

Guarantee sexual and reproductive health and rights

Achieving Goal 3 requires guaranteeing women's and girls' sexual and reproductive health and rights.¹ Currently, their reproductive health status is poor, and their sexual and reproductive rights are not fully realized in many countries. Maternal mortality rates are high, and women's chances of dying of pregnancy-related complications are almost 50 times higher in developing countries than in developed countries. Women's unmet need for contraception is also high. One-fifth of married women in the Middle East and North Africa and one-quarter in Sub-Saharan Africa are unable to access the contraception they need. Women are also more vulnerable to sexually transmitted infections, particularly HIV/AIDS. Today, women and girls make up almost half the infected population ages 15–49 worldwide, and in Sub-Saharan Africa the rate is close to 60 percent. Adolescent girls are particularly disadvantaged in all of these aspects of sexual and reproductive health. Adolescent fertility rates remain high, and young women have higher chances of suffering from complications at birth. They also have a higher unmet need for contraception and higher HIV infection rates, particularly in Sub-Saharan Africa.

Necessary actions to address these problems are ensuring universal access to sexual and reproductive health services through the primary healthcare system, providing women and girls with full access to sexual and reproductive health information, and fulfilling all the commitments in the Cairo Programme of Action of the UN International Conference on Population and Development of 1994. Interventions are needed within and outside the health system. At a minimum national public health systems must provide quality family planning, emergency obstetric services, safe abortions (where legal), postabortion care, interventions to reduce malnutrition and anemia, and programs to prevent and treat sexually transmitted infections, including

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HIV. Outside the health system sexuality education programs are needed to lay the foundation for improved sexual and reproductive health outcomes. Ultimately, these interventions must be supported by an enabling policy and political environment that guarantees women's and girls' sexual and reproductive rights. Current threats to those rights must be opposed if Goal 3 is to be achieved.

Why guaranteeing sexual and reproductive health and rights is a strategic priority

Goal 4 on child mortality, Goal 5 on maternal mortality, and Goal 6 on HIV/AIDS cover only limited aspects of sexual and reproductive health and rights. Yet, a large body of evidence shows that sexual and reproductive health and rights are central to women's ability to build their capabilities, take advantage of economic and political opportunities, and control their destinies.² For this reason, the task force has identified guaranteeing sexual and reproductive health and rights as a strategic priority for achieving gender equality and the empowerment of women.

Today, these rights are threatened by actions to limit and withdraw funding from effective reproductive health programs, censor or distort information and research on comprehensive health interventions and issues, and renege on previous international agreements on sexual and reproductive health and rights. Such actions threaten the progress of the last 10 years in improving women's reproductive health and may worsen the reproductive health status of poor women around the world.

Links between reproductive health and other domains of gender equality

Sexual and reproductive health and rights are important for gender equality in education and access to economic resources, as well as for women's empowerment.

Education. The links between secondary education and reproductive health are discussed in chapter 3. Note, too, that early marriage reduces girls' access to education and that anticipation of an early marriage often precludes secondary education for girls (Huq and Amin 2001).

Economic resources. Access to reproductive health is often a precondition for access to economic assets and resources and opportunities to employ them productively. For example, access to family planning allows women to balance the size of their family and timing of their children with their need and desire to earn income, as many studies have shown. The ability to control their fertility also allows women to seek additional education or training, prepares them for better employment, and permits them to take part in other desirable activities such as community affairs (Family Health International 1998). For

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example, research has shown that women who begin childbearing before age 20 complete less schooling than women who delay having children until their 20s (Johns Hopkins School of Public Health 1999a).

Women's economic status can in turn affect reproductive health outcomes. Women's economic dependency makes them more vulnerable to HIV and other sexually transmitted infections. Research from around the world has shown that when women are economically vulnerable, they are less able to negotiate the use of condoms or other forms of safer sex, less likely to be able to leave a relationship that they perceive to be risky, and more likely to increase their risk by exchanging sex with multiple partners for money or goods (Rao Gupta and Weiss 1994).

Empowerment. Having the ability to make strategic life choices is central to empowerment. Whether to have children, when to have them, how many to have, and which sexual partners to have are central choices in everyone's life, but particularly in women's lives because they bear the responsibility for biological and social reproduction. Providing women the opportunity to make those decisions is one pathway to empowerment. This is why the human rights conventions guarantee women the right to control their fertility and sexuality (UN 1994). Without this right women cannot realize their other rights—whether to obtain an education, work outside the home, run for office, or participate in the cultural life of their community.

Status of women's sexual and reproductive health and rights

Maternal health and sexually transmitted infections. Each year half a million women die of preventable complications of pregnancy and childbirth and another 18 million are left disabled or chronically ill. Women have a 1 in 2,800 chance of dying from pregnancy-related causes in developed countries, a 1 in 61 chance in developing countries, and a 1 in 15 chance in Sub-Saharan Africa (WHO/UNICEF/UNFPA 2003).

Although married women's contraceptive use has risen globally from 14 percent in 1965 to more than 50 percent today, the number of women who wish to space or limit further childbearing but are not using contraception (mainly because of a lack of access to information and family planning services) remains very large. In the mid-1990s the World Health Organization estimated that some 120 million women had an unmet need for contraception (WHO 1998b).³ Among countries with data for both 1990 and 2000 there has been a slight drop in the share of women with unmet need, but the level of unmet need remains high, especially in Sub-Saharan Africa and in the Middle East and North Africa (appendix table A2.1). Except in the Middle East and North Africa and Sub-Saharan Africa unmet need is higher among adolescents than among adult women of reproductive age and is highest in Latin America and the Caribbean.

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One result of high levels of unmet need in some regions of the world is a high incidence of unsafe abortions. Of the 20 million unsafe abortions that WHO (1998b) estimates occur annually, worldwide, an estimated 70,000 result in death, accounting for 13 percent of the overall maternal mortality rate. Evidence suggests that reducing the unmet need for contraception would reduce the need to resort to abortion, thereby improving maternal health and female longevity.

Sexually transmitted infections are another global reproductive health problem. WHO (2003) estimates that 340 million new sexually transmitted infections occur annually, and there is clear evidence that the presence of a sexually transmitted infection increases the risk of HIV infection. HIV/AIDS is itself a devastating global health problem. In 2004 an estimated 4.9 million people were newly infected with HIV, higher than ever. At the end of 2004 about 40 million people were estimated to be living with HIV/AIDS, most (95 percent) in developing countries and about half of those 15–49 years old are women. In Sub-Saharan Africa women constitute 57 percent of all adults living with HIV/AIDS. About three-quarters of young people (15–24 years old) infected with HIV/AIDS on that continent are women and girls. Prevalence rates for women are nearing those of men in the Caribbean and in North Africa and the Middle East (table 4.1; UNAIDS/WHO 2004).

