

GENDER EQUALITY AND WOMEN'S EMPOWERMENT IN RURAL PAKISTAN

Nuzhat Ahmad, Madeeha Hameed, Huma Khan, and Sara Rafi

Introduction

Social and economic welfare in rural Pakistan is keenly shaped by issues that relate directly to the role and status of women. While gender relations in rural Pakistan are influenced by a wide range of cultural, individual, and household characteristics that are often viewed as immovable barriers to change, there is increasing awareness that underinvestment in women restricts economic growth and poverty reduction (Ghuman, Lee, and Smith 2004; Ankerbo and Hoyda 2003; Mason and Smith 2003; Jejeebhoy 2002; Jejeebhoy and Sathar 2001; World Bank 2010; UN 2009).

This relationship between gender equality, poverty, and development is evident in industrialized and developing countries alike. Countries with higher levels of gender equality tend to have a lower incidence of poverty and rank higher on the United Nations' (UN's) Human Development Index (World Bank 2007). Through several clear pathways, improvements in the status of women and improvements in gender equality can contribute dramatically to better social and economic outcomes. First, changes in gender relations and norms that encourage a greater number of women to earn income can contribute to increasing household expenditures and consumption, thereby providing greater ability to withstand negative shocks. Second, increases in gender equality can foster changes in the allocation of household expenditures, potentially leading to a larger share of resources devoted to children's education and health in situations where women have greater decision making power over the use of individual or household incomes. Finally, improvements in gender equality can influence the distribution of household labor, assignment of tasks and chores, and decisions on reproductive choices, which can in turn improve the efficiency of time and resources allocations within the household. Outside the household, greater gender equality can improve women's access to other productive resources such as land, credit, inputs, and

labor markets, as well as technologies that contribute to increases in income in household, agriculture, and nonfarm rural activities.

The body of evidence describing these various pathways is extensive. Studies from developing countries show that when women have greater control over resources, more resources are allocated to food, children's health, and nutrition (Hoddinott and Haddad 1995; Duflo and Udry 2004). In particular, when mothers are the main caregivers in the household, improvements in their control over resources can influence child nutrition directly through better care practices and through improvement in the mothers' own nutrition (Bhagowalia et al. 2012; Thomas and Strauss 1992; Galloway and Anderson 1994). The quality of care that women receive is also associated with children's birth weights and the quality of care the children receive in the household (Haddad et al. 1997; Engle et al. 1999; Kishor 2000). Programs that are designed to increase resources in the hands of women have a positive effect on women's earnings and decision-making ability and children's nutritional and educational outcomes (Quisumbing 2003).

Empirical evidence from multiple countries further attests to the fact that improvements in household food security are often attributable to improvements in the status of women. For example, Smith et al. (2003) find that the malnutrition costs of inequality in the status of women and men in South Asia are high:¹ if women's and men's status were equal, the percentage of underweight children under three years of age would decrease by approximately 13 percent. Similarly, Smith and Haddad (2000) find that the educational advancement of women alone can explain 43 percent of the reduction of child malnutrition in developing countries during the period 1970–1995, with an additional 12 percent of the reduction being attributable to improvements in the status of women relative to men.

Despite this evidence, investment in women in many developing countries is low. Even though studies show that the returns on investments in women's education are in general higher than those in men's education (Psacharopoulos 1994), women have lower rates of completion of secondary and higher levels of education (UN 2009). The UN estimated that 60 percent of the malnourished people in the world were women in 2007 (UN Economic and Social Council 2007). Research also shows that women are far less likely to own income-generating assets such as land, housing, agricultural

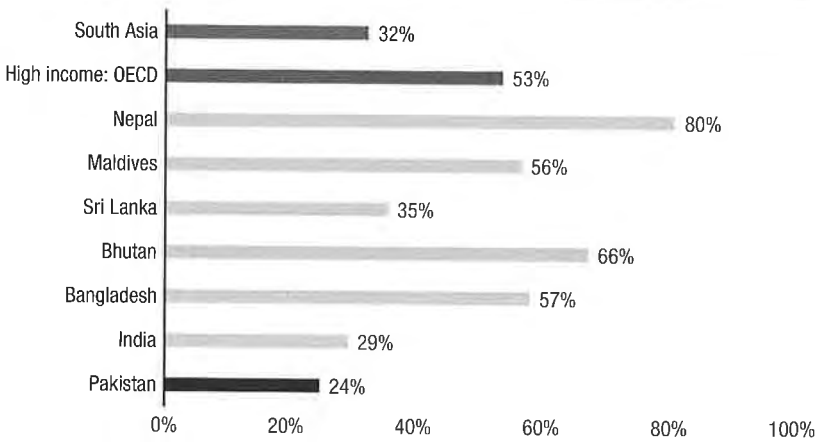
1 Smith et al. (2003) specifically define women's status as "women's status relative to men in the households, communities and nations in which they live." The definition incorporates both gender equality and the concept of power (the ability to make choices) where power is exercised through decision making.

equipment, large livestock, and formal savings (Deere and Doss 2006). Similarly, men are nearly twice as likely as women to have full-time jobs, and in South Asia they are more than three times as likely (World Bank 2014). The trend in the context of South Asia is particularly grave, because not only is the labor force participation of women exceptionally low, but almost 84 percent of female employment is considered to be “vulnerable employment,” that is, unpaid employment, family workers, and self-employed workers.

Comparable figures to Pakistan's are even more revealing. Pakistan's female labor force participation rate of 24 percent is the lowest in South Asia, far lower than the regional average of 32 percent (Figure 10.1). The wage gap between men and women is 39 percent, and it is over 50 percent in agriculture, forestry, and fishing (GoP 2013). Because women make up a large share of the rural labor force, the number of women who are caught in this wage gap is significant. Women make up almost 39 percent of the total labor force in agricultural employment, compared to just 10 percent in nonagricultural employment. Approximately 75 percent of total female employment in the country depends on agriculture, and 84 percent of women employed in Pakistan are in rural areas (Table 10.1) (GoP 2013).

It is thus not surprising that the health and nutrition indicators for women in Pakistan are dismal. The National Nutrition Survey reveals that over 40 percent of women in Pakistan are deficient in one or more main micro-nutrients, such as iodine, vitamin A, vitamin D, zinc, and calcium. In rural areas, nutritional deficiencies are even higher than in urban areas, especially among pregnant women. In rural areas, 28 percent of women were considered clinically anemic in 2011. That same year, 51 percent of pregnant women in rural areas were deficient in hemoglobin, 52 percent of women were deficient in vitamin A, 57 percent were deficient in calcium, and 66 percent were deficient in vitamin D (Pakistan, Planning Commission 2011). According to the Pakistan Demographic and Health Survey in 2012/2013, only around 35 percent of currently married women are using some method of contraception (NIPS 2013).

Statistics comparing men and women also reveal a gender gap in Pakistan. Compared to men, women have lower wages and health status and lower rates of labor force participation, literacy, political participation, and household headship (Table 10.2). In rural areas, the gender gap is even wider. For instance, the female to male ratio in literacy rates (10 years old and over) in rural areas is as low as 0.57. Recognizing the pronounced gender gap in Pakistan, the World Economic Forum ranked Pakistan as 135th among 136 countries in its 2013 Gender Gap Index (WEF 2013). Some of these

FIGURE 10.1 Estimates of female labor force participation rates in selected countries, 2012

Source: World Development Indicators (World Bank 2012).

Note: Rates are percentages of female participation, based on modeled International Labor Organization estimates. OECD = Organization for Economic Co-operation and Development.

TABLE 10.1 Levels of employment by sector, by gender, and by rural and urban areas (%), 2012/2013

Sector of employment	All areas			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Agriculture	43.7	26.8	16.9	41.9	25.7	16.1	1.8	1.0	0.8
Nonagriculture	56.3	50.9	5.4	28.0	25.3	2.7	28.3	25.6	2.7
Overall employment	100.0	77.7	22.4	69.9	51.0	18.9	30.1	26.6	3.5

Source: GoP (2013).

Note: Percentages do not always add up to given totals because of rounding.

figures have been presented in Chapter 8, but they are worth repeating to put a finer point on the challenges facing women in rural Pakistan and to broadly frame this chapter's exploration of gender equality, women's empowerment, and women's well-being in rural Pakistan.

This chapter explores issues of gender equality and women's empowerment in Pakistan, with an emphasis on the country's rural population. In particular, the chapter examines multiple indicators of empowerment and analyzes the relative influence of men and women over key decisions such as those regarding production activities, household expenditures, reproductive choices, and the education of children, especially daughters.

TABLE 10.2 Gender gaps in Pakistan, selected years

Indicator	Female	Male	Female to male ratio
National labor force participation rate (2012/2013) ^a	22%	69%	0.32
Rural labor force participation rate (2012/2013) ^a	27%	70%	0.39
National average monthly wage, PKR (2012/2013) ^a	7,869	12,805	0.62
Rural average monthly wage, PKR (2012/2013) ^a	5,789	11,074	0.52
National literacy rate (10 years and above) (2013/2014) ^b	47%	70%	0.67
Rural literacy rate (10 years and above) (2013/2014) ^b	36%	63%	0.57
National rate of sickness/injury (2013/2014) ^b	8%	7%	1.23
Rural rate of sickness/injury ^b	8%	6%	1.23
Life expectancy at birth (2013) ^c	68	66	1.03
Seats held in the parliament (2014) ^c	21%	79%	0.27
Household headship (2012) ^c	11%	89%	0.12

Source:

^a Labor force participation rate and average monthly wages, GoP 2013a.

^b GoP 2013c.

^c World Development Indicators (World Bank 2012, 2013, 2014).

Note: PKR = Pakistani rupees. Rate of sickness/injury is the percentage population that reported falling sick or being injured during the past two weeks in the Pakistan Social and Living Measurement Survey 2012–2013 (GoP 2013c).

The chapter proceeds as follows. The second section defines the basic terminology on gender equality and women's empowerment that is used throughout this chapter and examines prior work on women's empowerment in Pakistan. The third section maps out elements of the policy landscape associated with women's empowerment initiatives in the country. The fourth section presents a measure of women's empowerment in Pakistan and analyzes its correlates, followed by a section on analysis of empowerment parity and gaps between men and women within the same household. The last section concludes with a discussion of policy implications.

Defining Women's Empowerment

This section clarifies both the gender-related terminology used throughout the chapter and indicators used to define and measure aspects of these terms and terminology, with particular reference to prior work conducted in Pakistan. We begin with several basic definitions.

The World Health Organization describes *gender* as “a dynamic concept, which looks at the interrelationship between men and women in the context of their society and roles in that society” (WHO 2001). Throughout this chapter, the word *gender* is used to describe the roles, responsibilities, and

relationships between men and women within a household, a community, or in society more generally. This usage is distinct from the word *sex* which merely refers to biological characteristics that define humans as females or males (WHO 2001). Therefore, gender equality in this chapter refers to equality of rights, responsibilities, and opportunities for both men and women. The term *women's status* is used more broadly throughout the chapter as a multidimensional term that describes conditions such as a woman's well-being, autonomy, power, authority, valuation, or position in society. Women's status may be self-perceived or may be characterized by others, and may be considered in an absolute sense and relative to men's status (Mason 1986, 1993; Sen and Batliwala 2000; Pasternak, Ember, and Ember 1997; Smith et al. 2003).

