

3. CONTEXT AND DATA

Karnataka, located in south-west India, is the eighth largest state in India covering 5.83 percent of the total geographical area. It has a population of 61.1 million, of which 15.7 percent is concentrated in the metropolis of Bengaluru (Government of India, 2011). The state has 30 districts across four broad agro-climatic regions – the Northern *Maidan* (plateau), the Southern *Maidan*, the Western Ghats or *Malnad* (mountainous region) and the Coastal Region, each with distinct characteristics (Table 1). In the Southern *Maidan*, economic growth is largely concentrated around the capital city of Bengaluru, which attracts migrants from within and outside the state. The Western Ghats receive the highest rainfall in Karnataka, and have very fertile land with high incidence of commercial crops and plantations.

While geography is a natural means by which to delineate the districts, political history also provides a lens to understand intra-state variations. The state of Karnataka was formed in 1956 through an amalgamation of Kannada speaking areas from five territories – Hyderabad Karnataka, Bombay Karnataka, former Madras Presidency, Old Mysore state, and a portion of Coorg state (Government of Karnataka, 2006).⁵ These regions were fairly diverse not only in their political and administrative structures, but also in their levels of socio-economic development. This historical legacy is one of the contributing factors to the inter-district disparities in social and economic development. According to a composite index prepared by the Government of Karnataka, Hyderabad Karnataka had the maximum number of backward districts due to a combination of governance failures under the princely state of Hyderabad and continuous periods of drought experienced in more recent times (Government of Karnataka, 2006).

⁵Hyderabad Karnataka and Bombay Karnataka fall in Northern *Maidan*, while the Southern *Maidan* comprises of districts that belonged to former Madras Presidency and Old Mysore state. The coastal districts include Dakshina Kannada (including the current Udupi district) and Uttara Kannada districts, and the Western Ghats includes former Coorg state in addition to the districts of Shimoga, Hassan and Chikkamagalur.

The KHAS was undertaken in all four regions of the state with districts being randomly selected within a region. Eight districts⁶ were thus covered across the regions with rural and urban areas represented in all the districts except Bengaluru. Table 1 also provides key demographic and economic indicators for the selected districts. A few demographic patterns are similar across the selected districts albeit with differing degrees of variations between rural and urban areas. In all districts, female literacy is better in urban areas than in rural areas with the highest difference in Mysore district and the lowest in Dakshina Kannada district. While women's labour force participation rate is higher in rural areas than in urban areas in all the districts, in no district is it more than 50 percent. This could potentially impact women's social status as it limits their access to employment and income.

Sex ratio is a critical indicator of discrimination against women by the household and it reflects the amalgamated effects of increasing female foeticide, poor access to health care and nutrition for women and girls. At the state level, urban sex ratio is lower than the rural sex ratio but there are some variations across the districts. At 912 women per 1,000 men, Bengaluru city has the worst sex ratio in the state even as its share in the net state domestic product at 23 percent and human development index at 0.753 are the highest in the state. Not surprisingly, the sex ratio is the highest in the coastal districts.

Districts in Hyderabad Karnataka (Bidar and Gulbarga) have the worst human development indices while the coastal districts and Bengaluru have the best. In Bengaluru, this is largely driven by the income and education components of the human development index while in the coastal districts it is driven by the education and health components (Government of Karnataka 2006). Gulbarga and Bidar also have the highest gender differentials in agricultural wages in rural areas. These differentials are, however, not low even in economically better off districts such as DakshinaKannada, Udupi and Mysore.

⁶ The districts of Dakshina Kannada and Udupi were considered as one unit to represent the coastal regions. While disaggregated secondary data is presented for both these districts, all the estimates based on the survey data refer to the composite unit. Gulbarga district in the survey included the current Yadgir district as well.

Table 1: Profile of regions and selected districts

Regions	Characteristics	Districts	Sex ratio	Female literacy	Women's labour force participation	Gender wage differential for agricultural labour (Rs. per day)	Share in Net State Domestic Product (%)	Human Development Index	% Rural population
Northern Maidan	300 to 600 metres above sea level; black cotton soil-rich in Deccan plateau; irrigated by River Krishna and tributaries, low rainfall area with jowar, cotton, oilseeds and pulses; sugarcane in irrigated areas	Bidar Rural	957	56.7	31	35	1.8	0.599	75.1
		Bidar Urban	939	76.6	9.6				
		Gadag Rural	968	60.4	46.2	8	1.5	0.634	64.4
		Gadag Urban	997	73.9	22				
		Gulbarga Rural	964	47.5	42.8	31	4.1	0.564	67.5
		Gulbarga Urban	959	73.0	13.2				
Southern Maidan	600 and 900 metres above sea level; lies in River Cauvery basin; irrigated by Cauvery and tributaries; rice, sugarcane, ragi, coconut and mulberry principal crops.	Mysore Rural	973	55.5	32.2	26	5.1	0.631	58.7
		Mysore Urban	994	82.0	13.6				
		Tumkur Rural	980	61.9	46.8	21	3.7	0.630	77.6
		Tumkur Urban	978	82.2	18.8				
		Bengaluru City	912	86.1	17.5		22.5	0.753	
Malnad	Rainfall of 1,000 to 2,500 mm; dense rain forest with teak, rosewood and bamboo; commercial crops of coffee, arecanut, pepper, cardamom, rubber	Shimoga Rural	993	69.6	35.8	11	3.0	0.673	64.5
		Shimoga Urban	999	84.4	13.2				
Coastal	Average width of 50 to 80 km., length of 267 km; rainfall at 2,500 mm to 3,000 mm; Coconut, arecanut, rubber, paddy grown	DK Rural	1018	79.7	48.7	25	5.6	0.722	52.5
		DK Urban	1018	88.8	30.3				
		Udupi Rural	1112	78.4	36.4	26	2.6	0.714	71.7
		Udupi Urban	1044	89.2	22.8				
KARNATAKA		Rural	975	59.6	39.9	18.92	Rs. 9,338,282 Lakhs	0.650	61.4
Urban	957	81.7	16.4						

