

GAAP

Gender, Agriculture, & Assets Project

LED BY IFPRI & ILRI

Original version: February 2012

First update: September 2014

A Toolkit on Collecting Gender & Assets Data in Qualitative & Quantitative Program Evaluations



Photography credit: Agnes Quisumbing

ABOUT THE TOOLKIT

Over the past decade, donor organizations, researchers, and development practitioners have recognized the importance of collecting mixed methods gender and assets data using mixed methods in monitoring & evaluation and impact evaluation of development programs. Nonetheless, many researchers and practitioners remain unsure of why or how to do this. This toolkit has been developed as part of the Gender, Agriculture, and Assets Project (GAAP) to assist researchers and practitioners who are either new or unfamiliar with using mixed methods for gender and assets data collection and analysis.¹ In addition to establishing the need for gender and assets research, the toolkit defines key concepts and highlights methods for collection, analysis, and dissemination. It also draws from first-hand insights (opportunities and challenges) from previous research projects and the recently-completed GAAP case studies. For those interested in

Toolkit compiled and edited by Julia Behrman, Zhenya Karelina, Amber Peterman, Shalini Roy & Amelia Goh as part of the Gender, Agriculture, & Assets Project (<http://gaap.ifpri.info/>), and updated by Chiara Kovarik and Katie Sproule. The toolkit would not be possible without the guidance and comments of the GAAP core team members Agnes Quisumbing, Ruth Meinzen-Dick, Jemimah Njuki, Nancy Johnson, Elizabeth Waithanji and Dee Rubin. We are also grateful to Agnes Quisumbing, Krista Jacobs, Cheryl Doss, Caroline Moser, and Diana Tempelman, Deanna Olney, Mara van den Bold, Julia Behrman, Dan Gilligan, Elizabeth Waithanji, Ephraim Nkyonya, Shalini Roy, Peter Davis, Nurul Amin Siddiquee, Kakuly Tanvin, Thelma Paris, Nick Magnan, David Spielman, and Diana Fletschner for granting us interviews and for extensive feedback in development of the case studies.

INTRODUCTION

Control over and ownership of assets are a critical component for well-being of individuals and households. Assets are multi-dimensional, and thus have multi-dimensional benefits. Productive assets can generate products or services that can be consumed or sold to generate income. Assets such as homes or buildings may both provide services as well as generate rent. In addition to tangible assets, it is important to remember that assets also encompass intangible items like social capital and education that can be converted into marketable connections and skills. Assets are long-term stores of wealth that can increase or decrease with investment and time. Assets can act as collateral and facilitate access to credit and financial services. Their fungibility provides security through emergencies and opportunities in periods of growth. In short, owning land and livestock, homes and equipment, and other resources and wealth enables people to create more stable and productive lives. Increasing ownership of and control over assets also helps to provide more permanent pathways out of poverty compared to measures that aim to increase incomes or consumption alone. Agricultural development projects that seek to increase the asset holdings of the poor contribute to sustainable poverty reduction while promoting self-reliance.

Who controls these assets within the household is critical to household and individual well-being. There is now substantial evidence that contradicts the common assumption made in economics and many development projects of a “unitary” model of the household – that is, the assumption that households are groups of individuals who have the same preferences and fully pool their resources. Evidence suggests that, while some assets in a household are jointly held, many assets within households are held individually by the men, women and children who comprise households.² This allocation of assets to various individuals within households is determined both by the contexts in which households find themselves as well as intra-household dynamics. The distribution of assets across individuals within a household may, in turn, affect individuals’ intra-household bargaining power when individual preferences over outcomes differ. A growing body of evidence has shown that not only do women typically have fewer assets than men, but they also use the ones they have differently. Increasing women’s control over assets, mainly land, physical, and financial assets, has been shown to have positive effects on a number of important development outcomes for the household, including food security, child nutrition, and education, as well as women’s own well-being.³ Based on this and other evidence, it can be inferred that: *understanding the role of men’s and women’s asset ownership and control is key to achieving global development goals.*

A crucial first step toward understanding the gender dimensions of asset ownership and control is acquiring detailed gender-disaggregated information on assets through monitoring, evaluation, and data collection. Unfortunately, most data on assets is collected at the household level, and does not distinguish individual-level assets, or is limited in terms of categories of assets collected and the method in which ownership or control is operationalized. However, there are a growing number of studies that examine gendered control over assets, using a range of evaluation methodologies.

This toolkit is intended to help researchers and practitioners collect, measure, and analyze gender and assets data in qualitative and quantitative evaluations for current and future projects. It was developed as part of the *Evaluating the Impacts of Agricultural Development Programming on Gender Inequalities, Asset Disparities, and Rural Livelihoods (GAAP) Project* of the International Food Policy Research Institute (IFPRI) and the International Livestock Research Institute (ILRI), funded by the Bill and Melinda Gates Foundation.⁴ The GAAP project

² Haddad et al. (1997); Behrman (1997).

³ Quisumbing (2003); Smith (2003); World Bank (2001).

⁴ For more information see the project website at: <http://gaap.ifpri.info/>

evaluates how a number of agricultural development projects in South Asia and Sub-Saharan Africa impact women's and men's assets (and other development outcomes) and seeks to identify which strategies have been successful in reducing gender-asset gaps.

The toolkit is organized as follows: **Section 1** presents an overview of key questions and concepts related to gender and assets; **Section 2** focuses on important principles for measuring the gender-asset gap in quantitative and qualitative data collection, highlighting tools, best practices and approaches, and pros and cons of each method; **Section 3** summarizes these best practices, drawing from the experience of project partners in GAAP, and makes over-arching recommendations in terms of gender asset data collection, and; the **Annex** provides a host of additional information, including a list of resources for collection of gender and assets data, case studies from each of the GAAP partner projects and from previous work on gender and assets, and a guide for how to integrate gender into standard household surveys.

CONTACT INFORMATION

For questions or comments about this toolkit, or to share your experiences with us, please contact IFPRI-Gender@cgiar.org.

TABLE OF CONTENTS

SECTION 1. GENDER & ASSETS FAQ

SECTION 2. MEASURING THE GENDER ASSET GAP USING QUALITATIVE AND QUANTITATIVE METHODS

- 2.1.** HISTORICAL CONTEXT OF HOW TO MEASURE THE GENDER-ASSET GAP
- 2.2.** FACTORS TO CONSIDER WHEN DESIGNING AN EVALUATION
- 2.3.** QUANTITATIVE METHODS
 - 2.3.1.** QUANTITATIVE METHODS FOR MONITORING & EVALUATION
 - 2.3.2.** QUANTITATIVE METHODS FOR IMPACT EVALUATION
- 2.4.** QUALITATIVE METHODS
- 2.5.** Q-SQUARED: COMBINED QUANTITATIVE AND QUALITATIVE APPROACHES
- 2.6.** FIELD IMPLEMENTATION ISSUES

SECTION 3. BEST PRACTICES AND HIGHLIGHTS FROM GAAP

ANNEX 1. RESOURCES

ANNEX 2. OVERVIEW OF GENDER ISSUES IN STANDARD HOUSEHOLD SURVEYS

ANNEX 3. CASE STUDIES

Case Study 1. Lessons Learned from Landesa Project (India): Can Microplots Contribute to Rural Households' Food Security?

Case Study 2. Lessons Learned from BRAC Project (Bangladesh): How Do Intrahousehold Dynamics Change When Assets Are Transferred to Women?

Case Study 3. Lessons Learned from CARE Project (Bangladesh): Can Dairy Value Chain Projects Change Gender Norms in Rural Bangladesh?

Case Study 4. Lessons Learned from Land O'Lakes Project (Mozambique): The Importance of Gender in a "Gender Blind" Asset Transfer Program

Case Study 5. Lessons Learned from Helen Keller International Project (Burkina Faso): An Integrated Agriculture-Nutrition Program in Burkina Faso Can Change Gender Norms on Land and Asset Ownership

Case Study 6. Lessons Learned from HarvestPlus Project (Uganda): Who Decides to Grow Orange Sweet Potatoes?

Case Study 7. Lessons Learned from KickStart Project (Kenya and Tanzania): Do Women Control What They Grow?

Case Study 8. Lessons Learned from Cereal Systems Initiative for South Asia (CSISA) (India): Gender, Caste, and Asset Control

Case Study 9. Lessons Learned from Cereal Systems Initiative for South Asia (CSISA) (India): Gender Dimensions of Social Networks and Technology Adoption

Case Study 10. International Food Policy Research Institute: (IFPRI): Strengthening Development Impact through Gender and Intra-Household Analysis Project

Case Study 11. International Food Policy Research Institute (IFPRI): Evaluating the long-term impact of anti-poverty interventions in Bangladesh

Case Study 12. International Center for Research on Women (ICRW): Gender, Land and Asset Survey (GLAS) Project

Case Study 13. *In Her Name* project: Measuring the gender asset gap in Ecuador, Ghana, and India

Case Study 14. UNU-WIDER: The Gendered Nature of Asset Accumulation in Urban Contexts: Longitudinal Results from Guayaquil, Ecuador

Case Study 15. Food and Agriculture Organization (FAO): Agri-Statistics Toolkit

TABLES

TABLE 1. OVERVIEW OF DIFFERENT USAGE RIGHTS

TABLE 2. TYPOLOGIES OF OWNERSHIP

TABLE 3. SIMPLIFIED WAY TO ENGENDER AN ASSET MODULE

TABLE 4. OVERVIEW OF QUALITATIVE METHODS

TABLE A.1. BASIC AND EXTENDED QUESTIONNAIRE DESIGN OF SOCIO-ECONOMIC MODULES

TABLE A.2. CONTENTS OF A HOUSEHOLD ROSTER

TABLE A.3. SOCIO-ECONOMIC MODULES

TABLE A.4. ADDITIONAL CONSUMPTION, HEALTH, AND NUTRITION MODULES

TABLE A.5. ADDITIONAL GENDER RELATED MODULES

FIGURES

FIGURE 1. PERCENTAGE CHANGE OF HUSBANDS' AND WIVES' ASSETS IN RURAL BANGLADESH (1996-2000)

BOXES

- BOX 1.** EXAMPLE OF LOOKING AT DIFFERENT TYPES OF RIGHTS IN THE GENDER, LAND AND ASSETS SURVEY (GLAS) IN UGANDA & SOUTH AFRICA
- BOX 2.** EXAMPLE OF LOOKING BEYOND WOMEN AS A HOMOGENOUS CATEOGORY IN THE GENDER, LAND AND ASSETS SURVEY (GLAS) IN UGANDA & SOUTH AFRICA
- BOX 3.** EXAMPLE OF HOW Q-SQUARED APPROACH WAS USED IN THE *IN HER NAME* PROJECT IN GHANA, ECUADOR, AND INDIA
- BOX 4.** EXAMPLE FROM IFPRI'S EXPERIENCE COLLECTING GENDER AND ASSETS DATA IN SOUTH AFRICA AND MEXICO

ACRONYMS

FAO: Food and Agriculture Organization

GAAP: Gender, Agriculture & Assets Project

GLAS: Gender, Land & Assets Survey

ICRW: International Center for Research on Women

IFPRI: International Food Policy Research Institute

ILRI: International Livestock Research Institute

1. GENDER & ASSETS FAQ

The following is an overview of key questions and concepts related to gender and assets data. For additional information, refer to the annex.

1. How do we define “assets”, and how can “assets” be categorized?

The stock of all resources that a person accesses, controls, or owns makes up his or her assets. As stores of value for each person, an asset may increase or decrease in value over time, and it may also create new value (for example, through generating income). It may be liquid or illiquid, tangible or intangible, internally-embodied or externally-embodied. The term “asset” and the term “capital” are often used interchangeably.

Assets can be broadly categorized according to the following:

- **Natural resource capital** such as land, water, trees, genetic resources;
- **Physical capital** such as livestock, agricultural and business equipment, houses, consumer durables, vehicles and transportation, water supply and sanitation facilities, technology, and communications infrastructure;
- **Human capital** such as education, skills, knowledge, health, nutrition, and labor power;
- **Financial capital** such as savings, credit, and inflows (state transfers and remittances);
- **Social capital** such as membership in organizations, networks that increase trust, ability to work together, access to opportunities, reciprocity, and informal safety nets, and;
- **Political capital** such as citizenship, enfranchisement, and effective participation in governance—often key to controlling rights over other assets.

2. Why focus on *assets* rather than *income*?

Control over and ownership of assets is a critical component of well-being. Increasing control and ownership of assets helps to create success in pathways out of poverty in comparison to interventions aimed at increasing income or consumption alone. For example, a woman who owns a plot of land can use the land to grow produce for home consumption or sale. Alternatively she can rent or sell the land if she needs money or use the land as collateral to get a loan. Assets are typically sold for income; however, many can also be used to create additional income. For example, with education—a type of intangible asset—the initial investment has potential pay-offs over every period of a person’s life, allowing him or her to access better paid and more stable work opportunities. Because assets are long-term stores of value, they can also be used to help protect individuals or households against negative shocks. Income and consumption are subject to fluctuations where loss of employment and sickness can suddenly and dramatically change household security. On the other hand, assets can accumulate over time and are more resilient to fluctuation. Furthermore, asset ownership may carry intangible benefits such as increasing self-esteem and social status which are associated with both individual and household well-being. The relationship between assets and income can be summarized as follows: assets are a stock, income is a flow derived from those assets.

3. What are the different dimensions to define “rights to an asset,” and which categorizations are available for gender and assets evaluation?

There are many dimensions related to a person's rights to an asset. While all of the dimensions are valuable, the focus of the evaluation depends on the context of the situation. When considering what constitutes rights to an asset, nuance is necessary. Rather than just collecting data about household assets, it is essential to understand how each individual within the household interacts with the asset. This analysis not only involves figuring out who owns the assets, but also who is permitted to use it. Thus, depending on the context for each asset, it may be important to ask the following questions:

1. Whose resources were used to purchase it;
2. Who makes decisions regarding how to use it;
3. Who makes decisions regarding who else is allowed to use it and who is not;
4. Who makes decisions regarding its sale and/or rental;
5. Who collects any income generated from its use, sale, or rental;
6. Who makes decisions on how to spend income generated from its use, sale, or rental;
7. Who tends to the asset in terms of time spent taking care of it, repairing it, maintaining it;
8. Who is permitted to use the asset;
9. Who actually uses the asset;
10. Who has the legal right or documentation to claim the asset if taken to court;
11. Who is allowed to keep the asset if a partnership dissolves or a household splits up, and ;
12. Who makes decisions about bequeathing the asset?

There are specific categorizations to help further define a person's degree of access, control, and ownership of a particular asset. These are not mutually exclusive, but should be approached as overlapping "bundles of rights." In terms of bundles of rights, access and withdrawal are often considered "use rights," while management, exclusion, and alienation are often considered "**control rights.**" Access or use rights alone are typically thought to be useful, but not as empowering as control rights, and ownership rights are the strongest of all. Having all of the bundles of rights, specifically alienation rights (the right to rent out, sell, or give away the asset), is often considered ownership (although in some societies, an "owner" might not have all of these rights, or might not have them independently). See Table 1 for more detailed information and example of how the definition applies to the case of a piece of land.

Despite these general patterns, the associated definitions of "use," "control," and "ownership" tend to differ significantly by culture and country context. In addition, which dimensions and definitions of rights are the most important for gender and assets research are situational and vary by assets. For example, in the context of livestock, the right to make decisions about how to use the asset (i.e. feeding a cow healthy grains) and the right to claim the output produced by the asset (either the dairy itself for food or the income generated from dairy sales) may be quite beneficial. In contrast, in the context of a radio, the right to merely access the radio (i.e. listening to broadcast and gaining information) may also benefit the individual. In these cases, it is very helpful to conduct qualitative work to understand how households in a particular context define these concepts when interpreting data.

BOX 1. EXAMPLE OF LOOKING AT DIFFERENT TYPES OF RIGHTS IN THE GENDER, LAND AND ASSETS SURVEY (GLAS) IN UGANDA & SOUTH AFRICA

- In the GLAS survey, researchers asked not only about ownership but also about a spectrum of asset rights, including use and decision-making over assets.
- In addition the survey allowed for disaggregation of data by sex by asking each woman and man separately about her or his rights over particular assets.
- The GLAS also collected information on joint ownership and asset rights from individual women and men from the same household to assess the prevalence of joint asset holding, especially of land and housing, among women and to compare women's experience and reports of joint asset ownership with men's experience and reports.

TABLE 1. OVERVIEW OF DIFFERENT USAGE RIGHTS

Categorization	Definition	Example (piece of land)
Access	Right to use the asset	Individual(s) has the right to physically be on a piece of land and use the land. In many cases, women are an important source of basic labor (weeding, harvesting) on men's fields, but have no control over the output or even their own time.
Withdrawal	Right to claim the output and/or income produced by the asset	Individual(s) has the right to take and sell the produce grown on the piece of land, but most importantly, receives the income from the sale. In some cases, women are actually responsible for selling the agricultural products at the market, but have no rights over the financial reward.
Management	Right to make decisions about how to use the asset	Individual(s) has the right to make decisions about, for example, what crops will be grown on the piece of land, what laborers will be hired, and how agricultural inputs like fertilizer and pesticides will be applied.
Exclusion	Right to exclude others from using the asset	Individual(s) has the right to exclude others from physically being on and/or using the land.
Alienation	Right to transfer the asset to others, such as through sale, leasing, gift, or inheritance	Individual(s) has the right to transfer a piece of land to other people. In the majority of cases, women lack the right to decide what will be done with land or to even receive the land, especially in terms of inheritance.

Source: Johnson and Quisumbing (2009)

4. Why is it important to study the distribution of asset access, control, and ownership across different male and female household members, rather than simply looking at the total number of assets held by the household? Why should we collect asset ownership data at the individual level rather than the household level?

A common assumption made in economics and many development projects is that of the “unitary” household model – that is, the assumption that households are groups of individuals who have the same preferences and fully pool their resources. However, this assumption may in fact hide inequalities in access to assets that exist within the household. There is now a growing body of evidence that suggests that while some assets in a household are jointly held, many assets within households are also held individually by the men, women and children who comprise households.⁵ The distribution of assets across individuals within a household may, in turn, affect individuals’ intra-household bargaining power when individual preferences over outcomes differ. Many studies have concluded that not only do women typically have fewer assets than men, but they also use the assets they have differently. Increasing women’s control over assets, mainly land, physical, and financial assets, has been found to positively affect a number of important development outcomes for the household—including food security, child nutrition, and education—as well as the women’s own well-being.

Aside from the gender dynamics, numerous studies have shown that information collected at the household level is not sufficient to measure specific ownership within the household. For example, a land title is not titled in the name of a household, it is titled in the name of a specific household member. When we collect data on asset ownership, it is important to allow for both joint and individual asset ownership. Most economic theories of household decisionmaking that consider bargaining within households focus on individually owned or controlled assets, but in practice, whether joint or individual asset ownership matters more depends on context.

5. Why should development interventions focus on “gender and assets”?

As described above, research shows that households do not pool resources nor share the same preferences. This implies that the individual(s) within the household who receives and controls resources determines the impact of policy and development programs.

As a consequence, even when the goals of a particular development intervention relate to the household-level or the country level rather than the individual level, attention to gender and assets is crucial if programs and policies are to effectively improve development outcomes. Evidence from many countries across a range of development interventions shows that men and women use their assets differently, and increasing women’s control over household assets leads to improvements in child health and nutrition outcomes, agricultural productivity, and income growth. One study found that gender inequality in education reduces economic growth.⁶ Further, increases in women’s education (e.g. investment in human capital) in developing countries led to the greatest contribution to reducing the rate of child malnutrition, responsible for 43 percent of the total reduction.⁷ In Bangladesh, the greater a woman’s asset holdings at marriage, the larger the share the household spends on children’s education.⁸

⁵ Haddad et al. (1997); Behrman (1997).

⁶ Haussman, Tyson, and Zahidi (2009); Klasen and Lamana (2008).

⁷ Smith and Haddad (2000).

⁸ Quisumbing and Maluccio (2003).

Another study found that households in which Bangladeshi women had a higher share of assets also had better health outcomes for girls.⁹

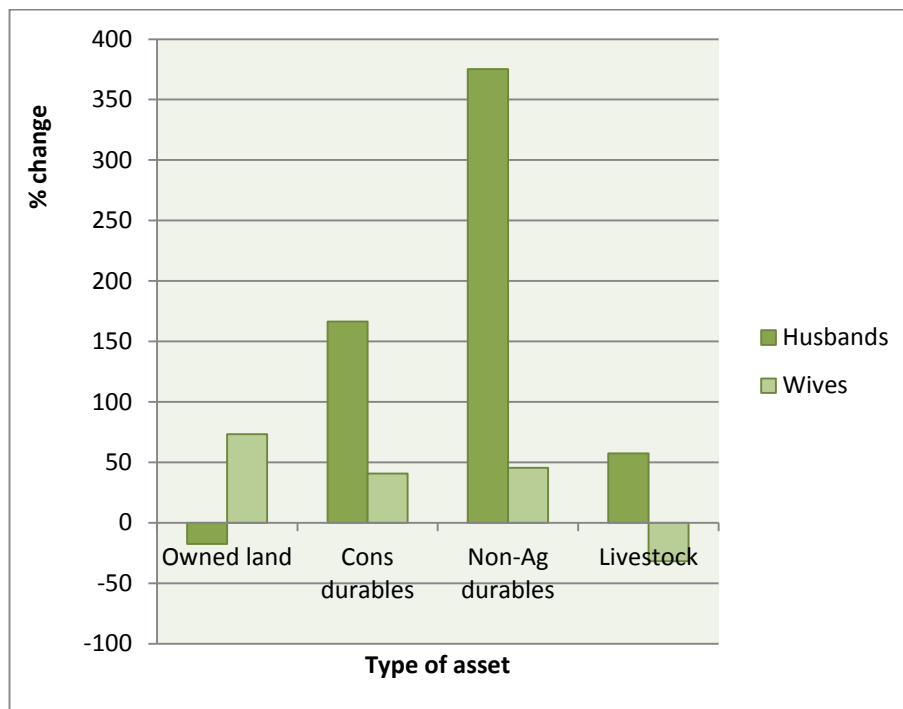
6. Does the term “gender” refer to a focus on women? When one refers to a focus on “gender and assets” are they are interested only in women’s assets?

No. Although “a focus on gender” is often incorrectly interpreted as “a focus on women,” the study of gender differences refers to the study of *both* men and women *in relation to each other*. Therefore, in studying gender and assets, it is not enough to just look at women’s assets. It is important to understand the relative position of men and women, with respect to assets. In particular, one should take into account differences in the value, quantity, and quality of assets owned by men and women within the same household, as well as those that are jointly owned or managed. In mainstream economics, the conceptual reasoning for considering the relative versus absolute holding of men and women is that it has implications for the bargaining power when two individuals have different preferences over outcomes. If we observe trends only in men’s asset ownership or only in women’s asset ownership, we miss the full picture. Our experience in GAAP suggests that we may also miss the full picture if we neglect joint assets.

Figure 1 shows the percentage change of husbands’ and wives’ assets in rural Bangladesh (1996-2000). Women’s assets are increasing, especially land; however, husbands’ assets are increasing more. Thus, gender-asset inequality has increased over this time period. To the extent that this growing intra-household inequality of asset ownership may affect decision-making power, both the absolute asset ownership of men and women and their relative positions are important to take into account. Thus, to accurately understand the entire dynamic, it is important to pay attention to *both* men’s and women’s assets, and study the impact that agricultural development programming has on both groups.

⁹ Hallman (2000).

FIGURE 1. PERCENTAGE CHANGE OF HUSBANDS' AND WIVES' ASSETS IN RURAL BANGLADESH (1996-2000).