The word *empowerment* is more challenging to define in the current context. Sen (1999) broadly defines *empowerment* as "an expansion in an individual's agency that is, expansion in one's ability to act and bring about change." Also, Bertelsen, and Holland (2006) describe *empowerment* as "a group's or individual's capacity to make purposive choices, and to transform those choices into desired actions and outcomes." Narayan (2002, 2005) defines *empowerment* as "the expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lives."

But narrowing these definitions down to specifically describe women's empowerment requires further consideration. Ibrahim and Alkire (2007) offer a comprehensive review of the literature on the question, but some definitions of women's empowerment can be considered here. Kabeer (1999), for example, does so with a three-dimensional conceptual framework highlighting "resources as part of the preconditions of empowerment; agency as an aspect of process; and achievements as a measure of outcomes." Kishor (2000) defines it in terms of how much women control key aspects of their lives in relation to resources, self-reliance, decision making, and choice. Kabeer (1999) also sees empowerment in terms of its opposite, that is, disempowerment, and refers to *empowerment* as "the process by which those who have been denied ability to make choices acquire such an ability." Malhotra et al. (2002) also define *empowerment* as a "dynamic process separating the process into components such as enabling factors, agency and outcomes." Drawing upon these various definitions for the purposes of this chapter, we define *empowerment* in its most general terms as "access to and control over both resources and agency." The word *resources* includes assets, income, savings, and time, and in the context of rural households, it can be expanded to include productive factors such as agricultural inputs.

We further define the notion of access and control in terms of an individual's ability to make decisions or have influence on decision making, which in the context of women's empowerment may refer to individual decisions relating to marriage, fertility and contraceptive use, income generation and employment, the allocation of household or individual incomes, or mobility. Mobility in agency refers to the ability of an individual to be free or autonomous within a personal sphere (for example, socializing with neighbors, visiting a hospital, or attending weddings) as well as in the public domain and outside the boundaries of a community (for example, attending public meetings, visiting markets to sell produce, or conducting transactions in a bank or government office).

With these definitions in mind, we turn our attention to the challenge of defining indicators and measuring key aspects of these terms. While there is evidence that women's empowerment in Pakistan, as in many other developing countries, is severely limited, it is often difficult to measure the nature and extent of these limitations and their correlations with alternative measures of well-being, much less the underlying causal relationships.

Empowerment Indicators and Evidence from Pakistan

Past research has explored a wide variety of indicators that are used to measure empowerment, and recent studies on women's empowerment have extended this to develop a multidimensional concept of empowerment (Mason and Smith 2003; Kishor and Gupta 2004; Ibrahim and Alkire 2007). For example, Kabeer (1999) highlights the indicators used by a number of studies to measure women's empowerment and shows that the most useful indicators of empowerment are family structure, marital status, financial autonomy, freedom of movement, and lifetime experience of employment in the modern sector. Malhotra et al. (2002) highlight that the most commonly used indicators of empowerment in empirical research include domestic decision making, finance and resource allocation, social and domestic matters (for example, cooking), access to and control over resources (household income, assets, unearned income, participation in paid employment, welfare receipts) and mobility/freedom of movement.

Decision making with respect to different aspects of life is probably one of the most common indicators used to capture power relations, particularly as reflected in the allocation or division of gender roles within the household. Different indicators include, for example, participation in domestic decision

making on education of children; reproduction; and control over income, assets, and other resources (Alsop, Bertelsen, and Holland 2006; Malhotra and Schuler 2005; Kishor 2000; Mayoux 2000; Jejeebhoy 1995; Schuler and Hashemi 1994). In their study of five countries, including Pakistan, Mason and Smith (2003) use women's control over income as their indicator of empowerment. However, in households where women do not earn income or face limits on accessing information about income earned by other household members, there are obvious limits to the utility of this measure. More analytical insight can therefore be gained when several income indicators are combined.

Another useful indicator is control over decision making on land, a particularly relevant measure for households and communities engaged in agricultural production. For example, Mason (1998) shows that land ownership in Pakistan is associated with greater economic empowerment, a finding that is consistent with theoretical and empirical work done in other countries by Allendorf (2007) and Mutangadura (2004), among others. Control over or access to other assets, such as finance and credit, is also a useful indicator of women's empowerment, as demonstrated by numerous studies on microfinance programs in developing countries (see, for example, Mitra and Kundu 2012).

Reproductive choice is another key indicator of women's empowerment, particularly women's autonomy in decision making regarding contraceptive use (Khan and Awan 2011; Jejeebhoy and Sathar 2001; Sathar and Kazi 2000; Winkvist and Akhtar 2000). Several studies of women's autonomy with respect to contraceptive use highlight the importance of a woman's educational status (Jejeebhoy 1995; Saleem and Bobak 2005), while others suggest that mothers-in-law often have considerable influence over such decisions when they are made by young couples in the family (Sultana, Nazli, and Malik 1994).

Freedom of movement is yet another useful indicator. Mobility can provide women with increased access to a variety of opportunities and resources, but access to social and economic development—education, labor market participation, and entrepreneurship—is often constrained by social and cultural limits on women's mobility (Malhotra, Schuler, and Boender 2002). Strong social norms and patriarchal structures that exclude women from participating in the public sphere also limit participation in the economy and override any legal protections that the law may offer. In their study of five Asian countries, Mason and Smith (2003) include women's freedom of movement (that is, their ability to visit local markets, health centers, or fields outside their

village without obtaining permission from other family members) in their analysis. They demonstrate that women's empowerment is strongly influenced by social context and institutions rather than women's personal characteristics. Sathar and Kazi (2000) also use mobility as an indicator in their analysis. They find regional differences in mobility across rural Pakistan, with women in northern Punjab having greater mobility than those in southern Punjab.

Time burden also signifies women's lack of empowerment. Double time burden is used to describe the workload of men and women who have to work to earn money and also have the responsibilities of unpaid household tasks (cooking, cleaning, caring for others, fetching water and fuelwood). Domestic work and care responsibilities fall predominantly on women, especially in the rural areas of developing countries, reducing their ability to engage in other, remunerated, activities. Further, a woman's time burden in performing domestic and other activities is therefore often examined as an indicator of women's empowerment. This includes both agricultural activities that are specifically allocated to women such as seed cleaning, planting, weeding, and livestock-related activities in addition to childcare, meal preparation, cleaning, and other household tasks (Prakash 2003; Tibbo et al. 2009; Khan 2008; Jamali 2009).

Finally, a woman's position in the household is closely related to her level of empowerment. These intrahousehold relationships can be measured by a woman's age in absolute terms or in relation to her spouse or other primary household members, whether she has borne sons, and whether she is part of a large, extended household—what is known as a joint family structure. For example, Alkire et al. (2012) in their study of Bangladesh find a larger percentage of women ages 26–55 being empowered compared to younger and older women. Khan and Awan (2011) find similar results for Pakistan, where women ages 40–44 have greater economic decision-making power than younger women. Arguing that significant age and education differentials between husband and wife are likely to indicate less empowerment. Kishor and Gupta (2004) measure the age difference between the male head of household and his wife in their study of female empowerment in India; their analysis shows that large differentials in age and education continue to persist in India. Quisumbing and Maluccio (2003) use a collective household model to examine allocation of resources and bargaining power between a husband and wife, as measured by assets at the time of marriage, and find that in Bangladesh and South Africa increases in a wife's bargaining power are closely associated with higher expenditure on education but not on food.

Behind these indicators and measurements is a growing—but still nascent—body of evidence that draws a link between the status of women in Pakistan and their education, health, and nutritional outcomes. For example, a study conducted in rural Pakistan by Alderman and Garcia (1996) shows that where mothers receive even a primary school education, the incidence of undernourishment in children is reduced by almost one-half. Furthermore, programs designed to improve the status of mothers in Pakistan are associated with improvements in nutrition among children, suggesting important causal relationships in some studies. Guha-Khasnobi and Hazarika (2006) find that less difference in level of education between the wife and the head of household, and less difference in the age of the wife and head of household, are significantly and negatively related to household expenditure on tobacco, adult clothing, and adult footwear. Hou (2011) finds that when women have greater decision-making power at home, budget shares shift toward their preferred goods such as children's clothing and children's education, while children, particularly girls, are more likely to be enrolled in schools. Furthermore, Hou (2011) finds evidence that when women have greater decision-making power, their families eat more nongrain food items and derive calories from more nutritious foods such as fruits and vegetables.

Policy Landscape

Clearly, the studies discussed above demonstrate the importance of enhancing gender equality and women's empowerment in social and economic development. The Government of Pakistan has pursued a range of policy initiatives to improve the status of women and address the issue of gender inequality. These initiatives, although often well intentioned, have met with limited success to date. This section reviews the policy landscape.

Internationally, Pakistan has signed on to the 1979 Convention on Elimination of all Forms of Discrimination against Women and the Beijing Declaration and Platform for Action. The Beijing Declaration highlights 12 critical areas of concern for gender equality and empowerment: women and the environment, women in power and decision making, the girl child, women and the economy, women and poverty, violence against women, human rights of women, education and training of women, institutional mechanisms for advancement of women, women and health, women and the media, and women and armed conflict. While in international agreements Pakistan has committed to providing protection to women in these areas, the domestic legal framework remains far from promulgating these commitments in their full spirit.

The government has pursued four major intervention areas to date: (1) reducing the feminization of poverty, (2) promoting gender equality, (3) ending violence against women, and (4) introducing legislation and changing legislative structures for women's empowerment. Here, we briefly highlight the policies focusing on empowerment of women.

The first major policy initiative was the National Plan of Action for Women in 1998, which mainly focused on education, health, economic empowerment, and other areas set forth in the Beijing Declaration. In 2000 the National Commission on the Status of Women was established as a watchdog to examine policies for improving women's status and rights and to report cases of discrimination against women. Two major initiatives followed: a National Policy for Development and Empowerment of Women in 2002, and mainstreaming of gender in the Pakistan Poverty Reduction Strategy in 2003. These policies focused on social, economic, and political empowerment and attempted to increase access to microcredit and livelihood improvement opportunities, particularly in the agricultural and livestock sectors. Another important initiative was quotas for women in government services and reserved seats in the parliament. Next, the Gender Reform Action Plan of 2004/2005 concentrated on enhancing public-sector employment for women. More recently, there has also been a focus on targeting women through safety nets by introducing programs such as the Benazir Income Support Program (see Aurat Foundation 2011). Vision 2025 (as described in earlier chapters) focuses on ending discrimination faced by women in Pakistan as part of its development strategy.