Yet, worldwide, fewer than one in five people at risk of HIV infection today have access to prevention programs (UNAIDS 2003a). Fewer than four percent of people in need of antiretroviral treatment in low- and middle-income countries were receiving the drugs at the end of 2001. And less than 10 percent of people with HIV/AIDS have access to palliative care or treatment for opportunistic infections (UNAIDS/WHO 2004).

Nutrition and reproductive health. The nutritional status of women and adolescent girls is often overlooked when examining issues related to reproductive health. Malnutrition significantly increases the risk of poor reproductive

Table 4.1
HIV prevalence rate
among population
ages 15–49, 2004
Percent

Source: UNAIDS/WHO 2004.

| Region | Women | Men |
|---------------------------------|-------|-----|
| Sub-Saharan Africa | 8.4 | 6.4 |
| Caribbean | 2.3 | 2.4 |
| Eastern Europe and Central Asia | 0.6 | 1.0 |
| Latin America | 0.4 | 0.8 |
| South and South East Asia | 0.4 | 0.9 |
| Middle East and North Africa | 0.3 | 0.3 |
| North America | 0.3 | 0.9 |
| East Asia | 0.1 | 0.2 |
| Oceania | 0.1 | 0.3 |
| Western and Central Europe | 0.1 | 0.4 |
| Global | 1.1 | 1.2 |

Reproductive health problems are particularly acute for adolescent girls

health outcomes, and multiple pregnancies at short intervals may aggravate women's nutritional status, resulting in poor maternal health overall (Christian 2003; King 2003). Because malnutrition weakens the immune function, malnourished women are less resistant to infection (Reed and others 2000). Chronic malnutrition in childhood leads to stunting, which can increase the risk of obstructed labor (Konje and Ladipo 2000). Data on low body mass index ($<18.5 \text{ kg/m}^2$), a measure of chronic malnutrition in adults, show that 34 percent of women in South Asia and 18 percent in Sub-Saharan Africa are malnourished.⁴ By comparison the prevalence is 4 percent in developed countries (Christian 2003; ACC/SCN 2000). Low body mass index is a known risk factor for adverse pregnancy outcomes, including low birthweight infants and infant and maternal death and illness (Allen and Gillespie 2001).

Iron-deficiency anemia affects 50–70 percent of pregnant women in developing countries (ACC/SCN 2000). Severe anemia has been shown to be associated with postpartum hemorrhage and is thought to be an underlying factor in maternal deaths, though more studies are needed to substantiate this (Christian 2003; Reed and others 2000). Similarly, other nutritional deficiencies with adverse effects on reproductive outcomes are thought to be widely prevalent (Christian 2003). Improving the nutritional status of women and girls is therefore a prerequisite for them to achieve health and well-being.

Adolescent reproductive health. Reproductive health problems are particularly acute for adolescent girls, because they have the highest levels of unmet need for contraception and are the most vulnerable to unwanted pregnancy and sexually transmitted infections, including HIV. Many sexually active adolescents do not use contraception. Of the roughly 260 million women ages 15–19 worldwide, both married and unmarried, about 11 percent (29 million) are sexually active and do not want to become pregnant but are not using a modern method of birth control. Every year some 14 million young women become mothers (AGI 1998) and an estimated 1–4 million young women ages 15–19 have induced abortions, many of them unsafe (Family Care International and the Safe Motherhood Inter-Agency Group 1998).

An estimated 17 million adolescent girls are married before the age of 20 (AGI 1998). Rates of early marriage are highest in Western Africa, South Asia, and Sub-Saharan Africa, where 30 percent or more of girls ages 15–19 are married (figure 4.1). Early marriage contributes to a series of negative consequences for young women and the societies in which they live. Early marriage usually leads to early childbearing. In Guatemala, India, Mali, and Yemen, among others, 24–45 percent of women ages 20–24 had given birth by age 18. That compares with 2 percent in France and 1 percent in Germany (figure 4.2).

Worldwide an estimated 15 million girls ages 15–19—both married and unmarried—give birth each year. The rates are particularly high in developing countries. It is estimated that between one-quarter and one-half of all

Figure 4.1
Rates of early marriage of girls are very high in some regions

Share of girls ages 15–19 who are married (percent)

Source: Mathur, Greene, and Malhotra 2003.

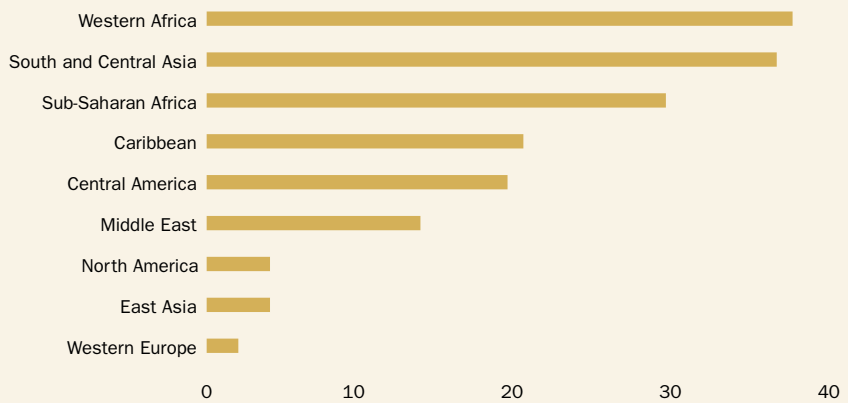
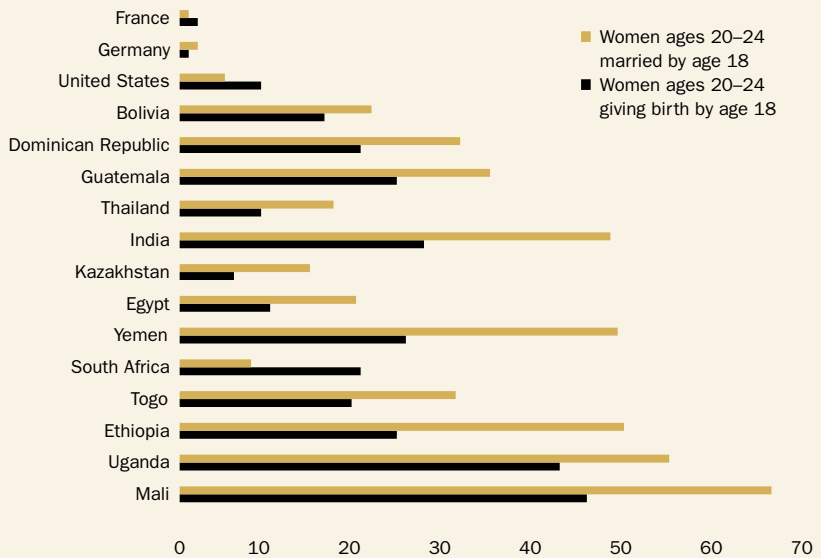


Figure 4.2
Early marriage often leads to early childbearing

Percent

Source: Mathur, Greene, and Malhotra 2003.



young women in the developing world give birth before they turn 18 (UNFPA 2003b). In Bangladesh, for example, more than half of all women have their first child by age 19.