Source: Quisumbing (2010) from the CPRC-DATA-IFPRI chronic poverty long term impact study data set

BOX 2. EXAMPLE OF LOOKING BEYOND WOMEN AS A HOMOGENEOUS CATEGORY IN THE GENDER, LAND AND ASSETS SURVEY (GLAS) IN UGANDA & SOUTH AFRICA

- GLAS is a gendered assessment of men's and women's rights over assets – including ownership, documentation and control over use, transfer, and transactions.
- These studies point to significant nuances in the nature of the gender-asset gap and its drivers and to the fact that it is important to go beyond looking at women as a homogeneous category. Different kinds of women – for example, female heads of household, widows, or wives of male heads – have different asset rights and will be more or less vulnerable depending on their status.

7. Can assets be jointly-owned (that is, owned by two or more people)? What are the common categorizations of ownership?

Yes, assets can be jointly owned. However, households are often inclined to report that all assets in the household are jointly-held, for the sake of politeness or political correctness, even when this differs from the reality of associated rights. Further probing on specific rights often helps to uncover whether an asset can be considered jointly owned, individually owned or collectively owned.

TABLE 2. TYPOLOGIES OF OWNERSHIP

Type of Ownership	Definition	Example
Individual ownership	One particular individual holds the bundle of rights that, in the specific context, constitutes ownership. These rights vary dependent on context and on how they were acquired.	Typically women have exclusive ownership and control over the dowry gift provided by her family. In some cultures, however, while the dowry is given to her, the husband's family controls the dowry. In other examples, certain assets are culturally associated either with men or women. In South Asia, small livestock is typically considered owned and/or controlled by women and larger livestock is typically considered owned and/or controlled by men.
Joint ownership	Two or more individuals hold the bundle of rights that, in the specific context, constitutes ownership. Joint ownership is common among spouses and within households.	Land may be considered "joint" as long as both spouses are alive and married. However, both names may not be on the title, and the asset would not be split evenly in case of divorce. It is important to probe for this type of ownership given the variation in definitions.
Collective ownership	Individuals formed into a group collectively hold the bundle of rights that, in the specific context, constitutes ownership.	Many development projects, such as microfinance, promote collectively owned assets among groups, which serve as a buffer against shocks. In some cases, assets are owned as shares by group members, which can be easily transferred (making them similar to individual ownership), while in other instances this is not the case.

Source: Johnson and Quisumbing (2009)

8. What is the "gender-asset gap", and why does it persist?

Development research has shown that there is a gap in number and value of specific assets held by men and by women. The reasons for this gap include many factors, which are often context-specific. In many cultures, there are socio-cultural perceptions that women "should not" own particular types of assets (i.e. land, cattle, high levels

of schooling) or be involved in certain types of activities associated with assets (i.e. operating a water pump or riding a bicycle). These more active, “masculine” activities instead tend to be associated with men. Given these social perceptions, women face more constraints relative to men in acquiring assets, using assets, or gaining ownership rights to assets. These constraints are attributed to barriers for access to resources, mobility, knowledge and/or information, and legal standing. In some cases, women may simply tend to have different preferences or physical capacity than men for particular assets.

In order to bridge this gap, accumulated evidence highlights some best practices and tools to increase women’s asset holdings. It aims to uncover: 1) how to target women with development interventions; 2) how to improve participation in development interventions, and; 3) what to do to increase the chances that women will benefit from agricultural development projects. For example, one intervention seeks to work with men to change attitudes and behaviors that limit women’s economic opportunities.

However, incorporating gender into program implementation is often challenging. First of all, many programs do not directly include gender-related outcomes, such as reducing the gender-asset gap, in their program targets and therefore it is difficult to mobilize resources to include gender-specific design components. Second, even when gender is included as a specific goal, the methods shown to be effective are often not widely utilized in program implementation. For example, many interventions focus on women and men separately (for example, focusing only on reaching “numbers” of women) and ignore how they relate to one another, leading to negative impacts on gender dynamics.

9. Should reducing the gender-asset gap necessarily be the goal of development projects related to asset ownership?

As mentioned above, there is substantial evidence that men’s and women’s asset ownership and control have implications for individual and household welfare. However, it is not clear from the evidence whether there is an “optimal” distribution of assets across men and women, and in particular, it is not clear whether it is optimal for men and women to have exactly the same number and type of assets. All of the following scenarios could decrease asset disparities between men and women: 1) increasing women’s assets; 2) decreasing men’s assets or redistributing assets from men to women; 3) increasing both men’s and women’s assets, but women’s to a greater extent; 4) increasing the *returns* to women’s asset more than to men’s assets, given equal asset endowments; and (5) increasing women’s share of assets through joint ownership with men (although who controls the asset still needs to be determined). There is a lack of research, however, to point to which of these scenarios, if any, has the most optimal outcomes for men and women. The current evidence shows that development may have counterbalancing factors for the gender-asset gap. For example, having greater equality in asset holdings across male and female partners may lead to more equal bargaining power; however, there is at least a perception that a woman receiving more assets may also result in more conflict or domestic violence in the household.

Therefore, more evidence is needed to show whether reducing the gender-asset gap should be the goal of development projects. However, what is clear is that researchers and practitioners need to have a nuanced understanding of the gender dimensions of asset ownership before implementing new development projects and programs.

10. Why is it important to collect data on men and women’s assets when evaluating a project?

As described above, how a project affects the distribution of assets within households can have substantial implications for its impact on long-term household and community-level development. Even if a project does not directly specify gender-related outcomes as one of its target objectives, asset ownership and control have implications for who in a household and who in a community reap benefits from the program. For example, if a program that transfers cash to households leads to increases in women’s asset ownership, this may suggest a dimension of positive outcomes related to women’s empowerment and children’s welfare. If a project does directly specify gender-asset targets, it is important to assess whether the study meets its goals, and if not, what constraints prevent them from being met. By evaluating whether a program succeeds in meeting certain objectives as well as the sources of success or failure, researchers and practitioners can identify broader lessons that can be applied to future projects, leading to more positive, effectively-targeted investments.

11. Is there a “one size fits all” way to collect gender and asset data in evaluations?

Gender-asset dynamics are heterogeneous, complex, and rooted in social, economic, and institutional factors. Moreover, the type of data that is useful to collect relates to how the data will be used. For full-scale impact evaluation, comprehensive gender-asset data in addition to other household information may be necessary. Meanwhile, for monitoring and evaluation, only gender-disaggregated information on the most program-relevant assets may be necessary. For example, if a program aims to increase women’s ownership of livestock, the monitoring and evaluation data (M&E) collection can focus on gender-disaggregated ownership and control of livestock, as opposed to including all forms of assets. Therefore, there is no “one size fits all” approach to collecting gender and assets data. However, as described in the next section, there are some basic principles that one can follow in designing instruments to collect this data.

SECTION 2. MEASURING THE GENDER ASSET GAP USING QUALITATIVE AND QUANTITATIVE METHODS

2.1. HISTORICAL CONTEXT OF HOW TO MEASURE THE GENDER-ASSET GAP

Because assets have cultural meaning as well as economic value, individual ownership of assets, and the meanings thereof have long been studied by anthropologists and other social scientists, often in the context of studies of marriage and inheritance (e.g. Goody 1973). In economics, much of the early work on measuring the gender asset gap was conducted in the 1990s in order to test theories of household behavior—whether households behaved as though they made decisions “as one unit” (also known as the unitary model”) or whether they were composed of individuals who may have different preferences and did not necessarily pool their resources. Because assets that husbands and wives controlled were thought to influence spouses’ decision-making within marriage, early studies collected information on assets at marriage, inherited assets, and current assets, separately for husbands and

wives in a wide range of countries (Bangladesh, Ethiopia, Ghana, Guatemala, Indonesia, Mexico, Philippines, and South Africa).¹⁰

However, these early attempts at collecting gender-disaggregated asset data did not pay much attention to asset ownership by other household members (even if the bulk of household assets are typically owned by husband and wife) or assets that were jointly owned, and were typically confined to smaller samples (300-1000 households) that were not necessarily nationally representative.¹¹ Early work by Deere, Doss, and Grown in the 2000s attempted to systematize the collection of individual-level asset data in the context of large scale household surveys similar to the Living Standards Measurement Studies. This led to current efforts to measure assets at the individual level in the *In Her Name* project. “Lessons learned” from the GAAP partners in collecting gender and assets data are found in Section 3, while details from the GAAP case studies, as well as the most relevant previous initiatives to collect gender-disaggregated asset data are included in this toolkit in Annex 3: Case studies.

2.2. FACTORS TO CONSIDER WHEN DESIGNING AN EVALUATION

There are a wide range of quantitative and qualitative tools and methodologies that can be employed to look at gender and assets issues in M&E or impact evaluation. Key questions you may want to ask before starting to design an evaluation include:

- What type of information do you want to collect? Will qualitative or quantitative methods be better for this purpose? Which tools or methods are most appropriate?
- Will you be working at the household level? The community level? The national level?
- What types of assets are particularly valuable or important in your area of study?
- Who can you interview or talk with to better understand gender and asset dynamics in the area of study? The household head? Other household members? Community leaders? How might the social position of the person you interview or talk with influence his or her responses?
- How can you ask questions that will help you understand the multiple control and use rights associated with a particular asset (e.g. right to use the asset, rent it, alter it, sell it, etc.)?.
- How can you assess intangible assets—such as social capital, human capital or political capital—in addition to tangible assets—such as property?

2.3. QUANTITATIVE METHODS

Quantitative methods use mathematical or statistical techniques in order to discern patterns about populations of interest. There are a variety of methods for undertaking quantitative monitoring and evaluation or impact evaluations. Household and individual-level data are typically collected using quantitative household surveys with a standardized questionnaire, typically with fixed coded responses, although some may allow open-ended responses to be coded later. Data for quantitative analyses may include panel data that is data collected about the same households over a number of years, allowing for analysis of changes over time. Some of the surveys collect data at the level of the individual household member, which allows for comparison between men and women, and also helps to capture the full range of livelihood strategies within the household. Sampling to cover the range of

¹⁰ These studies can be found in Quisumbing, ed. (2003).

¹¹ There were, of course, exceptions. The Indonesia Family Life Survey (Frankenberg and Thomas 2001) was nationally representative, and the PROGRESA evaluation (Skoufias 2005) was a large survey designed to evaluate the impact of a conditional cash transfer program in Mexico.

wealth and/or poverty categories is critical for these types of surveys. Although some qualitative data is included in the quantitative surveys, researchers analyze most survey data—including qualitative responses—using statistical or econometric techniques in statistics packages such as SPSS, Stata, or SAS.

Benefits

- **Representativeness:** Large sample sizes ensure that data will be more representative of the populations in question.
- **Causation:** Econometric methods allow you to test scenarios and calculate coefficients so you can attribute causality, and estimate impacts to better understand which aspects of programs are more effective.
- **Availability of existing data.** Some data is already publicly available in censuses and other databases thus it may be possible to conduct analysis without new data collection efforts.

Challenges

- **Establishing context:** With quantitative data it is more difficult to understand nuances of a given culture and context. This may lead to a tendency towards over-generalization.
- **Difficulties in establishing causality:** Even with good data it is often difficult to establish causality.

2.3.1. QUANTITATIVE METHODS FOR MONITORING & EVALUATION

Monitoring and evaluation (M&E) typically refers to activities undertaken by implementing organizations to keep track of progress toward achieving program targets. For example, if a particular program aims to have 80 percent of program recipients owning cattle, then the M&E data may collect information on how many cows a sample of program recipients own. In general, implementing organizations select a small number of beneficiaries at random at intermittent periods during a program's progress and record key indicators for those beneficiaries.

M&E data is typically collected only on recipients of the program, *not* on non-recipients of the program. Thus, M&E data *cannot* be used to infer program impacts. In other words, while it is possible to track changes in indicators for average recipients over time, it is not possible to attribute these changes as causal impacts of the program—the impact of having the program, versus not having it. Again, the example above applies to cattle ownership. Data on non-recipients would be necessary to pick up any time trends in key indicators that are not related to program receipt.

In addition to tracking changes in key indicators among program recipients, M&E data can also be used to look at relationships between characteristics of program recipients, characteristics of service providers, characteristics of communities, and outcomes of interest. For example, it is possible to establish using fairly straightforward multivariate regression analysis that a program beneficiary is more likely to have more cows if the beneficiary is more educated, if a program service provider has more training, if the community is less remote, etc. In other words, we can learn patterns of relationships with outcomes of interest *among* program beneficiaries. However, these still cannot be interpreted as causal impacts of the program. For example, it cannot be stated that because of the program women that are more educated own more cows. Since definitions of ownership may be context-specific, for any asset that is listed, it may be helpful to specifically address various dimensions of ownership and ask who in the household has access to the asset, who in the household would be able to sell the asset, who in the household receives income received from any production from the asset, etc.

It is also interesting to collect M&E data on gender-disaggregated assets if these are indicators that are key to a program's goals. For example, as noted above, if a program aims that 80 percent of its female recipients should own cows, then it can track how many cows are owned by various members of the household in a small subset of its recipient households. However, the gender-disaggregated asset list can be quite parsimonious and focused on the indicators that interest the implementing organization. Unlike impact evaluations, it is not necessary to include a comprehensive list of all possible assets in the household unless patterns of ownership across assets are also of interest to the program implementer. For example, if women recipients' ownership of cattle was the key goal of a program, but the implementers were also interested to see whether women recipients who owned land were more likely to own cows, they might include both gender-disaggregated cattle ownership and gender-disaggregated land ownership in the assets module.

2.3.2. QUANTITATIVE METHODS FOR IMPACT EVALUATION

Impact evaluation refers to a formal quantitative study that uses statistical and econometric tools to infer the causal impact of a program on its beneficiaries. This "impact" refers to the differences in outcomes that beneficiaries experience, relative to what they would have experienced in the *absence* of the program. Since it is obviously not possible to directly observe the counterfactual case of beneficiaries' outcomes in the absence of the program, the key challenge in impact evaluation is to develop a proxy measure for what beneficiaries' outcomes *would* have been in the absence of the program.

Note it is not possible to simply compare the outcomes of a program recipient before receiving the program and after receiving the program. This is because other changes may have occurred over time. For example, suppose that a woman owned four cows in July 2010, before a particular program started. After the program started, there was an outbreak of cattle disease, so that in July 2011, one year after the program started, she only owned three cows. However, if there had been no program, she would have still experienced the cattle disease and would have only owned one cow in July 2011. Then the impact of the program on her cattle ownership should be considered an increase in two cows, relative to what she would have had in the absence of the program ($=3-1$). It would be incorrect to attribute the loss of one cow ($=3-4$) to the program; that is, simply comparing the pre-program/post-program outcome for a program recipient is likely to give a misleading estimate of program impact.

There are several ways of constructing the proxy measure in a valid way. The choice depends on how program beneficiaries were chosen:

Randomized program assignment

If the program was randomly assigned to beneficiaries (that is, if out of a pool of eligible households, it is randomly selected which households will receive the program and which households will not receive the program), then it is reasonable to assume that non-recipients are on average very similar to what program recipients would be like in the absence of the program. Therefore, the impact of the program can be inferred by simply comparing the outcomes of program recipients and program non-recipients after the program is in place. An econometric method called "differences-in-differences" can also be used, if both pre-program and post-program data are available for both groups, to account for any pre-program and time-invariant differences between the two groups.

Benefits

- With a randomly-assigned group of non-recipients to be used for the proxy measure, analysis is straightforward.
- Due to the very clean design, randomization is often considered the “gold standard” of study design for impact evaluation.

Challenges

- Randomization is often difficult to implement, due to political, social, and ethical considerations.
- Often randomization is only feasible in small-scale pilots and/or over a short term, in cases where the randomized non-recipient group is promised that they too will receive the program after a certain time. For large-scale programs targeted at particular types of households, it is often infeasible to randomly hold out some households with the targeted characteristics to not receive the program.

Non-random program assignment

If the program is assigned to beneficiaries in any way other than randomly, then we can no longer assume that non-recipients look the same as recipients counterfactually would in the absence of the program. For example, if a program is targeted to poor households, then we expect that (by construction) the average non-recipient household is richer than the average recipient household would be in the absence of the program. Suppose, for example in a poor household, Household A, a woman would own one cow in the absence of the program and two cows with the program, whereas in a richer household, Household B, a woman would own five cows even in the absence of the program. Then the program’s impact should not be calculated as the difference between the number of cows owned by a woman in Household B in the absence of the program and the number of cows owned by a woman in Household A with the program (which would wrongly indicate that the program causes women to lose three cows, rather than gain one cow). We would instead need to construct a suitable comparison group to the recipient households among the non-recipient households, using a very rich amount of data collected both pre-program and post-program and using complex econometric techniques (e.g. matching methods and regression discontinuity design).

Benefits

- Most programs are targeted to particular types of households, making this the only feasible impact evaluation strategy.

Challenges

- The credibility of the impact estimates depends completely upon whether similar non-recipient households could be found to compare with recipient households. For very well-targeted programs, it is very difficult to find households that are similar to recipient households but not receiving the program, simply due to the comprehensive targeting.
- Even if a suitable comparison group can be found, the data needs are very intensive and can be very costly and time-consuming to collect.
- Even if a suitable comparison group can be found and sufficient data is available, the econometric methods used to estimate impacts are quite complex. Using these methods requires a strong background in statistics, econometrics, and data analysis software.

Moreover, because impact evaluation often focuses not only on estimating average impact, but also on uncovering pathways of impact, the data needs for impact evaluation can be quite intensive. In particular, gender-disaggregated assets data may not only be outcomes of interest, but these data may also be determinants of women's bargaining power that are likely to affect the magnitude of program impact. Thus, in the context of impact evaluation related to gender and assets, the list of assets for which ownership needs to be collected in a gender-disaggregated manner includes not only the assets that are considered outcomes of interest for the program, but also all other assets that are considered valuable in that cultural context. Thus, the list of assets is often quite long. For example, it may include items such as pots, pans, blankets, etc., which are not primary outcomes of interest for a particular program, but still may reflect ownership for various household members and which may convey status in that particular context. Thus data collection for the gender-disaggregated assets module can be fairly time-consuming. Sometimes detailed information beyond simply the number of a particular asset owned is also necessary for analysis. For example, a positive impact of a program might be owning the same number of cattle but higher-valued cattle, detecting which would require information on the value of each asset owned. For this reason, there are often additional columns other than simply number owned in the assets module for impact evaluation, including value of the number owned.

Since definitions of ownership may be context-specific, for any asset that is listed, it is often helpful to specifically address various dimensions of ownership. That is, ask who in the household has access to the asset, who in the household would be able to sell the asset, who in the household receives income received from any production from the asset, etc.

In short, impact evaluation answers very important questions, but it is a large and often costly undertaking. It is usually conducted by trained researchers who are evaluation partners to implementing organizations, in collaboration with the implementing organization. It is rare for implementing organizations to conduct impact evaluation on their own programs (due also to concerns over impartiality).

There are a variety of methods for undertaking quantitative impact evaluations that consider gender and assets dimensions. Some of the surveys collect data at the level of the individual household member, which allows for comparison between men and women, and also helps to capture the full range of livelihood strategies within the household. Sampling to cover the range of wealth/poverty categories is critical for these types of surveys. Although some qualitative data is included in the surveys, researchers analyze most survey data—including qualitative responses—using statistical or econometric techniques in statistics packages such as SPSS, Stata, or SAS.

Ideally, household surveys should collect gender disaggregated data on a number of topics including household roster, education, asset ownership, agricultural production, income and other topics of relevance to the project in question. For a more detailed explanation of how to insert/modify gender into existing survey modules, see Annex 2. Table 3 below is an example of a simplified way to engender the asset module of a household survey.

In the case one wishes to collect a panel of gendered-assets data and disaggregation was not done during the baseline, it is possible to collect information on outcomes that are easy to recall and “lumpy,” such as land and assets, and do this retrospectively. This was the method used to collect information on assets at marriage in the IFPRI surveys described in Case Study 2 as well as Quisumbing and Maluccio (2003). Another strategy is to rely on a combination of qualitative and quantitative methods that will allow you to collect information that is lacking (section 2.5).

TABLE 3. SIMPLIFIED WAY TO ENGENDER AN ASSET MODULE

Asset (g)	Number owned	ID of owner (obtained from household roster)	ID of decisionmaker who decides whether to sell the asset
<i>Animal</i>			
Cattle			
Horses			
Sheep/goats			
Poultry			
Pigs			
<i>Domestic assets</i>			
Stove			
Electric fan			
Refrigerator			
Radio			
Television			
DVD player			
Cell phone			
Chairs			
Mosquito nets			
<i>Productive assets</i>			
Spades/shovels			
Ploughs			
Grain storage silos			

Source: Johnson and Quisumbing (2009)

As a final summary, in addition to primary quantitative data from surveys, it is useful to consider secondary data sources from government and other researchers' studies. Secondary data can be used to provide the basis for sampling frames, cross-check the information from more localized primary data collection with other regions or nationally representative samples, and provide direct information for a study. Nationally representative secondary data, especially official statistics, also provide the basis for cross-national comparative studies. OECD provides a website (<http://wikigender.org/>) with a range of gender-disaggregated data, including a series of gender inequality indices. Numerous cross-national studies, for example, have shown that women's education has a powerful effect on a range of development outcomes.

2.4. Qualitative methods

Qualitative data is also an important part of gender-assets research, bringing to light dimensions of the issue that are difficult to capture with statistics or surveys. To thoroughly understand gender relations, researchers must also examine additional aspects of well-being, such as status, self-esteem, empowerment (or disempowerment), vulnerability, issues of social differentiation, social norms and, most importantly, self-perceptions by individuals and communities of what it means to be “male” or “female” in a given society. Nonetheless, qualitative data usually draws from a smaller sample of people and thus can be more subjective and difficult to draw out general patterns. The next paragraph highlights the benefits and challenges of this method.

Benefits

- **Captures dimensions of gender-assets data that cannot be described through numbers and statistics.** For example, risks that are faced by men and women may be culture specific and difficult to get at using standard survey questionnaires without prior qualitative work, such as collecting life histories or focus group interviews to better understand dynamics surrounding major risks.
- **Allows for greater flexibility to ask and probe about interesting findings.** When collecting asset data, there are often important gender differences in the spectrum of asset ownership that may not be accurately captured in household surveys with predetermined answers. For example what it means to “use” or “control” a given asset may be entirely different from what it means to “own” that asset and differences in categories of asset ownership may fall along gender lines with important distinctions not easily captured in surveys. There may be additional qualitative differences in the kinds or types of assets that male and females own which only emerge from in-depth discussions with the respondents themselves.
- **Qualitative research also allows respondents to express their own opinions freely, thus allowing researchers to better understand why men and women may accumulate different types of assets in the first place.** Ethnographic methods such as participant observation can provide key insights into gender roles in agriculture (and non-agricultural) activities, and prolonged residence in villages may reveal aspects of intra-household negotiations, hiding of assets, or sensitive topics that respondents may not reveal in surveys.

Challenges

- **Accurate data collection requires greater training and expertise.** Because qualitative methods are less pre-specified than household or other quantitative surveys, they require more on-the-spot analysis by the person collecting the data to know what issues and ideas to follow up on. In comparison, in quantitative surveys enumerators are usually trained to ask questions in a standardized manner, and most of the analysis is done using statistical analysis back in the office. As a result, finding skilled qualitative researchers who understand the topic area may be more difficult than finding survey enumerator teams.
- **While the data collected is more thorough, it is longer and less wieldy (more difficult to summarize).** Collecting, analyzing, and writing about qualitative data requires a greater amount of time and effort.

Given the variability of gender assets data, there are a variety of different qualitative methodologies that can be used to gather the information. In the following overview we highlight some of the main methods and provide examples and resources of how they can be applied to fieldwork.