Despite these efforts to improve the socioeconomic status of women, one of the most regressive laws that directly affects the social status of women remains in effect in Pakistan: the Hudood Ordinances. The Hudood Ordinances, enacted in 1979, have historically provided the most controversial legal challenges for women's rights and gender equality in Pakistan. The laws were established shortly after General Zia ul-Haq's ascent to power in 1979, in an attempt to Islamize Pakistan's legal system and introduce a strict interpretation of Sharia law. The ordinances criminalized all forms of adultery and fornication and in doing so inadvertently codified inherent injustices against women.² The gender-discriminatory nature of these laws has served as a powerful weapon to subjugate women in an already patriarchal society.

In an effort to address some of the problems of the Hudood laws, the parliament passed a series of progressive laws during 2006–2015. Along the way,

2 For instance, the ordinances require four pious male Muslim witnesses to prove an allegation of rape, failing which the victim herself is punishable for adultery.

this legislation has encouraged a larger discussion within Pakistan on the importance of laws in supporting women's empowerment. For instance, in 2006 the parliament passed the Protection of Women Act to repeal some of the clauses of the highly criticized Hudood Ordinance. This Act served as a major milestone in establishing some protections for women in an otherwise oppressive legal landscape. The passage of the Protection of Women Act in 2006 paved the way for the introduction of new amendments to improve the social environment for women. In 2010, the Criminal Law (Amendment) Act was introduced, and for the first time sexual harassment was declared a crime, punishable by a sentence of up to three years along with a fine of PKR 5,000 (Pakistan, NCSW 2010a). In addition to this, Pakistan took an initial step toward creating a safe professional environment for women by introducing the Protection against Harassment of Women at Workplace Act in 2010, which detailed the code of conduct at work, including complaint mechanisms and penalties for harassment in the workplace (Pakistan, NCSW 2010b). Furthermore, in 2011 the Prevention of Anti-Women Practices Act was passed as an amendment to the Pakistan Penal Code to prohibit social practices such as forced marriages, marriage with the Quran, deprivation of a female of her inheritance, and the giving away of females in *vani* or *swara* (Pakistan, NCSW 2011a).³ In addition to this, the Criminal Law (Amendment) Act of 2011 addressed the issue of assault against women using corrosive substances such as acid, and introduced a penalty of life imprisonment and PKR 1 million for acid crimes (Pakistan, NCSW 2011b; USAID 2013).

These legal gains for women in Pakistan are encouraging. However, despite successive governments' efforts to address issues of empowerment, Pakistan is still a long way from eradicating gender-based discrimination. Pakistan is unlikely to meet four of the Millennium Development Goals on gender equality and empowerment by 2015: gender parity in primary education, gender parity in secondary education, youth literacy, and an increase in the share of women in wage employment (GoP 2013b). The country has done only slightly better in terms of the political empowerment of women by increased seats in legislative assemblies that are set aside for women only. And while policy changes have advanced in some areas, on-the-ground implementation

3 Marriage with the Quran usually prevails in cases where the family fears losing control of ancestral property by a daughter's or sister's inheritance. The woman memorizes the Holy Quran and takes an oath of marriage to it till death, ending any chances of marriage to any man for life. *Vani* and *swara* are practices of marrying young children, usually girls, to members of another clan/tribe to settle disputes.

record has often fallen short of any substantive transformation (Zia 2010; USAID 2013).

It is worth exploring some of the factors behind this poor implementation record. Evidence suggests that the institutions that are entrusted with implementing these policies have limited technical capacity and are constrained by a lack of gender-disaggregated data—that is, data specifically on women. As a result, most of the evidence produced on what works with respect to improving women's status, gender equality, and women's empowerment has depended on proxy measures that capture only limited dimensions of women's empowerment. A keener understanding of the challenges facing efforts to improve women's empowerment in Pakistan is still needed, particularly with respect to the context-specific impediments that women face within the household and community, and the complex gender-related dimensions of these impediments. The next section examines a more comprehensive approach to the analysis of women's empowerment.

Status of Women and Gender Equality in Pakistan

To build a better understanding of women's status, gender equality, and women's empowerment in rural Pakistan, we begin with some basic descriptive statistics. The data for these descriptives have been taken from Rounds 1, 2, and 3 of the Pakistan Rural Household Panel Survey (RHPS) conducted during 2012–2014 (IFPRI/IDS 2012, 2013, 2014; see Chapter 1 for details). This chapter used responses from the main household survey module covering 1,674 households and a separate gender module covering a total of 3,254 women, drawn from a sample of up to three women from each household, including the female head of household or spouse of the head, the oldest female, and the youngest female over 15 years of age. Together, these modules provide a rich sample of respondents and a large and diverse body of data that allows us to explore many domains of empowerment and its correlates in a meaningful way. However, as noted earlier, the RHPS sample is not nationally representative, and results should be viewed in context only. Drawing on data from the 2012–2013 RHPS, we find significant gender differences in labor force participation rates in production activities (Table 10.3). Women are predominantly engaged in unpaid livestock maintenance and paid farm-work while men are engaged in a wider variety of activities such as livestock maintenance, work on their own farms, and paid off-farm work. The participation rate for men engaged in own-farm work is noticeably higher than that of women, while a higher proportion of women are engaged in paid farm work.

TABLE 10.3 Participation in production activities by gender (%), 2012/2013

Category	All females	Principal female respondent	Principal male respondent
Engaged in own-farm work	20.0	22.9	47.7
Engaged in paid farmwork	23.8	27.8	19.7
Engaged in paid off-farm work	3.0	3.1	24.6
Engaged in own livestock maintenance	47.3	55.1	57.3
Engaged in paid livestock maintenance	1.8	2.2	1.7
Engaged in business	2.1	2.8	9.6

Source: Authors' calculations, based on RHPS (IFPRI/IDS 2012, 2013).

Note: The RHPS allows for respondents to report engagement in more than one activity category; column 1 percentages are based on a sample of 3,254 females, and column 2 and 3 percentages are based on a sample of 1,674 households (one male and one female per household).

Similarly, there is a significant gender difference in the proportion of males and females engaged in paid off-farm work. While almost 25 percent of the principal male respondents reported to be engaged in some form of off-farm paid work, only about 3 percent of the women were so engaged. Only about 2 percent of women owned a business.

We can calculate an agricultural gender wage gap from the 2012/2013 RHPS data (IFPRI/IDS 2012, 2013). A comparison of male and female wages in the various agricultural activities (Table 10.4) indicates that on average women receive substantially lower wages than men for the same agricultural activity. This gap is particularly large in wages for livestock-related activities, where women's daily wages are almost 50 percent of the wages earned by men.

Despite their substantial contribution to agriculture in Pakistan, few women own land. Only 4 percent of women in the sample reported owning land separately from their husbands, while almost 80 percent who reported owning land said their husbands, fathers, or other family members make key decisions regarding their land and that they have no control over it. Only 11 percent of women who own land reported making independent decisions regarding the land (Table 10.5).

Next, we examine the RHPS data on a woman's participation in her own reproductive decisions. RHPS data show that of all the married women interviewed, only 18 percent make independent family-planning decisions, while 38 percent make joint decisions with their husbands. But in over 40 percent of the households, the husbands make the decisions without consulting their partners. Over 3 percent of women report that the decision is made by family members other than the couple concerned. This includes family members

TABLE 10.4 Average daily wage for agricultural activities by agricultural season and gender (PKR), 2012/2013

Activity	Male			Female		
	N	Mean	SD	N	Mean	SD
Livestock (all activities)	48	124***	78	95	65***	54
Sowing, kharif	254	250***	86	315	167***	80
Weeding, kharif	201	242***	72	270	166***	60
Harvesting, kharif	282	258***	85	755	193***	79
Sowing, rabi	229	240***	81	237	176***	84
Weeding, rabi	154	233***	75	242	163***	62
Harvesting, rabi	490	311***	150	845	212***	102

Source: Authors' calculations, based on RHPS (IFPRI/IDS 2012, 2013).

Note: Asterisks denote statistical significance at the * 10 percent, ** 5 percent, and *** 1 percent levels, from a two-tailed t-test of difference in means. N = sample size; SD = standard deviation; PKR = Pakistani rupees.

TABLE 10.5 Decision making in the household, 2012/2013

Decision-making categories	Percentage					Number of respondents
	Woman	Husband	Woman jointly with husband	Woman jointly with other family members	Other family members only	
Land	11	40	8	2	38	125
Daughter's education	15	42	36	2	4	2,351
Daughter's marriage	1	1	1	3	94	710
Family planning	18	41	38	1	2	2,342
Everyday purchases	36	27	8	5	24	3,254
Small durable purchases	25	31	14	6	24	3,254
Large purchases	7	38	22	6	27	3,254

Source: Author's calculations based on RHPS (IFPRI/IDS 2012, 2013).

Note: Percentages do not always add up to given totals because of rounding.

such as father, father-in-law, mother, mother-in-law, and other male and female family members of the household (Table 10.5).

We also examine two decisions that are common indicators of household bargaining power and intrahousehold gender relations: daughter's education and daughter's marriage. Approximately 15 percent of the married women interviewed report that they make independent decisions regarding their daughter's education, but only 1 percent make autonomous decisions relating to the daughter's marriage. Decisions pertaining to the daughter's

marriage are still within the domain of elders in the family in the rural areas of Pakistan.

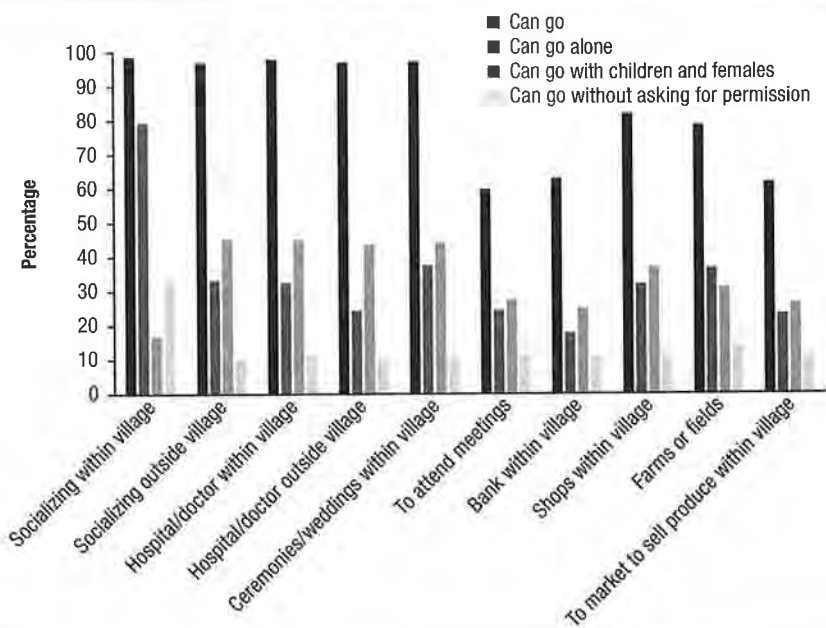
The data also illustrate decision-making power with respect to household purchases among females in the sample. Results indicate that a significant proportion of women are the primary decision makers in matters regarding everyday expenses and purchases of small durable items. Decisions regarding large purchases are outside their domain and are mostly made by husbands and other family members.