Source: Sex ratio, female literacy, % rural population: Census of India 2011; Women's workforce participation rate: Census of India 2001; Gender wage differential, Share in NSDP: Directorate of Economics and Statistics, 2003; Human Development Index: Karnataka Human Development Report, 2005

The KHAS data is state-representative with a total sample of 4,110 households selected across the eight districts. The survey is representative also at the district level. In each district, villages and electoral booths in rural and urban areas, respectively, formed the primary sampling unit from which the households were selected using a stratified random sampling design.

The KHAS data has detailed individual-level information on asset incidence and valuation for all physical assets (principal residence and other real estate, agricultural land, livestock, agricultural tools and equipment, non-farm businesses and their assets, and consumer durables) owned by household members. This is a departure from standard household surveys where the household is presumed to own an asset. For example, the NSSO surveys ask for land owned by the household. This implies that the household owns the plot of land and does not reveal any information on who *within* the household is the actual owner. With this data, if one is interested in land ownership patterns, then the attributes of the household head (sex, caste, religion, occupation and so on) are used in the analysis. Thus, female-headed households are compared to male-headed households to determine land ownership by sex. This presents an incomplete and potentially inaccurate picture of land ownership.

Using the household as the unit for data collection, moreover, does not have any theoretical underpinning. The intra-household economics literature has conclusively established that resource allocation within the household need not be equitable; the disparities can be related to age, sex and other factors that influence the resource accumulation and allocation decisions. For all assets, KHAS asks the following question “*To whom does this asset belong?*” The owner information thus obtained is matched with other characteristics from the household roster which allows for an accurate individual-level analysis of asset ownership. The focus of this paper is on gender-disaggregated analysis.

Another innovation of the KHAS design is that upto two individuals within a household were interviewed. The household members identified the person most knowledgeable about the household’s economic circumstances and assets. This individual was selected as the primary

respondent. If the primary respondent was married then the spouse was the secondary respondent. In situations where the primary was not married or her spouse was not a member of that household, the secondary was chosen based on a set of protocols.⁷

4. METHODS

Two measures, the gender asset gap and the gender wealth gap, were developed to understand gender differences in asset ownership. The gender asset gap is derived from asset incidence data and is analysed along three dimensions by considering the form of ownership of the asset, incidence of asset ownership and distribution of asset owners. These are further explained below. The gap measures are calculated only for all categories of physical assets.

Form of ownership of an asset: The unit of analysis for this measure is the asset and considers how the asset is held, whether individually or jointly. Several classifications are possible within the joint ownership category; this paper *inter alia* considers joint ownership by the principal couple (when the two respondents are married) and ownership between household and non-household members.

Incidence of asset ownership by sex: The adult individual (over 18 years of age) is the unit of analysis for this measure and gives a sex-disaggregated percentage of the adult population who are asset owners.

$$\frac{\text{Adult men asset owners}}{\text{Total number of adult men}}; \frac{\text{Adult women asset owners}}{\text{Total number of adult women}}$$

For gender parity in asset ownership, one should expect that the incidence be equal for adult men and adult women.

⁷ For further details on the sampling methodology and survey design, refer to Swaminathan, Suchitra, & Lahoti (2011).

Distribution of asset owners by sex: This measure is calculated over all age categories and looks at the distribution of asset owners by sex. The unit of analysis here is the asset owner; an asset that is individually owned will have one owner while an asset that is owned jointly will have more than one owner. This helps compare the percent of asset owners who are men with the percent of asset owners who are women.

$$\frac{\text{Men asset owners}}{\text{Total asset owners}}; \frac{\text{Women asset owners}}{\text{Total asset owners}}$$

The gender wealth gap is based on asset valuation data in which the share of the total value of assets owned by women is compared to the total value of assets owned by men.

$$\frac{\text{Total value of assets accruing to men owners}}{\text{Total value of assets}}; \frac{\text{Total value of assets accruing to women owners}}{\text{Total value of assets}}$$

Estimates for the distribution of asset owners by sex and the share of men and women in the gross worth are normalized by the sex distribution of the relevant unit (district or state). These figures represent the proportion of asset owners and the worth shared if the underlying population has an equal number of men and women. Gender parity thus necessitates that women's representation among asset owners and share in gross worth be 50 percent.

The total value of assets is calculated from aggregating the current sale price of all physical assets owned by individuals in the sample. If an asset is held jointly then its value is apportioned equally among each of the owners. The total value is a gross and not a net measure as it does not account for any outstanding loans taken against the assets.

There are benefits and limitations associated with each of these measures. The asset gap measures that are based on a count of asset holdings are based on data that are relatively easier to collect and somewhat less noisy than valuation data. The incidence measure is simple to calculate and comprehend. It has appeal as a policy indicator to compare across diverse groups or track progress on asset ownership. However, incidence also masks inequities in asset ownership. An individual owning 10 plots of land totalling 100 acres is treated the same as

someone who owns only one plot of land that is less than half an acre. On the other hand, asset values present a more complete picture of asset ownership as they factor in several other attributes such as age, quality and quantity of the asset in question.