TABLE 4. OVERVIEW OF QUALITATIVE METHODS

Diagramming/ Mapping tools	Participatory Rural Ap- praisal (PRA) tools	Interviews	Ethnographic tools
Community resource Maps	Transect walks	Semi-structured inter- views	Participant observation
Participatory impact diagrams	Trend lines	Unstructured interviews	Direct observation
Diffusion maps	Venn diagrams	Key informant interviews	Case studies
Before and After resource/asset maps	Seasonal calendars	Organizational assess- ment	Innovation histories
Social network analysis	Focus group discussions		Life histories
	Community meetings		Personal diaries
	Ranking/Rating/ Scoring		

Source: Njuki (2009)

- **Ranking and Rating/Scoring activities** can be useful for identifying important traits and criteria for organising issues or items by preference. While these methods tend to be used for technology evaluation, ranking of options (e.g. prioritizing household income options, asset preferences), they can also be used to compare preferences across groups (e.g. men and women). There are a number of advantages to these activities; for example, they can be used with symbols and counters, especially with groups with low literacy levels; they can be done individually or in groups; they allow for group contributions of lists to be ranked/rated and the criteria to use; and they can be easily quantified. However, a disadvantage is that these activities take considerable time, especially when community groups identify their own lists and criteria for evaluation.
- **Diagramming/Mapping exercises** can take a variety of forms including participatory impact diagrams, before and after maps and diffusion maps. Mapping exercises have a number of advantages as well; for example, they can be used with groups that have low literacy levels; they are very engaging; they provide easy visual presentation; they can provide massive amounts of information that combine qualitative data as well as simple numbers; and they can be done on paper or on the ground. However there are a number of disadvantages, including the fact that they require close facilitation, can be time consuming, and can be dominated by those that can write (who holds the pen, chalk, or stick etc.).
- **Focus group discussions** (FGDs) consist of a group discussion of approximately 6 - 12 persons guided by a facilitator, during which group members talk freely and spontaneously about certain guided topics. The purpose of FGDs is to obtain in-depth information on concepts, perceptions, and ideas of a group. FGDs can be useful to: (1) focus research and develop relevant research hypotheses by exploring in greater depth the problem to be investigated and its possible causes; (2) elicit perspectives of particular groups (e.g. women or men, young or old, wealthy or poor, different ethnic groups); (3) formulate appropriate questions for more structured, larger scale surveys; (4) help understand and solve unexpected problems in interventions, and; (5) explore controversial topics. Focus group discussions offer a number of advantages. FGDs are cost- and time-efficient, because it is possible to cover more people in a shorter amount of time in comparison to individual interviews. FGDs can also be a safe space for discussion of sensitive issues and allow for early identification of important issues. In addition, discussions in FGDs trigger ideas, recollections and opinions. However, there

are disadvantages as well. For example, in an FGD, there may be less time to explore and probe and difficult to triangulate data on individuals or households. In addition, louder voices may dominate quieter ones and there may be problems associated with peer pressure. Furthermore, FGDs are not very appropriate for sensitive topics.

- **Semi-structured interviews** are conducted with a fairly open framework which allows for focused, conversational, two-way communication. They generally start with more general questions or topics and are followed by more specific probing questions. Not all questions are designed and phrased ahead of time, the person leading the interview often uses an interview guide rather than a set of questions. Semi structured interviews can be used to: (1) obtain specific quantitative and qualitative information from a sample of the population; (2) generate general information relevant to specific issues, and; (3) gain a range of insights on specific issues. There are many advantages to doing semi structured interviews. By providing depth and detail, they have analytic power that allows researchers to relate data to other data at individual, household, and community levels. Furthermore, they are not biased by problems of peer pressure. However, they tend to be more time consuming and costly to collect and analyze, and often lead to smaller sample sizes. In addition, semi-structured interviews do not allow for trigger and interaction effects like those in group interviews.
- **Most significant change** is a story-based, qualitative and participatory approach to monitoring and evaluation that involves the collection of significant change (SC) stories emanating from the field level, and the systematic selection of the most significant of these. These stories can be used for different domains of change, program evaluation, organizational review and evaluation and building community ownership through participatory evaluation. The advantage of this approach is that it is participatory, involves multiple stakeholders and does not use pre-set indicators. It can thus capture unexpected and unanticipated changes; however, it can be very time consuming.
- **Network analysis** is a set of integrated techniques used to depict relations among actors and to analyze the social structures that emerge from the recurrence of these relations. Analysis is conducted by collecting relational data organized in matrix form. Actors are depicted as nodes, and their relations as lines among pairs of nodes. Advantages are that these can be done individually or in groups, data and/or information can be quantified (UCINET) and presented through visual tools (e.g. Venn diagrams) or short questionnaire surveys. However, analysis is limited to evaluation of interactions and requires multiple types of software, such as UCINET for analysis and Netdraw for network maps.

2.5. Q-SQUARED: COMBINED QUANTITATIVE AND QUALITATIVE APPROACHES

By using data from a variety of sources and qualitative and quantitative methods, it is possible to cover a wide range of issues and topics relatively efficiently. Rather than seeing this as a second-best solution, such a combined approach can actually provide more convincing analysis than any single method. This is because studies have found that people respond differently to quantitative and qualitative information. Numbers are required to convince some audiences, while others will be unimpressed by numbers, but relate more to in-depth and contextual information gathered using qualitative techniques. Triangulation, where several types of data are used in a single study, and used to cross-check and compare results, allows any weaknesses in one method to be offset by the strengths of another.

An assessment of 57 mixed method studies identified five purposes for mixing methods: (1) triangulation—seeking convergence of results; (2) complementarities—examining overlapping and different facets of a phenomenon; (3) initiation—discovering paradoxes, contradictions, fresh perspectives; (4) development—using the methods sequentially, such that results from the first method inform the use of the second method, and; (5) expansion—adding breadth and scope to a project.¹²

BOX 3. EXAMPLE OF HOW Q-SQUARED APPROACH WAS USED IN THE *IN HER NAME* PROJECT IN GHANA, ECUADOR & INDIA

The study included two phases: qualitative field work and quantitative household assets survey.

- In the **qualitative** phase, focus group discussions were complemented by interviews with key informants and a compilation of the secondary literature. The focus groups focused on four themes: the accumulation of assets over the life cycle; the importance of assets; the market for assets; and household decision-making over asset acquisition and use. The qualitative work provided the basis for developing survey questionnaires that were both adapted to each country situation but also facilitated comparisons across countries.
- The **quantitative** phase of the study involved collecting nationally representative data in Ghana and Ecuador and data representative of the state of Karnataka, India. A household inventory asked about the ownership of all tangible assets including housing, agricultural land, livestock, agricultural implements, non-farm economic activities and associated assets, and consumer durables. Respondents were asked to identify individual and joint owners of all of these assets owned by anyone in the household. In addition, individual level questions were asked about financial assets, awareness of inheritance laws, recent shocks and coping strategies, and decision-making. These questions were asked of two people, often the principal couple, within the household.

2.6. FIELD IMPLEMENTATION ISSUES

Translating gender-assets data methodology to the field can be challenging. It is imperative that researchers prepare themselves for several potential questions and issues that can arise in order to ensure that data collection goes smoothly. There may also be resistance, often from funders, against the complexity and costs of these types of surveys. Researchers must be ready to justify the increased complexity in terms of the wealth of insights gained. Again, it is important that researchers and fieldworkers adapt their collection strategy to the culture-context. In this section, we draw from interviews with experienced researchers (see Annex 3 for the full interviews) and highlight some of the main questions and issues that can arise as well as provide solutions before getting out in the field.

- *Identifying who in the household should be interviewed:* Should it be the “head of household” as is the case in many surveys? Should the head of household answer for all household members or should multiple household members be interviewed? Different people in the household will have access to different types

¹² Greene, Caracelli, and Graham (1989) cited in Adato (2007).

of information and/or have different perspectives and thus will report different things. It is important to think strategically about which types of household members will be able to best provide necessary information.

- *Maintaining privacy of responses:* This is particularly important for asset issues which may be sensitive. It is possible that household members—particularly women—will have hidden assets that other people in the household will not know about.
- *Selecting who will be doing the data collection:* In some contexts respondents may be more comfortable with same sex interviewers while in other contexts they may actually be more comfortable with an interviewer of the opposite sex, or the gender of the interviewer may not be an issue at all. For example, Pakistan and Bangladesh surveys have teams of men and women; surveys in the Philippines almost always employ women due to trust and safety issues; surveys in Guatemala City employ women interviewers for safety issues; in many African contexts interviewers in surveys are men.
- *Adapting question style and format during the data collection process to, for example, participants' level of education or method of valuation:* In some studies, questions had to be adjusted (particularly in low-literacy populations) so that they could be understood by respondents. Other fieldworkers found that respondents had difficulties valuing assets at present or recalling what they paid at acquisition. To work around this issue, fieldworkers instead collected data on when the asset was acquired, what was paid upon acquisition, and current market value or replacement cost, using alternative methods of estimating the value of the asset. In other contexts, the number (count) of the assets was collected instead of the value. In fact, these simpler methods of collecting gender-disaggregated assets data worked very well in the regressions.
- *Thinking longitudinally and tracking changes over time:* New data collection efforts may want to be forward-looking in terms of creating the possibility of revisiting households to build up panel data sets on individual and joint asset accumulation. So this means obtaining information with which to track households and individuals over time. This is essential, because new categories of assets emerge over time (for example, term insurance, new savings instruments, cellphones etc.) as well as new uses for incomes earned from assets. Furthermore, capturing changes in ownership and control of assets over time, especially as the relative value of assets change (land may become less important as incomes become more diversified, for example). Another study also pointed out the importance of updating the community questionnaire to capture changes in local facilities, institutions, and even cultural norms. For example, the extent to which women can travel has expanded greatly over time, partly because of the need to go outside of the village for NGO training.

BOX 4. EXAMPLE FROM IFPRI'S EXPERIENCE COLLECTING GENDER AND ASSETS DATA IN SOUTH AFRICA AND MEXICO

- Sometimes questions had to be adjusted (particularly in low-literacy populations) so that they could be understood by respondents.
- In some areas, respondents had difficulties valuing assets at present or recalling what they paid at acquisition. Therefore data was collected on when the asset was acquired, what was paid upon acquisition, and current market value or replacement cost, using alternative methods of estimating the value of the asset. In some countries (e.g. South Africa, Mexico), the collaborators felt that it would be an undue burden on the survey team and the respondent to get the value of assets, so instead counts of assets were collected. Surprisingly, these simpler methods of collecting gender-disaggregated assets data worked very well in the regressions.”

SECTION 3. BEST PRACTICES AND HIGHLIGHTS: LESSONS LEARNED FROM GAAP

The insights listed below were compiled from a series of nine interviews conducted by members of the GAAP team with project leads from each of the eight GAAP projects (two interviews were conducted for CSISA). The interviews were conducted to update the GAAP toolkit after the case studies had been completed, in order to obtain feedback from project partners on the relevance and usefulness of the methods for collecting gender and assets data that were developed through participation in GAAP. The full interviews can be found later on in this toolkit (Annex 3) under the heading “Case Studies”. These key lessons provide a synthesis of some of the messages that emerged from the interviews. Each lesson is followed, in parentheses, by the project (or projects) that mentioned it. The lessons are divided into four categories, which follow the stages of research (before, during, after, and in the future), with some sub-categories nested within the categories. If, in reading these lessons, you find yourself interested in learning more about the findings or lessons from each project, we suggest that you read the project-specific case studies, as well as the Discussions Papers and Project Notes for each project, located on the GAAP website (<http://gaap.ifpri.info/>).

Before Your Research Begins:

- **General advice:**
 - Be thoughtful in designing a questionnaire that includes a gender perspective (HarvestPlus). For instance, consider collecting information on multiple asset owners or decision makers to more fully understand the role of different household members and gender around these topics.
 - Get to know your community and gain their trust first, before asking questions that might be new to them or uncomfortable coming from a total outsider (CARE).

- Pilot and test things on a small scale first (BRAC). Ideas that seem likely to work may not in a field setting (for example, in Uganda it was not advisable to randomly select the primary male or female to be interviewed but rather to let the person best suited to answer the module self-select) (HarvestPlus).
- Know your context and be flexible in what that means for your project and any adaptations you might have to make to fit the context (Kickstart). In some contexts (i.e. South Asia), it may be challenging to even set up forums to talk to women in some communities, where access to them might be limited by social norms (CSISA). Also, understand that if there is a specific context of your project, the results you find may not be generalizable to other areas of the country (i.e. if you're working in a zone known for dairy production there may be higher levels of live-stock, or if you're working in a zone that is patriarchal you may not find the same issues as you would in a matriarchal area) or to other countries (i.e. in South Asia female seclusion is common, whereas it is not in Africa) (CARE and LOL) .
- Consider adding a process evaluation to a project; it can provide insight regarding both the context and the pathways by which the program does or does not affect respondents as intended by the program theory framework (HKI).
- Allow an adequate amount of time between baseline and midline surveys to capture changes (CSISA).
- **Qualitative and quantitative tips:**
 - Early qualitative work can help identify issues that could be important to include in quantitative work.
 - In areas where there are low levels of literacy and numeracy, you may need to get creative with the kinds of tools you use (CSISA).
 - It will probably be more challenging to hire skilled qualitative interviewers than skilled quantitative interviewers (many projects) and you might have trouble finding female interviewers, depending on the location (both CSISA projects). In these contexts, it is important to think about whether male interviewers are appropriately trained to ask female respondents questions and gather unbiased information, or whether it is culturally appropriate to hire male interviewers. In some contexts, the sex of the interviewer may not matter; in others it might.
 - Consider allowing for more than one owner in collecting asset ownership data; design questionnaires or forms with space for up to two owners (HarvestPlus).
 - Consider including decision-making modules; they are important to capture household dynamics that influence and involve asset ownership (HarvestPlus).
- **Major issues that were identified among the GAAP projects included:**
 - The definition of ownership and various rights may vary across cultures and context
 - Understanding inheritance patterns and their influence on asset ownership
 - Whether women in particular truly have no knowledge on a subject or are forbidden from talking about it
 - Identifying problematic interview procedures, such as the sex of the interviewer versus the respondent

During Your Research:

- **Formulate comprehensive questions**
 - You can adapt your tools to capture questions that arise during initial stages of research (i.e. CARE's barrier checklist) or change the field work protocols if necessary (i.e. making FGDs single or mixed-sex depending on the community) (CARE).

- It is important to not only ask about the benefits of a project or intervention. You must also ask about the consequences or negative impacts (Kickstart).
- Ask not only what changes have occurred due to the project, but also how the individuals feel about those changes (CARE).
- You can design your project to look at impacts on other types of assets, or to look at only the assets that would be directly affected by the project (like CSISA did). The pro to the former would be capturing spillover effects, which might be unexpected, while the pro to the latter would be having a survey that is easier to administer.
- **Problematic concepts and issues**
 - Many projects mentioned that the concept of ownership turned out to be multifaceted, complex, and comprised of many different rights. It is challenging but important to make sure these distinctive rights are captured.
 - Joint ownership was also challenging to define and understand, as was the issue of usufruct versus actual ownership. Finding the correct tools (likely qualitative) to get at the detailed nuances of this topic can be helpful (LOL).
 - Distinguishing between use versus ownership was challenging (CSISA).
 - The language barrier can be very challenging. Especially in cases where multiple levels of translation have to occur, it is important to be very careful to minimize distortion and ensure that concepts you are asking about are those you intended (LOL).
- **Useful tips for qualitative work**
 - You can always add more qualitative information collection if you feel like you need a better understanding of some issues that have arisen during the life of the project (Kickstart).
 - In qualitative work, less traditional questions and techniques may be useful in certain contexts. Asking hypothetical questions may help get more truthful answers to ownership rights questions (i.e. asking what would happen to your plot of land if your husband died instead of who owns the plot) (BRAC). However, in other situations vignettes may be more easily understood if the respondents have trouble giving answers to situations they have never experienced or open-ended questions that are difficult to answer (HKI). Life trajectory mapping or life history exercises appear useful in contextualizing the program, the lives of the respondents, and the magnitude of the program's impact (Landesa, BRAC).
 - When formulating questions in conducting qualitative work, don't make any assumptions about what answers from respondents will be. Rather, ask questions to understand a certain topic and then follow up with additional questions (i.e. to understand land ownership, ask how does the household access land and then about whether women work together or separately, etc) (HarvestPlus). It is also important to hire interviewers who don't have preconceived notions of what the "correct" answers are (Landesa).

After Your Research Ends:

- GAAP did not really focus on what kinds of new projects/interventions can be designed and implemented based on the findings of this research. That would be something to do next time (CARE)
- Other topics came
- up that could be interesting to study in future work (i.e. how might these projects impact intimate partner violence, etc. (CARE)

Greatest challenges moving forward:

- Many interviewed provided valuable feedback as to where the greatest research challenges lie and raised important questions. Major challenges and questions include:

- Integrating quantitative and qualitative work was identified as very important by most, if not all, case studies. However, finding the proper balance and the timing of each approach seems to be an art (HKI).
- Collecting sex-disaggregated data on asset ownership is important. However, we also need guidelines on when it is important to collect data on joint ownership. (HKI)
- Cost is always a factor in fielding a questionnaire. Having a questionnaire that can be administered to a male or female respondent by an interviewer of either sex would help to reduce cost. (HarvestPlus)
- Standardization is important moving forward. Can the research community agree on a standard set of sex-disaggregated research questions on asset ownership and decision-making? (Landesa)
- What are the long term effects of the programs on gender dynamics? (Landesa, HKI)

ANNEX 1. RESOURCES

The following are a number of additional resources for more in-depth information on collection of gender and assets data.

REPORTS, GUIDES, AND WEBSITES ON RESEARCH METHODOLOGY

Doss, Cheryl, Caren, Grown, and Carmen Diana Deere. 2008. **Gender and Asset Ownership: A Guide to Collecting Individual-Level Data**. World Bank Policy Research Working Paper 4704. Available at: http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2008/09/02/000158349_20080902085153/Rendered/PDF/WPS4704.pdf

Kisor, Sunita, and Lekha Subaiya. 2008. **Understanding Women's Empowerment: A Comparative Analysis of Demographic and Health Surveys (DHS) Data**. DHS Comparative Reports No. 20. Calverton, Maryland, USA: Macro International Inc. Available at: <http://dhsprogram.com/publications/publication-CR20-Comparative-Reports.cfm>

Njuki, Jemimah, Jane Poole, Nancy Johnson, Isabelle Baltenweck, Pamela Pali, Zaibet Lokman, and Samuel Mburu. 2011. **Gender, Livestock, and Livelihood Indicators**. International Livestock Research Institute. Available at: <http://genderassets.files.wordpress.com/2010/12/gender-livestock-and-livelihood-indicators.pdf>
→This guide is an attempt to systematize the collection of gender disaggregated assets, technologies and income data.

Austrian, K. and D. Ghati. 2010. **Girl-Centered Program Design: A Toolkit to Develop, Strengthen, and Expand Adolescent Girls Programs**. New York, New York: Population Council.
Available at: http://www.ungei.org/files/2010PGY_AdolGirlToolkitComplete.pdf
→This toolkit includes examples of participatory rapid assessment methods.

United Nations. 2010. **Developing Gender Statistics: A Practical Tool**.
Available at: http://genderassets.files.wordpress.com/2011/01/developing_gender_statistics.pdf
→This reference manual was prepared by the UNECE Task Force on Gender Statistics Training for Statisticians with contributions from various experts.

In Her Name Project: Measuring the Gender Asset Gap in Ecuador, Ghana and India project website.

Available at: <http://genderassetgap.iimb.ernet.in/>
→This study looks at the incidence of asset ownership of men and women separately within the same household to estimate the gender asset gap and the gender wealth gap

International Institute for Environment and Development (IIED) and Overseas Development Administration **Overview of Participatory Action and Reflection (PRA) Methods**.
Available at: <http://www.caledonia.org.uk/pr.htm>

World Bank Living Standards Measurement Study: Integrated Surveys on Agriculture Webpage.

→This site is an excellent resource for questionnaire design, including extensive guidelines for design as well as examples.
Available at: <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTLSMS/0,content-MDK:21556375~menuPK:4196884~pagePK:64168445~piPK:64168309~theSitePK:3358997~isCURL:Y~isCURL:Y,oo.html>

USAID. **Providing gender equitable opportunities in agricultural value chains.**

Available at: <http://egateg.usaid.gov/sites/default/files/Promoting%20Gender%20Equitable%20Opportunities%20-%20Why%20It%20Matters%20for%20Agricultural%20Value%20Chains.pdf>

BACKGROUND PAPERS ON GENDER, AGRICULTURE, AND ASSETS

Dillon, Andrew, and Esteban Quinones. 2010. **Asset Dynamics in Northern Nigeria**. IFPRI Discussion Paper 01049. International Food Policy Research Institute: Washington, DC.

Available at: <http://www.ifpri.org/publication/asset-dynamics-northern-nigeria>

→This paper examines household asset dynamics and gender-differentiated asset inequality over a 20-year period (1988–2008) in northern Nigeria. We show that the initial endowments of both household capital and livestock holdings are inconsistent with the poverty trap hypothesis but that tracking rules for households in panel surveys may lead to differences in empirical results on poverty traps.

Meinzen-Dick, Ruth, Agnes Quisumbing, Julia Behrman, Patricia Biermayr-Jenzano, Vicki Wilde, Marco Noordeloos, Catherine Ragasa and Nienke Beintema. 2010. **Engendering agricultural research**. IFPRI Discussion Paper 00973. International Food Policy Research Institute: Washington, DC.

Available at: <http://www.ifpri.org/publication/engendering-agricultural-research>

→This paper makes a case for gender equity in the agricultural R&D system. It reviews the evidence on exactly why it is important to pay attention to gender issues in agriculture and why it is necessary to recognize women's distinct food-security roles throughout the entire value chain—for both food and nonfood crops, marketed and nonmarketed commodities.

Peterman, Amber, Julia Behrman and Agnes Quisumbing. 2010. **A review of empirical evidence on gender differences in nonland agricultural inputs, technology, and services in developing countries**. IFPRI Discussion Paper 00975. International Food Policy Research Institute: Washington, DC.

Available at: <http://www.ifpri.org/publication/review-empirical-evidence-gender-differences>

Quisumbing, Agnes and Lauren Pandolfelli. 2009. **Promising approaches to addressing the needs of poor female farmers**. IFPRI Discussion Paper 00882. International Food Policy Research Institute: Washington, DC.

→This paper reviews existing microeconomic empirical literature on gender differences in use, access, and adoption of nonland agricultural inputs in developing countries. This review focuses on four key areas: (1) technological resources, (2) natural resources, (3) human resources, and (4) social and political capital.

Available at: <http://www.ifpri.org/publication/promising-approaches-address-needs-poor-female-farmers-o>

Quisumbing, Agnes, and Neha Kumar. 2010. **Does social capital build women's assets? The long-term impacts of group-based and individual dissemination of agricultural technology in Bangladesh**. CAPRI Working Paper No. 29. International Food Policy Research Institute: Washington, DC.

Available at: <http://www.ifpri.org/publication/does-social-capital-build-women-s-assets>

→This paper investigates the long-term impact of agricultural technologies, disseminated using different implementation modalities, on men's and women's asset accumulation in rural Bangladesh.

GAAP RESOURCES

All GAAP power points, discussion papers, case studies, tools (both qualitative and quantitative) and project descriptions can be found on the **GAAP project website**. Available at: <http://gaap.ifpri.info>.