With respect to access to information, the RHPS data show that women's access to media sources such as television, radio, and newspapers in the rural areas is low. Television is the main source of information among survey respondents, but only 38 percent of women report watching it regularly. Only 20 percent of women reported reading newspapers, and only 7 percent reported listening to the radio regularly.

The RHPS provides insight into three types of mobility patterns based on locations women can visit (IFPRI/IDS 2012, 2013). Women were asked whether they could or could not go to different locations outside the home and if they could go alone or had to be accompanied by someone. If they could go, they were also asked if they needed permission from their husbands or other family members. Those who could go alone and without permission were considered to be the most empowered.

Figure 10.2 illustrates women's mobility patterns with respect to different locations they might travel to. In general, rural women can freely visit nearby homes for socializing with family and friends, visit hospitals and doctors both within and outside the village, and attend weddings and other ceremonies within the village. However, mobility related to other locations such as banks and markets, and for other purposes, such as attending political and social meetings, is more restricted. More than 35 percent of women in the sample reported that their families do not allow them to visit these places even with a companion. Over 60 percent of these women report that they cannot go to most of these places unless they are accompanied by someone, usually a male member of the household. Moreover, 90 percent of these women state that they required permission from someone within the household, usually men in the family, to visit various places outside the home. These figures provide a more nuanced indication of the nature and extent to which women's autonomy is restricted by mobility, which generally is severely restricted for rural women in Pakistan.

The final dimension of female autonomy and empowerment is the extent to which a woman is time burdened. Allocation of time between productive

FIGURE 10.2 Patterns of mobility for women, rural Pakistan, 2012/2013

Source: Authors' calculations, based on RHPS (IFPRI/IDS 2012; 2013).

and domestic activities is derived from a detailed time-use module in RHPS where respondents were asked to recall time spent on different activities during the previous 24 hours.⁴ Data from the RHPS survey show that women spend 80 percent of their time on domestic activities and only 20 percent on productive tasks.⁵ Further data on participation of women in agriculture show that they support men in the fields and are involved in sowing, weeding, and harvesting during peak rabi and kharif seasons. Table 10.6 shows that women in the sample are more often engaged in domestic work than productive (both agricultural and nonagricultural) work. Those who work in productive areas spend more hours, on average, on hired farm and nonfarm work. A relatively small proportion of women's time is spent working on their own farms ("household agriculture"). Domestic responsibilities, including cooking, cleaning the house, and caring for children and adults, take up more of

4 The term *domestic* is used in the conventional literature; however, it should not be construed to mean that domestic activities are not productive activities.

5 These percentages are based on the total hours worked on productive and domestic activities and exclude time spent sleeping and resting.

TABLE 10.6 Time spent by women and men on domestic and productive activities, 2012/2013

Activity	All females		Principal female respondents		Principal male respondents	
	Average number of hours spent (per day)	Numbers engaged in activity	Average number of hours spent (per day)	Numbers engaged in activity	Average number of hours spent (per day)	Numbers engaged in activity
Household agriculture	2.09	1,331	2.18	943	3.52	1,005
Hired agriculture	5.18	428	5.29	303	5.02	235
Nonagriculture	4.58	67	4.43	51	5.37	245
Hired nonagriculture	4.08	82	3.70	53	6.23	419
Collecting water	0.91	609	0.92	436	1.00	205
Collecting firewood	1.26	685	1.31	504	2.08	330
Domestic (includes care of others, cooking, etc.)	5.72	2,467	6.24	1,574	2.09	1,201

Source: Authors' calculations based on RHPS (IFPRI/IDS 2012, 2013).

Note: Household agriculture includes time spent in preparing dung cakes.

women's time. A higher proportion of the women in the sample are engaged in these activities.

Measuring Women's Empowerment

Next, this section measures women's empowerment and presents an analysis of correlates between empowerment and individual and household variables. We define empowerment at the individual level only and measure it in absolute terms for all women. We broaden the definition of empowerment to include decision making not just on the allocation of resources within the household (for example, allocations on food, education, and health), but also on allocation of resources to agricultural production inputs.

The women's empowerment calculations rely on a diverse set of indicators drawn from the RHPS data, including measures of participation in productive activities; access to resources; income; decision making on reproduction, employment, children's education, and household purchases; mobility; and time spent on productive activities. We use factor analysis to identify systematic patterns in the data and to group variables in the following factors: mobility, decision making, autonomy, and economic independence (see Annex B). We then calculate a composite weighted Index for Women's Empowerment (IWE) as:

$$IWE = \sum(W_{1j} * \alpha_1) + (W_{2j} * \alpha_2) + (W_{3j} * \alpha_3) + (W_{4j} * \alpha_4) \quad (1)$$

where, for the j th respondent, W_1 denotes economic independence, W_2 denotes autonomy, W_3 denotes decision making, W_4 denotes mobility, and where α_s denotes the weights assigned to each of the W s (see Annex C). Our calculations are informed by prior empowerment index exercises but adapted to the Pakistani context and the available data.⁶ Data for calculating the index come from a total of 3,254 female respondents surveyed in the RHPS (see Annex Tables A10.1 and A10.2), which unlike prior work on women's empowerment indexes, has the added advantage of capturing data and information not only from the female head of household or female spouse of the male head of household but also from other women in the household who may have different opportunities and resources, or may be subject to different constraints.

Correlates of Women's Empowerment in Rural Pakistan

Next, this section explores the individual and household correlates of our overall composite index and its subindexes on women's mobility, decision making, autonomy, and economic empowerment. The empirical model includes individual attributes: a woman's age, education, and marital status. The model also includes attributes that characterize the household and intra-household relationships: household wealth, household size, family structure, and whether the woman has a son. We estimate these relationships using ordinary least squares regressions, controlling for province fixed effects. Table 10.7 shows results for overall and disaggregated measures of empowerment.

Results indicate the following. First, marital status matters. Two separate variables on marital status—married and divorced/separated from husband—are included in the estimation model. Results indicate that being married or divorced/separated is associated with a greater level of empowerment compared to being unmarried, possibly because of age and experience. This relationship is positive and statistically significant with the overall index, and the relationship is significant in the decision-making and autonomy models.

Second, age demonstrates a strong association with empowerment. While age is often included in estimations of women's empowerment correlates, the

6 Our selection of variables/indicators draws from the methodology used for calculating the Women's Empowerment in Agriculture Index (WEAI) by Alkire et al. (2012). However, our measure uses different domains and indicators, and thus is significantly different from the WEAI in design.

direction of this relationship is often ambiguous. The analysis shows a positive and significant relationship between age and level of overall empowerment, suggesting the importance of seniority among women in the household. Age also exhibits a positive and statistically significant relationship with mobility, decision making, economic empowerment, and autonomy. However, the returns to age diminish over time, denoted by a negative and statistically significant squared term for the age variable in these estimates. This may capture the marginal role played by elderly or nonproductive women in the household, or it may reflect other social norms and traditions.

Third, wealth is not necessarily related to women's empowerment. We introduce several indicators of individual and household wealth in the analysis: a factor-analytic asset index, total household expenditure, per capita household expenditure, and a poverty dummy. In general, the analysis finds little to suggest a positive relationship between wealth and women's empowerment in rural Pakistan. Total expenditure, a proxy for household wealth, exhibits an insignificant or inverse relationship with empowerment in most of the estimated models except for the autonomy estimation. This suggests that women in wealthier households in rural Pakistan are not necessarily more empowered than women in poorer households. Wealth also exhibits a negative and significant relationship to overall empowerment. This may be explained by women in wealthier households facing less pressure to work and contribute to family income generation or stronger social norms favoring seclusion, thus making them less empowered in the household. These results are consistent with findings from Sraboni, Quisumbing, and Ahmed (2013), who develop a women's empowerment in agriculture index for Bangladesh.

Fourth, education is negatively and significantly related to overall empowerment (Table 10.7, column 1). These results are robust for a variety of education measurements, whether included in the estimation model as education of the woman, education of the head of household, or education of the eldest male member of the family. Several correlations emerge from the estimation of subindexes against individual and household characteristics. Higher levels of female education are associated with less mobility (Table 10.7, column 2) but greater decision-making power (Table 10.7, column 3). Higher levels of female education are also associated with lower levels of economic empowerment and autonomy (Table 10.7, column 4, 5). In short, higher educational attainment for women is not necessarily associated with greater empowerment for women in all domains.

Fifth, household characteristics and intrahousehold relationships seem to matter significantly. The analysis examines several variables that characterize

TABLE 10.7 Correlates of female empowerment

Variable/index	(1) Overall	(2) Mobility	(3) Decision	(4) Economic	(5) Autonomy
Married	0.010 (0.324)	0.139 (2.555)**	0.285 (5.515)***	-0.146 (-2.708)***	0.025 (1.36)
Divorced/ separated	0.231 (4.579)***	0.130 (1.411)	1.234 (14.043)***	-0.131 (-1.430)	0.20 (7.78)***
Age	0.020 (5.944)***	0.041 (6.624)***	0.037 (6.338)***	0.013 (2.070)**	0.001 (7.04)***
Age ²	-0.000 (-6.398)***	-0.000 (-5.094)***	-0.000 (-4.844)***	-0.000 (-3.942)***	-0.00009 (-6.096)***
Total expenditure	-0.000 (-3.912)***	-0.000 (-0.449)	-0.000 (-0.590)	-0.000 (-6.709)***	0.000001 (3.01)***
Household size	-0.001 (-0.420)	-0.009 (-1.508)	-0.014 (-2.486)**	0.013 (2.246)**	-0.006 (-3.85)***
Education	-0.013 (-4.752)***	-0.015 (-3.083)***	0.026 (5.595)***	-0.040 (-8.360)***	-0.012 (9.24)***
Son	0.126 (4.795)***	0.124 (2.593)***	0.056 (1.222)	0.231 (4.869)***	0.011 (0.05)
Joint family	-0.036 (-1.730)*	-0.016 (-0.436)	-0.022 (-0.617)	-0.011 (-0.291)	-0.008 (-0.93)
Sindh	0.074 (2.333)**	-0.545 (-9.337)***	-0.298 (-5.379)***	0.420 (7.285)***	-0.08 (-6.09)***
Punjab	0.274 (10.064)***	-0.095 (-1.900)*	-0.074 (-1.557)	0.458 (9.285)***	0.017 (1.41)
Constant	-0.521 (-7.966)	-0.816 (-6.813)	-0.990 (-8.696)	-0.249 (-2.104)	0.168 (5.67)
R ²	0.142	0.166	0.214	0.112	0.20
F	45.31	54.28	74.55	34.61	53.93
N	3,017	3,017	3,017	3,017	3,017

Source: Authors' estimates, based on RHPS (IFPRI/IDS 2012, 2013).

Note: Standard errors are reported in parentheses. Asterisks denote statistical significance at the * 10 percent, ** 5 percent, and *** 1 percent levels. N = sample size

the household and intrahousehold relationships: family size, family structure, and presence of a son. Results indicate that a larger household size is significantly associated with a lower level of women's decision-making power and autonomy, probably reflecting greater male control over family income. A positive and significant relationship between economic empowerment and family size (Table 10.7 column 4) may reflect the presence of multiple earners in the family.