5. RESULTS

A total of 7,185 respondents were interviewed from the 4,110 sampled households. Of these households, 64 percent belonged to rural areas, 27 percent to urban areas and 9 percent were in Bengaluru city (Swaminathan, Suchitra and Lahoti, 2011).⁸ Primary and secondary respondents differed from each other on most demographic parameters. Across the areas, more than 70 percent of the primary respondents were men and at least 88 percent of the secondary respondents were women. Primary respondents were on average around five years older than the secondary respondents. The marital status of the respondents shows a majority of men primary respondents to be currently married and women primary respondents to be widowed, the implication being that women were identified as primary respondents largely in the absence of a spouse. Along expected lines, the literacy and labour force participation rates of men respondents were better than those of women.⁹

The incidence of asset ownership by households was found to be largely in alignment with the findings from other surveys such as the All India Debt and Investment Survey 2005, the National Family and Health Survey 2006 and the India Human Development Survey 2005. (Swaminathan, Suchitra and Lahoti, 2011). Ownership of agricultural land, livestock and agricultural tools and equipment were expectedly higher in rural areas as compared to the urban areas and Bengaluru. Households in urban areas and Bengaluru were also less likely to own the houses in which they resided given that these areas are characterized by higher property prices and well-developed rental markets. Urban households owned a wider range of consumer durables than

⁸All descriptive statistics are weighted using appropriate sample weights. The data on Bengaluru is presented separately since it has characteristics that are distinct from other urban areas of the state. Asset ownership and accumulation patterns here are thus likely to be quite different from other parts of Karnataka.

⁹ For a detailed description of the respondent profiles, see Swaminathan, Suchitra and Lahoti (2011).

the rural households. Significant differences between rural and urban areas also emerged in the access to basic amenities such as drinking water, sanitation and cooking fuel.

Gender Asset and Gender Wealth Gaps

Table 2 looks at the forms of ownership of assets in the rural areas of Karnataka. An asset can be owned by individually by men or women, by the principal couple or by all household members (where every household member is an owner of the asset). We also include under joint ownership, cases where the asset is owned jointly by at least one member of the household along with other owners who are not members of the household. Examples include co-ownership of an asset by parents and children or siblings who are members of different households.

There are differences in the patterns of ownership depending on the type of assets. For assets of relatively higher value, such as the principal residence, agricultural land and other real estate, individual ownership dominates, while for relatively lower value assets such as livestock and agricultural tools and equipment, ownership by all household members (at least 70 per cent) is the dominant form. For assets like non-farm businesses, cell phones, vehicles and jewellery, although there is higher concentration in individual ownership, ownership by all household members is not insignificant.

For assets where individual ownership dominates, we find that there are substantial differences in the extent of individual male and individual female ownership. At least 65 percent of principal residences, agricultural plots and other real estate are owned individually by men, while the comparable figures for women are only 22 percent, 14 percent and 20 percent, respectively. Even for cell phones and vehicles, while ownership by individual men is at least 40 percent, it is less than 10 percent for individual women.

Table 2: Distribution of assets by forms of ownership, Rural (%)

Assets	Individual men	Individual women	Principal couple	All household members	Other joint ownership	Joint ownership between household and non-household members	Total number of assets
Principal residence	65	22	4	0	3	5	2,398
Agricultural land	71	14	2	0	4	8	2,468
Other real estate	68	20	5	0	3	5	647
Livestock	6	5	6	82	1	1	8,275
Small agricultural tools	5	3	8	83	0	1	21,251
Large agricultural equipment	10	2	8	71	2	6	577
Non-farm businesses	48	25	12	1	12	1	464
Cell phone	51	8	4	34	1	1	1,829
Vehicles	46	9	2	39	1	2	1,374
Jewellery	4	69	8	16	3	0	2,285

Source: Swaminathan, Suchitra&Lahoti, 2011

The forms of ownership are not very different in urban areas and Bengaluru (Table 3). For principal residence, individual ownership by women is marginally higher (26 percent in urban areas and 34 percent in Bengaluru) as compared to rural areas (22 percent). A larger number of cell phones and vehicles are also owned individually by women in these areas when compared to the rural areas. In urban areas, we find that joint ownership between household and non-household members for principal residence, agricultural land and other real estate is 8 percent, 17 percent and 15 percent, respectively, higher than the respective rural figures. This suggests that individuals residing in urban areas often own such immovable property jointly with their parents and siblings who reside in the rural areas or other towns. Across the areas, jewellery is the only asset for which individual ownership by women (69 percent, 66 percent and 46 percent in rural areas, urban areas and Bengaluru respectively) is the dominant form of ownership.

Table 3: Distribution of assets by forms of ownership, Urban and Bengaluru (%)

Assets	Individual men	Individual women	Principal couple	All household members	Other forms	Joint ownership between household and non-household members	Total number of assets
Urban							
Principal residence	58	26	5	1	2	8	676
Agricultural land	64	15	0	0	3	17	302
Other real estate	63	19	1	0	1	15	236
Non-farm businesses	60	22	6	0	9	3	387
Cell phone	52	20	4	22	0	1	1,211
Vehicles	53	12	5	25	2	4	868
Jewellery	8	66	9	15	1	1	929
Bengaluru							
Principal residence	60	34	2	1	1	2	128
Cell phone	49	24	3	23	1	0	508
Vehicles	53	12	2	32	1	1	239
Jewellery	2	46	8	42	1	0	150

Source: Swaminathan, Suchitra&Lahoti, 2011

The forms of asset ownership dictate the extent and direction of the gender asset gaps that we present below. For those assets where joint ownership, in particular ownership by all household members is the dominant form, the gaps tend to be low since every individual within the household irrespective of sex is considered an owner. Assets which are dominated by individual ownership show wide gender gaps in favour of men given that individual ownership by men is almost always substantially higher than individual ownership by women.