Adolescent fertility rates and progress during the past decade in reducing these rates vary significantly across regions (table 4.2). Developed countries have the lowest adolescent fertility rates, at 16 live births per 1,000 adolescents, down from 19 live births per 1,000 in 1990. Adolescent fertility rates are highest in South Asia and Sub-Saharan Africa—and those rates increased between 1990 and 2000.

Underdeveloped physiology, combined with a lack of power, information, and access to services, means that young married women who bear children experience much higher levels of maternal illness and death than do women who bear children when they are older (figure 4.3). Severe complications, such

Table 4.2

Adolescent fertility rates by region, 1990–2000

Live births in one year per 1,000 women ages 15–19

a. Few countries have data for 2000.

Source: WISTAT 1999.

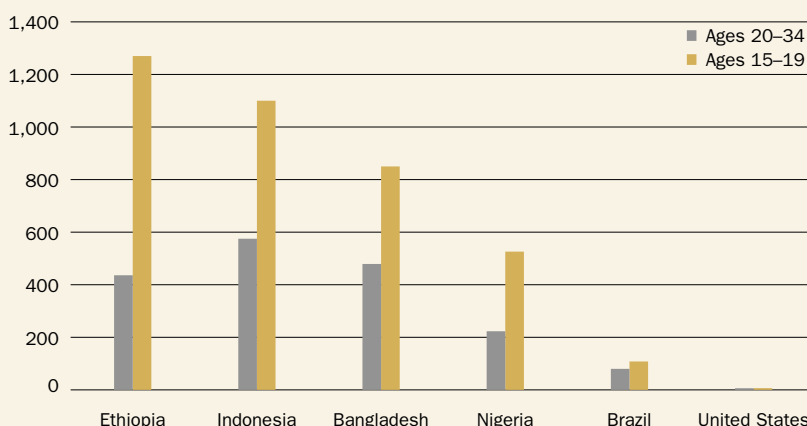
| Region | 1990 | 2000 |
|---|------|------|
| Developed countries | 19 | 16 |
| East Asia and the Pacific | 44 | 38 |
| Europe and Central Asia | 45 | 41 |
| Latin America and the Caribbean | 87 | 76 |
| Middle East and North Africa ^a | 60 | 25 |
| South and West Asia | 71 | 84 |
| Sub-Saharan Africa | 128 | 133 |

Figure 4.3

Maternal mortality is much higher among young women

Maternal mortality rate per 100,000 live births

Source: Mathur, Greene, and Malhotra 2003.



as obstructed labor and the fistula that may result, occur most commonly among young women (UNFPA and EngenderHealth 2003; Jarret 1994; *The Lancet* 2004).

Women who marry young have little negotiating power and are exposed to greater risk of sexually transmitted infections, especially in the common instance of having partners who are much older and more sexually experienced. In Kenya and Zambia, for example, young married women are more likely to be HIV-positive than their unmarried peers because they have sex more often, use condoms less often, are unable to refuse sex, and have partners who are more likely to be HIV-positive (Bruce and Clark 2003; Luke and Kurz 2002).

The costs of poor reproductive health

A recent report by the Alan Guttmacher Institute (AGI) and the United Nations Population Fund (UNFPA) synthesizes current evidence on the costs and benefits of sexual and reproductive healthcare (AGI/UNFPA 2004). The health costs are expressed in disability-adjusted life years (DALYs).⁵ According

Interventions to improve girls' and women's sexual and reproductive health and rights are needed in the health system, education, and the legal system

to the WHO's 2001 estimates, sexual and reproductive health problems account for 18 percent of the global burden of disease and 32 percent of the burden among women ages 15–44 worldwide (AGI/UNFPA 2004). More specifically:

- Pregnancy and delivery-related complications—hemorrhage, sepsis, obstructed labor, pregnancy-related hypertensive disorder, and unsafe abortion—account for 2 percent of all DALYs lost and 13 percent of all DALYs lost among reproductive-age women.
- Perinatal conditions (low birth weight, birth asphyxia, and birth trauma) account for 7 percent of all DALYs lost.
- HIV/AIDS accounts for 5 percent of all DALYs lost and 14 percent among women ages 15–44.
- Other sexual and reproductive health conditions—sexually transmitted infections other than HIV/AIDS, iron-deficiency anemia among women, genitourinary diseases, and breast, ovarian, cervical, and uterine cancer—account for 3 percent of all DALYs lost and 5 percent among women ages 15–44.

By comparison, respiratory illnesses account for 11 percent of all DALYs lost, cardiovascular diseases for 10 percent, and neuropsychiatric conditions for 13 percent.

The report also notes that investing in reproductive and sexual health services is cost effective. An early study in Mexico found that for every peso the Mexican social security system spent on family planning services during 1972–84, it saved nine pesos for treating complications of unsafe abortion and providing maternal and infant care. Every \$1 invested in Thailand's family planning program saved the government more than \$16. An analysis in Egypt found that every \$1 invested in family planning saved the government \$31 (AGI/UNFPA 2004). Beyond these savings, reproductive and sexual health services deliver other medical, social, and economic benefits, including prevention of illness and death, improvements in women's social position, and increases in macroeconomic investment and growth.

Interventions for sexual and reproductive health and rights

Interventions to improve girls' and women's sexual and reproductive health and rights are needed both in the health system and in other sectors, such as education and the legal system. Important health sector interventions include policies that promote universal access to reproductive health services, including family planning, safe abortion (where legal), postabortion care, prevention and treatment of sexually transmitted infections, and nutrition interventions. Ensuring that all deliveries are attended by appropriately skilled health personnel and that all women have access to health facilities providing emergency obstetric care in the event of life-threatening obstetric complications will reduce maternal mortality (UN Millennium Project 2005b).

Counseling, prevention, and treatment services for sexually transmitted infections and HIV should be integrated with other reproductive health services

Interventions for family planning and safe abortion services

Access to quality family planning services that provide women with a range of contraceptive options and informed choice helps reduce high-risk pregnancies associated with multiple pregnancies and helps women avoid unwanted and unsafe abortions (Lule and others 2003). In developing countries family planning programs were responsible for an estimated 43 percent of the decline in fertility between 1960 and 1980 (Bongaarts and Bruce 1995). If the unmet need for contraception were met so that women could have only the pregnancies they wanted, maternal mortality would drop by an estimated 20–35 percent (Doulaire 2002; Maine 1991).