Sixth, the results show a negative and statistically significant relation between joint family structure and the overall level of women's empowerment (Table 10.7, column 1). This suggests that nuclear family structures

may contribute more than the joint family to women's empowerment and autonomy. However, the effect of a joint family is statistically insignificant in all other estimations (Table 10.7, columns 2, 3, 4, and 5). A dummy variable that captures the presence of a son is significantly related to the overall level of women's empowerment. This suggests that women in Pakistan often gain status from or receive (or depend on) support from sons in the household. The variable exhibits a positive and a significant relationship in the overall empowerment, mobility, and economic empowerment estimations (Table 10.7 column 1, 2, and 4), and shows the largest relationship in the economic empowerment estimation (Table 10.7 column 4).

Finally the results suggest that provincial differences are significant: women residing in rural Punjab and Sindh may enjoy higher levels of overall empowerment and economic empowerment than women residing in Khyber Pakhtunkhwa (KPK). However, women in rural areas in Sindh have less autonomy and less freedom to go to banks, attend political meetings, and go to the market to sell their produce compared to those living in the rural areas of KPK Province. These differences in empowerment levels across provinces may also be a reflection of different levels of provincial infrastructure development. These results are consistent with results from Khan and Awan (2011) that show regional and geographical differences in family planning and economic decision making in the household and find that women in rural areas of Punjab are more economically empowered than are women in the other provinces of Pakistan.

Intrahousehold Empowerment Gaps and Parity between Women and Men

Calculating Empowerment Scores

Next, this section examines the gap in empowerment levels between women and men and the relative empowerment parity within households. The analysis in this section is based on a sample of 1,674 households, with one male and one female respondent from each of the households (Annex Table A10.3). In 82 percent of households, the respondents were the husband and wife, but primary male and female respondents are included irrespective of their relationship to each other. Households without a male respondent or without a female respondent were not included in the analysis, so the results reported are only for dual adult households. To determine gender parity in empowerment

within the household, we first calculate empowerment scores for men and women using responses from questions focusing on decision-making aspects of the production, resources, income, autonomy, and time domains of empowerment. Comparing the men's and women's empowerment scores allows us to compare the relative agency of men and women within the household. The empowerment score is calculated through five domains and ten indicators (Table 10.8). The different domains and indicators are described below.

Production: This domain concerns participation in agricultural decision making and captures the agency an individual has in production decisions. Two indicators are used in this domain. The first indicator relates to decisions on production inputs and outputs: an individual is considered empowered if he or she participates in these decisions, that is, makes such decisions independently or jointly. The second indicator relates to the extent that an individual feels he or she can make his or her own decisions regarding production inputs. An individual is considered empowered when he or she feels that he or she can influence such decisions to at least a small extent. The following production decisions are included for the two indicators: (1) food crops to be grown for household consumption, (2) cash crops to be grown for sale in the market, (3) livestock to be raised, (4) nonfarm activities to be undertaken, (5) inputs to buy for agricultural production, and (6) crops to be taken to the market. An individual is considered to be empowered in the production domain if he or she is empowered in both the indicators.

Resources: In this domain, we use land as the main indicator of ownership and control over resources. There are two indicators in this domain. The first indicator relates to ownership of land. The second indicator captures decision-making power over the purchase, sale, or transfer of land.⁷ Indicator two in this domain is particularly important in the case of Pakistan, where ownership of assets, especially by women, does not necessarily translate into control over the assets. An individual is considered empowered in this domain if he or she owns land and has control over its purchase, sale, or transfer.

Income: Income domain covers income earned by the respondent and decisions regarding expenditure allocations out of household income. The first indicator in the domain is control over income earned, in cash or in kind, from both farm and nonfarm activities.⁸ An individual is empowered if he

7 Only land is used here, because information on ownership of other assets by men was not collected in the survey.

8 The individual's income instead of the household's income is considered here.

TABLE 10.8 Domains, indicators, and weights for empowerment score calculations

Domain	Indicator	Indicator weights	Domain weights
Production	Input into production decision (food crop, cash crop, livestock raising, nonfarm activities, buying agricultural inputs, taking crops to market)	1/10	1/5
	Extent of autonomy in production decision making (food crop, cash crop, livestock raising, nonfarm activities, buying agricultural inputs, taking crops to market)	1/10	
Resources	Ownership of land	1/10	1/5
	Control over purchase, sale, or transfer of land	1/10	
Income	Control over income earned	1/20	1/5
	Power to keep part of income	1/20	
	Decision making in income allocation (healthcare/medicine for household, education of children, large expenditures such as marriage, <i>bisi</i> , purchase of land/property, house renovation)	1/10	
Autonomy	Autonomy in household decisions (method of contraception, daughter's marriage, education of daughter, education of son)	1/10	1/5
	Freedom of movement (doctor/hospital, bank, social/political gathering, ceremonies, market to sell produce, farm/fields for work)	1/10	
Workload/time burden	Time spent on productive and domestic tasks	1/5	1/5

Source: Authors.

Note: *Bisi* = a form of group saving where individuals contribute collectively and receive lump-sum amounts in turns.

or she has the power to make independent decisions regarding his or her own income. The second indicator consists of the proportion of income kept for oneself. If the individual keeps any proportion of income for himself or herself, the individual is considered to be empowered. The third income indicator concerns control over decisions to allocate money for expenditures out of total household income. The following allocation decisions are considered: (1) food for household, (2) clothing for household, (3) healthcare and medicines for household, (4) education of children, (5) occasional small expenditures, (6) occasional large expenditures (such as marriages), (7) *bisi*, (8) purchase of land/property, and (9) renovation and maintenance of the house.⁹ An individual is considered empowered in the indicator if at least one decision is made

⁹ *Bisi* is a form of group saving where individuals contribute collectively and receive lump-sum amounts in turns.

independently or jointly, excluding decisions on food, clothing, and small occasional expenditures. In Pakistan, income allocation is usually divided along gender lines. A woman may make small income decisions but have no control of overall household income. Therefore, to account for cultural norms in Pakistan, only major income allocation decisions are considered for measuring empowerment. Each indicator in this domain by itself indicates empowerment. For instance, if a person does not earn any income but controls its allocation (indicator number 3), he or she will be considered as empowered as a person who earns income and keeps a proportion of it for himself or herself. Hence, an individual is considered empowered in the income domain if he or she is empowered in any one of the indicators.

Autonomy: Autonomy consists of two separate indicators. The first indicator concerns autonomy in household decisions, and the second captures personal autonomy by measuring freedom of movement. To be empowered in the first indicator, a respondent participates in at least two of the following decisions: (1) what method of contraception should be used, (2) when daughters should be married, (3) how much education female children should receive, and (4) how much education male children should receive. Because these are decisions pertaining to the household, independent as well as joint decision making is considered empowered. The second indicator relates to mobility and is captured by the freedom to visit places alone. Visits to the following places are considered: (1) hospital/doctor within village, (2) hospital/doctor outside village, (3) ceremonies and weddings within village, (4) bank, (5) political/social meetings, (6) market to sell produce, and (7) farms/fields for work. The individual is considered to be empowered if he or she has the freedom to visit at least one place alone. In the context of Pakistan, freedom of movement denotes personal autonomy, especially for women. Each indicator denotes a separate aspect of autonomy; therefore, a person empowered in both indicators will be considered empowered in the domain.

Workload/time burden: The final domain is that of workload/time burden. This domain has one indicator, which is based on allocation of time to productive (both farm and nonfarm) and domestic tasks. Time spent on productive tasks includes all agricultural work and livestock activities. Domestic tasks include cooking, cleaning, caring for children and the elderly, and collecting firewood and water. Respondents were asked to recall the time spent on each activity during the past 24 hours. An individual is considered to be empowered if he or she does not have an excessive workload of more than

10.5 hours in the previous 24 hours.¹⁰ Empowerment in the indicator and the domain is the same because there is only one indicator in this domain.

The final empowerment score is calculated separately for men and women as the weighted average of the scores on the indicators and domains as presented in Table 10.8.¹¹ We use a cutoff of 0.60 in our calculation of empowerment levels. Individuals with an overall empowerment score across the five domains of above 0.60 are considered to be empowered.¹²

To analyze the differences in empowerment between men and women, we present the headcounts of empowerment in Table 10.9. Empowerment headcount ratios indicate the proportion of individuals empowered. The empowerment headcount ratios show huge differences in levels of empowerment between women and men in rural areas of Pakistan, where overall only 19 percent of the women are empowered compared to 91 percent of the men. Empowerment levels decomposed by domain identify areas in which men and women have lower empowerment and how they compare with each other. The empowerment headcount ratios for women and for men are the lowest (4 percent for women, 40 percent for men) in the resources domain, which consists of access to land and control over its sale and purchase.¹³ The largest differences in the empowerment headcount ratios between men and women are in the production and the autonomy domains, and the smallest is in the time domain.

Intrahousehold Empowerment Gaps and Parity in Rural Pakistan

Next, this section presents results for gender empowerment parity and the average empowerment gap in the household using the individual empowerment scores of the principal male and female in the same household.

10 The workload burden is calculated using Alkire et al.'s (2012) definition of time burden. This indicator is also used in a number of studies of empowerment in the literature (Malapit et al. 2014; Sraboni, Quisumbing, and Ahmed 2013). These studies also use the satisfaction with the time available for leisure as an additional indicator in this domain, but because data was not collected on this variable in the survey, it is not included in the analysis for Pakistan. The time use does not include time for sleeping or resting.

11 The methodology for calculating empowerment scores, headcount ratios, and parity in this section and the next draws from Alkire et al. (2012). However, our choice of indicators and domains is more context specific to Pakistan and differs from Alkire et al. (2012).

12 Various cutoff levels were tried. At a cutoff of 0.80 (used by Alkire et al. 2012), the empowerment levels were very low, and more than 99 percent of women were disempowered. We use a cutoff of 0.60 on the basis that an individual is empowered in at least three out of the five domains.

13 We use the ownership of land by an individual rather than the household, because using household ownership of land as an indicator of empowerment tends to overstate individual empowerment. An individual may live in a household that owns many assets, but he or she may not always have control over them.

TABLE 10.9 Empowerment headcount ratios by domain for women and men in rural Pakistan, 2012/2013

Domain	Empowerment headcount ratio (%)	
	Women	Men
Production	24	74
Resources	4	41
Income	60	95
Autonomy	33	92
Time	64	72
Overall	19	91

Source: Authors' calculations based on RHPS (IFPRI/IDS 2012, 2013, 2014).

TABLE 10.10 Intra-household empowerment parity and gaps by province, rural Pakistan, 2012/2013

Indicator	Percentage			
	Overall	Punjab	Sindh	KPK
Households with gender parity	19	24	10	35
Average empowerment gap	46	43	55	33
Household—both man and woman are empowered	17	19	6	29
Household—both man and woman are disempowered	8	8	8	7
Household—man empowered and woman disempowered	73	71	86	60
Household—woman empowered and man disempowered	2	2	1	4

Source: Authors' calculations based on RHPS (IFPRI/IDS 2012, 2013, 2014).