Table 4 presents the incidence of asset ownership by sex for different asset categories in the rural areas of the districts and the state. For principal residence and agricultural land, across all the districts except Dakshina Kannada, the difference between the incidence of ownership by men and women ranges from 25 to 37 percentage points. In these districts, women's incidence of ownership of residence is not more than 18 percent and of agricultural land is not more than 9 percent. At the state level, there is a 30 percentage point difference in the incidence of residence and agricultural land ownership by men and women. Dakshina Kannada stands out

with the least gender gap of 9 percentage points for residence and 6 percentage points for agricultural land. Presumably, this is driven by the presence of matrilineal communities in this district. Livestock which was owned largely by all household members shows a very low gap in incidence of ownership. In Dakshina Kannada there is a mild reverse gap in the incidence of livestock ownership.

Table 4: Incidence of asset ownership by sex, Rural (%)

Districts	Principal residence		Agricultural land		Livestock		Non-farm businesses		Jewellery		Other real estate*		Total number of adults	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Bidar	50	14	35	7	65	54	7	2	15	40			552	603
Dakshina Kannada	36	27	22	16	56	58	14	5	18	62			563	718
Gadag	45	15	45	9	60	53	10	5	21	63			618	647
Gulbarga	49	14	42	9	66	60	11	6	12	27			558	621
Mysore	48	13	39	8	69	62	4	3	26	72			603	564
Shimoga	50	18	45	8	64	57	6	5	20	66			515	567
Tumkur	43	18	33	8	57	53	10	5	34	66			558	590
KARNATAKA	47	17	39	9	63	57	9	4	21	53	12	4	3967	4310

Source: Authors' calculations, KHAS 2010-11

* Overall incidence was not large enough to allow for district-level disaggregation

Even in urban areas and Bengaluru (Table 5), the incidence of ownership of principal residence by women was not more than 20 percent in any district, including Dakshina Kannada. However, given that the incidence of ownership by men is less than 40 percent across districts, the gender gaps here while substantial, are not as high as in the rural areas. Tumkur district shows the least gap in residence ownership; at 6 percentage points, the gap is the same as in Bengaluru. In Bengaluru, the low gap could be partly explained by the trend of women being made the nominal owners of houses driven by tax-related concerns of the male members of the households. Given the proximity of Tumkur district to Bengaluru, it is possible that some of the trends in urban areas of Tumkur may closely resemble those of the latter.

Women's incidence of ownership of non-farm businesses is under 10 percent across rural and urban areas of all districts, except in urban areas of Tumkur where it is 12 percent. Men's incidence of non-farm businesses, however, is higher in urban areas and Bengaluru than in the

rural areas, thereby leading to wider gaps in the former. Mysore district is characterized by high irrigation leading to high demand for agricultural labour. This is reflected in the very low incidence of non-farm businesses for both men and women in rural areas.

Cell phones and vehicles also show substantial gender gaps in incidence of ownership. As mentioned earlier, jewellery is the only asset showing a reverse gender gap across rural and urban areas of all districts.

Table 5: Incidence of asset ownership by sex, Urban and Bengaluru (%)

Districts	Principal residence		Non-farm businesses		Jewellery		Cell phones		Vehicles		Other real estate*		Total number of adults	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Bidar	28	9	20	6	15	33	54	37	38	21			286	282
Dakshina Kannada	32	19	15	4	33	68	72	46	34	12			164	199
Gadag	39	14	26	6	34	57	61	37	41	14			240	280
Gulbarga	25	6	25	9	24	43	69	49	29	17			260	285
Mysore	22	13	18	5	25	69	69	47	52	21			197	238
Shimoga	24	15	20	9	12	45	57	34	35	14			235	246
Tumkur	24	18	18	12	23	60	70	45	54	24			263	286
KARNATAKA	28	13	21	7	24	53	64	42	40	17	8	2	1645	1816
BENGALURU	16	10	12	3	22	38	79	59	46	27			510	492

Source: Authors' calculations, KHAS 2010-11

* Overall incidence was not large enough to allow for district-level disaggregation

In terms of the incidence of asset ownership by women, the urban areas of Dakshina Kannada district are not very different from the urban areas of other districts. This could imply that matrilineal practices which lead to asset accumulation by women are more prevalent in rural areas when compared to urban areas. The Madras *Aliyasantana* Act of 1929 which governed the rules of inheritance and succession of the matrilineal communities ensured that women were privileged over men in the inheritance of property. This legislation was initially superceded by the Hindu Succession Act 1956 which reversed this privilege, and subsequently by the Hindu Succession Amendment Act of 2005 which ensures equality in inheritance to both

the sexes. The data presented here suggest that matrilineal practices in rural areas have faced a lesser degree of erosion in comparison to urban areas.¹⁰

Table 6: Women's representation among asset owners and share in gross asset worth, Rural (%)