ANNEX 2. OVERVIEW OF GENDER ISSUES IN STANDARD HOUSEHOLD SURVEYS

The following tables look at how to insert and modify survey modules to integrate gender issues in a standard household survey:

TABLE KEY

- Basic baseline information: red cells
- Typical module with gender-disaggregated info ALWAYS collected: purple cells
- Gender-disaggregated info SOMETIMES collected: green cells
- Specialized module with gender-disaggregated info ALWAYS collected: blue cells

TABLE A.1. BASIC AND EXTENDED QUESTIONNAIRE DESIGN OF SOCIO-ECONOMIC MODULES

Module	Basic?	Gender-disaggregated information?	About which hh member?
Roster—very important, since all Ids in subsequent modules will come from here	Yes	Yes	All
Education of head and household members	Yes	Yes	All
Nonfood consumption	Depends on focus of survey, but ideal	Partly (clothing, footwear)	All (typically collected at hh level)
Food consumption		No (but see section on nutrition modules)	All (typically collected at hh level)

Source: Quisumbing (2006)

TABLE A.2. CONTENTS OF A HOUSEHOLD ROSTER

ID	Name	Sex	Age	Relationship to household head	Marital Status	Education	Main occupation

1							
2							
3							
4							
5							

Source: Quisumbing (2006)

TABLE A.3. SOCIO-ECONOMIC MODULES

Module	Basic?	Gender-dis-aggregated information?	Which household member?
Land area and crops grown	Yes	Yes	ID of person who manages the plot ID of plot owner, if different from manager
Major Crop Production	Yes, if ag survey	Yes	ID of plot manager (household member)
Agricultural Wage Labor	Possibly	Yes	ID of laborer
Other Income	Possibly	Yes	ID of people with other incomes, businesses, ID of people sending and receiving remittances
Assets	Ideally	Yes	ID of asset owner

Group Membership	Ideally	Yes	ID of group member
Savings	Possible	Yes	ID of account owner
Credit and Lending	Ideally	Yes	ID of borrower

Source: Quisumbing (2006)

TABLE A.4. ADDITIONAL CONSUMPTION, HEALTH AND NUTRITION MODULES

Module	Base-line?	Gender-disaggregated?	Which household member?
24-hour individual food recall	Depends on purpose of survey	Yes	All
Dietary diversity	Depends on purpose of survey	Yes	All
Reproductive health	Depends on purpose of survey	Yes	Women
Anthropometry and morbidity	Ideally	Yes	All

Source: Quisumbing (2006)

Note: Some of these indicators are more expensive to collect (e.g. 24-hour individual food recall) and will require highly trained enumerators. Sometimes a good dietary diversity survey will do the trick.

TABLE A.5. ADDITIONAL GENDER RELATED MODULES

Module	Baseline?	Gender-disaggregated?	Which household member?
Labor use and time use by gender	Yes	Yes	Main male and female, could also include children depending on focus
Domains of decisionmaking authority, especially about assets	Yes	Yes	Main male and female
Control of cash income and use of income	Yes	Yes	Main male and female
Level of gender-related conflict and violence	Ideally	Typically only woman is asked	Main woman

Source: Quisumbing (2006)

Note: In fielding questions about domestic violence it is important to have trained enumerators with knowledge about services available and to protect the privacy of respondents and not subject them to greater risk.

ANNEX 3. CASE STUDIES

In the following annex we provide a number of case studies of projects collecting mixed methods data on gender and assets. The case studies are intended to provide practical examples and also illuminate differences across contexts, and how the researchers/investigators adapted their studies to these different contexts. For each case study we provide background information on the project, an overview of methodology, access to survey instruments when possible and a brief overview of key findings related to gender and assets. It is important to note that the feedback on the survey methodology is from interviews with the project leaders themselves and gives first-hand experience about what aspects of data collection were successful and what needed to be improved. The first set of case studies are from GAAP, while the second set are from previous work on gender and assets.

Case Study 1. Can Microplots Contribute to Rural Households' Food Security? Evaluation of a Gender-Sensitive Land Allocation Program in West Bengal, India

COUNTRY: India

YEAR(S) OF PROJECT/STUDY: 2010 - 2012

PROJECT CONTACT: Florence Santos (florences@landesa.org)

BACKGROUND

Landesa, a nongovernmental organization focused on land legislation and programming among poor populations, supports government land allocation and regularization programs in India. This study is based on Nijo Griha, Nijo Bhumi ("My Home, My Land" or NGNB), a program by the government of West Bengal, India that aims to reduce poverty by allocating microplots to landless agricultural laborers and assist with homestead development. NGNB works with local communities to purchase and allocate small plots of land, with titles issued jointly under the names of the husband and the wife. In addition, NGNB helps beneficiaries connect with other government agencies responsible for the provision of assistance with housing and basic inputs, capacity building in homestead food production, and investments in infrastructure.

This study evaluated the NGNB program and is a result of collaboration between Landesa and the Gender, Agriculture and Assets Project (GAAP). The project examined how land ownership and joint titling affect households' tenure security and agricultural investments, as well as women's involvement in food and agricultural decision-making—outcomes that when enhanced are expected to lead to increased household food production and long-term food security.

METHODOLOGY

Quantitative data was gathered from 1,373 households from three districts (Coochbehar, Bankura, and Jalpaiguri) that were surveyed in 2010-2011 and again in 2012. The sample includes beneficiary households that, at the time of the baseline survey, had received their homestead plots and obtained their land titles but had not yet moved to their new plots, plus households that made it to the list of NGNB-eligible households but were not selected as beneficiaries of the program and act as a control group.

Qualitative information was purposely gathered in a single district—Coochbehar—to gain an in-depth perspective on a specific locality. This information was collected in 2012 by relying on three complementary tools: key informant interviews with village-, block-, and district-level officials responsible for implementing the program; life-history interviews with program beneficiaries; and focus group discussions with beneficiaries and with eligible non-beneficiaries.

FINDINGS

Even after a relatively short period of time, the NGNB program shows very encouraging results regarding tenure security, women's decision making power, and household agricultural investments:

- Women perceive their NGNB plots to be more secure than other plots: women are 8 percent less likely to report being concerned about having to vacate an NGNB plot than other plots and 18 percent more likely to report that they expect their households to have retained access to and control over an NGNB plot than other plots five years later. Their perceptions of tenure security vary with plot size, with larger plots viewed as more secure.
- Including women's names on the land titles significantly contributes to women's involvement in food and agriculture decisionmaking. Compared to their non-NGNB peers, women in NGNB households are 12

percent more likely to be involved in decisions to take loans from a Self-Help Group or microfinance institution, 12 percent more likely to be involved in decisions on whether to purchase productive assets, and 9 percent more likely to be involved in decisions related to the purchasing and consumption of food. Further, when women's names are included on land documents, the share of their households' land where they are involved in decisions on how to use the land, what to grow on it, and whether to sell produce from it increases by 15 percent, 14 percent, and 11 percent, respectively.

- The average NGNB household is 12 percent more likely than a non-NGNB household to report having taken out a loan from a formal bank since 2009 and 88 percent more likely to use a loan for agricultural purposes.
- During the year before the survey, NGNB households were 11 percent more likely to have used fertilizer or pesticides; 11 percent more likely to have used seedlings, seeds, or stems; and 7 percent more likely to have agricultural equipment than eligible households that did not become NGNB beneficiaries.
- Despite NGNB's noteworthy impact on outcomes that can contribute to future food security, we are unable to detect statistically significant NGNB effects on households' current food security. On average, NGNB-eligible households are just as likely to be food secure regardless of whether they became program beneficiaries. We suspect that not enough time has passed for households to become food secure. This would be consistent with other experiences, like a resettlement program in Zimbabwe, where it took 12 years for the positive welfare effects to materialize (Kinsey, Burger and Gunning, 1998). In our case, qualitative work revealed that only 25 percent of the beneficiaries had actually moved to their plots by the time of the end-line survey and that some of the plots are of marginal quality.

FEEDBACK ON CASE STUDY BASED ON INTERVIEWS WITH DIANA FLETSCHNER:

1. What kind of support did you need for undertaking data collection for your case study?

- Landesa has a local office in India and although its program team is well established, its research team is fairly nascent. The Gender, Agriculture, and Assets Project (GAAP), with the opportunity to get research support through IFPRI, helped the research team understand how to conduct rigorous field work. While collecting sex-disaggregated data was not a new idea for Landesa, we did benefit from direct technical input from the IFPRI team (by Ruth Meinzen-Dick, Agnes Quisumbing, and Amber Peterman) and were able to obtain valuable feedback on our research design, tools and approach.

2. What are the unique gender-asset questions and indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?

- We had good modules on plot disaggregated data—regarding documentation, decision-making, vulnerability, etc. Landesa is trying to standardize the questions asked and has used the same questions in five other settings to date. In general, we see high value in standardizing the questions asked to provide greater comparability between studies and are working towards this goal. We are also in the process of adopting standardized modules on food security that were also asked in this survey.

3. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?

- We did a life history exercise to try to understand if and why land mattered to people. For instance, in recounting their life story, did women mention land in connection to important life events? What we quickly realized is that the women we interviewed were born poor, had stayed poor, and were currently poor; there wasn't a large amount of variation throughout their lives and

so this may not be the best approach to explore our question. In addition, given our resources we were only able to interview 8 women and this makes it very hard—if not impossible—to reach conclusions that are generalizable. However, we would certainly consider repeating a life history exercise with a larger sample, in which case we will definitely incorporate lessons learned from this round.

4. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected and which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?

- Our enumerators were hired from two different states in India and we hired two sets of enumerators in each—firms to do the quantitative work and consultants to conduct the qualitative work. While we had no trouble finding good organizations to take on the quantitative work, finding qualified local researchers to do the qualitative work became a considerable challenge. This was further complicated by the fact that we thought it was important to hire a woman. An additional obstacle was dealing with enumerators' and consultants' preconceived ideas of what the "correct" answers were. We worked hard with them to minimize the potential for biases in their interviews.

5. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

- There are a number of remaining challenges for researchers. Foremost, it will be important to standardize questions. As a research community we should decide on a standard set of issues/activities that we want to understand regarding land, formulate a standard set of questions and then ask them consistently. For instance, there is an internationally standardized question module regarding domestic violence. Similar standardization for an asset ownership and decisions-making module would be beneficial. Another issue we came across was that women oftentimes could not answer questions asked about land or asset ownership. As a result, enumerators had to ask her husband or the primary male in the household to obtain the answer. It is not entirely clear to us if these women refused to answer those questions because they did not know the answers or because they were not supposed to talk about those issues. We will need to test alternative modules to decide if it would be better to reframe the questions or to rely on answers from someone else in the household. Since we are unlikely to be the only ones experiencing this problem, we could benefit from guidance from the research community on how to effectively address this issue.

6. Anything else you would like to share about GAAP and your involvement with it?

- One issue for our project is that the baseline and endline were done just three years apart when many of the expected benefits of the program may take considerably longer to materialize. Given this, it would be beneficial to conduct another round of data collection to measure the longer term effects of the program, at say five or more years from the baseline.

MORE INFORMATION: For more information about the Landesa project please see Santos, F., D. Fletschner, V. Savath, and A. Peterman. 2013. Can Government-Allocated Land Contribute to Food Security? Intrahousehold Analysis of West Bengal's Microplot Allocation Program. IFPRI Discussion Paper 01310. Washington, DC: International Food Policy Research Institute. <http://www.ifpri.org/sites/default/files/publications/ifpridp01310.pdf>

For questionnaire(s) and survey instrument(s), please visit: <http://gaap.ifpri.info/tools-used-by-gaap/landesa-tools/>

For more information about GAAP, please visit: <http://gaap.ifpri.info/>

Case Study 2. How Do Intrahousehold Dynamics Change When Assets Are Transferred to Women? Evidence from BRAC's "Targeting the Ultra Poor" Program in Bangladesh

COUNTRY: Bangladesh

YEAR(S) OF PROJECT/STUDY: 2007 - 2012

PROJECT CONTACTS(S): Narayan Das (narayan.cd@brac.net), Rabeya Yasmin (rabeya.y@brac.net), Jinnat Ara (jinnat.a@brac.net), Md. Kamruzzaman (kamruzzaman.m@brac.net), Peter Davis (p.r.davis@sdri.org.uk), Agnes Quisumbing (a.quisumbing@cgiar.org), Shalini Roy (s.roy@cgiar.org)

BACKGROUND

BRAC's Challenging the Frontiers of Poverty Reduction Targeting the Ultra Poor (CFPR-TUP) program aims to assist the ultra poor in rural Bangladesh to rise out of extreme poverty and access mainstream development programming. CFPR-TUP Phase 2—the focus of the Gender, Agriculture, and Assets Project's study—operated from 2007 to 2011 in the poorest regions of Bangladesh. The program provided female members of ultra poor households with assets that could be maintained at home (primarily livestock such as cattle, goats, and poultry birds), as well as intensive training on how to use the assets for income-generating activities. Training subject matter included management practices and how to use improved technology. The GAAP study's aim was to explore how CFPR-TUP affected intrahousehold dynamics in beneficiary households, including men's and women's ownership of and control over various assets (the transferred asset, as well as other assets) and roles in intrahousehold decisionmaking. It also aimed to understand men's and women's perceptions of these changes.

METHODOLOGY

The GAAP study drew on Phase 2 of CFPR-TUP, which ran from 2007 to 2011. Phase 2 was rolled out using an experimental design, allowing for rigorous evaluation of program impacts. Analysis focused on the "Specially Targeted Ultra Poor" (STUP) package in Phase 2. STUP was allocated using a cluster-randomized control design. In each subdistrict with at least two branch offices, one branch office was randomly assigned to "treatment" and the other to "control." Eligible poor households were chosen in both treatment and control areas, using community targeting and verification visits. In treatment areas, eligible households were selected as CFPR-TUP beneficiaries. Women in beneficiary households received one or more productive assets, training on using the productive assets for income-generating activities, a small subsistence allowance, and close supervision from program staff. While the program designated women as responsible for maintaining the assets, its focus was on the household as an aggregate unit. No requirements were specified for women's role in making decisions related to the assets (for example, selling or renting them or using generated income).

The study included quantitative and qualitative elements. The quantitative assessment of CFPR-TUP's impacts on beneficiary households drew on the program's experimental design. As part of previous research, BRAC's Research and Evaluation Division (RED) had collected—in 2007 (baseline), 2009, and 2011—socioeconomic and health data on a large sample of eligible households across treatment and control areas. In 2012, RED partnered with GAAP to collect an additional round of data on the same households, this time regarding intrahousehold dynamics. Modules covered gender-disaggregated asset ownership and control, as well as decisionmaking. Of the 7,953 households interviewed in 2007, 6,066 households were successfully re-interviewed in the 2012 follow-up round. For impact evaluation, it was assumed that because the CFPR-TUP's treatment was randomly assigned, intrahousehold dynamics were very similar across treatment and control groups prior to the program. Therefore, with adjustments made for attrition, the 2012 round of data could be used to estimate CFPR-TUP's causal impacts on intrahousehold dynamics.

The qualitative assessment was based on focus group discussions (FGDs) and in-depth interviews conducted in 2011. Fifteen FGDs were conducted across treatment and control areas. The FGDs consisted of groups of women project participants, groups of project participants' male spouses, and groups of non-beneficiary women. In-depth interviews were conducted with participants from treatment branch offices. The qualitative work served two purposes. First, it informed the development of instruments for the 2012 quantitative survey. Second, it revealed norms on gendered patterns of asset ownership, as well as beneficiary perceptions of project impacts, which allowed researchers to interpret the quantitative impacts in light of local context.

FINDINGS

Analysis confirmed previous findings that CFPR-TUP significantly improved household-level well-being but showed new evidence of mixed effects on targeted women:

- CFPR-TUP significantly increased household ownership of livestock. The largest rise was in livestock owned by women (including cattle, typically thought to be “men’s assets”), with corresponding increases in women’s livestock control.
- CFPR-TUP also increased household ownership of other assets. However, this rise generally translated into increased sole ownership by men. Women did experience increases in rights to use some assets, which they reported as increasing social capital.
- CFPR-TUP shifted women’s work inside the home and increased women’s workloads, reducing their mobility. However, women reported preferring this outcome to the stigma of working outside the home.
- CFPR-TUP decreased women’s voice in a range of decisions.

The program did significantly increase women’s ownership and control of livestock, indicating transferred assets largely remained with women. In most other tangible dimensions of asset ownership and decisionmaking, however, women tended not to benefit. Nevertheless, taking into account “intangible” benefits explored in qualitative work reveals more favorable results for women. Women report increased social capital, confidence, and skills, in part from increased access to consumer durables. They acknowledge increased workload and reduced mobility, but nevertheless report that they prefer to work inside the home due to the stigma associated with working outside the home.

As a whole, the analysis shows that asset transfers targeted to women can increase women’s ownership and control over the transferred asset, but may not necessarily improve women’s relative bargaining position in the household. It also reveals that outcomes valued by women may depend on sociocultural context and are not always tangible. This last point highlights the complexity of assessing whether interventions improve “women’s empowerment.”

FEEDBACK ON CASE STUDY BASED ON AN INTERVIEW WITH PETER DAVIS:

- **Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected and which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?**
 - Thankfully a lot of good work has been done on gender and assets in Bangladesh, so there’s no need to reinvent the wheel or start completely from scratch.
 - Additionally, Bangladesh is a good place to do fieldwork. If you can get a project running and manage it well, it has high potential to succeed and be scaled up. However, it is key to do pilots and try things out on a smaller scale first. For instance, in another project I worked on in Bangladesh we found that male enumerators could interview women without any problem, though this is often perceived to be an issue. Conversely, female enumerators could not interview men as they did not respect or take the younger women seriously, though this is not often perceived to be an issue.
 - You need to understand what’s been happening over time with gender norms in the country/region(s). There are several notable changes in Bangladesh and some of these changes have nothing to do with development programs. For example, garment factory work has allowed many women to delay marriage and avoid paying dowry as they have their own, independent means of income. A less positive effect on some

women, is that there is a large population of men that have migrated to the Middle East in search of work—which in effect, leaves their wives at home with their mother-in-law, a less than desirable situation for young women.

- **What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?**
 - Ownership of high value assets plays an important role in women's empowerment. However, ownership is a nebulous concept and involves many rights (i.e. do you get a say in whether to sell the cow? do you do the work associated with the cow? do you get the income from selling the cow's milk?). One large challenge we face is making sure these distinctive rights are captured.
- **Did everything go smoothly? Were there any unexpected challenges that came up?**
 - Oftentimes qualitative work is designed by quantitative people. In quantitative work it is generally okay for the researchers who do the fieldwork to be separate from the researchers who do the analysis. In qualitative work, this is not the case; it is important for the qualitative researcher(s) to observe in the field and have this understanding when later looking through the interviews and conducting the analysis.
 - The primary challenge I faced is that I was not involved with the field work and was brought on later to conduct the analysis. The first thing I did was talk to the people that did the fieldwork but this wasn't a good substitute experience for me, not having been to the villages and observed the interviews.
- **What qualitative tools worked well for getting at gender and asset dynamics? What qualitative tools did not work well?**
 - We had 15 focus group discussions (FGDs) and 60 key informant interviews. The focus groups were good, though they provided generalized answers. However, one shortcoming of the FGDs is that the people facilitating them were associated with BRAC and may have positively biased what people said about the program.
 - The key informant interviews were important to help get a more detailed picture than what the FGDs provided. In general, it would have been better to have conducted more key informant interviews. Another issue is that the key informant interviews were not done with women because the selection criteria was program or committee leaders; however, women could provide valuable insight.
 - The questions and themes for both of these tools were good, however, they could be asked differently to elicit more accurate responses. For instance, questions asked for determining control of assets were asked directly ("Who has the right to sell [ITEM]?", "Who has the right to the income from selling [ITEM]?", etc.). With this approach people tend to give you more idealized answers (i.e. husband really has right but wife reports it is a joint right). However, getting answers to these questions can also be done in a hypothetical manner, which helps to break down the priming effect of the other method. For instance, ask, "What would happen to the item if her husband died?", "Who would get the item if her husband ran off with another woman?", etc.
- **What qualitative tools do you wish you had used in your research?**
 - Another approach, which we did not use but would be valuable, is to map people's life trajectories (pre, during, and post-project) to better understand how various aspects of their lives changed or did not change. This would help to contextualize the program and its impact.

MORE INFORMATION: For more information about the BRAC project, please see: Das, N., R. Yasmin, J. Ara, M. Kamruzzaman, P. Davis, A. Quisumbing, and S. Roy. 2013. How Do Intrahousehold Dynamics Change When Assets Are Transferred to Women? Evidence from BRAC's "Targeting the Ultra Poor" Program in Bangladesh. IFPRI Discussion Paper 01317. Washington, DC: International Food Policy Research Institute.
<http://www.ifpri.org/sites/default/files/publications/ifpridp01317.pdf>

For questionnaire(s) and survey instrument(s), please visit <http://gaap.ifpri.info/tools-used-by-gaap/brac-tools/>

For more information about GAAP, please visit: <http://gaap.ifpri.info/>

Case Study 3. Can Dairy Value Chain Projects Change Gender Norms in Rural Bangladesh? Impacts on Assets, Gender Norms, and Time Use

COUNTRY: Bangladesh

YEARS OF PROJECT STUDY: 2008-2012

PROJECT CONTACT(S): Nurul Amin Siddiquee (siddiquee@bd.care.org) and Kakuly Tanvin (kakuly@bd.care.org)

BACKGROUND

The goal of CARE-Bangladesh's Strengthening the Dairy Value Chain Project (SDVCP) is to improve the dairy-related incomes of 35,000 households in northwest Bangladesh. To achieve its goal, SDVCP addresses the major challenges to improving smallholder participation in the value chain, namely farmer mobilization and education, access to markets for their milk, and access to productivity-enhancing inputs. The project assists in the formation of dairy farmer groups as well as increasing women's participation in the dairy value chain, particularly in such nontraditional occupations as milk collectors and livestock health workers. The SDVCP evaluation looks at how both tangible and intangible assets may have changed, particularly for women, as an outcome of the intervention.

METHODOLOGY

This study included both qualitative and quantitative components. The quantitative component drew from longitudinal survey data taken from a baseline (2008) and endline (2012) collected from beneficiary households and control groups. The surveys collected data on land and assets, and included several questions on the number and kind of livestock owned and livestock and dairy care practices. The qualitative component included 11 focus group discussions (FGDs) composed of purposively selected project beneficiaries in 10 subdistricts of Rangpur and Bogra Districts. The groups ranged in size from 14-30 participants and included 7 female-only groups and 4 mixed-sex groups. The three primary topics of discussion were asset ownership, access to resources, and decisionmaking about dairy production and dairy-related income.

FINDINGS

- Impacts on Asset Ownership: Project participation did not seem to change the overall value of household asset portfolios, but it did seem to have significant impacts on a particular assets' value. For example, the value of households' livestock increased, as did the value of agricultural and nonagricultural productive assets. While land ownership did not change significantly, households did expand their land under cultivation through rent and mortgage and thus the amount of land in use increased in both treatment and control groups. Participation increased the value of men's assets and jointly held agricultural assets, but had no impact on women's assets. Though joint ownership cannot be assumed to be the same as joint control over assets, the increase in joint ownership among a sample where most assets were owned by men does seem to point to an increase in gender equality.
- Impacts on Women's Access to Credit, Mobility, and Human Capital: Project participation seemed to result in a lower percentage of women taking NGO loans, with FGDs explaining that this stemmed from the source of credit shifting to alternative sources and also a preference for saving money rather than borrowing and paying interest. Women stated that men would go through them to access NGO credit. Project participation resulted in a higher proportion of husbands and wives jointly deciding whether wives could go by themselves to a variety of places. Participants also reported no objections to a woman going to various places to visit friends or family if she could cover her own expenses. Project participation also seemed

to result in increases in women's mobility because it made it necessary to travel for training and participation in the project, and because it changed social norms. There are also spillover effects on human capital that can be attributed to increased mobility.

- Impacts on Decisionmaking: It still remains to be seen whether project participation changed decisionmaking around dairy production, use, and sale. Quantitative results suggest that the program had negligible impacts on decisionmaking related to the buying, selling and leasing of cows and dairy-related expenses. At both baseline and endline men dominated decisionmaking within the household. Women's decisionmaking, even in areas on which the program trained them, was unaffected. Qualitative results find more nuance: while women were the primary marketers of milk, it was still men who made the decision to sell milk, though women did make decisions on whether and how to allocate milk for home consumption.
- The project also seemed to impact household time and labor allocation. Adult women increased their time spent on dairy-related activities within the household and adult men increased their time on dairy-related activities outside the household. The increase in adult women's time spent on dairy activities came at the expense of spending time on other household activities, thus resulting in young girls taking on this work. This demonstrates an unexpected and unintended consequence of the project.