Note: KPK = Khyber Pakhtunkhwa.

Households have parity if the principal female is empowered, or if the female is disempowered but her empowerment score is higher than or equal to that of the principal male in the household. The empowerment gap is the average percentage shortfall or difference in scores of the principal female and male in households that do not have empowerment parity.

Table 10.10 shows that only 19 percent of the households have parity in empowerment between the principal male and female. In the majority of the households (73 percent), the male is empowered but the female is disempowered. In a small proportion of the households (17 percent), both the man and the woman are empowered. Both the man and the woman are disempowered in 8 percent of the households. In only 2 percent of the households, a woman is empowered and her male counterpart is not. Gender parity by province shows higher empowerment parity in KPK and Punjab than in Sindh

Province. The average empowerment gap is high overall (46 percent); it is the highest in Sindh and lowest in KPK. The results show very low empowerment gender parity and a huge average empowerment gap between men and women in rural households in Pakistan.

Conclusions and Policy Implications

While the poor record on improving gender equality, women's status, and the empowerment of women is well documented, this chapter adds further insight to the severity of the problem in rural Pakistan. Results indicate both substantial wage gaps between women and men and significant levels of disempowerment among women in both absolute and relative terms. These findings confirm and extend evidence set forth in many past studies and draw further attention to the fact that women in Pakistan are constrained in terms of their ability to participate in decisions on their own reproductive rights, on their daughters' education and marriage, on certain types of household purchases, and on moving freely outside the home. In short, women face considerable challenges across multiple dimensions of empowerment, equality, and opportunity.

The findings also shed light on the correlates of empowerment and indicate areas where public policies and investments might have the highest returns to human, social, and economic development in Pakistan. For instance, findings suggest that improvements in education or wealth are not necessarily correlated with women's empowerment, which in turn suggests that social protection programs and rural education may not be sufficient interventions to turn the tide in Pakistan. Further investment in rural business and enterprise development services for women may be a good use of funds earmarked for private-sector development in Pakistan, because off-farm income-generating activities are closely correlated with empowerment. Of particular note is business and enterprise development in the area of livestock, where women play a key role.

Additional attention needs to be given to exploring alternative interventions that affect parity and power structures within the household to bring about change. This will require investing in efforts to change laws and regulations that discriminate against women and campaigning to change social and cultural norms that affect a woman's position in the household. It will also involve introducing gender-sensitive labor market regulations that encourage greater male participation in the care and support of young and elderly dependents in the household. While many of these issues have been investigated in

previous studies—Mason and Smith (2003), World Bank (2001), and UN (2009), among others—they continue to receive marginal attention in policy making. Yet the cumulative evidence suggests that in addition to social and economic interventions in the areas of education, microfinance, and enterprise development, the empowerment of rural women in Pakistan depends acutely on changes in the social and economic institutions that govern their day-to-day lives.

References

- Alderman, H., and M. Garcia. 1996. *Poverty, Household Food Security, and Nutrition in Rural Pakistan*. Washington, DC: International Food Policy Research Institute.
- Alkire, S., and J. Foster. 2011. "Counting and Multidimensional Poverty Measurement." *Journal of Public Economics* 95 (7/8): 476–487.
- Alkire, S., R. Meinzen-Dick, A. Peterman, A. R. Quisumbing, G. Seymour, and A. Vaz. 2012. *The Women's Empowerment in Agriculture Index*. Washington, DC: International Food Policy Research Institute.
- Allendorf, K. 2007. "Do Women's Land Rights Promote Empowerment and Child Health in Nepal?" *World Development* 35 (11): 1975–1988.
- Alsop, R., M. Bertelsen, and J. Holland. 2006. *Empowerment in Practice from Analysis to Implementation*. Washington, DC: World Bank.
- Ankerbo, S., and K. Hoyda. 2003. *Education as a Means to Women's Empowerment*. Aarhus, Denmark: Aarhus University.
- Aurat Foundation. 2011. *Women's Empowerment in Pakistan: A Scoping Study*. Islamabad.
- Bhagowalia, P., P. Menon, A. Quisumbing, and V. Soundararajan. 2012. *What Dimensions of Women's Empowerment Matter Most for Child Nutrition? Evidence Using Nationally Representative Data from Bangladesh*. IFPRI Discussion Paper 01192. Washington, DC: International Food Policy Research Institute.
- Deere, C. D., and C. R. Doss. 2006. "The Gender Asset Gap: What Do We Know and Why Does It Matter?" *Feminist Economics* 12 (1): 1–50.
- Duflo, E., and C. Udry. 2004. *Intrahousehold Resource Allocation in Côte d'Ivoire: Social Norms, Separate Accounts and Consumption Choices*. NBER Working Paper 10498. Cambridge, MA: National Bureau of Economic Research.
- Engle, P. L., P. Menon, and L. Haddad. 1999. "Care and Nutrition: Concepts and Measurement." *World Development* 27 (8): 1309–1337.

- Galloway, R., and M. Anderson. 1994. "Pregnancy Nutritional Status and Its Impact on Birth Weight." *SCN News* 11 (6): 6–10.
- Ghuman, S. J., K. J. Lee, and H. L. Smith. 2004. *Measurement of Women's Autonomy according to Women and Their Husbands: Results from Five Asian Countries*. Population Studies Center Research Report 04–556. Ann Arbor: University of Michigan.
- GoP (Government of Pakistan). 2013a. *2012–2013 Pakistan Labor Force Survey*. Pakistan Bureau of Statistics. <http://www.pbs.gov.pk>.
- . 2013b. *Pakistan Millennium Development Goals Report 2013*. Planning Commission, Government of Pakistan.
- . 2013c. *2012–2013 Pakistan Social and Living Measurement Survey*. Islamabad: Pakistan Bureau of Statistics. <http://www.pbs.gov.pk>.
- . 2014. *2013–2014 Pakistan Social and Living Measurement Survey*. Pakistan Bureau of Statistics. <http://www.pbs.gov.pk>.
- Guha-Khasnobis, B., and G. Hazarika. 2006. "Women's Status and Children's Food Security in Pakistan." In *Food Security: Indicators, Measurement, and the Impact of Trade Openness*, edited by B. Guha-Khasnobis, S. S. Acharya, and B. Davis. London: Oxford University Press.
- Haddad, L., J. Hoddinott, and H. Alderman, eds. 1997. *Intrahousehold Resource Allocation in Developing Countries: Methods, Models, and Policy*. Baltimore: Johns Hopkins University Press for the International Food Policy Research Institute.
- Hoddinott, J., and L. Haddad. 1995. "Does Female Income Share Influence House-hold Expenditures? Evidence from the Côte d'Ivoire." *Oxford Bulletin of Economics and Statistics* 57 (1): 77–96.
- Hou, X. 2011. *Women's Decision Making Power and Human Development—Evidence from Pakistan*. Washington, DC: The World Bank.
- Ibrahim, S., and S. Alkire. 2007. "Agency and Empowerment: A Proposal for Internationally Comparable Indicators." *Oxford Development Studies* 35 (4): 379–403.
- IFPRI/IDS (International Food Policy Research Institute/Innovative Development Strategies). 2012. Pakistan Rural Household Panel Survey 2012 Rounds 1 and 1.5 dataset. Washington, DC: IFPRI/Islamabad IDS.
- . 2013. Pakistan Rural Household Panel Survey 2013 Round 2 dataset. Washington, DC: IFPRI/Islamabad IDS.
- . 2014. Pakistan Rural Household Panel Survey 2014 Round 3 dataset. Washington, DC: IFPRI/Islamabad IDS.
- Jamali, K. 2009. "The Role of Rural Women in Agriculture and Its Allied Fields: A Case Study of Pakistan." *European Journal of Social Science* 7 (3): 74–75.

- Jejeebhoy, S. J. 1995. *Women's Education, Autonomy, and Reproductive Behaviour: Experience from Four Developing Countries*. Oxford, UK: Clarendon Press.
- . 2002. "Convergence and Divergence in Spouses' Perspectives on Women's Autonomy in Rural India." *Studies in Family Planning* 33 (4): 299–308.
- Jejeebhoy, S., and Z. A. Sathar. 2001. "Women's Autonomy in India and Pakistan: A Question of Region or Religion." *Population and Development Review* 27 (4): 687–712.
- Kabeer, N. 1999. *The Conditions and Consequences of Choice: Reflections on the Measurement of Women's Empowerment*. Brighton, UK: Institute of Development Studies.
- Khan, A. 2008. *Agriculture and Agri-food Sector—Pakistan*. Ontario, Canada: Agriculture & Agri-Food Canada.
- Khan, S., and R. Awan. 2011. "Contextual Assessment of Women Empowerment and Its Determinants: Evidence from Pakistan." Munich Personal RePEc Archive. Paper 30820. Australia, Bond University.
- Kishor, S. 2000. "Empowerment of Women in Egypt and Links to the Survival and Health of Their Infants." In *Women's Empowerment and Demographic Processes: Moving beyond Cairo*, edited by H. Presser and G. Sen. New York: Oxford University Press.
- Kishor, S., and K. Gupta. 2004. "Women's Empowerment in India and Its States: Evidence from the NFHS." *Economic & Political Weekly* 39 (7): 694–712.
- Malapit, H. J., K. Sproule, C. Kovarik, R. Meinzen-Dick, A. Quisumbing, F. Ramzan, E. Hogue, and S. Alkire. 2014. *Measuring Progress toward Empowerment: Women's Empowerment in Agriculture Index—Baseline Report*. Washington, DC: International Food Policy Research Institute.
- Malhotra, A., and S. R. Schuler. 2005. "Women's Empowerment as a Variable in International Development." In *Measuring Empowerment: Cross-Disciplinary Perspectives*, edited by D. Narayan, 219–246. Washington, DC: World Bank.
- Malhotra, A., S. Schuler, and C. Boender. 2002. *Measuring Women's Empowerment as a Variable in International Development*. Background Paper Prepared for the World Bank Workshop on Poverty and Gender: New Perspectives, Washington, DC.
- Mason, K. 1986. The Status of Women: Conceptual and Methodological Issues in Demographic Studies. *The Eastern Sociological Society* 1 (2): 284–300.
- . 1993. "The Impact of Women's Position on Demographic Change during the Course of Development." In *Women's Position and Demographic Change*, edited by N. Federici, K. Mason, and S. Sogner. Oxford: Clarendon Press.