The WHO estimates that safe abortion services could prevent at least 13 percent of maternal deaths worldwide (WHO 1998b). In almost all countries abortion to save a woman's life is legal. In more than three-fifths of countries abortion is also permitted to preserve women's physical and mental health, and in 40 percent of countries, abortion is allowed in cases of rape, incest, or fetal malformation. One-third of countries allow abortion on socioeconomic grounds, and one-quarter allow abortion on request (Barroso and Girard 2003). But in many cases where abortion is legal, safe services are unavailable (WHO 2003).

Interventions for prevention and treatment of sexually transmitted infections and HIV/AIDS

Counseling, prevention, and treatment services for sexually transmitted infections and HIV should be integrated with other reproductive health services and made available through the primary healthcare system, which is most likely to reach populations in greatest need, such as adolescents and the poor. Single-purpose programs for preventing and treating sexually transmitted infections almost always fail to reach women because many women are asymptomatic, and seeking treatment is socially stigmatized.

Women urgently need a female-controlled method of prevention for sexually transmitted infections, and programs need to target men as well as women for prevention and treatment of such infections. The female condom, now available in industrialized countries and in some countries in the developing world, needs to be made more accessible and affordable. The male condom, the only widely available method of prevention, requires the cooperation of the male partner. Women worldwide report that male opposition is a significant hurdle to using a condom.

Simultaneously, investment is needed in research and development to produce a safe and effective microbicide that women can use to protect themselves against a wide range of sexually transmitted pathogens, including HIV. There are some 60 different compounds in the pipeline with potential microbicidal properties, but substantial funding is required to test them for efficacy and bring the effective compounds rapidly to market. The benefits to low-income countries could be enormous. For example, researchers at the London School

**A critical priority
is access to
emergency
obstetric care**

of Hygiene and Tropical Medicine have estimated that if microbicides were used by 20 percent of the women in low-income countries reachable through existing services, 2.5 million new HIV infections in women, men, and children could be avoided over a period of three years (Public Health Working Group 2002).

Also important is tracking the use of antiretroviral treatment by sex to ensure that women are being reached. Experience with antiretroviral treatment for the prevention of mother-to-child transmission has shown that even when the drugs are available, women choose not to use them because of the stigma that is associated with AIDS. Research in Ethiopia, Tanzania, and Zambia has revealed that the consequences of stigma are often more severe for women than for men (Nyblade and others 2003). Combining treatment with community education and interventions for stigma reduction is therefore important for ensuring that antiretroviral treatments reach the women who constitute an increasingly large share of the world's HIV-positive population.

Interventions to prevent maternal illness and death

Because nearly half of maternal deaths in the developing world occur during labor, delivery, or the immediate postpartum period, access to skilled care and emergency obstetric services during these periods is critical. About two-thirds of births worldwide occur outside health facilities (WHO 1997a). Hence, a critical priority is access to emergency obstetric care (UN Millennium Project 2005b). Also needed are skilled birth attendants trained in the use of safe and hygienic birthing techniques and necessary drugs and equipment. Maternal mortality rates have been reduced through the availability of trained but nonspecialist medical personnel, such as medical assistants in Tanzania, assistant anesthetists in Burkina Faso and Malawi, and nurses in the Democratic Republic of Congo (Lule and others 2003). For maximum impact on reproductive health skilled birth attendants and emergency obstetric services must be closely linked within a strong health system. Strong health systems, in turn, depend on adequate infrastructure, including good roads and transportation networks, electricity, and clean water.

In addition to improving the supply of emergency obstetric care, increased efforts are needed to ensure that women seek such care. Life-threatening delays can occur during a difficult labor if women or other family members do not understand the signs of a difficult labor or the serious consequences of not seeking more expert care. Teaching women and other family members the signs of a difficult labor should be a priority for reducing maternal mortality.

Nutrition interventions

Historically, nutrition programs to improve reproductive health outcomes have focused mainly on pregnancy and the postpartum period, for example, by providing women with iron-folate supplements.⁶ This emphasis has had only a

Programs for adolescents need to be scaled up to provide full services to the entire adolescent population

limited impact on the prevalence of malnutrition in women and children. Current research suggests that interventions may be more important before conception, because the risks of a poor outcome are as great from being underweight before pregnancy as from being underweight during pregnancy (Allen and Gillespie 2001). Programs therefore need to target nonpregnant women and adolescents. One approach is to decrease nutrient depletion by reducing early and unwanted fertility, which can improve both reproductive health outcomes and nutritional status. Family planning services and programs to encourage later marriage can both be important here. So can improving women's diet and nutritional intake through food security measures, diet diversity, and reducing infections such as intestinal worms.

Interventions for adolescents

All the health services and interventions mentioned above should be designed for married and unmarried adolescents as well as for adults. Young married and unmarried girls are among the most underserved groups, yet their needs may be the most pressing. Many service providers—including doctors, nurses, midwives, and traditional birth attendants—do not recognize the need among this age group, particularly among unmarried adolescent girls, for reproductive health advice, information, and services. Programs for adolescents are small, with limited coverage. They need to be scaled up to provide full services to the entire adolescent population.

Interventions to involve men as partners in reproductive health

Men influence their partner's reproductive health, in part through decisions about contraceptive use and desired family size. That makes them important allies in efforts to improve women's health (Greene, Rasekh, and Amen 2004). Two types of program models have been developed recently to engage men. One involves men as partners. This type of program works within traditional reproductive health arenas such as family planning and maternal health services and seeks to increase men's involvement in women's reproductive health. Such programs are based on the principle that couples, not individual women or men, are responsible for reproductive health outcomes. Thus men must collaborate with their female partners and be accountable to them, to ensure positive reproductive health outcomes.

A second model supports men as agents of change by motivating them to actively address gender inequalities. Such programs recognize that gender norms and the unequal balance of power between women and men have negative consequences for the health of both women and men (UNDAW 2003). They seek to change gender roles and norms by challenging attitudes and behaviors that compromise both men's and women's health and safety. Evaluations of these programs have not yet been conducted so their impacts are not known.

**Schools can
provide life
skills education**

Financing interventions for sexual and reproductive health and rights

Governments have generated funds to finance reproductive health services in many ways. Each involves tradeoffs between equity and efficiency (see table 4.2 in the report of the Task Force on Child Health and Maternal Health; UN Millennium Project 2005b). Most health services are financed by general tax revenue, but user fees have become a complementary source of financing in many countries in recent decades. User fees have many problems. They tend to be highly regressive and to curtail the use of services by poor people. User fees also reduce women's use of reproductive health services (Nanda 2002), and they do not generate adequate revenue to support the provision of basic services. Abolishing user fees for basic sexual and reproductive health services, such as family planning and maternal health services, is therefore an important recommendation of the task force.

Interventions outside the health sector

Improvements in reproductive and sexual health also require interventions outside the health sector. Girls' education is important. Schools can provide life skills education, including information on health, nutrition, and family planning. Ideally, such curricula would be introduced in primary schools and continue through the secondary level.