FEEDBACK ON STUDY BASED ON INTERVIEWS WITH SHALINI ROY (IFPRI), NURUL AMIN SIDDIQUEE (CARE), AND KAKULY TANVIN (CARE):

1. Are there any particularities about the region or country of implementation which you think are important to recognize? Did any of these context – or country – specific factors influence your GAAP case study or M&E implementation methodology, and how?

- *Nurul and Kakuly:* SDVC is operating interventions in dairy zones of the country. Therefore, cattle ownership is higher in these zones than in other parts of the country and it would thus be unwise to generalize the findings of the studies to all findings on asset ownership. In addition, men usually own productive and other assets in rural Bangladesh while women rarely do. In a study such as ours, when women are asked about their ownership of assets, this could make people in the community uncomfortable. So, rapport building with the community was essential before doing any study on women's empowerment.
- *Shalini:* In rural South Asia more broadly, female seclusion tends to be a sociocultural norm. The project itself was very cognizant of these norms and of women's roles – knowing that women perform a lot of dairy activities but that steps in the value chain needed to be brought nearer to women. We took these factors into account when designing the evaluation of the project, as well. We designed a questionnaire that specifically addressed mobility and ensured that we had female enumerators so that women could be interviewed alone. We also made sure that we collected information on some assets that we found from the qualitative work to be among the few items that women are perceived to own and are therefore considered important assets for women in rural South Asia. These included items like jewelry, cooking utensils, and clothing – which might not have been considered particularly important assets in other contexts.

2. What was the source of your interviewers for the quantitative work? For the qualitative work? Was it challenging to find enough skilled enumerators or field workers for the collection?

- *Nurul and Kakuly:* Project staff were the main interviewers for the qualitative work and both project and casual staff were engaged for the quantitative study the project's internal M&E. It is always difficult to hire qualified workers for the field work and this was no exception, especially for the qualitative enumerators. High-quality individual workers are most often engaged with regular jobs, while specialists or consultancy firms are expensive and it requires more time to hire them for any study. Therefore, SDVC worked with casual surveyors that have been engaged with the M&E work of SDVC for a long time, and they are now well trained on different study methods and processes in the context of rural Bangladesh.
- *Shalini:* The quantitative data collection for the external evaluation was collected by Data Analysis and Technical Assistance, Ltd. (DATA), a highly-regarded independent survey firm, and supervised by IFPRI.

The baseline and endline surveys were conducted by experienced and qualified enumerators, whom DATA has on call for large surveys. DATA had no trouble finding qualified enumerators, but they are paid more than typical interviewers hired on a casual basis.

3. What kinds of tools did you use for data collection? Had you ever used these tools before?

- *Nurul and Kakuly:* For data collection in the qualitative study we used focus group discussions (FGDs), key informant interviews (KII), and case analysis, while for the quantitative study we used a survey and participatory performance tracking by group members. We also used some tools to raise awareness, which we had not used before joining GAAP but that we designed from the preliminary findings of the GAAP studies. These included the access control matrix that looks at ownership over assets by men and women; the barrier tree that we used to identify different obstacles for women in participating in the dairy value chain; the daily time use tool to track men's and women's roles and time allocation in dairying and other household chores; pairwise ranking to understand gendered needs; and a barrier check-list to identify obstacles of individual project participants. We used FGDs and KIIs to gather data for project operations but not exclusively for the gender study. In a different survey we had collected data for monitoring on women's empowerment but added more indicators in the project M&E tools after joining the GAAP initiative.
- *Shalini:* There is growing interest in value chains, but relatively little data collected to evaluate their impacts, and even less to evaluate sex-disaggregated impacts. The tools we used in the quantitative impact evaluation included a baseline survey conducted in 2008 and an endline survey conducted in 2012 on beneficiary households and control groups. We collected sex-disaggregated data on asset ownership and control, as well as nearly all aspects of the dairy value chain – who takes milk to delivery points, who collects the payments, etc. We also measured disaggregated time allocation not only for dairy maintenance but also for other household activities. Collecting this allowed us to understand whether there was a time burden involved with participating in the program, whether this meant reallocating time from other activities, and how this impacted not only women but also other household members including men and children.

4. If you had not used these tools before, what led you to use them now? What were they based off of?

- *Nurul and Kakuly:* From the beginning, the project noticed some obstacles for women during field visits, and field staff also reported some challenges in engaging women participants in the dairy value chain. After that, the barrier checklist was developed and project staff started to report on different barriers they noticed in the project area. Through this process we were able to get a sense of the overall barriers for women, but not particularly with regards to the dairy value chain. After joining GAAP, as a part of the study, SDVC planned to further investigate these obstacles to get a better understanding of different barriers for women in value chains. So the project designed the barrier tree tool, administered it in the field, and explored different barriers for women farmers and women service providers. The project got a more complete view of women's barriers through this process and it influenced us to design more tools/interventions that might address some of these obstacles.
- Preliminary findings also showed that women rarely join in any income-generating activities as they are always over loaded with household chores, and because the labor allocation for men and women is not equitable. Extensive awareness is also required for asset acquisition and for women to have ownership over assets. Following different obstacles, the project also designed a package program with these tools and administrated a pilot among 20 farmer groups in the SDVC operating area. However, GAAP endowed us with the space to look back on these issues for further research.

5. What are the unique gender-asset questions and indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?

- *Nurul/Kakuly*: Control over income has been a vital finding from the qualitative works that we have incorporated in our regular M&E system since then. From the FGDs it emerged that women who are engaged with income generation can hardly manage the income. From this finding we conducted some awareness interventions in groups and now we are monitoring their progress.

6. Did you have to change any of your tools to adapt to different contexts and situations? If so, please give us an example of this, and how it worked out.

- *Nurul/Kakuly*: We did not need to change the tools but we did need to change the administration process. For example, in some communities we did mixed-sex FGDs while in other communities we found that the community was quite conservative and women were dominated during FGDs so we did FGDs with only women participants.

7. What qualitative tools do you wish you had used in your research? Why did you not use them? Do you plan to use them in future research?

- *Shalini*: We know quite a bit about what the project did or did not change for men and women. But we know less about how men and women perceived these changes. For the purposes of interpretation, it would have been very useful to have explored more which roles and rights women actually want. For example, we find that women's individual asset ownership does not increase, while their joint ownership does. But we do not know whether they would prefer individual ownership or joint ownership. We also do not know which assets they would actually want ownership or control over, or which mobility rights they would want. How do they feel about the rights that they have gained? Do they want those rights? Do they get the rights that they do want? Perhaps what matters is not that women increase individual ownership over exactly the same types of assets that men individually own, but that they increase whatever rights they actually want over whatever assets they actually want. One way to help interpret the quantitative impacts would have been to include some questions in the qualitative work on what dimensions of roles and rights men and women valued. We could have then followed up those specific dimensions in the quantitative work.

8. Were there any times that problems arose and you had to adapt quickly? If so, can you explain the problem and what you did to resolve it?

- *Nurul and Kakuly*: Sometimes we needed to interview only women participants but one or two men were present observing the interview. Sometimes they also tried to dominate the participants and we had to directly tell them to leave the discussion. In that instance we started some internal discussions on women's issues so that the women felt encouraged before the main discussion and the men either got bored or felt too shy to be there.

9. Anything else you would like to share about the GAAP project and your involvement with it?

- *Nurul/Kakuly*: GAAP is more concerned with and experts on research on women's empowerment issues, but at the same time it needs to design some interventions/tools that can be implemented to address some common findings from the research.
- *Shalini*: In this phase of GAAP, we focused on studying how agricultural projects affected the overall gender asset gap and found some very striking patterns across projects. Moving forward, it could be useful to explore what dimensions of the gender asset gap matter most to project participants and focus on studying impacts on those dimensions, to provide more nuance and depth in interpreting these changes. For example, in the CARE quantitative work, we did not focus on impacts on intimate partner violence, but later

felt this might have been an area where the project caused changes that mattered to participants although we did not pick it up. Relatedly, it is useful to think about how projects work within gender norms. Some projects aim to improve people's well-being while accommodating the existing norms, whereas others aim to transform the norms themselves.

MORE INFORMATION: For more information about the CARE project please see: Quisumbing, A.R., Roy, S., Njuki, J., Tanvin, K., Waithanji, E. 2013. Can Dairy Value-Chain Projects Change Gender Norms in Rural Bangladesh? Impacts on Assets, Gender Norms, and Time Use. IFPRI Discussion Paper 01311. Washington, DC: International Food Policy Research Institute. <http://www.ifpri.org/sites/default/files/publications/ifpridp01311.pdf>

For questionnaire(s) and survey instrument(s), please visit: <http://gaap.ifpri.info/tools-used-by-gaap/care-tools/>

For more information about GAAP, please visit: <http://gaap.ifpri.info/>

Case Study 4. The Importance of Gender in a “Gender Blind” Asset Transfer Program: Lessons from Dairy Development in Mozambique

COUNTRY: Mozambique

YEAR(S) OF PROJECT STUDY: 2008-2012, with GAAP study from 2011-2012

PROJECT CONTACT(S): Nancy Johnson (n.johnson@cgiar.org)

BACKGROUND

The Manica Smallholder Dairy Development Program (MSDDP) in Manica Province, Mozambique, has two primary objectives: 1.) rebuilding Mozambique’s dairy industry to meet market demand and 2.) increasing smallholder farmers’ incomes through participation in a sustainable dairy value chain. The program provided training and improved dairy cows to households and supported the establishment of producer cooperatives and milk collection centers in communities in Manica province. Households in the province needed to meet a variety of criteria to participate and, for those that did, two members were required to attend trainings. This was a modification from an earlier requirement that only one member was required to attend training. Households chose the members themselves, and as a result of this change in requirements, over 60 percent of households had a woman trained. Once household members had completed the training, the household was given a pregnant heifer, registered in the name of the household head. The study looked in particular at women’s participation in the program and the program’s effects on gendered distribution of assets (like livestock and agricultural tools) and decisionmaking power.

METHODOLOGY

Land O’Lakes partnered with ILRI to examine the gendered impacts of this initially “gender blind” program, using both qualitative and quantitative tools. For the quantitative component, two household surveys were conducted in 2011 (125 households) and 2012 (150 households) in Manica and Gondola districts in Manica Province. The surveys collected information on household dairy productivity; food security; sex-disaggregated data on demographics, assets, and agricultural labor; and retrospective data on pre-program assets. There was no control group; the analysis looked only at beneficiary households and their outcomes pre- and post-program. Comparisons were drawn between those households that had completed training and received their cows with those households that were still in the process, as well as between households that had female trainees with households that did not.

For the qualitative component, LOL and ILRI conducted focus group discussions (FGDs) in program communities. In 2011, 15 FGDs were conducted that discussed the MSDDP, local understandings of assets and asset ownership, and gendered roles in dairy production. Two more focus groups were conducted in 2013 that looked at gendered control of income. The groups were divided into women’s groups and men’s groups, and were segregated by geographical location and whether or not households had already received their dairy cows.

FINDINGS

- **Rights to Assets:** Households increased their ownership of exotic cattle and land by a significant amount during the program period. However, the gendered distribution of assets did not change. There is

a high degree of joint ownership of cattle and other assets and, according to FGDs, much of the joint ownership consists of women having rights to use assets that men control. However, these use rights did not necessarily mean women had control over milk, other livestock products, or income.

- **Production and Consumption:** Households that participated in the program reported higher milk production and sales than households that had livestock but did not participate in the program. These increased levels of production and sales, however, went hand in hand with high input costs and more labor hours for men, women, and children. The program's impacts on nutrition were positive, with participant households having higher levels of milk consumption and greater dietary diversity. Interestingly, the amount of milk allocated to either household consumption or sale did not differ greatly depending upon whether men or women made the allocation decision.
- **Gendered Control of Income and Investment:** Income from dairy production dramatically increased for households that received cows, but most of this income was controlled by men. Even though women contributed greatly to labor and "jointly" owned cows, this did not result in control over income. In many cases, even when women reported having control over income, this often meant that they made purchases only after first consulting their husbands. Men tended to use milk income to invest in draft animal technologies and cow feed/drugs. Women used income on immediate household needs. Furthermore, women reported not purchasing any assets with income generated from the sale of bull calves, while men reported purchasing many assets with this money.

FEEDBACK ON A CASE STUDY BASED ON AN INTERVIEW WITH ELIZABETH WAITHANJI:

- 1. Asset-gender dynamics are heterogeneous, complex, and rooted in social, economic and institutional factors – are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?**
 - I thought that Mozambique was a matriarchal society and thought that gender norms played out differently. In the study sites, however, the community was patriarchal. I would have liked to see how the gender dynamics played out in matriarchal communities.
- 2. What kinds of tools did you use for data collection? Had you ever used these tools before? Was training the enumerators in these tools easy or challenging?**
 - We mainly used focus group discussions (FGDs), a PRA tool. Within the FGD checklists different exercises such as proportion piling, rating, ranking, activity calendars, gender role mapping etc. were used. Occasionally, key informant interviews (KII) were conducted.
- 3. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?**
 - The question on joint ownership of assets was complicated because the subject of joint ownership is complicated. Women often considered usufruct rights as ownership un-problematically, although a few women pointed out that usufruct rights did not represent true ownership. What I would like to know/ was not able to establish is the difference that usufruct versus actual ownership makes– by actual ownership I mean the ability of a woman to dispose of the asset with or without seeking permission from the man. If the type of ownership matters, for who(m), and in what ways does it matter? FGDs might not be appropriate to collect this data. In-depth interviews might be more useful.

4. What qualitative tools do you wish you had used in your research? Why did you not use them? Do you plan to use them in future research?

- In-depth interviews. We did not use them because of the language barrier between the person who could have interviewed and potential respondents – too much meaning could have been lost in translation. I will use them only when there is no language barrier between the interviewer and respondent.

5. Anything else you would like to share about the GAAP project and your involvement with it?

- The language barrier can be a great challenge. I feel like translating questions and answers twice – English-Portuguese-Local language-Portuguese-English – is likely to distort questions and responses – even the most carefully framed ones. The necessity to minimize distortion is especially important for issues such as gender, which often require frequent probing and reframing of questions.

MORE INFORMATION: For more information about the Land O'Lakes project please see: Johnson, N., Njuki, J., Waithanji, E., Nhambeto, M., Rogers, M., Hutchinson Kruger, E. 2013. The Gendered Impacts of Agricultural Asset Transfer Projects: Lessons from the Manica Smallholder Dairy Development Program. CAPRI Working Paper 115. Washington, DC: International Food Policy Research Institute. <http://www.cipri.cgiar.org/pdf/capriwp115.pdf>

For questionnaire(s) and survey instrument(s), please visit: <http://gaap.ifpri.info/tools-used-by-gaap/land-olakes-tools/>

For more information about GAAP, please visit: <http://gaap.ifpri.info/>

Case Study 5. An Integrated Agriculture-Nutrition Program in Burkina Faso Can Change Gender Norms on Land and Asset Ownership

COUNTRY: Burkina Faso

YEAR(S) OF PROJECT/STUDY: 2010 - 2012

PROJECT CONTACT(S): Mara van den Bold (m.vandenbold@cgiar.org), Abdoulaye Pedehombga (ape-dehombga@hki.org), Marcellin Ouedraogo (marouedraogo@hki.org), Agnes Quisumbing (a.quisumbing@cgiar.org), and Deanna Olney (d.olney@cgiar.org)

BACKGROUND

Helen Keller International (HKI) carried out a two-year Enhanced-Homestead Food Production (E-HFP) pilot program (2010–2012) in Gourma Province in eastern Burkina Faso. The program's goal was to improve women's and children's nutrition and health outcomes through production and nutrition interventions. One way in which the program sought to improve its production and nutrition outcomes was by directly increasing women's access to and control over productive assets. To accomplish this objective, HKI trained women and gave them inputs for raising small animals and growing nutrient-rich foods, as well as health- and nutrition-related education delivered through a behavior change communication (BCC) strategy (Dillon et al. 2012). HKI partnered with the Gender, Agriculture, and Assets Project (GAAP) to measure the impact of the program's interventions on men's and women's accumulation, ownership, and control over productive assets, and to assess changes in norms and perceptions regarding the ownership, use, and control over these assets.

METHODOLOGY

Evaluating HKI's E-HFP program involved a longitudinal impact evaluation consisting of a quantitative baseline (2010) and endline (2012) household survey. Program impacts were measured at both the household and individual level and both male and female respondents were interviewed separately about issues such as assets, agricultural production, and livestock ownership. Two separate rounds of qualitative research were also conducted during the quantitative survey period. The qualitative research was primarily designed to provide insight into why the program did or did not improve women's agricultural production and maternal and child health and nutrition outcomes, by examining issues related to the delivery and utilization of program services. In addition, it was designed to examine the gendered implications of the E-HFP program in terms of access to and control over productive assets.

FINDINGS

Certain changes occurred during the two years of the E-HFP program's operation, specifically regarding asset ownership and control and gender norms:

1. **Women Made Gains in Asset Ownership:** While men continued to own the majority of agricultural assets, women began to own more assets. Further, women's assets increased more in intervention villages than in control villages. The average number of agricultural assets owned by women in intervention villages increased to a statistically significant degree relative to the average number owned by women in control villages. Program impacts on small animals were statistically significant and positive for both men and women, but with the differential increase for men larger than that for women (4.3 versus 2.6). Moreover, the proportional gap between men and women in ownership of agricultural assets narrowed more in intervention villages than in control villages. Finally, women in intervention villages reduced land cultivated between 2010 and 2012, whereas men's land holdings remained relatively constant as compared to control villages. However, this is likely due to the intensification of women's agricultural production to higher value

horticulture crops. Thus the results represent a redistribution of land cultivated across seasons with greater quality due to the availability of irrigation in the dry season.

2. **Women Gained More Control Over Their Gardens and Profits:** The qualitative research showed that women's control over productive assets increased in intervention villages. Women were primarily responsible for the care of the garden, and they were more likely to make decisions about the use of their gardens' products and the proceeds earned from these products than men. Additionally, while men still owned the majority of land for the garden at the end of the pilot program, there was an increase in the percentage of women who owned land for the garden (as reported by beneficiary women). Although men generally retained control of the larger livestock, women's decision-making power with regards to chickens and goats increased significantly as compared to control villages and was actually higher than men's decision-making power for the treated villages (41% of women and 35% of men reported having decisionmaking power in intervention villages versus 29% of women and 58% of men in control villages). Also, both men's and women's perceptions of and opinions about who could own and control certain assets appeared to have become more open to female control and ownership. This change was more pronounced in intervention villages than control villages.
3. **Perceptions about Women's Ownership and Control Over Land Are Changing:** Men and women across villages stated that while men could inherit land, women could not and could only obtain land through gifts or marriage. Nevertheless, half of men and women in intervention villages reported that their opinions on who could own land, use it to grow fruits and vegetables, or both, had changed. Their opinions had altered because of changing gender roles, the HKI program, and changes in consumption.

FEEDBACK ON STUDY BASED ON INTERVIEWS WITH DEANNA OLNEY AND MARA VAN DEN BOLD:

- **What are the unique gender-asset questions and indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?**
 - We had a process evaluation component embedded into our survey work in 2011, between the 2010 baseline and 2012 endline and a follow-up process evaluation in 2012. In general, a process evaluation analyzes the effectiveness of the program operations, implementation and delivery. This was an important component for our evaluation in two regards. First, it helped us to understand the local context in which the E-HFP program operated (norms regarding ownership, health knowledge, training capacity, etc). Second, we were able to visually map and examine the various pathways contributing to the program's impact as well as understand where actual pathways did or didn't differ from our program theory framework. As part of this evaluation, all parties involved in the program were interviewed (i.e. female beneficiaries, their husbands, landowners, garden program trainers, etc.) using a combination of qualitative and quantitative instruments. Both female beneficiaries and their husbands (husbands were only interviewed in the second round of the process evaluation) were asked questions about how the homestead garden program positively and negatively impacted their lives, child care and nutrition, and also the husband's perception of the program.
- **What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?**
 - While we were satisfied with the questions and indicators collected, in retrospect, we may have changed the mode by which we obtained some information. For instance, using vignettes instead of open-ended questions may have helped respondents answer hypothetical "how could this be better?" type questions, which can be hard for respondents if they have never experienced or heard of a possible alternative. More generally speaking, more creative options for asking qualitative questions would be valuable and using vignettes would be a good option to consider.

- **Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?**
 - Yes, there are a few background factors I wish we had explored in more detail—mainly, information on inheritance patterns and who is allowed to own land, as well as the definition of ownership. We did have a module with questions regarding what people thought ‘owning’ land meant, what they thought ‘having land rights’ meant, what they thought having rights to ‘use’ land meant, what they thought having the right to make management decisions meant, and various follow up questions. However, land ownership emerged as a key issue through this evaluation but it wasn’t necessarily a central idea going into it and thus these questions weren’t asked in the baseline. Knowing more about the various ownership rights and associated meanings from the beginning would have been valuable.
- **Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected and which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?**
 - It would have been beneficial to have done more formative research on asset ownership and gender norms in order to better understand the political and cultural aspects surrounding land and other productive assets in this specific area in Burkina. Understanding these aspects are important to contextualize findings and to further understand why changes in certain behaviors or patterns in asset ownership did or did not take place. From what we found, the literature on land ownership patterns among different ethnic groups in Burkina Faso is not extensive. One study we drew upon by Kevane & Gray (1999) in western Burkina Faso found that women often work on land controlled by men but do not have much direct control over land. However, in certain ethnic groups (e.g. Mossi), women farm plots independently and have a lot of control over what is planted and over income from the plots, whereas in others (e.g. Bwa), women’s rights are much more limited. So there can be large and important differences between ethnic groups. In our study area, the Gourmancema and Zaoga ethnic groups view women’s rights similarly to the Mossi.
 - For the second round of qualitative research in 2012, we felt it was important to gain some further understanding of how men and women viewed ownership of land in this particular study area, what they perceived their ‘rights’ to be, under what circumstances they felt it was or was not appropriate for women and men to own land and why – as these things can impact asset ownership and control and women’s rights more broadly. We discovered interesting information in terms of how inheritance patterns influence land ownership and therefore who has control over what. Some of these type of questions may have been useful to have included also in the quantitative piece, or in the first round of qualitative research in 2010, to examine any changes in these patterns or in people’s perceptions about what was happening.
- **What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?**
 - One large need is having greater guidance for how to integrate qualitative and quantitative research. They are complementary and valuable in incorporating gender into research, but integrating them well is a skill. Moreover, a greater understanding of when a quantitative question response option should include joint ownership, in addition to a male and female option, would be helpful to include in future guidelines. Our quantitative data was collected in a sex-disaggregated manner with basic male and female options; however, there was no joint option. We did allow for joint ownership in our qualitative research for questions; for instance, regarding control over the garden and small animals. In retrospect, there perhaps should have been a joint option for the quantitative survey as well but it’s still unclear to me.

MORE INFORMATION: For more information about the HKI project please see van den Bold, M., A. Pedehombga, M. Ouedraogo, A. Quisumbing, and D. Olney. 2013. Can Integrated Agriculture-Nutrition Programs Change Gender Norms on Land and Asset Ownership? Evidence from Burkina Faso. IFPRI Discussion Paper 01315.