- . 1998. "Wives' Economic Decisionmaking Power in the Family: Five Asian Countries." In *The Changing Family in Comparative Perspective: Asia and the United States*, edited by K. O. Mason, 105–133. Honolulu: East–West Centre.
- Mason, K. O., and H. L. Smith. 2003. *Women's Empowerment and Social Context: Results from Five Asian Countries*. Gender and Development Group. Washington, DC: World Bank.
- Mayoux, L. 2000. *From Access to Empowerment: Gender Issues in Micro-Finance*. NGO Women's Caucus Position Paper for CSD-8, October 1999.
- Mitra, S., and A. Kundu. 2012. "Assessing Empowerment through Generation of Social Capital." *International Journal of Business and Social Research* 2 (6): 72–84.
- Mutangadura, G. 2004. *Women and Land Tenure in Southern Africa: A Human Rights–Based Approach*. Paper presented at Session Two: Gender, Land Rights and Inheritance, London, November 8.
- Narayan, D. 2002. *Empowerment and Poverty Reduction: A Sourcebook*. Washington, DC: World Bank.
- . 2005. *Measuring Empowerment: Cross Disciplinary Perspectives*. Washington, DC: World Bank.
- NIPS (National Institute of Population Studies). 2013. *Pakistan Demographic and Health Survey 2012–13*. Islamabad: ICF International.
- Pakistan, Bureau of Statistics. 2014. *Pakistan Social and Living Standards Measurement Survey 2012–13*. Islamabad.
- Pakistan, Ministry of Planning, Development and Reform. 2014. *Pakistan 2025: One Nation–One Vision*. Islamabad: Ministry of Planning, Development and Reform.
- Pakistan, Ministry of Women Development. 2002. *National Policy for Development and Empowerment of Women 2002*. Islamabad: Ministry of Women Development.
- . 2004. *Gender Reform Action Plan*. Islamabad: Ministry of Women Development.
- Pakistan, NCSW (National Commission on the Status of Women). 2010a. Criminal Law (Amendment) Act, 2010. Islamabad: National Commission on the Status of Women. http://www.ncsw.gov.pk/prod_images/Section-509-amendments.pdf. Accessed July 2015.
- . 2010b. The Protection against Harassment of Women at the Workplace Act 2010. Islamabad: National Commission on the Status of Women. http://www.ncsw.gov.pk/prod_images/The-protection-against-harassment-of-women-at-the-workplace-act-2010.pdf. Accessed July 2015.
- . 2011a. Criminal Law (Third Amendment) Act, 2011. Islamabad: National Commission on the Status of Women. http://www.ncsw.gov.pk/prod_images/Anti-Women-Practices.pdf. Accessed July 2015.

- . 2011b. Criminal Law (Second Amendment) Act, 2011. Islamabad: National Commission on the Status of Women. http://www.ncsw.gov.pk/prod_images/Acid-criminal-amendment.pdf. Accessed July 2015.
- Pakistan, Planning Commission. *National Nutrition Survey*. 2011. Islamabad: Government of Pakistan.
- Pasternak, B., C. Ember, and M. Ember. 1997. *Sex, Gender, and Kinship: A Cross-Cultural Perspective*. Upper Saddle River, NJ: Prentice-Hall.
- Prakash, D. 2003. *Rural Women, Food Security and Agricultural Cooperatives*. New Delhi: Rural Development & Management Centre.
- Psacharopoulos, G. 1994. "Returns to Investment in Education: A Global Update." *World Development* 22: 1325–1343
- Quisumbing, A. R., ed. 2003. *Household Decisions, Gender, and Development: A Synthesis of Recent Research*. Washington, DC: International Food Policy Research Institute.
- Quisumbing, A. R., and J. A. 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.
- Saleem, S., and M. Bobak. 2005. "Women's Autonomy, Education and Contraception Use in Pakistan: A National Study." *Reproductive Health* 2 (8): 1–8.
- Sathar, Z., and S. Kazi. 2000. "Women's Autonomy in the Context of Rural Pakistan." *Pakistan Institute of Development Economics* 39 (2): 89–110.
- Schuler, S., and S. Hashemi. 1994. "Credit Programs, Women's Empowerment and Contraceptive Use in Rural Bangladesh." *Studies in Family Planning* 25 (2): 65–76.
- Sen, A. 1999. *Development as Freedom*. Oxford: Oxford University Press.
- Sen, G., and S. Batliwala. 2000. "Empowering Women for Reproductive Rights." In *Women's Empowerment and Demographic Processes*, edited by H. Presser and G. Sen. Oxford, UK: Oxford University Press.
- Smith, L. C., and L. Haddad. 2000. *Explaining Child Malnutrition in Developing Countries*. Washington, DC: International Food Policy Research Institute.
- Smith, L. C., U. Ramakrishnan, A. Ndiaye, L. Haddad, and R. Mortorell. 2003. *The Importance of Women's Status for Child Nutrition in Developing Countries*. Washington, DC: International Food Policy Research Institute.
- Sraboni, E., A. R. Quisumbing, and A. U. Ahmed. 2013. *The Women's Empowerment in Agriculture Index: Results from the 2011–2012 Bangladesh Integrated Household Survey*. Washington, DC: International Food Policy Research Institute.

- Sultana, N., H. Nazli, and S. Malik. 1994. "Determinants of Female Time Allocation in Selected Districts of Rural Pakistan." *The Pakistan Development Review* 4: 1141–1153.
- Thomas, D., and J. Strauss. 1992. "Prices, Infrastructure, Household Characteristics and Child Height." *Journal of Development Economics* 39 (2): 301–331.
- Tibbo, M., A. M. Martini, B. Tariq, P. Salehy, M. A. Khan, M. Z. Anwar, A. R. Manan, B. Rischkowsky, and A. Aw-Hassan. 2009. *Gender Sensitive Research Enhances Agricultural Employment in Conservative Societies: The Case of Women Livelihoods and Dairy Goat Programme in Afghanistan and Pakistan*. Paper presented at the FAO-IFAD-ILO Workshop, Rome.
- UN (United Nations). 2009. *World Survey on the Role of Women in Development: Women's Control over Economic Resources and Access to Financial Resources, including Microfinance*. New York: Department of Economic and Social Affairs, United Nations.
- UN Economic and Social Council. 2007. *Strengthening Efforts to Eradicate Poverty and Hunger, Including through the Global Partnership for Development*. Report of the Secretary-General. New York: ECOSOC.
- USAID (United States Agency for International Development). 2013. *Pakistan: Gender Overview*. Washington, DC: USAID Knowledge Services Center.
- WEF (World Economic Forum). 2013. *The Global Gender Gap Report*. New York: World Economic Forum.
- WHO (World Health Organization). 2001. *Gender*. Geneva. <http://www.who.int/trade/glossary/story032/en/>.
- Winkvist, A., and Z. A. Akhtar. 2000. "God Should Give Daughters to Rich Families Only: Attitudes toward Childbearing among Low-Income Women in Punjab, Pakistan." *Social Science & Medicine* 51: 73–81.
- World Bank. 2001. *World Development Report 2001: Attacking Poverty*. New York: Oxford University Press.
- . 2007. *Global Monitoring Report*. Washington, DC.
- . 2010. "Gender in Crop Agriculture." In *Gender in Agriculture Sourcebook*, 523–524. Washington, DC.
- . 2012, 2013, 2014. World Development Indicators database. <http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators>. Accessed March 30, 2013.
- Zia, A. S. 2010. *A Policy Framework for Women's Equal Rights—Issues, Concerns, and Recommendations for Gendered Policy*. Study for the National Commission on the Status of Women, Pakistan. Islamabad: NCSW.

Annex A: Variable Description and Summary Statistics

TABLE A10.1 Variables/indicators used in calculating the Index for Women's Empowerment

Variable	Variable description	Mean	SD	N
Work for remuneration	Ownership of business or engagement in farm work or nonfarm work for remuneration (<i>1 = yes, 0 = no</i>)	0.26	0.44	3,254
Land ownership	Ownership of land separately from husband (<i>1 = yes, 0 = no</i>)	0.04	0.19	3,254
Own savings	Female in the household has own savings (<i>1 = yes, 0 = no</i>)	.072	0.26	3,254
Everyday purchases	Participation in decisions regarding purchase of everyday items (e.g., toiletries, stationery, etc.) (<i>1 = herself, 0.5 = jointly, 0 = does not participate</i>)	0.42	0.46	3,254
Small purchases	Participation in decisions regarding purchase of small durables (<i>1 = herself, 0.5 = jointly, 0 = does not participate</i>)	0.35	0.42	3,254
Large purchases	Participation in decisions regarding purchase of large and expensive items (e.g., furniture, car, etc.) (<i>1 = herself, 0.5 = jointly, 0 = does not participate</i>)	0.21	0.31	3,254
Control of own income	Control over use of own income (<i>1 = herself, 0.5 = jointly, 0 = does not participate</i>)	0.13	0.31	3,254
Proportion of income retained	Proportion of own income kept for oneself (<i>1 = greater than 50%, 0.5 = less than 50%, 0 = none</i>)	0.07	0.19	3,254
Children's education	Participation in decisions regarding children's education (<i>Who makes decision: 1 = herself, 0.5 = jointly, 0 = does not participate</i>)	0.19	0.38	3,254
Contraceptives use	Participation in decisions regarding method of contraception used (<i>Who makes decision: 1 = herself, 0.5 = jointly, 0 = does not participate</i>)	0.27	0.36	3,254
Job independence	Participation in decisions regarding taking a job (<i>Who makes decision: 1 = herself, 0.5 = jointly, 0 = does not participate</i>)	0.18	0.36	3,254
Socializing	Freedom to socialize outside the village (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.65	0.26	3,254
Hospital	Freedom to visit hospital/doctor within the village (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.66	0.25	3,254
Hospital outside village	Freedom to visit hospital/doctor outside the village (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.61	0.24	3,254
Weddings	Freedom to attend ceremonies/weddings within the village (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.68	0.26	3,254

(continued)

TABLE A10.1 Variables/indicators used in calculating the Index for Women's Empowerment (continued)

Variable	Variable description	Mean	SD	N
Political meetings	Freedom to attend community/social group political meetings within village (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.42	0.39	3,254
Bank	Freedom to go to a bank (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.41	0.36	3,254
Shop	Freedom to visit shop within the village (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.57	0.35	3,254
Farms/fields	Freedom to visit farms/field (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.58	0.37	3,254
Market	Freedom to visit markets to sell produce (<i>Can go: 1 = alone, 0.5 = with others, 0 = cannot go at all</i>)	0.43	0.38	3,254
Time (production)	Time burden from productive activities (<i>number of hours spent on productive activities per day</i>)	1.98	2.98	3,254

Source: Authors' calculation, based on RHPS (IFPRI/IDS 2012, 2013).

Note: N = sample size; SD = standard deviation.