Sexuality education remains a divisive topic in most parts of the world (Kirby and others 1997). In many developing countries schools do not offer sexuality education and in others it is offered too late to influence behavior. And while the typical school-based curriculum may contain useful information about the differences between male and female reproductive systems, it does not usually provide an opportunity for young people to learn relationship skills or discuss norms and peer pressure (Raju and Leonard 2000; Laack 1995; Laack and others 1997).

Yet, there are many good programs. Evaluations of comprehensive sexuality education programs in the United States found the programs to be associated with delayed sexual initiation and reduced abortion and birthrates among the participants (Jorgensen, Potts, and Camp 1993; Kirby and others 1997). Evaluations of other programs worldwide indicate that they increase knowledge among youth about HIV/AIDS prevention and increase the confidence of young people to practice safe behaviors such as refusing sexual intercourse or using condoms. Program impact is usually greatest among girls and younger youth (Grunseit 1997; Kirby and others 1997).

Interventions to build political consensus

Finally, both health and nonhealth sector interventions to improve sexual and reproductive health require an enabling policy and political environment. To this end, stronger and more visible efforts to advance the Cairo Programme of Action must continue. Policymakers should base decisionmaking on scientific

evidence rather than ideological principle (*The Lancet* 2004). Technical agencies like the World Health Organization and the U.S. Centers for Disease Control and Prevention should document the costs of misrepresentation of scientific evidence and actively disseminate accurate evidence. Women's organizations working to promote reproductive rights for women should be given greater financial support, and donor funding should target the real needs of recipients, with political strings kept to a minimum (*The Lancet* 2004). Finally, the number of bilateral donors supporting sexual and reproductive health and rights should be increased so that if a leading donor country restricts its funding, alternative sources of support can step in to fill the gap.

Invest in infrastructure to reduce women's and girls' time burdens

Women's and girls' ability to empower themselves economically and politically by going to school and engaging in productive and civic activities is often limited by their responsibility for everyday maintenance tasks in the household division of labor. For poor women and girls this burden is even greater because of the underinvestment in public infrastructure in most low-income countries. The time women and girls spend on routine tasks can be reduced dramatically if the appropriate infrastructure is in place: efficient sources of energy (especially new forms of fuel for cooking and heating), transport systems, and water and sanitation systems. Investments in such infrastructure to relieve women's time burdens are essential to maximize the impact of the strategic priorities discussed in this report and to reduce poverty.

Why reducing women's and girls' time burdens is a strategic priority

Providing infrastructure in both rural and urban areas benefits poor men and women. But lack of adequate physical facilities (such as roads, utility supply systems, communication systems, water and waste disposal systems) and the underprovision of services flowing from those facilities typically results in a far greater time burden on women than on men because of a gender-based household division of labor. As Modi (2004, p.16) says, "It would be hard to imagine in the developed world today a family spending one or more hours every day gathering biomass such as wood, agricultural residues, and dung when one could instead buy cooking fuel for the same purpose at a price that reflects a mere two or five minutes of income from work. Yet this is the burden of women in the developing world."

Three types of infrastructure are particularly important: energy, transport, and water and sanitation. This section reviews the limited evidence on gender-differentiated access to and use of such infrastructure.

Access to electricity dramatically reduces the time women spend collecting fuel or fetching water

Heavier time burdens

In most rural communities around the world women are the primary collectors of fuelwood. One study found that women spent more than 800 hours a year in Zambia and about 300 hours a year in Ghana and Tanzania collecting fuelwood (figure 5.1; Malmberg Calvo 1994).

Collection times have risen with the increasing scarcity of locally available biofuels (Barnes and Sen 2003). Studies on firewood collection in India found that women traveled between 4 and 10 kilometers in search of firewood, depending on the ecological environment. In forested areas women might collect wood twice a week, while in depleted areas they have to collect it every day.

Women also spend many hours fetching water. Rosen and Vincent (1999) report that households (primarily women) spend an average of 134 minutes a day collecting water. The study of three Sub-Saharan African countries cited above found that women spent more than 700 hours a year on water provision in Ghana, 500 hours in Tanzania, and 200 hours in Zambia (figure 5.2; Malmberg Calvo 1994). They also collected a higher volume of water than men did.

Access to electricity dramatically reduces the time women spend collecting fuel or fetching water. For instance, in India women in households with electricity spend less time collecting fuels, fetching water, and cooking and more time earning an income, reading, and watching television than do women in households with no electricity (Barnes and Sen 2003; table 5.1 and figure 5.3).¹ By enabling women to spend more time reading, electricity may help to address gender gaps in capability.

Women's time burdens are also affected by inadequate transport systems (Bryceson and Howe 1993). A World Bank study found that 87 percent of trips in rural Africa take place on foot, and women's time accounts for more than 65 percent of the household's time and effort spent on transport (Malmberg Calvo 1996). The daily transport burden of a typical adult woman was equivalent to

Figure 5.1

Women are the primary collectors of fuelwood

Hours spent and volume collected by sex in Ghana (1989), Tanzania (1989), and Zambia (1991)

Note: "Other" hours and "Other" volume include children's collection of fuelwood and various combinations of men's, women's, and children's collection efforts.

Source: Malmberg Calvo 1994.

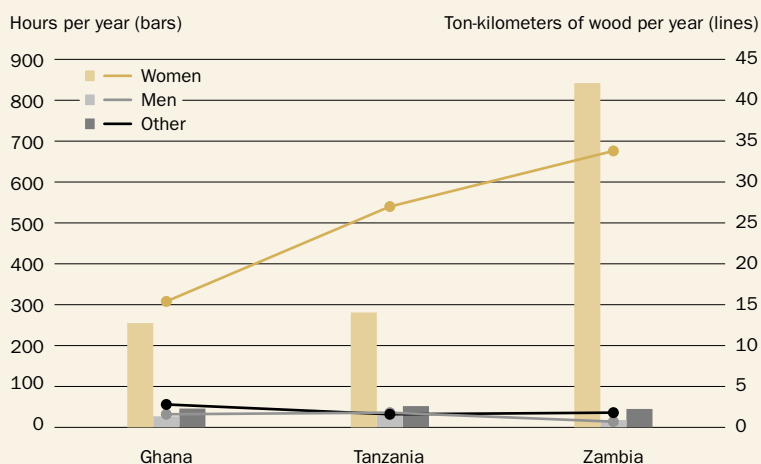


Figure 5.2

Women are the primary collectors of water

Hours spent and volume collected by sex in Ghana (1989), Tanzania (1989), and Zambia (1991)

Note: "Other" hours and "Other" volume include children's collection of water and various combinations of men's, women's, and children's collection efforts.

Source: Malmberg Calvo 1994.