Washington, DC: International Food Policy Research Institute. <http://www.ifpri.org/publication/can-integrated-agriculture-nutrition-programs-change-gender-norms-land-and-asset-ownersh>

For questionnaire(s) and survey instrument(s), please visit: <http://gaap.ifpri.info/tools-used-by-gaap/hki-tools/>

For more information about GAAP, please visit <http://gaap.ifpri.info/>

Case Study 6. Who Decides to Grow Orange Sweet Potatoes? Bargaining Power and Adoption of Biofortified Crops in Uganda

COUNTRIES: Uganda

YEAR(S) OF PROJECT/STUDY: 2007 - 2009

PROJECT CONTACTS(S): Daniel O. Gilligan (d.gilligan@cgiar.org), Neha Kumar (n.kumar@cgiar.org), J. V. Meenakshi (meena@econdse.org), and Agnes Quisumbing (a.quisumbing@cgiar.org)

BACKGROUND

The goal of the HarvestPlus reaching end users (REU) orange sweet potato (OSP) project is to increase vitamin A intake and improve vitamin A status among vulnerable populations (women and children) in rural Uganda by introducing beta-carotene-rich OSP, as well as related messages concerning agronomy, nutrition, and marketing. Most households obtain planting material for these crops through interaction with other households. This raises a number of important questions about the roles of social interaction, intrahousehold division of labor, and gender in determining the rates at which these biofortified crops are adopted and spread. As part of the Gender, Agriculture, and Assets Project (GAAP), this study examines the effect of women's bargaining power, as revealed in gender-based patterns of ownership and control of land and assets, on adoption of OSP and vitamin A intake among children.

METHODOLOGY

Data collection for the evaluation survey was conducted in REU project areas in two survey rounds: a baseline survey in 2007 and an endline survey in 2009. Each survey round included a detailed socioeconomic survey and a nutrition survey, including a detailed 24-hour dietary recall module. Each survey round also included a farmer group survey conducted with the farmer group chairperson or other leader, a community survey, and a price survey. In addition to these survey rounds, a qualitative study on gender and asset ownership and control was undertaken in project sites in Kamuli and Bukedea districts in 2011, which guided the hypotheses tested in this study.

Measures of intrahousehold bargaining power were constructed using gender-differentiated data from the survey's modules on asset ownership and control over land. These data were used to create estimates of the share of land and nonland assets exclusively owned by women, exclusively owned by men, or jointly owned. Similarly, respondents were asked which household member made the crop choice decisions on each plot, allowing up to two responses.

FINDINGS

Results of the project showed that REU led to OSP adoption by 65 percent of project households, compared to just 4 percent in the control group (de Brauw et al. 2012). The project also significantly increased the prevalence of adequate dietary intake of vitamin A by children under 3 years and reduced the prevalence of low serum retinol among children ages 3–5 years (Hotz et al. 2012). Specifically, results regarding gendered bargaining power include the following:

- There were clear gender differences in decisions to plant OSP on specific parcels. On nearly 60 percent of parcels, men and women jointly made the crop choice, but men took the lead in making this decision. On 20 percent of parcels, women alone made crop choices, partly reflecting the number of single-head households headed by females. Only 4.5 percent of parcels were reported to be under exclusive male control, while the remaining 16.5 percent of parcels were under joint control, with a woman taking the lead in the decisionmaking.

- The relationship between female bargaining power and control over household assets and the OSP biofortification program's impact on adoption and diffusion as well as dietary intakes of vitamin A was complex. The probability of OSP adoption was highest for parcels over which there was joint control, but where women took the lead in deciding which crops were grown, and lowest for parcels exclusively controlled by men. Although crop choice decisions were correlated across parcels, the evidence indicated that women played an important, and often leading, role in the decision to adopt OSP, but that this decision was often jointly made with their husbands.
- Households in which women had a lower share of nonland assets were more likely to grow OSP on joint plots with women in primary control. Where women had a higher share of nonland assets, decisionmaking on joint plots appeared more egalitarian, but OSP adoption was significantly less likely on plots under exclusive male control.
- The share of nonland assets exclusively controlled by women had a large, significant effect on child dietary intake of vitamin A. On average, the more nonland assets women controlled, the higher their children's vitamin A consumption tended to be. This effect was independent of the REU project's impact on vitamin A consumption, though. Women with relatively higher control of nonland assets did not necessarily have an advantage in using their bargaining power to increase the REU project's impact on child vitamin A consumption. Instead, the project was able to increase children's vitamin A consumption regardless of the mother's share of nonland assets.
- Although the project had a large impact on vitamin A consumption, our other research on this project showed that this impact did not apparently derive from lessons learned during the project's nutrition training. These studies found no signs that the REU had an impact on fathers' knowledge of child feeding practices in Uganda, while nutrition messages received by women appear to have had a relatively small effect on OSP adoption and dietary intakes of vitamin A (de Brauw et al. 2010, 2012).

FEEDBACK ON STUDY BASED ON INTERVIEWS WITH DAN GILLIGAN AND JULIA BEHRMAN:

- 1. What are the unique gender-asset questions and indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?**
 - We asked two plot level questions regarding land ownership and decision-making in which we collected data on up to two household members. Besides providing a rich understanding regarding which household members owned and managed land, this allows us to see specialization occurring within the household and the associated efficiencies that come from that. We also collected a detailed agricultural decision making module that attempted to get at different levels of asset ownership and use, including not only who owns an asset, but who makes decisions about the type and quantity of crop to grow, the sale of crops and so on.
- 2. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?**
 - We ended up collecting data retrospectively regarding joint/male/female asset ownership. During the end-line survey, we first asked respondents who owned the asset at present and also asked respondents to think retrospectively to two years prior (the time of the baseline) about who owned each asset.
 - It would have been great to ask more detailed questions about land ownership dynamics, however this was not the focus of this project.
- 3. Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?**
 - This may be easier said than done, but it is so important to be thoughtful beforehand in designing a questionnaire that provides gender perspective. As mentioned, we didn't initially collect sex disaggregated data on asset ownership, and while we later collected it retrospectively, it would have been ideal to have collected it during the baseline. Another aspect which we could have explored a bit more, is additional decision-

making questions and measures of control regarding various household activities. On a related note, we could have done some additional experimentation on behavior change. We had one behavior change targeted exclusively at women. However, involving men or having additional behavior change programs would have been an interesting experiment.

4. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?

- Initially we thought of interviewing either the primary male or female of a household through random assignment. However, our field partner pushed back against this approach indicating that it would cause tension within the household if a woman was selected to be interviewed instead of the husband and asked questions about asset ownership. Ultimately we ended up asking whoever was best suited in the household (self-identified) to answer the questions pertaining to a given module. While it may have been advantageous to interview both the primary male and primary female within a household, our budget didn't support two surveys per household. Regarding the qualitative work, we found that it was important to do male and female focus group discussion surveys separately.

5. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

- Related to the previous question, I think finding a method by which you can collect gender-asset data using one enumerator, either male or female, would be ideal. Conducting two surveys per household (for the primary male and female) is more costly and oftentimes not affordable. Additionally, using all male or female enumerators is oftentimes impractical so strategies to be able to use either sex regardless of the sex of the respondent are helpful for field logistics.

6. Did everything go smoothly? Were there any unexpected challenges that came up?

- During the fieldwork interviewers encountered a number of difficulties. For example, in some areas, the popularity of OFSP meant that it was difficult to get nonmembers of farmers groups who had not been to at least a few OFSP trainings. Nonetheless, the interviewers strived to ensure that those people who attended the non-farmers group focus group discussions had truly not been to OFSP trainings or farmers group meetings before. In addition, due to the fact that many more women than men were members of farmers groups, focus group discussions with men tended to be smaller than those held with women. Another difficulty encountered by the field team was that interviewers sometimes had trouble getting focus group discussion participants to conceptually understand questions that involved ranking of OFSP traits. A final difficulty was the fact that in some cases there did not appear to be major differences in adoption rates between the areas designated as "high adopters" and those designated as "low adopters" by the extension agents who were involved in sample selection.

7. What qualitative tools worked well for getting at gender and asset dynamics? What qualitative tools did not work well?

- It was important for us not to make assumptions about how things currently worked and to instead get at these responses inductively. For example, first by probing about how households access land, and then following up by asking if men and women farm plots together or separately and what factors men and women consider when deciding what to grow on a given plot. This gave us a detailed picture about the gender dynamics of farming that built upon the respondents' own answers to questions about how things worked in their communities.

MORE INFORMATION: For more information about the HarvestPlus project please see Gilligan, D. O., N. Kumar, S. McNiven, J. V. Meenakshi, and A. R. Quisumbing, 2014. Bargaining Power and Biofortification: The Role of Gender in Adoption of Orange Sweet Potato in Uganda. IFPRI Discussion Paper 01353. Washington, DC:

International Food Policy Research Institute. <http://www.ifpri.org/sites/default/files/publications/ifpridp01353.pdf>

For questionnaire(s) and survey instrument(s), please visit <http://gaap.ifpri.info/tools-used-by-gaap/harvest-plus-tools/>

For more information about GAAP, please visit <http://gaap.ifpri.info/>

Case Study 7. Do Women Control What They Grow? The Gendered Use of KickStart's Pumps for Irrigation in Kenya and Tanzania

COUNTRIES: Kenya and Tanzania

YEAR(S) OF PROJECT STUDY: 2011-2013

PROJECT CONTACT(S): Ephraim Nkyonya (e.nkonya@cgiar.org)

BACKGROUND

The objective of the Kickstart International project was to increase crop production and productivity through the use of human-powered, low-cost, micro-irrigation pumps. Direct benefits of the project include increased incomes and improved food security for households using pumps. The Gender, Agriculture and Assets Project collaborated with Kickstart to better understand the gender dynamics of who purchases and controls pumps, as well as the intrahousehold effects of pump use on decisionmaking and use of income from irrigated crops.

METHODOLOGY

The study collected qualitative data in three regions of Tanzania and three districts in Central and Western Kenya. These sites were purposively selected based on a number of factors, including areas with high numbers of pump purchases, different degrees of gender stereotyping, and proximity to urban centers. The primary data collection tool used was focus group discussions (FGDs). These FGDs included between 6 and 18 people that were selected from lists of farmers that had already purchased the pumps. Twenty-seven FGDs were facilitated across the two countries (11 women-only, 11 men-only, and 5 mixed-sex).

In addition to the FGDs, a second study with two components was conducted in Kenya. First, in-depth individual interviews were conducted in 9 households (6 male-headed and 3 female-headed) to provide more data on decisionmaking and control over income, which the first survey did not adequately capture. Second, a rapid assessment of the layaway pump purchase program was conducted with 6 men and 6 women to establish the benefits, challenges, and ways to improve the service.

FINDINGS

- **Awareness, purchase and perceptions of Kickstart pumps by gender:** Sales data showed that only a small percentage of pump sales were made to women between 2005 and 2013: 18 percent in Kenya and 6 percent in Tanzania. Of the different pump varieties, women liked the lightweight hand-operated MoneyMaker Hip Pump, which was easy to use, had no operational cost, and did not require women to use their legs to pump, an activity that was seen as culturally inappropriate in some areas.
- **Ownership and use of Kickstart pumps and other assets:** Men were more often the owners of both pumps and other large household assets, while women owned smaller household assets. Most participants in Tanzania stated that men and women decide jointly whether to purchase a pump, but in the case of disagreement it was the husband who made the final decision. In some cases men bought the pumps

without jointly deciding with their wives, and in other cases women would sometimes buy pumps, especially women from female-headed households.

Women generally knew less about pumps than men, mostly because of lower levels of education, less mobility, and unequal access to information. Men and women also identified different information sources, with men stating that Kickstart leaflets, radio and television were important while women stated that husbands or other farmers were important information sources.

Pumps were used mainly to irrigate owners' land, though some owners lent pumps to friends or neighbors for a fee or in-kind payment, or free of charge. Female respondents from central Kenya noted that men rarely lent their pumps to women because they felt it was culturally inappropriate for women to use the pumps. The irrigation pipes were laid by both men and women, with occasional help from children, but most pedaling was done by men as it was considered difficult work. Women found it difficult to use the pumps, partly because they were viewed as culturally inappropriate, as mentioned previously. Some participants noted that women took longer to irrigate a given piece of land than did men because women had many other responsibilities that required them to take breaks from irrigating.

- **Intra-household decisionmaking on crop choice and use of income:** Men and women considered several factors when deciding which crops to grow under irrigation, including the crops' potential for home consumption and sale, the availability of a ready market, and the ability to grow with minimal labor and external inputs. In both countries men and women had difference preferences for crop choice, with women preferring leafy vegetables. In both countries, spouses discussed what crops to grow and irrigate, but men made the final decision if there was disagreement. Women who had their own plots or whose husbands worked away from home made their own decisions.

Men, women and children jointly weeded and harvested crops, but men usually conducted all sales alone. Money that was earned through sales was handled in one of four ways: 1.) men kept the money but decisions about it were made jointly; 2.) men kept the money and used it on purchases that they and their spouse did not agree upon; 3.) men gave the money to their spouses for safekeeping; and 4.) women who sold their own crops (like leafy vegetables) made their own decisions on how the money was spent. Whether or not a woman owned a pump did not seem to influence which crops would be irrigated or who would control and manage the income generated by those crops.

- **Impacts of Kickstart pumps on household and individual well-being:** Respondents listed a variety of positive impacts from owning a Kickstart pump, including improved yields (thus leading to cultivation of larger plots), general improvements in household well-being (such as more income, better food security, improved health status of household members), a decrease in women's time spent fetching water, the increased ability of women to access social capital because the income from sold crops allowed them to join women's groups, and an increase in positive perceptions and self-perceptions of women. Tradeoffs were discussed as well. Respondents noted that women had less time for social activities like group meeting and church activities, leisure time, and time spent playing with their children. While few negative impacts were mentioned, women did report that men misused money on extramarital relationships and alcohol.

FEEDBACK ON THE STUDY BASED ON AN INTERVIEW WITH EPHRAIM NKONYA

- 1. Asset-gender dynamics are heterogeneous, complex, and rooted in social, economic and institutional factors – are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?**
 - Going into this project, we did not think that there would be problems with marketing pumps to women. The pumps are low-cost and don't require gas or other inputs, which we thought would make them quite attractive to very poor people generally, and women in particular. However, we saw very low sales of pumps to women, and we discovered that this was partly due to cultural norms in the area. Women did not want to use the pumps because the physical movement necessary for using the pumps was seen as inappropriate for women in the area. This is something we did not anticipate, but shows the value of research. In addition, we found that there were credit constraints that kept women from purchasing the pumps. Thus, a layaway program was developed to facilitate women's ability to buy pumps.
- 2. What kinds of tools did you use for data collection? Had you ever used these tools before? Was training the enumerators in these tools easy or challenging?**
 - The Kickstart project focused on qualitative methods, in particular focus group discussions and in-depth interviews. The focus group discussions were both single sex (male only and female only) as well as mixed sex. The in-depth interviews were added near the end-term review of the project to provide more data on questions on decisionmaking and control over income.
 - While the tools were not new (we had used focus group discussions and in-depth interviews before), the focus on assets was new for us, and thus required us to review the instruments we were using. We decided not to hire enumerators for the focus group discussions but instead conduct them ourselves because, as researchers, we hoped that this would allow us to capture all the information we desired for our research. We also hired two consultants, one from each country, to advise on the particular gender issues relevant to that context. The focus groups involved a lot of dialogue with respondents and yielded rich information. We also decided to ask a somewhat creative set of questions regarding the unintended consequences of the pumps in their villages. As researchers, we sometimes ignore the unintended consequences of our research, and it was important to our project team that we capture these effects from the point of view of the respondents.
- 3. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?**
 - In retrospect, it would have been nice if we had collected more information on what kinds of marketing strategies could have been used to market the pumps and, in particular, which strategies would have specifically been effective for targeting women. We could have also looked at different methods of marketing, like mobile phones, for example. In addition, it would have also been nice to ask more questions about social capital as that seems to be very important among women and could have yielded some interesting information about how social networks and groups might play a role in using these technologies.
- 4. Anything else you would like to share about GAAP, your involvement with it, or gender and assets research in general?**
 - Being involved in this project has convinced me that gender and assets data is really something that far more projects should collect. It is something that really should be collected all the time, and rather than just a specific project it should be a cross-cutting program. Developing a shorter, more standardized module on gender and assets, would be a great idea because then it would be easier for it to be incorporated

into larger surveys. If a module on gender and assets could be routinely included in large, nationally-representative household surveys, and national statistical bureaus could be convinced to get on board, a huge difference could be made.

MORE INFORMATION: For more information about the Kickstart project please see Njuki, J., Waithanji, E., Sakwa, B., Kariuki, J., Mukewa, E., Ngige, J. 2014. Can Market-Based Approaches to Technology Development and Dissemination Benefit Women Smallholder Farmers? A Qualitative Assessment of Gender Dynamics in the Ownership, Purchase, and Use of Irrigation Pumps in Kenya and Tanzania. IFPRI Discussion Paper 01357. Washington, DC: International Food Policy Research Institute. <http://www.ifpri.org/sites/default/files/publications/ifpridp01357.pdf>

For questionnaire(s) and survey instrument(s), please visit: <http://gaap.ifpri.info/tools-used-by-gaap/kickstart-tools/>

For more information about GAAP, please visit <http://gaap.ifpri.info/>

Case Study 8. Gender, Caste, and Asset Control: Implications for Agricultural Projects in Rice-Wheat Systems of Eastern India

COUNTRY: India

YEAR(S) OF PROJECT STUDY: 2010-2012

PROJECT CONTACT(S): Thelma Paris (t.paris@irri.org)

BACKGROUND

The CSISA project was launched in 2009 with the goal of reducing food and income insecurity in South Asia through accelerated development and deployment of new cereal varieties, sustainable crop and resource systems management practices, and better access to information. The project includes widespread delivery and adaptation of production and postharvest technologies to increase cereal production and raise income; and promotion of (i) crop and resource management practices, and (ii) high-yielding, stress tolerant and disease- and insect resistant rice, wheat and maize varieties and hybrids. GAAP looked at two different CSISA projects. This project focused on men's and women's different degrees of ownership, access, and decisionmaking in connection with key livelihood-sustaining assets and whether the introduction of new technologies influences these differences.

METHODOLOGY

This study was focused on two areas of rural India where CSISA operates: Bihar and Eastern Uttar Pradesh. In 2010 a baseline survey was administered, which collected information on farming practices and various technologies. However, sex-disaggregated information on ownership and control of assets was not collected, so qualitative research and midline surveys were conducted in three areas with large areas devoted to rice-wheat farming systems: Maharajganj and Deoria in Uttar Pradesh and East Champaran in Bihar. Focus group discussions on assets were also conducted with single-sex groups from both upper and lower castes, as were in-depth interviews with the principal men and women in 60 households. Midline surveys for 318 households in 18 villages followed in 2012. This survey collected sex-disaggregated information on household composition and assets, as well as used pictures of assets to determine who in the household owns, uses, acquires, and decides to dispose of the asset. It is important to note that because the baseline did not contain sex-disaggregated asset information, the findings of this project are useful for diagnosis but do not necessarily reflect changes in assets attributable to the project.

FINDINGS

Findings do demonstrate some trends in ownership and ranking of assets by sex. The most important assets identified by both men and women were farmland, dairy animals, house, mobile phones, gold jewelry, silver jewelry, and bicycles. Men ranked bicycles more highly while women ranked gold jewelry more highly, reflecting the fact that these assets were more likely to be controlled by men and women, respectively. Farmland was primarily owned by the principal male, though wives participated in decisions regarding land. Women were often not registered owners of land and thus had limited opportunities to receive inputs and partake in training.

Dairy animals were owned jointly or by the husband, and decisions to sell or buy dairy animals were mostly joint. Households that raised smaller livestock, where ownership, use and control were joint between husband and wife, tended to come from lower castes. Almost half of households with houses made of local materials were jointly owned, and mobile phones were more commonly owned by men.

The majority of agricultural machinery was rented rather than owned, due to its high cost, and for the same reason more upper caste households had access to the machinery than lower caste households. Men also had more access to the machinery; no women owned, used, or controlled any agricultural machinery.

Interesting findings emerged between high and low castes with regards to differences in the quantity and value of assets owned, rather than differences in access to major assets. A higher percentage of upper caste farmers had large farms and more valuable dairy animals, houses, clothing, jewelry, televisions, and cell phones. A gender analysis showed that men's assets were of higher value than women's, and that gender gaps were more severe than suggested solely by ownership incidence measures alone. That is, not only were women usually less likely to own assets, but the assets they did own were usually fewer in number and less valuable than those of males.

The promotion of mechanization through this project resulted in limited adoption and high disadoption due to the small size of farms and the lack of capital among farmers to purchase large machinery. Future adoption will be dependent upon availability of service providers and farmers' access to other sources of income.

FEEDBACK ON A CASE STUDY BASED ON AN INTERVIEW WITH THELMA PARIS

- 1. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to gender-asset indicators and that you think other researchers should be aware of? Did any of these context – or country – specific factors influence your GAAP case study or M&E implementation methodology, and how?**
 - Our research team had already done a lot of work in India and knew a lot of the contextual factors that would be influencing our study areas. There has also been a lot of work done in the area on related issues, like labor and caste, for example. We knew going in that most households are headed by males and that the nuclear family structure is very important in this area. We also knew that the majority of farmers were smallholders and that there were very low literacy rates among women in Eastern India. All of these contextual factors helped to inform the design of a more appropriate set of tools.
- 2. Was it difficult to hire enough qualified interviewers or field workers for the collection? Did you have equal numbers of male and female interviewers?**
 - It was hard to find qualified young male interviewers; they were not used to administering surveys to women or to asking questions about either gender or assets. As for female interviewers, it was challenging to get enough of them because of safety concerns in some parts of rural India, especially travel at night. These are definitely factors to think about when considering who your enumerators will be.
- 3. What kinds of tools did you use for data collection? Had you used these tools before?**
 - One of the innovative tools that we used to collect data was pictures of assets. We showed these pictures to respondents when asking them if they owned the asset and also during the ranking exercises on which assets they considered important. This was not a new tool for us – we had used it during a participatory varietal selection activity in eastern India – but it was one that was particularly fitting for this context as many women in the area were illiterate. We also found that the use of focus group discussions and pictures made the discussion less tense, more relaxed, and allowed us to gain the respondents' trust.

4. Which questions or modules were more confusing or problematic? Which questions were the easiest to administer?

- There were some questions that were challenging for respondents. The questions about jewelry ownership and value, for example, were difficult because people were suspicious given that jewelry ownership is usually somewhat private information. In addition, the questions about who owns or uses an asset were difficult to answer. The question on owning opened discussions on undocumented ownership versus documented ownership and which one we were asking about. The issue of using an asset was challenging with regards to how it related to work. For example, in the case of women and land, working on land was not always necessarily considered to be “work”, but instead considered to be “helping her husband”. With regards to “access” to an asset, we found that we had to explicitly ask about the concept of renting. If we didn’t ask about this we risked losing valuable information.

5. What are the unique gender-asset questions/indicators that you either collected in your survey instrument that you would have implemented differently or you were not able to collect but which you would have liked to collect, and why?

- In retrospect, I think we focused too much on assets such as land, large animals, houses, etc. and who owns, uses, and controls them. While this is definitely an important issue, CSISA as a project cannot provide or transfer these assets. We should have focused more on issues that the CSISA project can impact. For example, we should have asked more questions on men and women’s access to farm-related resources such as seeds of improved crop varieties, farm inputs, and participation in training on new methods of crop production practices and management, and access to agricultural extension services. It would have been useful if the project had distributed improved seed varieties (rice, corn, wheat) to Women’s Self Help Groups as well as trained them on how to produce high quality seeds. IRRI and CIMMYT could have reduced the as-set/resources gaps through this kind of initiative.
- Finally, the CSISA project could have given more attention to providing strategies for small and marginal farmers to access agricultural machinery and postharvest equipment that can reduce losses and drudgery to women. Moreover, it would have been better if there had been a longer period between the baseline and the midline surveys. As it was, the time period was too short to see much of a change in land ownership and other assets, which require high capital such as agricultural machinery, dairy animals, and houses.