TABLE A10.2 Variable description and summary statistics for correlates of women's empowerment

Variable	Variable description	Mean	SD	N
Married	Dummy for married women (<i>1 = married, 0 = unmarried</i>)	0.71	0.45	3,254
Divorced/separated	Dummy for divorced or separated women (<i>1 = woman is divorced or separated, 0 = not divorced or separated</i>)	0.01	0.09	3,254
Age	Age (<i>in years</i>)	36.43	15.87	3,254
Education	Education level of the respondent (<i>number of years</i>)	1.92	3.53	3,244
Total expenditure ^a	Total monthly household expenditure (PKR)	20,241	11,953	3,128
Household size ^a	Household size	7.66	3.58	3,128
Son	Dummy for presence of a son (<i>1 = woman has one or more son, 0 = woman does not have a son</i>)	0.57	0.50	3,146
Joint family ^a	Dummy for joint family household (<i>1 = woman lives in a joint family household, 0 = woman does not live in a joint family household</i>)	0.51	0.50	3,008
Sindh ^a	Dummy for province Sindh (<i>1 = woman lives in Sindh, 0 = woman does not live in Sindh</i>)	0.23	0.42	3,254
Punjab ^a	Dummy for province Punjab (<i>1 = woman lives in Punjab, 0 = woman does not live in Punjab</i>)	0.66	0.48	3,254

Source: Authors' calculations, based on RHPS (IFPRI/IDS 2012, 2013).

Note: N = sample size; SD = standard deviation; PKR = Pakistani rupees.

^a Household variables.

TABLE A10.3 Indicator description and summary statistics for intrahousehold empowerment gap and parity

Indicator	Indicator description	Men			Women		
		Mean	SD	N	Mean	SD	N
Inputs in production decisions	Input into production decision (<i>1 = participates in at least one major production decision, 0 = participates in no production decisions</i>)	0.81	0.40	1,674	0.35	0.48	1,674
Autonomy in production decisions	Extent of autonomy in production decision making (<i>1 = moderate extent or high extent in at least one major production decision, 0 = low or no autonomy in production decisions</i>)	0.89	0.32	1,674	0.41	0.49	1,674
Land ownership	Own land (<i>1 = yes, 0 = no</i>)	0.41	0.49	1,674	0.05	0.21	1,674
Land decisions	Participation in decision regarding purchase, sale, or transfer of land (<i>1 = yes, 0 = no</i>)	0.41	0.49	1,674	0.04	0.20	1,674
Use of income	Control over own income (<i>1 = controls independently, 0 = controls jointly or not at all, or no income earned</i>)	0.54	0.50	1,674	0.06	0.24	1,674
Proportion of income retained	Proportion of income kept for self (<i>1 = keeps some or all income earned, 0 = does not keep any income for self</i>)	0.54	0.50	1,674	0.14	0.34	1,674
Income allocation	Decision making in income allocation (<i>1 = participates in at least one major income allocation decision, 0 = does not participate in any major income allocation decisions</i>)	0.91	0.29	1,674	0.54	0.50	1,674
Autonomy	Autonomy in household decisions (<i>1 = participates in at least half of the major household decisions, 0 = participates in less than half of the household decisions</i>)	0.92	0.27	1,674	0.52	0.50	1,674
Mobility	Freedom of movement (<i>1 = can go alone to at least one place outside the immediate vicinity: doctor/hospital, bank, social/political gatherings, ceremonies, market to sell produce, farm/fields for work, 0 = if cannot go alone to even one of the places listed</i>)	1	0	1,674	0.59	0.49	1,674
Time burden	Time burden (<i>number of hours worked per day on domestic and productive activities based on those that participate</i>)	7.20	4.19	1,674	8.71	5.05	1,674

Source: Authors' calculations, based on RHPS (IFPRI/IDS 2012, 2013, 2014).

Note: N = sample size; SD = standard deviation.

Annex B: Factor Analysis

Factor analysis was used to construct an empowerment index from a set of unknown common factors by relying on the pattern correlation between known indicator variables. The index is a weighted linear combination of the scores from the indicators. Factor analysis is used here to group the variables in a way that suggests a pattern. Rotated factors are used to get a clearer pattern. The Kaiser test method is used to retain factors. Four factors are retained where the eigenvalues were more than 1. The rotated factor loadings show that mobility defines factor 1, decision-making factor 2, autonomy factor 3, and economic independence factor 4 (see shaded factor loadings in the rotated factor analysis). Results for the factor analysis including the unrotated and rotated factor loadings, eigenvalues, and uniqueness for each of the disaggregated factors are presented below.

TABLE B10.1A Factor analysis results

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	6.04565	3.81087	0.5746	0.5746
Factor2	2.23478	0.35508	0.2124	0.7871
Factor3	1.8797	1.1319	0.1787	0.9657
Factor4	0.7478	0.305	0.0711	1.0368
Factor5	0.4428	0.18654	0.0421	1.0789
Factor6	0.25626	0.15753	0.0244	1.1033
Factor7	0.09873	0.01539	0.0094	1.1126
Factor8	0.08334	0.05281	0.0079	1.1206
Factor9	0.03053	0.03878	0.0029	1.1235
Factor10	-0.00825	0.01607	-0.0008	1.1227
Factor11	-0.02432	0.0177	-0.0023	1.1204
Factor12	-0.04202	0.02341	-0.004	1.1164
Factor13	-0.06543	0.01252	-0.0062	1.1102
Factor14	-0.07795	0.0228	-0.0074	1.1027
Factor15	-0.10075	0.028	-0.0096	1.0932
Factor16	-0.12875	0.0114	-0.0122	1.0809
Factor17	-0.14015	0.00357	-0.0133	1.0676
Factor18	-0.14372	0.01753	-0.0137	1.0539

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor19	-0.16125	0.02056	-0.0153	1.0386
Factor20	-0.18181	0.04271	-0.0173	1.0213
Factor21	-0.22452	.	-0.0213	1

Source: Authors' calculations, based on IFPRI/IDS (2012, 2013).

Note: LR test: independent versus saturated: $\chi^2(210) = 3.5e + 04$ Prob > $\chi^2 = 0.0000$.

TABLE B10.1B Unrotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Factor4	Uniqueness
Production for remuneration	0.0855	-0.3816	0.6187	0.0285	0.4635
Land ownership	0.0507	0.1109	-0.0433	0.0809	0.9767
Savings	0.0994	0.0834	0.1367	0.0696	0.9596
Everyday purchases	0.5028	0.5579	0.2404	-0.1076	0.3665
Small purchases	0.4983	0.6187	0.2243	-0.1518	0.2955
Large purchases	0.4111	0.5783	0.2259	-0.0825	0.4388
Use of income	0.1149	-0.307	0.7198	-0.0458	0.3724
Proportion of income retained	0.0541	-0.2902	0.6383	-0.0376	0.504
Children's education	0.1763	0.3577	0.1474	0.0663	0.8148
Contraceptives	0.4001	0.4115	0.0841	0.0196	0.6631
Job independence	0.3655	0.4202	0.2395	0.0369	0.6311
Socializing	0.7606	-0.0647	-0.0838	0.2809	0.3313
Hospital	0.8152	-0.1033	-0.1283	0.3028	0.2166
Hospital outside village	0.795	-0.1188	-0.1406	0.2508	0.2712
Weddings	0.7734	-0.0944	-0.0794	0.2805	0.3081
Political meeting	0.7103	-0.2536	-0.1397	-0.3595	0.2823
Bank	0.6756	-0.235	-0.206	-0.3858	0.297
Shop	0.7893	-0.1239	-0.0892	-0.0426	0.3518
Farms/fields	0.6434	-0.3065	0.0591	-0.0125	0.4884
Market	0.7249	-0.2321	-0.133	-0.2868	0.3207
Time on productive activities	0.1342	-0.2618	0.4061	0.1001	0.7385

TABLE B10.1C Rotated

Factor analysis/correlation Retained factors = 4	Number of observations = 3,254 Rotation: orthogonal varimax	Method: principal factors Number of params = 78		
Factor	Variance	Difference	Proportion	Cumulative
Factor1	4.01755	1.27811	0.3819	0.3819
Factor2	2.73944	0.56277	0.2604	0.6423
Factor3	2.17667	0.20242	0.2069	0.8492
Factor4	1.97425	.	0.1877	1.0368

Note: LR test: independent versus saturated: $\chi^2(210) = 3.5e + 04$ Prob > $\chi^2 = 0.0000$.

TABLE B10.1D Rotated factor loadings (pattern matrix) and unique variances

Variable	Mobility	Decision making	Autonomy	Economic	Uniqueness
Production for remuneration	0.0563	-0.0689	0.0147	0.7269	0.4635
Land ownership	0.0731	0.0828	-0.0655	-0.0824	0.9767
Own savings	0.0813	0.1449	-0.06	0.0956	0.9596
Everyday purchases	0.1887	0.7652	0.1087	0.0224	0.3665
Small purchases	0.1507	0.8158	0.1259	-0.0181	0.2955
Large purchases	0.1306	0.7365	0.0409	-0.0072	0.4388
Use of income	0.0065	0.0532	0.0448	0.7892	0.3724
Proportion of income retained	-0.0263	0.0128	0.0198	0.7034	0.504
Children's education	0.0875	0.4074	-0.1072	-0.0049	0.8148
Contraceptives	0.234	0.526	0.0341	-0.0656	0.6631
Job independence	0.1915	0.5716	-0.0297	0.0677	0.6311
Socializing	0.7791	0.1684	0.1818	0.0151	0.3313
Hospital	0.8482	0.1384	0.2117	-0.0041	0.2166
Hospital outside village	0.8069	0.1222	0.2503	-0.0099	0.2712
Weddings	0.7934	0.1505	0.1967	0.0328	0.3081
Political meeting	0.4097	0.0818	0.7356	0.0449	0.2823
Bank	0.3744	0.0645	0.747	-0.0256	0.297
Shop	0.6244	0.1842	0.472	0.0398	0.3518
Farms/fields	0.5389	0.0223	0.4047	0.2386	0.4884
Market	0.4585	0.0952	0.6769	0.0426	0.3207
Time on productive activities	0.1471	-0.0378	-0.0137	0.4881	0.7385

TABLE B10.1E Factor rotation matrix

	Mobility	Decision making	Autonomy	Economic
Mobility	0.7763	0.3944	0.4842	0.0851
Decision making	-0.1821	0.8304	-0.3096	-0.4259
Autonomy	-0.1555	0.3542	-0.1976	0.9007
Economic	0.5831	-0.1714	-0.7941	-0.0062

Cronbach's Alpha Statistic

Cronbach's alpha (α) is used for checking the internal consistency of an index. It helps in determining with certainty that the items included in the index calculations relate to a single latent factor that they are associated with. As a rule of thumb, the "scale reliability coefficient" should be at least 0.5; however, higher coefficients suggest greater certainty that the variables tested are correlated with a single latent factor. In our analysis, the scale reliability coefficient for all four factors ranges from 0.74 to 0.89, exceeding the minimum threshold and confirming that each group of variables tested correlates with a single latent factor. Table B10.2 below shows the result of the test for each of the factors used in the index, that is, mobility, decision making, autonomy, and economic independence.

TABLE B10.2 Cronbach's alpha statistic

	Factor 1 mobility	Factor 2 decision making	Factor 3 autonomy	Factor 4 economic independence
Scale reliability coefficient	0.8977	0.8162	0.8840	0.7483

Annex C: Weights for Calculating Index for Women's Empowerment

Index	Weight
Mobility	0.10
Decision making	0.20
Autonomy	0.30
Economic Independence	0.40

Source: Authors.