Districts	Principal residence		Agricultural land		Livestock		Non-farm businesses		Jewellery		Other real estate*	
	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth
Bidar	21	19	16	11	49	48	25	5	65	67		
Dakshina Kannada	47	44	45	31	51	49	28	12	72	75		
Gadag	27	21	17	9	47	45	33	11	73	76		
Gulbarga	24	17	19	14	48	45	34	8	63	88		
Mysore	22	17	16	10	49	43	43	14	71	81		
Shimoga	27	21	16	8	48	47	44	11	74	88		
Tumkur	30	22	20	12	50	47	33	35	63	72		
KARNATAKA	28	24	20	12	48	45	35	13	69	81	26	22

Source: Authors' calculations, KHAS 2010-11

* Numbers were not large enough to allow for district-level disaggregation

Table 6 shows women's representation among asset owners and their share in the gross asset worth in rural areas. Except in Dakshina Kannada, we find that women do not constitute even 30 percent of the owners of principal residences in any district, and account for at the most 20 percent of all agricultural plot owners. In Dakshina Kannada, women account for 47 percent of all residence owners and 45 percent of all agricultural plot owners. When we look at women's share in the gross worth of these assets, we find that across the districts (including Dakshina Kannada), the figures are lower than their representation among owners. This is true of all assets including livestock and non-farm businesses. It is true of jewellery as well in the reverse direction, *i.e.*, the women's share in the gross worth of jewellery is higher than their representation among the jewellery owners. In urban areas (Table 7), the percentage of residence owners who are women is higher than in rural areas in all districts except in Dakshina

¹⁰This is also corroborated by the findings from the focus group discussions conducted in rural and urban areas of Dakshina Kannada and Udupi districts. We found that traditionally matrilineal communities continued to hold on to their practices much more in rural areas than in urban areas. In fact, in rural areas of Udupi district, participants of a men's group stated that they followed *Aliyasantana*, the system of matriarchy, matrilineality and matrilocality, because it was a sound system, inherently favourable towards women's empowerment and gender equality.

Kannada, where we see a reduction as compared to rural areas. In the urban areas of Shimoga and Tumkur, women constitute a higher share of owners as compared to even Bengaluru.

Table 7: Women's representation among asset owners and share in gross asset worth, Urban and Bengaluru (%)

Districts	Principal residence		Non-farm businesses		Jewellery		Cell phones		Vehicles		Other real estate	
	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth	% owners	% gross worth
Bidar	24	25	23	5	67	75	42	32	37	20		
Dakshina												
Kannada	35	17	20	6	66	64	40	32	29	12		
Gadag	28	17	20	0	64	78	44	31	32	13		
Gulbarga	22	11	27	13	62	64	46	32	41	30		
Mysore	38	21	20	4	70	78	44	37	33	36		
Shimoga	40	27	31	2	78	86	39	29	31	15		
Tumkur	46	41	43	4	69	74	43	32	35	46		
KARNATAKA	33	27	25	2	67	74	43	33	34	24	24	11
BENGALURU	39	11	18	3	61	58	43	34	39	34		

Source: Authors' calculations, KHAS 2010-11

* Numbers were not large enough to allow for district-level disaggregation

The pattern of women's share in the gross worth of assets being lower than their share among owners is seen in urban areas and Bengaluru as well across most assets. It is particularly stark in the case of non-farm businesses in Gadag, Shimoga and Mysore where women account for at least 20 percent of all owners but less than 5 percent of the worth of these activities accrues to them. In Gadag, less than 1 percent of the total value of non-farm business accrues to them. In Bengaluru, while 39 percent of residence owners are women, only 11 percent of the worth of these residences is owned by them. The exceptions to this pattern are in Bidar where women constitute 24 percent of all residence owners and 25 percent of the worth of residences accrues to them; and with respect to vehicles in Mysore and Tumkur where women are 33 percent and 35 percent of the owners, respectively, with a larger share of the total value accruing to them (36 percent and 46 percent, respectively).

The gender wealth gap gives us insights about the assets in question that the gender asset gaps would miss. It shows that women not only own fewer or smaller assets but that the assets that

they own are of poorer quality. With respect to residences, it is possible that those owned by women are smaller in size, located in less affluent areas, built of non-durable materials and so on. With respect to agricultural land, it could imply that women are owners of smaller plots of land, possibly unirrigated, having fewer investments or located at considerable distance from motorable roads. This is the case even in the rural areas of Dakshina Kannada where women's asset ownership is higher than in all other parts of the state.

Inequalities in asset worth

The analysis thus far has shown that there are substantial gender differentials in asset ownership and asset worth. However, there is likely to be heterogeneity within the male and female populations as well. We look at these inequalities in this section. We first look at the per capita gross worth¹¹ of physical assets by areas for each asset category and consider two measures of central tendency – the mean and the median. The mean per capita gross worth for all assets is highest in Bengaluru and lowest in rural areas, with the per capita worth of Bengaluru being 1.4 times that of urban areas and 1.7 times that of rural areas. However, a different picture emerges if one considers the median as opposed to the mean. Rural areas show a higher per capita median worth and Bengaluru shows the lowest, with the per capita median worth of Bengaluru being less than a third that of rural areas and less than two-thirds of that in urban areas.

This divergence between the mean and median per capita values reflects a more skewed distribution of wealth in Bengaluru and urban areas as compared to rural areas. The high concentration of wealth among a few in Bengaluru positively influences the mean but does not influence the median. We see that the mean worth in Bengaluru is 14.2 times the median worth while the rural mean is only 2.6 times the rural median, which suggests relatively less inequality within rural areas.