For questionnaire(s) and survey instrument(s), please visit: <http://gaap.ifpri.info/tools-used-by-gaap/csisa-tools/>

For more information about GAAP, please visit: <http://gaap.ifpri.info/>

Case Study 9. Gender Dimensions of Social Networks and Technology Adoption: Evidence from a Field Experiment in Uttar Pradesh, India

COUNTRY: India

YEAR(S) OF PROJECT STUDY: 2009-2012

PROJECT CONTACT(S): David Spielman (d.spielman@cgiar.org) and Nick Magnan (nmagnan@uga.edu)

BACKGROUND

The CSISA project was launched in 2009 with the goal of reducing food and income insecurity in South Asia through accelerated development and deployment of new cereal varieties, sustainable crop and resource systems management practices, and better access to information. The project includes widespread delivery and adaptation of production and postharvest technologies to increase cereal production and raise income; and promotion of (i) crop and resource management practices, and (ii) high-yielding, stress tolerant and disease- and insect resistant rice, wheat and maize varieties and hybrids. GAAP looked at two different CSISA projects. This project focused on how gendered social networks affect how men and women within the same household acquire information about agricultural technologies, using the technology of laser land leveling (LLL) as an example.

METHODOLOGY

The study focused on three districts, all located in Eastern Uttar Pradesh, selected to represent the full regional range of rice-wheat cropping systems. Data collection occurred in many steps from May 2011-May 2012. 8 villages were randomly selected in each of the three districts, and the final sample size was 478 households, 392 of which are male-headed. Within the 392 male-headed households (MHHs), 335 households contained a female that identified herself as a primary female decisionmaker (also referred to as female co-heads or FCHs). These 335 households, where both a primary male and primary female decisionmaker are present, were used for a unique analysis whereby network links are known for both a male and female within the same household.

An information session was held in 2011 to introduce households to LLL. This information session was shortly followed by a baseline survey, which included a module on social networks. FCHs were also administered a social networks survey in 2012. Finally, two non-competitive auctions were conducted to elicit households' willingness to pay for LLL. The first was conducted after the initial information session, and the second was conducted one year later.

FINDINGS

- **Intrahousehold communication and decisionmaking:** Over half of all FCHs work on their household's plots, and a similar proportion discuss agriculture with MHHs and participate in decisions about agriculture. These proportions are higher for FCHs in poorer households. Two-thirds of MHHs report discussing agricultural technologies with their wives and an even greater percentage state that their wives' opinions on technology choice are important to them. Furthermore, LLL was a topic of conversation between husbands and wives and women were involved in decisions on how much to bid at the second auction.

- **Network composition and formation:** Social networks of men and women in the same households overlap very little (only about 5 percent of the time). MHHs are more likely to link to other MHHs than to female-headed households. Male social networks are also more heterogeneous with regards to wealth than are female social networks; men from poor households tend to discuss agriculture with relatively wealthy men while women from poor households tend to discuss agriculture with relatively poor women.
- **Exposure to LLL through networks:** Poor FCHs have significantly larger networks than poor MHHs, but wealthy MHHs have larger networks than wealthy FCHs (though this difference is not statistically significant). In addition, MHHs in both wealthy and poor households have an equal number of links to potential adopters, but poor FCHs have significantly more links to potential adopters than do wealthy FCHs. However, poor FCHs have fewer adopters in their networks than MHHs.

FEEDBACK ON THE STUDY BASED ON INTERVIEWS WITH DAVID SPIELMAN AND NICK MAGNAN

- 1. What was the source of your interviewers for the quantitative and qualitative work? Was it difficult to hire enough qualified interviewers or field workers for collection?**
 - We used locally-hired (primarily male) enumerators for all of our data collection, including the information sessions and the auctions. While it would have been great to have a field team that included more female enumerators and enumerators who were skilled in qualitative data collection and analysis, our efforts to organize this were unsuccessful. Instead, we relied on the research team—including IFPRI research assistants/analysts—to gather qualitative information. In the future, we would consider hiring postgraduate students to explore qualitative dimensions of our work.
- 2. What kinds of tools did you use for data collection? Had you used them before? If not, what led you to use them now?**
 - We used a combination of tools for generating and collecting data: an experimental auction, a randomly assigned treatment, intra-seasonal surveys conducted at the household and plot levels, and supplemental surveys with male and female heads of household. This combination of tools was a first for much of the team, and although several team members had prior experience, the application of these tools to gender and social network analysis was a novel experience for everyone on the research team.
 - Another first for many of us was the use of computer-assisted personal interviewing (CAPI)—a combination of survey software and tablet computers—to collect quantitative data. The use of CAPI offered several advantages. First, because CAPI was something new for the enumerators as well as the researchers, it kept the team engaged and enthusiastic even under arduous field conditions. Second, CAPI made the data quickly available to the team for analysis purposes. And while there were occasional problems with both the software and hardware, the CAPI experience opened the door for more rapid, better quality data collection in this project and other future projects.
- 3. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?**
 - The project area presents many difficulties for the study of gender dynamics. Social norms tend to limit exclusive access to women for enumerators in some circumstances, and strongly held beliefs about power and control probably obscure our ability to discern nuances in gender dynamics. Norms similarly held by (primarily male) enumerators may have presented similar problems. Despite this, we were pleased with the data we were able to extract and analyze in this project.

4. Were there any tools (qualitative or quantitative) that you wished you had used in your data collection? If so, which ones?

- We would have preferred to have more qualified enumerators and qualified female enumerators.

5. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

- One of the most significant challenges with collection of data on gender-related issues is determining whether male enumerators can properly understand and ask questions to female respondents. Not being able to find female enumerators is not an excuse to overlook women in a survey, and our male enumerators did a solid job at obtaining responses from female respondents.
- A related challenge is finding qualified enumerators. That said, there are a growing number of companies in India that train, supply, and manage enumerators for precisely this kind of work. These companies might be an important source for future endeavors.
- On the analytical side, one of the biggest hurdles to quantitative gender research is that it often means using data in different ways. Specifically, having multiple data points in a single household forces the researcher to think about decision-making as a joint process, which stretches our theoretical and empirical modeling.

For questionnaire(s) and survey instrument(s), please visit: <http://gaap.ifpri.info/tools-used-by-gaap/csisa-tools/>

For more information about GAAP, please visit: <http://gaap.ifpri.info/>

Case Study 10. International Food Policy Research Institute: (IFPRI): Strengthening Development Impact through Gender and Intra-Household Analysis Project

Countries: Bangladesh, Ethiopia, Ghana, Guatemala, Indonesia (Sumatra), Mexico, Philippines, South Africa

Year(s) of project/ study: Late 1980's – 2002

Contact(s): Agnes Quisumbing (a.quisumbing@cgiar.org)

Background: Since the early 1990s a growing literature has paid increasing attention to the role that intra-household resource allocation plays in affecting the outcome of development policy. Studies by IFPRI on how the commercialization of agriculture affected the nutritional status of individuals within households in a number of African and Asian countries were among the first to debunk the traditional view that individuals within the household share the same preferences or pool their resources, and that the rights, resources, and responsibilities of men and women may be different, which may influence resource allocation decisions. If household members in fact have different preferences, resources, and responsibilities, then designing policies while relying on a model of the household that assumes that individuals share the same preferences and pool their resources—the unitary model—may lead to policy failures.

Building on these early findings, new research has pushed for the development of new models of household behavior. One of the challenges in testing models of household behavior was to find measures of bargaining power that were exogenous to decisions currently being made within households. IFPRI researchers focused on collecting measures of assets at marriage of husband and wife (as well as inherited assets) across several countries in order to test these models of household behavior. These tests are summarized in Quisumbing and Maluccio (2003) for Bangladesh, Ethiopia, Indonesia (Sumatra) and South Africa; related work in other countries can be found in Quisumbing, ed. (2003). Comparative studies of such nature bring additional insights to similarities and differences among developing country regions.

Methodology: IFPRI researchers used a common framework and similar survey methodologies to analyze a wide range of policy issues, permitting comparisons across countries. In some countries, modules on intra-household allocation and gender were added to ongoing or planned studies by IFPRI researchers and their collaborators. Researchers made an explicit effort to test the unitary model of household behavior against an alternative that allowed for different preferences of household members and non-pooling of household resources. Because relevant assets and marriage customs differed in each of the countries, asset modules had to be tailored to the specific context.

Findings: IFPRI's intra-household research has produced the following key findings:

- Households do not act as one when making decisions, rejecting the null hypothesis that men and women's resources have the same effects on household decision-making.
- The collective model predicts that the distribution of resources depends on an individual's bargaining power within the household. The distribution of power and resources within the household, however, almost always favors men. This has both economic and social consequences that differ across countries and cultures.

- Improvements in women's status and increases in the resources that women control raise allocations toward education and improve child health and nutrition. Social networks may be an important resource that women can use to help mitigate the impact of adverse shocks. Investment in women, particularly in education, is key to poverty reduction and improved incomes for families as a whole.
- Protecting women's entitlements implies that their rights should be enforced, yet enforcement is not automatic when customary rights and statutory rights are not consistent.
- A new generation of policies and programs has explored innovative ways to increase resources in the hands of women. These initiatives include credit programs targeted to women, have had positive effects on women's earnings and decision-making ability, as well as on child nutrition and educational outcomes.

For more information:

Quisumbing, Agnes (Ed). 2003. **Household decisions, gender, and development: a synthesis of recent research**. Washington, DC: IFPRI. Available at: <http://www.ifpri.org/sites/default/files/publications/gender-book.pdf>

Sample survey questionnaires can be downloaded, together with their corresponding data sets from the IFPRI website. The core studies are:

- **Bangladesh:** Commercial vegetable and polyculture fish production –their impacts on income, household resource allocation, and nutrition, 1996-1997. Available at: <http://www.ifpri.org/dataset/bangladesh-1>
- **Ethiopia:** Ethiopian Rural Household Survey (ERHS), 1997 round. Available at: <http://www.ifpri.org/dataset/ethiopian-rural-household-surveys-erhs>
- **Guatemala:** Strengthening and evaluation of the Hogares Comunitarios Program in Guatemala City, 1999. Available at: <http://www.ifpri.org/dataset/guatemala>
- **South Africa:** Kwazulu-Natal Income Dynamics Study (KIDS), 1993-1998. Available at: <http://www.ifpri.org/dataset/south-africa-kwazulu-natal-income-dynamics-study-kids-1993-1998>

Feedback on case study methodology based on an interview with Agnes Quisumbing:

- 1. What are the unique gender-asset questions and indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?**

We collected data on assets at marriage, current assets, and family background, separately for husband and wife. In most cases, the assets module was developed after qualitative work in the survey sites and extensive pre-testing by the principal investigators. In some countries, we also collected information on inherited assets. We found that collecting information on family background of husband and wife was quite important, as they determined assets brought to marriage. In all of the case studies, we also had measures of human capital for husband, wife, and children (education, weight, height). The case studies had different emphases in terms of assets. In Bangladesh, because the emphasis was on nutritional impact (human capital), we obtained blood hemoglobin readings using the Hemocue. The South Africa study focused on human capital. The Ethiopia study built on a panel where gender-disaggregated asset data had not been collected, so we collected some indicators retrospectively. The Guatemala study was implemented in an urban setting (slums) where some assets were owned by individuals, others

by the household, and others were shared with other households. In Ghana and Sumatra, where we were investigating the impact of men's and women's land rights on tree resource management, the assets modules on inheritance ended up being quite different because extended family structures are very different in both countries. Specialized assets modules had to be developed for each of these cases, although the general structure of the questionnaire was similar.

2. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?

We felt that the data we collected were quite comprehensive for the purpose for which they were collected—testing models of household behavior. However, in hindsight we could have collected more information on control of assets—not just ownership.

3. Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?

We did a lot of background work on marriage and inheritance customs before designing the questionnaire. We undertook this by reading the anthropological literature, conducting qualitative work in communities (focus groups and key informant interviews), and doing extensive pre-testing.

4. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?

Collecting gender-disaggregated assets data requires skilled enumerators who understand the purpose of the study, and in-country collaborators who are willing to change ways of doing things (collecting data only at the household level). Sometimes questions had to be adjusted (particularly in low-literacy populations) so that they could be understood by respondents. In some areas, respondents had difficulties valuing assets at present or recalling what they paid at acquisition. We therefore collected data on when the asset was acquired, what was paid upon acquisition, and current market value or replacement cost, using alternative methods of estimating the value of the asset. In some countries (South Africa, Mexico), our collaborators felt that it would be undue burden on the survey team and the respondent to get the value of assets, and so counts of assets were collected. Much to our surprise, these simpler methods of collecting gender-disaggregated assets data worked very well in the regressions.

5. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

Having collected gender-disaggregated assets data since 1996, I feel that the basics are well understood within a small community of researchers—obtain a listing of relevant assets based on previous anthropological and/or qualitative work, ask husband and wife about individual and joint assets using the household roster to “ID” the asset, be open to looking at different types of assets (non-traditional assets). However, there is some resistance outside this community, people say that it is “too difficult.” It is not that difficult—one just has to be willing to try it!

Case Study 11. International Food Policy Research Institute (IFPRI): Evaluating the long-term impact of anti-poverty interventions in Bangladesh

Countries: Bangladesh

Year(s) of project/ study: 1994-present

Contact: Agnes Quisumbing (a.quisumbing@cgiar.org); Neha Kumar (n.kumar@cgiar.org)

Background: While many evaluations have attempted to assess the short-term impacts of poverty reduction programs, relatively little is known about their long-term impact. To address this gap in knowledge, IFPRI, together with Data Analysis and Technical Assistance (DATA), Ltd. and the Chronic Poverty Research Centre (CPRC), collected gender-disaggregated assets data spanning over 15 years (1994- 2010) and assessed the long-term impact of three anti-poverty interventions in Bangladesh: i) the introduction of new agricultural technologies, ii) educational transfers, and iii) microfinance – on a range of monetary and non-monetary measures of well-being (Quisumbing, Baulch and Kumar, 2011). The impact evaluation of the introduction and dissemination of vegetable and fish technologies in Bangladesh builds on an existing IFPRI data set, collected in 1996-97, with detailed gender-disaggregated assets data, which made it possible to estimate the impacts of technology dissemination on men’s and women’s assets (Quisumbing and Kumar 2011; Kumar and Quisumbing 2011).

Methodology: These impact evaluation studies drew from the IFPRI *Chronic Poverty and Long Term Impact Study in Bangladesh* dataset, which used integrated and iterative qualitative and quantitative methods. The study builds on three surveys conducted by IFPRI in Bangladesh to evaluate the short-term impacts of micro-finance (1994), the new agricultural technologies (1996-97) and the introduction of educational transfers (2000 and 2003) and a follow up conducted in 2006-07. While information on many gender-disaggregated variables was collected in all the evaluation studies, gender-disaggregated assets data was collected only in the agricultural technology sites. In 2006, IFPRI, DATA and the CPRC began a major study to resurvey the households surveyed in all three of the evaluations. While the focus of this study was on understanding of the drivers and maintainers of chronic poverty in rural Bangladesh, the intervention-comparison groups were maintained from the previous study, and greater attention was placed on obtaining gender-disaggregated data in all the sites. The resurvey involved both qualitative studies and a follow-up longitudinal survey of households included in the IFPRI studies, and involves three sequenced and integrated phases.

Another round of data collection in the educational transfers and agricultural technology sites was undertaken in 2010, focusing on the impacts of the food price increases in 2007-2008. A gender-disaggregated assets module was administered to all surveyed households, focusing on gendered responses to the food price crisis.

Findings: These studies in Bangladesh indicate that household-level and individual impacts of anti-poverty interventions differ in the short term and the long term because of differences in the time path of net benefits from the interventions and spillover effects. Divergence between short-term and long-term impacts may be especially important in interventions that seek to bring about behavioral change, where spillover effects and learning from others may be significant.

In the case of improved vegetable and fish technologies, Kumar and Quisumbing (2011) found that long-term impacts on household-level consumption expenditures and asset accumulation were insignificant in a site where improved vegetables were targeted to women's groups for cultivation in their own homesteads, but positive and significant in the site where polyculture fishpond technologies were targeted to households, with minimal consideration of gender dynamics. However, the impacts on individual nutrient intake, nutrient adequacy, and nutritional status do not follow the pattern of household-level impacts. For example, despite the minimal monetary gains, early adopters of improved vegetables, particularly women and children, achieved sustained improvements in nutritional status.

Quisumbing and Kumar (2011) found additionally that women's assets increase more relative to men's when technologies are disseminated through women's groups, suggesting that implementation modalities are important in determining the gendered impact of new technologies. Results also suggest that social capital, when embodied through women's groups, not only serves as a substitute for physical assets in the short run, but helps to build up women's asset portfolios in the long run.

For more information:

Kumar, Neha, and Agnes R. Quisumbing. 2011. **Access, adoption, and diffusion: understanding the long-term impacts of improved vegetable and fish technologies in Bangladesh.** *Journal of Development Effectiveness* 3(2): 193-219. Available at: <http://www.ifpri.org/sites/default/files/publications/ifpridp00995.pdf>

Quisumbing, Agnes R., Bob Baulch, and Neha Kumar. 2011. **Evaluating the long-term impact of anti-poverty interventions in Bangladesh: an overview.** *Journal of Development Effectiveness* 3(2): 153-174. (also IFPRI DP 995). Available at: <http://www.ifpri.org/sites/default/files/publications/ifpridp01077.pdf>

Quisumbing, Agnes R., and Neha Kumar. 2011. **Does social capital build women's assets? The long-term impacts of group-based and individual dissemination of agricultural technology in Bangladesh.** *Journal of Development Effectiveness* 3(2): 220-242. (also CAPRI WP97). Available at: <http://www.ifpri.org/sites/default/files/publications/capriwp97.pdf>

Quisumbing, Agnes R. 2011. **Do men and women accumulate assets in different ways? Evidence from Bangladesh.** IFPRI Discussion Paper 01096. Available at: <http://www.ifpri.org/sites/default/files/publications/ifpridp01096.pdf>

Quisumbing, Agnes R., Neha Kumar, and Julia A. Behrman. 2011. **Do shocks affect men's and women's assets differently? A review of literature and new evidence from Bangladesh and Uganda.** IFPRI Discussion Paper 01113. Available at: <http://www.ifpri.org/sites/default/files/publications/ifpridp01113.pdf>

The **IFPRI Chronic Poverty and Long Term Impact Study in Bangladesh** dataset and other related research papers are available at: <http://www.ifpri.org/dataset/chronic-poverty-and-long-term-impact-study-bangladesh>

Feedback on case study methodology based on an interview with Agnes Quisumbing and Neha Kumar:

1. What are the unique gender-asset questions/indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?

The gender-disaggregated assets module builds on an existing data set (see case study 10) for the agricultural technology sites, but is now administered to all surveyed households. The major innovation is the collection of gender-disaggregated assets data over time, which allows analysis of gendered patterns of asset accumulation. In the agricultural technology panel, we have observations in 1996/97, 2006/7, and 2010. In the educational transfers sites, we have observations in 2006/7 and 2010. New data collection efforts may want to be forward-looking in terms of creating the possibility of revisiting households to build up panel data sets on individual and joint asset accumulation. So this means obtaining information with which to track households and individuals over time. We also updated the community questionnaire to capture changes in local facilities, institutions, and even cultural norms (for example, the extent to which women can travel—whether limited to the village, the town center, etc—has expanded greatly over time, partly because of the need to go outside of the village for NGO training).

2. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?

We would have wanted to do more on:

- Perceptions of what men's and women's "ownership" of assets really means, what "jointness" really means (respondents did identify most of their assets as joint assets, although they also identified individually-owned assets);
- Collect gender-disaggregated shocks data. Subsequent analysis shows that shocks affect men and women differently, but it would have been good to investigate whether illness (for example) of a man or a woman had different effects on households;
- Collect better indicators of social capital and group dynamics. We have individual information on group membership and types of groups (from the 2006/7 survey), but not information on the groups themselves, and;
- Do qualitative work, and then build quantitative modules, to examine portfolio substitutions (for example, when having one asset helps to acquire another one) and discern whether new types of assets (or uses of assets) have emerged.

3. Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?

Since we and our local collaborators, DATA have been working in these communities for a long time (more than 10 years), we have a good grasp of local conditions.

4. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected which are

important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?

We continued to follow DATA's field protocols in Bangladesh, which is to field a team of both a male and a female enumerator. The male interviews the husband, while the female enumerator interviews the wife. They typically field two male and two female enumerators in an area for ease of travel, particularly safety, and accommodation.

5. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

A big challenge continues to be making sure that gender disaggregated data is collected at baseline. Going forward, we need to be able to keep up with new categories of assets that emerge (for example, term insurance, new savings instruments, etc.) as well as new uses for incomes earned from assets. We also need to be able to capture changes in ownership and control of assets over time, especially as the relative value of assets change (land may become less important as incomes become more diversified, for example).

Case Study 12. International Center for Research on Women (ICRW): Gender, Land and Asset Survey (GLAS) Project

Countries: Uganda and South Africa

Year(s) of project/ study: 2007 – 2012

Contact: Krista Jacobs (formerly at ICRW, now at USAID: kjacobs@usaid.gov)

Background: The Gender, Land and Asset Survey (GLAS) is a gendered assessment of men's and women's rights over assets – including ownership, documentation, and control over use, transfer, and transactions – in Uganda and South Africa. The GLAS, developed and piloted by the International Center for Research on Women (ICRW), Associates Research Uganda, Limited and University of KwaZulu-Natal, is a survey methodology for collecting and analyzing individual- and household-level quantitative data on women's rights over assets and their potential determinants. These studies point to significant gender gaps with respect to women's asset ownership in both countries and shed light on more detailed aspects of asset ownership, documentation, control and decision-making authority over assets. The results also point to significant nuances in the nature of the gender asset gap and its drivers.

Methodology: Informed by qualitative research conducted in the study areas, the GLAS offers two main methodological advances: First, it asks not only about ownership but also about use and decision-making over assets. Second, it collects sex-disaggregated data by asking a woman and a man of the same household separately about her/his own ownership, use, decision-making, and documented claims over particular assets. To assess different aspects of ownership, the GLAS captures:

- **Perceived ownership:** GLAS data assesses which assets both male and female respondents consider as belonging to themselves and/or other persons
- **Joint ownership:** GLAS data describes the extent of joint ownership of assets such as land, housing, material assets, livestock, and financial assets
- **Documentation beyond land title:** The survey asks about multiple forms of documentation beyond a land title or certificate of registration, including purchase agreement, rental agreement, receipts, wills, and written permission from traditional authorities

Findings:

- **Uganda:** Headship emerges as a significant determinant of women's asset rights. Female headship is associated with higher likelihood of land ownership but weaker decision-making authority concerning house transactions. The findings lend support to the evidence in the literature that women, especially wives and partners of male household-heads, are particularly disadvantaged with respect to rights to sell, bequeath, or gift assets. Although a substantial proportion of women who report owning land and housing say they do so jointly, there is substantial disagreement within couples as to whether ownership is joint.
- **South Africa:** Women heads of households emerge as having comparable asset rights to male heads and much stronger rights than women who live in male-headed households. Among women, being divorced, widowed, separated, or cohabiting (but not married) is also linked to stronger asset rights, though the improvements are not as dramatic as for female headship.

For more information:

Jacobs, Krista, Sophie Namy, Aslihan Kes, Urmilla Bob, and Vadivelu Moodley. 2011. **Gender, Land and Asset Survey South Africa: Gender Differences in Asset Rights in KwaZulu-Natal, South Africa.** International Center for Research on Women. Available at: <http://www.icrw.org/publications/gender-land-and-asset-survey-south-africa>

Kes, Aslihan, Krista Jacobs, and Sophie Namy. 2011. **Gender, Land and Asset Survey Uganda: Gender Differences in Asset Rights in Central Uganda.** International Center for Research on Women. Available at: <http://www.icrw.org/publications/gender-land-and-asset-survey-uganda>

For questionnaire(s) or survey instrument(s), visit the project website at: <http://www.icrw.org/where-we-work/measuring-property-rights-gender-land-and-asset-survey>

Feedback on case study methodology based on an interview with Krista Jacobs:

1. What are the unique gender-asset questions/indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?

The GLAS offers two main methodological innovations. First, it asks not only about ownership but also about a spectrum of asset rights, including use and decision-making over assets. Second, it allows for disaggregation of data by sex by asking each woman and man separately about her/his rights over particular assets. The GLAS also collects information on joint ownership and asset rights from individual women and men from the same household to assess the prevalence of joint asset holding, especially of land and housing, among women and to compare women's experience and reports of joint asset ownership with men's.

2. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently?

Some of the unique gender-asset questions and indicators we used included:

- *Use rights:* Use needs to be more completely captured, both in terms of uses beyond agriculture and residence (for example in businesses) and in terms of any conditions on the use (asking permission, duration, payments, restrictions on planting, etc.).
- *Hypothetical questions about assets were sometimes problematic:* Examples include, "If you wanted to purchase more land, could you?" or, "If you were to sell this asset, would you need permission?" Survey enumerators reported that it was common for respondents to have difficulty answering hypothetical questions.
- *Valuation of assets:* Respondents had problems assigning values to their assets, especially land.
- *How a person's social and familial relationships influence their asset rights:* In the GLAS, these relationships would only arise if a land or housing conflict had occurred, if one of these parties' permission was required for permission to make a transaction on an asset, or if women identified one of the parties as a source for acquiring land they used or owned.
- *Communal resources:* For several communal and natural resources (e.g., wetlands, boreholes, forests, pasture, community gardens) the GLAS asked women and men whether s/he used the resource, how often, for what purpose, whether income was generated, and what barriers existed to accessing or using the resource

(e.g. overcrowding, far away, poor quality). After field implementation, it was felt that it would have yielded more complete information to lead the questioning with resources people get from communal and resources (firewood, water, sand, grazing, medicinal plants, etc.) and then move to asking what lands these come from and the respondent's relationship to that land.

3. Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?

The GLAS collected information on several contextual and structural factors relevant to gender and asset rights.

- Composition of each respondent's natal family, how often the respondent interacts with them, and whether anyone from the natal family lives in the same community.
- Inheritance patterns through which persons acquire land and other assets.
- People's perceptions about the socioeconomic value of land collected through questions about how owning or losing land relates to familial and social relationships and economic security.
- Barriers to acquiring new land or new cattle, including economic, familial barriers, traditional/customary barriers, logistical barriers, and lack of supply.
- People's knowledge of what Ugandan statutory law says about women's asset rights as well as respondents' opinions about women's asset rights.

However, there were several relevant factors about which the GLAS did not collect full information.

- Information about the roles and involvement of family, traditional leaders, or local government in managing or allocating land or handling property disputes
- Roles of current and past partnerships in women's acquisition or loss of assets or rights to them.
- People's understandings of the system(s) of rules around land in which they see themselves as operating.

4. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?

- *Ambiguous definitions of partnership:* Ambiguous definitions of partnership and multiple forms of marriage are common in sub-Saharan Africa.
- *Widows as a sizeable and different sub-population:* Female household heads and widows are overlapping populations that are both sizeable and believed to be in unique and weaker positions in regards to assets.
- *What women can say about land:* In some cases, women do not see themselves or are not seen as having anything to say or having sufficient knowledge about land that they should engage in participating in the survey
- *Policy and current events:* During the data collection of the GLAS, many communities in central Uganda were experiencing violence and unrest between tenants and landlords. The tension and suspicion regarding land may have influenced willingness to participate and especially to discuss land values, transactions, and conflicts.
- *Sensitivity around inheritance:* In the region of Uganda where the GLAS took place it is considered bad manners to mention or discuss death as it may be considered as wishing or hastening the person's death.

5. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

- *Different ideas of land systems:* How people describe the rules and systems by which land is managed, allocated, and transferred do not easily align with the rules and systems that are defined by statutory law (or possibly even customary law).
- *Tradeoffs between comparability and relevance of measures of asset rights:* There is a need for gendered measures of asset rights to be comparable and somewhat standardized in order to advance the field and to compare women's asset rights in different settings and tenures, but some questions and measures may lose their relevance in different settings.
- *Focusing on particular sub-groups of women:* "Different kinds of women" – for example, female heads of household, widows, or wives of male heads – have different asset rights.

Case Study 13. *In Her Name* project: Measuring the gender asset gap in Ecuador, Ghana and India

Countries: Ecuador, Ghana and India

Year(s) of project/ study: 2008-2011

Contacts: Cheryl Doss (cheryl.doss@yale.edu) and (Caren Grown: cgrown@usaid.gov) for the comparative work; Carmen Diana Deere (deere@LATAM.UFL.EDU) for the Ecuador study; Hema Swaminathan (hema.swaminathan@iimb.ernet) for the India study; Abena Oduro (aoduro@ug.edu.gh) for the Ghana study

Background: *In Her Name* is a collaborative research study of the Centre of Public Policy (CPP) at the Indian Institute of Management Bangalore (IIMB), University of Ghana, American University, Yale University, University of Florida and the Latin American Faculty of Social Sciences (FLACSO), Ecuador. The project is collecting and analyzing individual level asset data in Ghana, India, and Ecuador to create a measure of the gender asset and gender wealth gaps. Initial funding for this project has been provided by the Dutch Ministry of Foreign Affairs under the MDG3 Fund.

Methodology: The study included two phases: qualitative field work and quantitative household assets survey.

- In the qualitative phase, focus group discussions were complemented by interviews with key informants and a compilation of the secondary literature. The focus groups focused on four themes: the accumulation of assets over the life cycle; the importance of assets; the market for assets; and household decision-making over asset acquisition and use. The qualitative work provided the basis for developing survey questionnaires that were both adapted to each country situation but also facilitated comparisons across countries.
- The quantitative phase of the study involved collecting nationally representative data in Ghana and Ecuador and data representative of the state of Karnataka, India. A household inventory asked about the ownership of all tangible assets including housing, agricultural land, livestock, agricultural implements, non-farm economic activities and associated assets, and consumer durables. Respondents were asked to identify individual and joint owners of all of these assets owned by anyone in the household. In addition, individual level questions were asked about financial assets, awareness of inheritance laws, recent shocks and coping strategies and decision-making. These questions were asked of two people, often the principal couple, within the household.

Findings: Initial calculations of the gender asset and gender wealth gaps are presented in the three country reports. One important contribution is to present the data on whether assets are owned individually by men or by women or owned jointly by a couple or jointly by others. These patterns of form of ownership and the gender asset and gender wealth gaps all differ across countries and by type of asset within countries. The gender gaps are much smaller in Ecuador which has a marital regime of partial community property whereby assets acquired within marriage belong to both the husband and wife; Ghana and India, by contrast, are characterized by separation of property as the legal, default regime.

For more information:

Project documents, including the survey instruments, papers based on the qualitative work and the country reports, are available at: <http://www.genderassetgap.org/>

Feedback on case study methodology based on interviews with the project leaders:

1. What are the unique gender-asset questions/indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?

We asked about individual level ownership of all physical assets owned by anyone within the household and the financial assets owned by the principal respondents. We strongly recommend that all surveys concerned with household asset ownership ask specifically which household members own the asset. For assets such as land and housing, for which there may be ownership documents, we recommend asking whose names are on the documents. We also asked about the mode of acquisition of each asset which allows for analysis of the gendered patterns of acquisition. Most novel, is that we have been able to estimate both individual-level and household wealth, something rarely attempted.

2. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?

We interviewed an adult man and woman within each household that had a principal couple. In certain circumstances (such as where multi-generational or polygamous households are common), it might be appropriate to interview more people within the household to get the most accurate measure of household wealth; we could not do so due to time and budget constraints. We collected ownership and valuation information on all farm animals and agricultural equipment and most consumer durables; this was very time consuming and not yet clear whether it was worth the effort.

3. Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?

We collected detailed information on marital and inheritance regimes in all three countries. This is critical for understanding and interpreting the quantitative data.

4. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected and which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?

The three countries were very different. The survey methodologies were adapted to each context. In Ecuador, for example, it was felt that the most accurate measures of valuation would come from interviewing the principal couple together whenever possible, since they could discuss their estimates (and share their respective knowledge of market conditions) before coming to a conclusion.

5. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

It is challenging to collect data that is both relevant and appropriate to the local context while also comparable across countries. We have proposed measures of the gender asset and gender wealth gaps that can be compared across countries, but more nuanced country-specific analyses are also important. Collecting data on the value of assets to calculate gender wealth gaps is also challenging. Please note that we are currently compiling a document, *Lessons from the Field* (forthcoming) that discusses the strengths and challenges of our methodology. (Update: this document is now available at: <http://www.genderassetgap.org/sites/default/files/Lessons%20from%20the%20Field.pdf>)

Case Study 14. UNU-WIDER: The Gendered Nature of Asset Accumulation in Urban Contexts: Longitudinal Results from Guayaquil, Ecuador

Country: Ecuador

Year(s) of project/ study: 1978-2004

Contact(s): Caroline Moser (caroline.moser@manchester.ac.uk); Andrew Felton (Andrew.J.Felton@frb.gov)

Background: The study examines the gendered nature of asset accumulation between 1978 and 2004 in Indio Guayas, a low-income community on the periphery of the city of Guayaquil, Ecuador. In so doing, it emphasizes both the importance of combining quantitative and qualitative intra-household data, as well as taking a longitudinal perspective rather than at a single point in time. This study seeks to examine the relationship not only between gender and urban income poverty but also, more importantly, between gender and urban asset accumulation, illustrating how the combination of quantitative econometric measurement of assets and qualitative in-depth anthropological findings on the complex underlying gender relations both contribute to a far more comprehensive analysis of asset accumulation processes in urban contexts than can be gained from any single methodological approach.

Methodology: The research methodology combined fieldwork (based on anthropological participant observation), with a longitudinal sociological survey. At the data analysis stage, the study further elaborated on the cross-disciplinary combined 'qual-quant' methodology and developed what is termed 'narrative econometrics'. This combines the econometric measurement of changes in asset accumulation derived from the sociological panel data surveys, with in-depth anthropological narratives. The project also constructed an 'Asset Index' to measure asset accumulation, see study by Moser and Felton (2007).

Findings: The central finding of the study is that female-headed households actually do better than male-headed households in terms of income poverty, but worse in terms of asset accumulation. These results point to the limitations of simple generalizations relating to female headship and poverty. They show the importance of longitudinal data that better reflect different stages in the lifecycle. The fact that the qualitative anthropological narrative provides the causal explanation as to why income poverty and asset accumulation are not necessarily entirely interrelated demonstrates the advantages of research that adopts a mixed methods approach.

For more information:

Moser, Caroline. 2009. Ordinary families, extraordinary lives: Assets and poverty reduction in Guayaquil 1978-2004. Washington DC, Brookings Press. Available at: <http://www.brookings.edu/press/Books/2009/ordinaryfamiliesextraordinarylives.aspx>

Moser, Caroline, and Andrew Felton. 2010. The gendered nature of asset accumulation in urban contexts: Longitudinal results from Guayaquil, Ecuador. Working Paper No. 2010/17, UNU World Institute for Development Economics Research (UNU-WIDER). Available at: <http://www.wider.unu.edu/stc/repec/pdfs/wp2010/wp2010-17.pdf>

Moser, Caroline, and Andrew Felton. 2007. The construction of an asset index: Measuring asset accumulation in Ecuador. CPRC Working Paper 87. Washington DC: Brookings Institution. Available at: http://www.dfid.gov.uk/r4d/PDF/Outputs/ChronicPoverty_RC/87Moser_Felton.pdf

Feedback on case study methodology based on interviews with Caroline Moser and Andrew Felton:

- 1. What are the unique gender-asset questions/indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?**

The asset index we developed was based on human, social, physical and financial/productive capital but with important asset index categories. Probably the most important was the differentiation between household and community social capital.

- 2. Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?**

The importance of community social capital in the early days of the community consolidation was linked to the lack of infrastructure, etc. As this was acquired so community social capital declined, while the shift to a neo-liberal privatized economy meant household social capital became stronger.

- 3. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected and which are important for other researchers to be aware of? Did any of these context- or country-specific factors influence your survey implementation methodology, and how?**

This was an urban study – hence the importance of housing as the first most important asset.

- 4. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?**

The critical methodological issue in my work has been the combination of the quantitative asset index with in-depth qualitative data obtained by living as an anthropologist in the community for over 30 years, hence the construction of ‘narrative econometrics’. I did not set out to look at gender-assets but at household assets – this is a critical difference. Therefore the data when cut from a gender perspective was obviously more limited than had it been a specific gender-asset study. On the other hand the qualitative data was largely constructed around the lives of five women – and their first and second generation families. Finally an important difference from most studies is it has a 30 year longitudinal perspective and so is able to provide interpretations more difficult in ‘snap-shots’ done at specific points in time.

Case Study 15. Food and Agriculture Organization (FAO): Agri-Statistics Toolkit

Countries: Sub-Saharan Africa

Year(s) of project/ study: 1993 – 2006

Contact: Diana Tempelman (Diana.Tempelman@fao.org)

Background: This toolkit was developed by the Food and Agriculture Organization of the United Nations (FAO) in support of enhanced production and use of sex-disaggregated agricultural data. It presents examples of gender relevant questions and tables jointly developed by national statisticians and FAO for agricultural censuses undertaken in Africa between 1993 and 2006. Statistics producers and users alike called for the development of such a tool to improve the production of reliable sex-disaggregated agricultural data needed for gender specific targeted policy formulation and planning of agricultural and rural development. The toolkit has been developed in line with the framework of the 2010 round of the World Programme for the Census of Agriculture. It is designed for a wide range of users involved in development planning, ranging from agricultural statisticians and researchers to policy planners and gender advocates.

Methodology: The methodology described in the toolkit was developed over two decades of research and direct work on census surveys in numerous countries in Africa. The first edition of the toolkit includes examples of gender-relevant questions and table formats used in agricultural censuses in fifteen African countries between 1993 and 2006. It covers topics such as agricultural population and households, access to resources, production and productivity, labor and time use, the destination of agricultural produce, income and expenditures, membership in farmer organizations and some indicators for food security and poverty. The toolkit consists of two sections. *Section 1* highlights examples of gender-sensitive questions and questionnaire components obtained from agricultural censuses. Most questions relate to subsistence and commercial farming activities carried out on small-scale agricultural production units rather than purely commercial activities performed on large-scale agricultural production units, as small-scale agricultural production units are predominant in most African countries. *Section 2* contains examples of tables that can be prepared with the data collected through the questions and questionnaire components presented in section 1 of the toolkit. Each table provides sex-specific information expanding the more classical presentation of agricultural census data with valuable information on the socio-economic position of men and women farmers. The format of the tables allows for data presentation at national and sub-national level as any gender disparities usually show better in data presented at lower levels of aggregation.

Findings: The toolkit is currently being used by statistics teams in Senegal and Togo, preparing their next agricultural census and is used by the statisticians in Lesotho assisting them in analyzing data their census collected recently.

For more information:

FAO Agri-Gender Statistics Toolkit: <http://www.fao.org/gender/agrigender/en>

The examples of gender relevant questionnaires included in the database have been obtained from agricultural censuses conducted in the following countries: Benin (forthcoming), Botswana (1993), Burkina Faso (1993), Côte d'Ivoire (2000/2001), Ethiopia (2001/2002), The Gambia (2001), Guinea (2000/2001), Mali (1999/2000), Mauritania (2003/2004), Niger (2004 – 2006), Senegal (1998/1999), Tanzania (2002/2003), Togo (1996), Tunisia (1995) and Uganda (2003), are available at <http://www.fao.org/gender/agrigender/agri-gender-toolkit/the-data-base/en/>.

Feedback on methodology based on an interview with Diana Tempelman:

1. What are the unique gender-asset questions/indicators you collected in your survey instrument that were particularly valuable or reflective of methodologies you would like to see replicated in future work and why?

Most important is the use of the *sub-holder* concept, distinguishing the holder (usually the head of the household) from other active family members (sub-holders) that operate a part of the farm in their own right. To allow for intra-household gender analysis it is critical that a direct link is kept between the questionnaire section on household demographics and the separate plots cultivated or animals owned.

2. What are the unique gender-asset questions/indicators you either collected in your survey instrument that you would have implemented differently or you were not able to collect, but which you would have liked to collect and why?

The following aspects would benefit from more specific questions:

- The use of family labor by sex AND age (to find out about child labor)
 - The destination of the produce: home consumption/ seeds/ animal feed/ sale
 - Few countries collect data on credit availability and use by active household member
 - Few countries collect data on membership of farmer organizations and the benefits derived from that
 - Few countries collect data on availability of extension services and the content of the services provided by active household member
 - Few countries collect data on the general food security situation of the household
- 3. Asset-gender dynamics are heterogeneous, complex and rooted in social, economic and institutional factors—are there any background factors that relate strongly to gender-asset dynamics that you either collected or wish you had collected?**

Most countries that provided examples for the toolkit collected data on landownership/sex and origin. Only a few countries indicated the sex of the owners of the different farm animals. Little information is available on access to other farm tools, family labor and services like market information, financial services and other assets.

4. Are there any particularities about the region or country of implementation which you think are important to recognize in relation to the gender-asset indicators you collected and which are important for other researchers to be aware of?

Men and women in African farm households often keep separate budgets and have gender specific family responsibilities. The head of the farm household may provide seeds, fertilizer and pesticides to the other active house-

hold members (who are sub-holders when farming in their own right) or may not. The sub-holders may not always have control over the use of the produce they generate. It is important to relate access to assets with control over the outputs and compare these two with the gender – specific household budget responsibilities to get a meaningful picture of the data collected on gender-assets.

5. Did any of these context- or country-specific factors influence your survey implementation methodology, and how?

I am not aware of any incidents related to male enumerators interviewing female respondents, though a few incidents of this nature may have occurred in selected situations. What is more important is that agricultural census manuals recommend that the Head of the Household is the sole respondent to the census questionnaire. This may have an impact on the viability of the responses concerning assets of and work undertaken by the other sub-holders of the holding.

6. What do you see as the largest methodological challenges in collecting gender-asset data in general and how can we as a research community work towards filling this gap?

Other than the areas mentioned under question 2 and 4, the challenge at this stage is not so much in the collection of gender specific data but more in promoting the USE of such data in policy analysis, planning, implementation, monitoring and evaluation. The work of the research community is critical in this regard, as well-researched case studies, using census or survey data in substantiating “gender-findings” will help planners to understand and see the relevance of the use of this kind of data. Improved statistics user – producers collaborations and in particular feedback from the data users (researchers, activists or planners) on the usefulness (or not) of the gender specific data collected, will go a long way in keeping statisticians enthusiastic and open to continue collecting gender specific data in regular census and surveys.

REFERENCES

- Behrman, J. 1997. "Intrahousehold distribution and the family" In *Handbook of Population and Family Economics*, In Rosenzweig, M. and O. Stark (eds.) Amsterdam: North-Holland.
- Duflo, E., R. Glennerster, and M. Kremer. 2008. Using randomization in development economics research: A toolkit. In *Handbook of Development Economics*, Vol. 4, ed. by T. Paul Schultz and John A Strauss. Amsterdam: North-Holland.
- Frankenberg, E., and D. Thomas. 2001. *Measuring power*. Food Consumption and Nutrition Division Discussion Paper No.113. Washington, D.C.: International Food Policy Research Institute.
- Goody, Jack (1973) *Bridewealth and Dowry in Africa and Eurasia* in *Bridewealth and Dowry*, ed. J. Goody and S. Tambiah. Cambridge: Cambridge University Press
- Haddad, L., Hoddinott, J. and H. Alderman (eds). 1997. *Intrahousehold Resource Allocation: Methods, Models, and Policy*, Baltimore, MD: The Johns Hopkins University Press for IFPRI.
- Hallman, K. 2000 "Mother–father resource control, marriage payments, and girl–boy health in rural Bangladesh" Food Consumption and Nutrition Division Discussion Paper 93. Washington, DC: IFPRI.
- Hausmann, R., Tyson, L. and S. Zahidi. 2009. *The Global Gender Gap Report 2009*. Geneva: World Economic Forum Available at: <http://www.weforum.org/reports/global-gender-gap-report-2009>
- Johnson, N. and A.R. Quisumbing. 2009. "Data needs for measuring impacts on women's assets and asset disparities." Powerpoint presentation from the Inception workshop of the Gender, Agriculture and Assets Project. November 2009, Nairobi Kenya.
- Klasen, S. and F. Lamanna. 2008. "The Impact of Gender Inequality in Education and Employment on Economic Growth in Developing Countries: Updates and Extensions" IAI Discussion Paper No. 175. Gottingen, Germany: Georg-August-Universität Göttingen. Available at: <http://www2.vwl.wiso.uni-goettingen.de/ibero/papers/DB175.pdf>
- Njuki, J. 2009. "Qualitative methods for monitoring, evaluation & impact assessment." Powerpoint presentation from the Inception workshop of the Gender, Agriculture and Assets Project. November 2009, Nairobi Kenya.
- Quisumbing, A.R. (ed.) 2003. *Household Decisions, Gender, and Development: A Synthesis of Recent Research*. Washington, DC: IFPRI.
- Quisumbing, A. R. 2006. No Cookie-Cutter Approaches: Designing a Household Survey on Gender Issues "from Scratch" Presentation sponsored by the IFPRI Gender Task Force, 2006.
- Quisumbing, A.R. and J. Maluccio. 2003. "Resources at marriage and intrahousehold allocation: Evidence from Bangladesh, Ethiopia, Indonesia, and South Africa" *Oxford Bulletin of Economics and Statistics* 65(3): 283-328.
- Quisumbing, A.R. 2010. "Evaluating the Impact of Agricultural Development Programming on Gender Inequalities, Asset Disparities and Rural Livelihoods: Overview of the Initiative." Presentation from Inception Workshop. November 2010: Nairobi, Kenya.
- Ravallion, M. 2008. Evaluating anti-poverty programs, In *Handbook of Development Economics*, Vol. 4, ed. by T. Paul Schultz and John A Strauss. Amsterdam: North-Holland.

Skoufias, E. 2005. PROGRESA and its impacts on the welfare of rural households in Mexico. IFPRI Research Report 139. Washington, DC: IFPRI.

Smith, L. *et al.* 2003. *The Importance of Women's Status for Child Nutrition in Developing Countries*. IFPRI Research Report 131. Washington, D.C.: IFPRI.

Smith, L.C. and L. Haddad. 2000. Explaining child malnutrition in developing countries: A cross-country analysis. *Research Report 111*. Washington, DC: IFPRI.

Todd, P. 2008. Evaluating social programs with endogenous program placement and selection of the treated. In *Handbook of Development Economics*, Vol. 4, ed. by T. Paul Schultz and John A Strauss. Amsterdam: North-Holland.

World Bank. 2001. *Engendering Development: Through Gender Equality in Rights, Resources, and Voice*. Washington, D.C.: World Bank.

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

2033 K Street, NW • Washington, DC 20006-1002
USA

T +1 (202) 862-5600 • F +1 (202) 467-4439

Skype: ifprihomeoffice • ifpri@cgiar.org

INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE

TOOLKIT EDITORS

Julia Behrman, Research Analyst, The International Food Policy Research Institute, **Zhenya Karelina**, Research Assistant, The International Food Policy Research Institute, **Amber Peterman**, Research Fellow, the International Food Policy Research Institute, **Shalini Roy**, Postdoctoral Research Fellow, The International Food Policy Research Institute, **Amelia Goh**, MSc Candidate, The University of Maryland, **Chiara Kovarik**, Senior Research Assistant, The International Food Policy Research Institute, **Kathryn Sproule**, Senior Research Assistant, The International Food Policy Research Institute.

Disclaimer style For more information about GAAP, please visit <http://gaap.ifpri.info/>

Copyright © 2012 International Food Policy Research Institute. All rights reserved. To obtain permission to republish, contact ifpri-copyright@cgiar.org.

This toolkit has been prepared as an output for GAAP (led by IFPRI and ILRI) and has not been peer reviewed. Any opinions stated herein are those of the author(s) and do not necessarily reflect the policies or opinions of IFPRI, ILRI, its partners, donors or collaborators, or of the cosponsoring or supporting organizations.