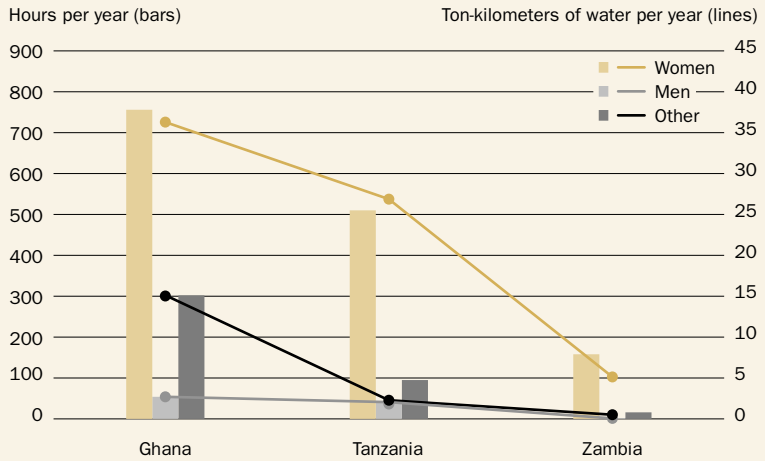


Table 5.1

Women's time allocation in households with and without electricity, 1996

Mean hours spent

a. Includes taking meals, bathing, leisure, sleeping, and so forth.

Source: Barnes and Sen 2003, based on Operations Research Group (ORG) Household Survey 1996.

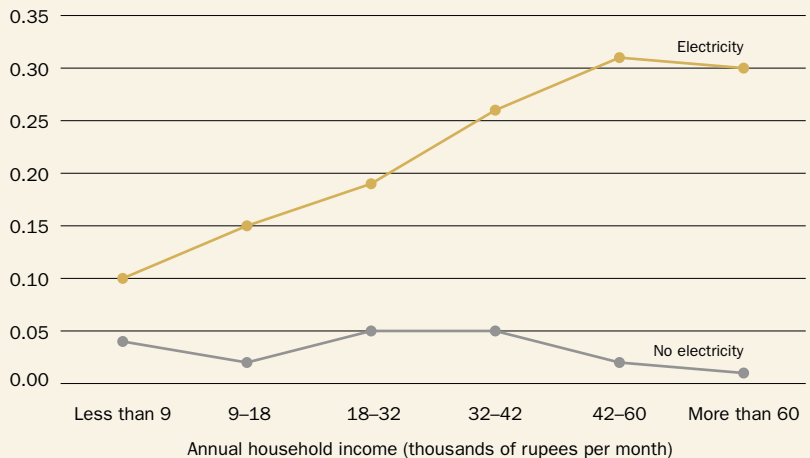
| Activity | Households without electricity | Households with electricity | |
|----------------------------|--------------------------------|-----------------------------|-----------------|
| | | All | With television |
| Number of households | 2,012 | 3,036 | 1,249 |
| Collecting fuel | 0.90 | 0.53 | 0.32 |
| Fetching water | 1.00 | 0.88 | 0.71 |
| Cooking | 2.93 | 2.58 | 2.53 |
| Other housework | 5.75 | 5.83 | 6.01 |
| Earning income | 1.86 | 1.93 | 1.38 |
| Reading | 0.03 | 0.20 | 0.32 |
| Watching television | 0.06 | 0.76 | 1.63 |
| Other leisure ^a | 10.49 | 10.46 | 10.42 |
| Miscellaneous | 0.52 | 0.72 | 0.60 |

Figure 5.3

Electricity means more time to read

Hours per day spent reading, 1996

Source: Barnes and Sen 2003, based on Energy Sector Management Assistance Programme survey 1996.



**Countries need
to analyze
infrastructure
needs and
constraints by
gender, income
group, and
geographic
location**

carrying a load of 20 kilograms for 1.4–5.3 kilometers. Barwell (1998) finds that women make frequent trips to agricultural plots for cultivation and harvesting and that women carry more than three times the ton-kilometers (a measure of weight and distance) per year than do men. In many parts of Africa women are required to transport their husband's produce as well as their own.

Access to roads also affects women's level of income. Booth, Hammer, and Lovell (2000) report that women in a village on a main road in Cameroon made more than twice the income earned by women in a village 90 minutes away from the road, because they had more time available to produce food to sell. Even when transportation is available, however, women typically have less ability to pay for it and so are less able to take advantage of it than men. This has significant implications for women in rural Sub-Saharan Africa, where rural transport charges are higher than in any other region in the world (Ellis and Hine 1998).²

Harmful effects on health

Inadequate infrastructure has significant negative consequences for women's health. The heavy water containers that women typically carry injure their heads, necks, and backs. In addition, almost half of the population in developing countries suffers from one or more of the main diseases associated with inadequate provision of water and sanitation services (UN Millennium Project 2005b). Poorly planned sanitation projects can also increase women's vulnerability to violence. An evaluation of communal sanitation block projects in Egypt, India, Nigeria, Sudan, and Zambia revealed a high incidence of attacks on women using the facilities (Allély and Drevet-Dabbou 2002). Inadequate transportation and the high cost associated with it also discourage women's use of health services (Mwaniki, Kabiru, and Mbugua 2002).

The declining availability and quality of fuelwood in many countries also harms women's health. Women must walk further to find fuelwood and often respond by gathering larger loads. The increased energy expenditure can have long-term health consequences (Barnes and Sen 2003). Traditional biofuels have other negative health impacts. Recent studies of traditional stoves using biomass fuels have found that prolonged exposure to the smoke severely damages the lungs and eyes of anyone close to the stoves—usually women and girls. Women who cook on indoor open fires using biofuels also suffer from chronic obstructive pulmonary diseases (Ostro and others 1995; Parikh and Laxmi 2000; Smith 1987, 1998; Smith and Mehta 2000; International Institute of Population Sciences 1995, all cited in Barnes and Sen 2003).

Interventions for gender-responsive infrastructure

To meet women's infrastructure needs and overcome the special constraints they face, countries need to analyze infrastructure needs and constraints by gender, income group, and geographic location. Studies need to explore how

Taking women's perceptions and opinions into consideration is critical

women's economic and domestic activities are affected by infrastructure or its absence and to identify the kinds of infrastructure they require to enhance their productivity and civic participation and their daughters' school attendance. Increasing women's participation in finding answers to some of these questions can help to improve infrastructure access and affordability for women.

Improving women's participation in planning and implementation of infrastructure projects

Taking women's perceptions and opinions into consideration is critical when developing infrastructure projects. This is best illustrated for water and sanitation since women play key roles as users and managers of sanitation and water facilities (ADB 2000; AusAID 2000). Men and women have different preferences for sanitation facilities derived from their different roles in household hygiene management (Masika and Baden 1997). Women tend to be more concerned with privacy and safety and may prefer enclosed latrines in or near the house (IRC 1994). Women and men have different priorities in water issues as well (Regmi and Fawcett 1999). A study of *panchayats* (local governing councils) in India found that female *panchayat* heads tend to emphasize drinking water provision while male heads tend to emphasize irrigation systems (Chatopadhyay and Duflo 2004). These findings underscore the need to include women in decisionmaking in order to meet their needs.