¹¹ This measure corrects the gross worth of households for household size.

Table 8: Summary statistics for per capita gross worth (Rs.) by assets and area¹².

	Rural		Urban		Bengaluru	
	Mean	Median	Mean	Median	Mean	Median
Principal residence	41,471	25,000	201,515	60,000	727,784	250,000
Agricultural land	147,072	44,118	238,117	60,000	388,500	46,667
Other real estate	54,382	10,000	205,170	33,333	299,051	200,000
Livestock	4,616	3,245	3,233	1,387	4,481	625
Vehicles	2,208	163	9,446	833	14,726	5,833
Cell phones	257	164	402	188	730	333
Jewellery	4,333	1,600	9,550	2,500	17,522	6,667
All physical assets	144,938	54,670	184,798	26,117	250,585	17,133

Source: Authors' calculations, KHAS 2010-11

Principal residence, agricultural land and other real estate are the highest value assets across the three areas. The per capita worth (mean and median) of all assets except livestock is the highest in Bengaluru and the lowest in rural areas. The per capita median value of a residence owned in Bengaluru is Rs. 2,50,000 while it is only Rs. 25,000 in rural areas (1/10th) and Rs.60,000 in urban areas (less than 1/4th). For agricultural land the median per capita worth in urban areas is more than in Bengaluru but mean worth is highest in Bengaluru.¹³

Table 9 presents the per capita gross mean worth by quintile¹⁴ and area. In urban areas, the per capita median worth in the poorest households is only Rs. 1,449 while that among richest households is an astonishing Rs. 788,162 (544 times higher). In Bengaluru, the per capita worth among the richest households is even higher at 615 times the per capita worth in the poorest households. By comparison, the wealth in rural areas is relatively more evenly distributed with the per capita mean worth in the fifth quintile being 60 times that in the first quintile. Individuals in rural households in the first four quintiles are better off than individuals in the corresponding households in urban areas. In fact, those in the first three quintiles in rural areas are better off than the corresponding quintiles in Bengaluru as well. It is only in the richest

¹² The numbers represent positive means and medians.

¹³ Few individuals in Bengaluru own agricultural land and most of such land owned is either in the peripheries of Bengaluru or in rural areas. In the peripheries of Bengaluru, land values tend to be very high thereby increasing the mean worth.

¹⁴ We order the households by total gross physical asset worth and divide them into quintiles.

quintile is the per capita mean worth shows a drastic increase in both urban areas and Bengaluru.

Table 9: Mean per capita gross household physical worth (Rs.) by quintiles and area

	Rural	Urban	Bengaluru
Quintile 1 (Poorest)	8,630	1,449	1,813
Quintile 2	34,743	8,062	6,567
Quintile 3	63,898	32,865	20,613
Quintile 4	116,415	97,161	116,502
Quintile 5 (Richest)	515,491	788,162	1,115,656
Overall	144,938	184,798	250,585

Source: Authors' calculations, KHAS 2010-11

Tables 10 and 11 present the mean per capita gross worth, and the ginis for gross worth at the household and individual level in rural and urban areas respectively. In rural areas, Mysore is the richest district and Gadag the poorest according to per capita mean worth. In urban areas, Bidar is the poorest district and Dakshina Kannada is the richest district. Given the high non-response among the affluent sections of Bengaluru, the figures for the city are likely to be underestimated and should be interpreted with caution. The richest district in urban areas has 6.2 times the per capita mean worth of that of the poorest district, while in rural areas the corresponding number is 4.4 times. In Mysore, Gulbarga and Shimoga the rural per capita mean is greater than the corresponding urban figures. The rural per capita mean worth for Mysore is more than twice that in urban areas of the district.

In addition to considering ginis for the total physical gross worth of the traditional unit of analysis, the household, since KHAS has collected data at individual level, we also calculate ginis for individual gross worth of the adult population. These numbers represent a measure of inequality among individuals in the population. We also calculate the ginis for the adult male and female population separately. Lorenz curves for household and individual gross physical worth in rural areas, urban areas and Bengaluru are presented in Figures 1, 2 and 3.

Table 10: Per capita mean worth and household and individual ginis by district, Rural

	Per Capita Gross Mean Worth	Ginis			
		Household	Individual	Male	Female
Bidar	83,176	0.683	0.86	0.796	0.884
Dakshina Kannada	126,562	0.637	0.835	0.825	0.83
Gadag	79,807	0.629	0.817	0.739	0.816
Gulbarga	147,135	0.608	0.849	0.764	0.903
Mysore	353,217	0.723	0.885	0.852	0.864
Tumkur	95,938	0.722	0.868	0.834	0.827
Shimoga	119,836	0.615	0.818	0.778	0.787
Karnataka	144,938	0.676	0.859	0.81	0.865

Source: Authors' calculations, KHAS 2010-11

Table 11: Per capita mean worth and household and individual ginis by district, Urban

	Per Capita Gross Mean Worth	Ginis			
		Household	Individual	Male	Female
Bengaluru	250,585	0.849	0.85	0.833	0.879
Bidar	88,309	0.662	0.875	0.831	0.902
Dakshina Kannada	549,536	0.729	0.87	0.84	0.821
Gadag	160,770	0.808	0.902	0.87	0.854
Gulbarga	137,809	0.812	0.925	0.895	0.894
Mysore	174,485	0.752	0.893	0.879	0.857
Tumkur	146,586	0.812	0.91	0.896	0.911
Shimoga	106,889	0.825	0.904	0.889	0.908
Karnataka	184,798	0.791	0.905	0.884	0.887

Source: Authors' calculations, KHAS 2010-11

Mysore, the richest district in rural areas according to per capita mean physical worth, shows the highest level of inequality among households while Gulbarga shows the least household inequality. In urban areas, households in Bengaluru, the richest district, are the most unequal and those in Bidar, the poorest district, are the least unequal.