Yet research shows that women are seldom involved in planning. Studies of water management in Sub-Saharan Africa and South Asia find that men play a greater role in community decisionmaking, finance, and infrastructure construction than women do, even though women are heavy users of water for domestic and productive purposes. As the primary collectors of water, women have important information about seasonal availability, water quality, and individual and communal rights to various sources (Fong, Wakeman, and Bhushan 1996; van Koppen 1990)³—information that could also improve project outcomes (box 5.1).

A study of community water and sanitation projects in 88 communities in 15 countries finds strong evidence that projects designed and run with the full participation of women are more sustainable and effective than those that ignore women (Gross, van Wijk, and Mukherjee 2001). This finding corroborates an earlier World Bank study that found that women's participation was strongly associated with water and sanitation project effectiveness (Fong, Wakeman, and Bhushan 1996).

Increasingly, international and regional water supply and sanitation networks such as the Global Water Partnership, the International Water Management Institute, the International Water and Sanitation Center, and the Water and Sanitation Collaborative Council are promoting women's roles in planning, designing, implementing, and managing water projects (IRC 2003). Donors such as the World Bank and the regional development banks have also

Box 5.1
The Ghana
Community Water
and Sanitation
Project gains
from women's
participation

Source: World Bank 2003e; McCann 1998.

During the 1990s the government of Ghana began to decentralize the country's infrastructure services. As part of this decentralization effort Ghana launched the Community Water and Sanitation Project in 1994 to provide water and sanitation services to communities in 26 of 110 districts. Communities, represented by water boards and water and sanitation committees, decided whether to participate in the project. They also decided what level of service they wanted, depending on their willingness to pay for capital costs (5–10 percent of household income) and maintenance and repair of the facilities. Communities established their own policies on user fees. Some communities did not require them, while in others fees varied from a flat rate to a per unit charge. Some communities exempted certain population groups, such as the elderly, from the payment of fees.

In the first phase of the project, 1,288 water points, 29 pipe schemes, and 6,000 household latrines were constructed. The new water points provided access to improved water sources for 32,000 rural inhabitants (World Bank 2003e).

The project viewed women's involvement as integral to ensuring sustainability and emphasized gender balance in the community water committees, with women representing at least 30–40 percent of the committees. In 2000, 44 percent of members were women. A World Bank (2003e) study also found several gender-differentiated impacts:

- Slightly more poor male-headed households (91 percent) than poor female-headed households (87 percent) contributed to capital costs, while the reverse was true for operation and maintenance costs (92 percent of poor female-headed households and 84 percent of poor male-headed households). Yet 29 percent of women and 26 percent of men still accessed unimproved water.
- There was little difference between men and women in satisfaction with the location of improved water sources (92 percent of men and 90 percent of women) or with the quantity of water available (90 percent of men and 88 percent of women). But fewer women than men were satisfied with water-fetching arrangements (82 percent compared with 92 percent) and water quality (81 percent compared with 90 percent).
- Women (73 percent) were more informed than men (61 percent) about the project's latrine program.

come to recognize the welfare and efficiency gains of addressing gender issues in water and sanitation projects, and their efforts need to be sustained.

While the importance of women's participation has been recognized in the water and sanitation sector, change has been slow in other infrastructure sectors. A review of transport projects supported by the World Bank found that in 2002 just 4 percent of projects included a gender component or gender actions, compared with 15 percent of water supply projects and 35 percent of agriculture projects (World Bank 1999).

Increasing access and affordability of infrastructure services for poor women

Improved roads and transportation services are needed to increase women's access to all resources and services. Feeder and main roads can greatly reduce the burden on women's time and expand their opportunities, especially when combined with accessible and affordable modes of transportation. They can

Cost is often a constraint to women's access to infrastructure

increase women's chances of finding employment or training, selling their goods and increasing their income, expanding their social networks, accessing health care, and visiting local government headquarters for redress for their problems (Whitehead and Kabeer 2001). The probability that girls will attend school also increases. A rural transport project in a remote area of Morocco led to the tripling of girls' school enrollments (World Bank 1996).⁴ Transport projects must also address the safety and security needs of women and girls, such as by providing adequate street lighting and ensuring that bus stops and terminals are not located in remote or secluded areas.

Improving women's access to alternative sources of energy other than traditional biofuels can reduce their time burdens, exposure to indoor air pollution, and other risks to their health. Cooking fuels such as kerosene and liquefied petroleum gas (LPG) are good substitutes for traditional biofuels because of their higher thermal efficiency and relative lack of pollutants. The use of such fuels also saves women time for more productive or empowering activities by eliminating the need to walk long distances to gather fuel and reducing cooking time. Time saved can be used for income-earning pursuits, attention to children, civic participation, or leisure (Barnes and Sen 2003).

The use of improved stoves can result in similar benefits. In India the government is promoting cooking stoves with greater thermal efficiency and lower indoor air pollution emissions than traditional stoves (Barnes and Sen 2003). In the short term, because charcoal is a more convenient cooking fuel than wood and is already accepted in many parts of the world, investing in efficient charcoal production and improved charcoal stoves can make an important contribution by requiring less fuelwood and reducing harmful emissions (Modi 2004).

Rural electrification is probably the most desirable alternative to biofuels. But the high cost and limited availability of electricity in developing countries restricts household use for some tasks, including cooking. One option is to strengthen transitional, low-cost solutions that are already being used by the poor (Modi 2004). These include diesel-powered mini-grids for charging batteries that can be carried to households and multifunctional platforms powered by a diesel engine for low-cost rural motive power. Such an intervention, implemented in Mali, has been particularly successful in reducing women's time and effort burdens (box 5.2).

Cost is often a constraint to women's access to infrastructure. Sometimes a combination of interventions can assist in lowering costs. Improved road and port infrastructure, improved handling and storage facilities at ports, bulk purchases of fuels, and regulatory reform can all help to reduce the cost of alternative fuels, for example (Modi 2004). Direct subsidies or lease-finance mechanisms to cover the upfront costs of these fuel sources (such as the cost of an LPG stove or cylinder) is another intervention to reduce costs that is widely supported. An unresolved issue is whether and how to subsidize recurring costs. To address concerns about the possibility of subsidies leaking to the

Box 5.2
Diesel-powered multifunctional platforms reduce the burdens on women in Mali

Source: Modi 2004.

By many measures Mali is one of the poorest and least developed countries in the world. Nearly three-quarters of its roughly 12 million people live in semi-arid rural areas, where poverty is most severe. Electrification is virtually nonexistent, and most of the country's energy supply, particularly in rural areas, comes from biomass. Women and girls are responsible for the time-consuming and labor-intensive work of fuel collection.