In both rural and urban areas of all districts and at the state level, inequality among individuals is higher than among households. This is a reflection of the high incidence of individual ownership of the high value assets. Wealth is thus concentrated not only in few households but also among few individuals in those households. Individual ginis in the range of .81-.9 are

indicative of an extraordinary concentration of wealth among only a few members of the society.

In rural areas, inequality among adult women is higher than that among adult men in all the districts except Tumkur, and at the state level. In the Northern *Maidan* districts of Bidar, Gulbarga and Gadag, this difference is higher than in other parts of the state. In urban areas, inequality among women is only marginally higher than that among men at the state level with considerable variation in the patterns across the districts.

Figure 1: Lorenz curves for household and individual gross physical worth, Rural

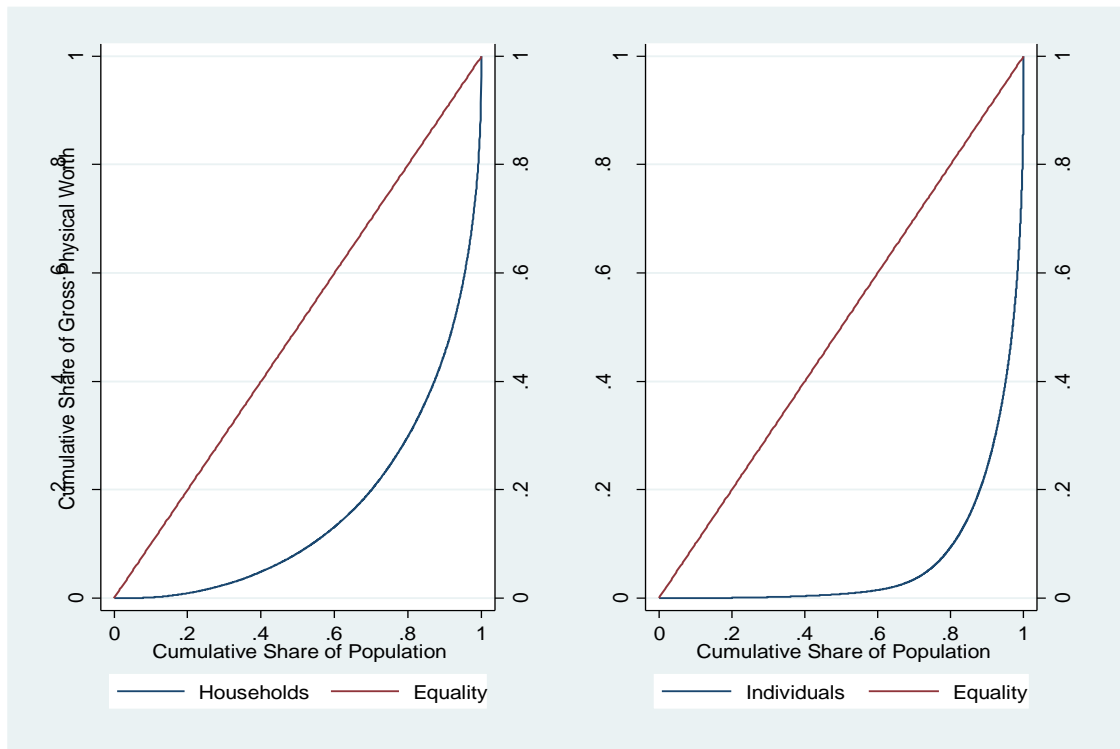


Figure 2: Lorenz curves for household and individual gross physical worth, Urban

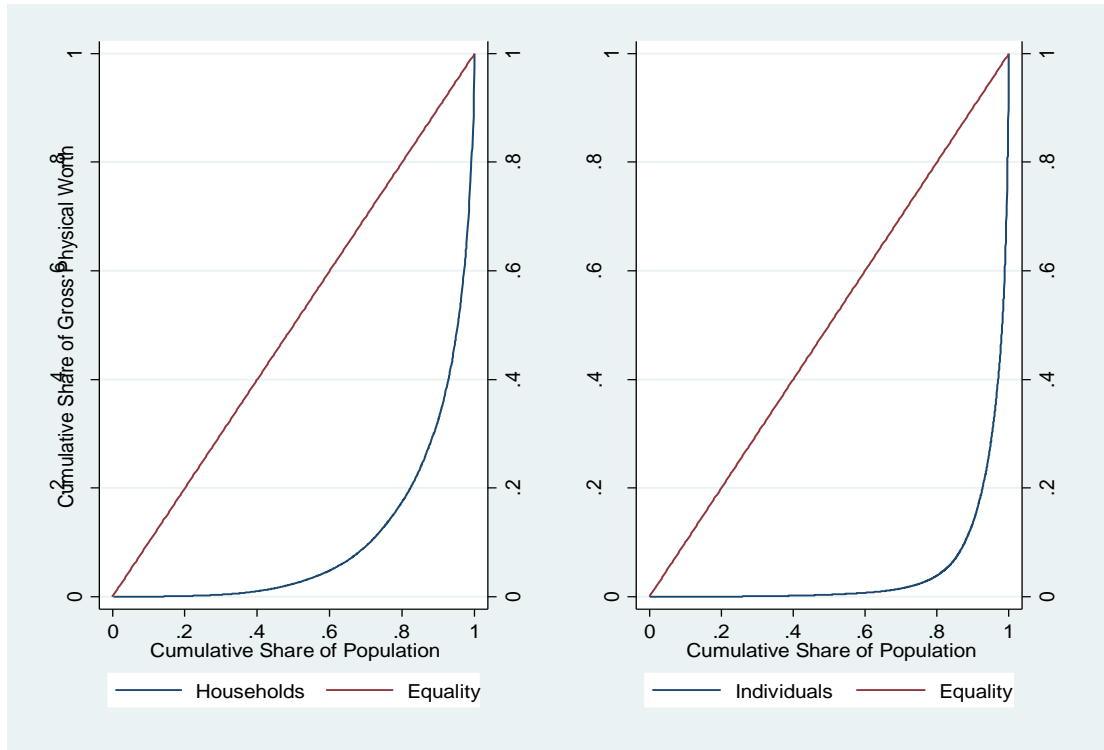
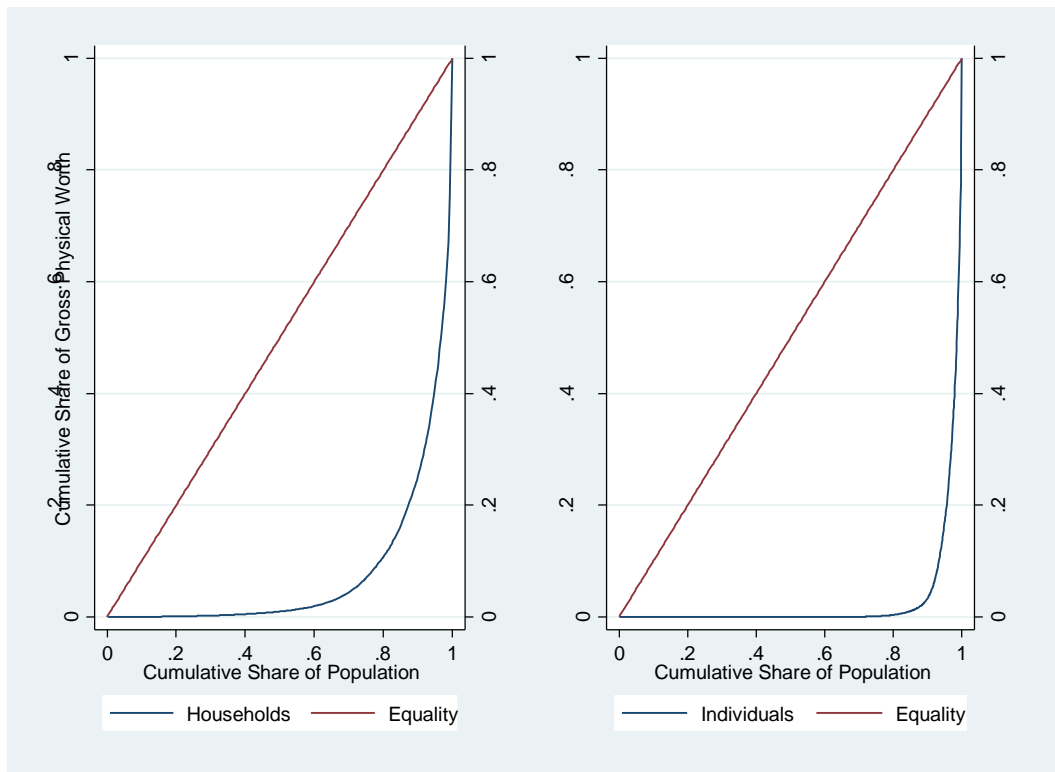


Figure 3: Lorenz curves for household and individual gross physical worth, Bengaluru



5. CONCLUDING THOUGHTS

In this paper, we have examined the differential patterns of asset ownership by men and women and looked at inequality measures therein. Our preliminary analysis suggests that there are substantial gender disparities in asset ownership across the districts of Karnataka. The inequality is highest for principal residence and agricultural land and lowest for livestock and other lower value assets which are predominantly owned by all members of the household. The gender gaps in asset ownership are the least in the coastal district of Dakshina Kannada and this could be partly attributed to the system of matrilineality that certain communities in this district practise, which is favourable to women's acquisition of assets. There are greater gender disparities in value-based gaps than in the incidence-based gaps. Analyzing only differences in incidence of asset ownership will thus underestimate the extent of the gaps.

The distribution of wealth across individuals is highly skewed in urban areas and Bengaluru while the rural areas exhibit a relatively lesser degree of inequality. Since the data used for this paper has collected individual level ownership information for all assets, for the first time in India, we have calculated wealth ginis at the individual level for Karnataka and the selected districts. We find that the household ginis are lower than the individual ginis which reflects high concentration of wealth among few individuals. This has critical implications for a more nuanced understanding of poverty and suggests that policies aimed at enabling individuals build their asset base are important. Further research is needed to understand the implications of the gender-related and other inequalities in asset ownership for individual and household welfare.

The analysis presented in this paper is preliminary; it is meant to raise questions and provoke a discussion, rather than provide all the answers. We hope that the data sets generated through this project will provide some insights into the issues raised and also encourage a discussion on sex-disaggregated data collection.

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