Beginning in 1993 the UN Industrial Development Organization (UNIDO) and the International Fund for Agricultural Development (IFAD) initiated a program to decrease the burden of fuel collection by supplying labor-saving energy services and multifunctional platforms to rural villages and promoting the empowerment of women by involving them in design, management, and implementation of the project. The multifunctional platform is a 10-horsepower diesel engine with modular components that can supply motive power for time- and labor-intensive work such as agricultural processing (milling, de-husking) and electricity for lighting (approximately 200–250 small bulbs), welding, or pumping water. Between 1999 and 2004, 400 platforms were installed, reaching about 8,000 women in villages across the country.

Although the benefits are shared by many in the villages, women's organizations own, manage, and control the platform. Capacity building and institutional support by UNIDO and IFAD, strong in the early phases, taper off, leaving the women's groups in charge of platform operation, relying on a network of private suppliers, technicians, and partners. The women's groups cover 40–60 percent of initial cost. The remaining costs are covered by international donors and local partners (nongovernmental organizations, social clubs, and other donors).

A study of 12 villages found several beneficial impacts:

- The platforms reduced the time required for labor-intensive tasks from many hours to a matter of minutes. The time and labor women saved was shifted to income-generating activities, leading to an average daily increase in women's income of \$0.47. Rice production and consumption also increased, an indirect benefit arising from time saved.
- The ratios of girls to boys in schools and the proportion of children reaching grade 5 improved, as young girls were needed less for time-consuming chores.
- Increases in mothers' socioeconomic status and time accompanying the introduction of the platforms correlate with improvements in women's health and increases in the frequency of women's visits to local clinics for prenatal care.

Overall, the program in Mali offers compelling evidence that time saved in the lives of women and children, combined with the added socioeconomic benefits to women's groups of controlling and managing the platform as a resource, can yield substantial benefits to health and welfare.

nonpoor, appropriate exit strategies from subsidies can be designed for those who consume and earn more, and bill collection schemes can be implemented that minimize the cost of collection.

Local governments have come to rely increasingly on user fees to cover the investment and operating costs of public utilities (Kessler 2002). In some cases user fees have reduced poor women's and girls' access to those services (Vandemoortele 2001). Because women often have less access than men to financial resources, their inability to pay for water-related resources is a barrier (Clever

and Elson 1995). If user fees are imposed, some form of cross-subsidies should be given to poor women to avoid shutting out those who cannot afford to pay for services (Bardhan and Mookherjee 2003). And there are other, more efficient ways than user fees (such as general tax revenues) to finance key public goods infrastructure like water and sanitation.

Conclusion

Lack of investment in basic infrastructure facilities for the poor is a significant barrier to development as well as to meeting Millennium Development Goal 3. Without investments in energy, roads and transportation, and water and sanitation systems, the women and girls who live in poor communities will continue to be burdened by the everyday tasks of survival, making it difficult for them to climb out of poverty. Adapting modern science and technology to meet the infrastructure needs of the poor in a way that is accessible and affordable is therefore a development priority.

Guarantee women's property and inheritance rights

It is now widely recognized that ownership and control over assets such as land and housing provide economic security, incentives for taking economic risks that lead to growth, and important economic returns including income. Yet, women in many countries are far less likely than men to enjoy ownership or control of these important assets. Ensuring female property and inheritance rights would help to empower women and rectify a fundamental injustice. Although lack of data on the gender asset gap makes it difficult to determine the precise magnitude of the problem, the available information suggests that the problem is serious in most countries of the world. The task force calls on UN member countries to collect systematic data on women's share of land and housing. Meeting Goal 3 will also require institutional arrangements that enhance the extent and security of women's rights to land, houses, and other productive assets.

Why guaranteeing women's property rights is a strategic priority

Throughout the developing world women control land and other productive assets far less frequently than men do.¹ This inequality results from a variety of factors, including unequal inheritance practices, the practice of registering land and houses in the name of the head of household (usually defined as a man), unequal access to land markets due to custom, tradition, and unequal economic assets, and gender-biased land reforms. Inequality in property rights contributes to women's generally low status and vulnerability to poverty compared with men. Women's lack of property has been increasingly linked to development-related problems across the globe, including poverty, HIV/AIDS, urbanization, migration, and violence.

An important distinction is between access to productive assets and ownership of those assets. While women's access to land and property may derive

Effective land rights for women and equal access to credit, technical information, and other inputs are important for improving women's welfare and their bargaining power

from informal arrangements or traditional methods of household and communal decisionmaking, women's ownership or rights of use (usufruct) can be guaranteed only through land and property rights that relate to an enforceable claim and ensure women's freedom to rent, bequeath, or sell the property (Strickland 2004). Secure tenure means being protected against involuntary removal from one's land or residence, except in exceptional circumstances, and then only through a known and agreed legal procedure that is objective, equally applicable, contestable, and independent (UN-HABITAT 2004). For women tenure security is increasingly linked to the establishment and enforcement of land, housing, and property rights, particularly as land tenure systems evolve and local ownership patterns shift in response to profound economic and demographic changes.

Effective land rights for women, coupled with equal access to credit, technical information, and other inputs, are important for improving women's welfare and their bargaining power within the household, as well as for broader economic efficiency.

Property rights and women's welfare and empowerment

Secure tenure to land and home improves women's welfare. Land and home ownership confer such direct benefits as having the right to the use of land and the proceeds from crops and having a secure place to live (Agarwal 2002). Indirect advantages include the ability to use land or a house as collateral for credit or as mortgageable assets during a crisis. Ownership or control of land also increases self-employment income. For example, Chadha (1992) found that individuals who owned land generated much higher rural nonfarm earnings from self-employment than did those without land. Assets can also give women greater bargaining power within households (box 6.1).

Beyond the direct economic impact, property ownership can protect women against the risk of domestic violence. Research in Kerala, India, found that 49 percent of women with no property reported physical violence, whereas 7 percent of women with property did, controlling for a wide range of other factors such as household economic status, education, employment, and other variables (Panda 2002).

Box 6.1 How land rights can empower women

Source: Agarwal 2002; Manimala 1983; Alaka and Chetna 1987.

In the Gaya district of Bihar, India, a local temple-monastery complex held land in violation of land ceiling laws. In the late 1970s women and men of landless households jointly agitated for ownership rights on the land they had cultivated for decades. In 1981 the government redistributed about 1,000 acres of the land to the farmers. Women demanded independent land rights and, in two villages, they received them. In the villages where men alone received titles, women's insecurity grew, as did the frequency with which men threatened their wives with eviction in situations of domestic conflict. In the villages where women were given titles of their own, the women had greater bargaining power.

**Gender equality
in land rights
can enhance
productive
efficiency**

Having assets in the hands of women has other welfare impacts. Some studies have found that it increases the share that households spend on children's well-being. In Bangladesh and South Africa, for instance, a study found that the assets that women bring into a marriage, though fewer than those that men bring, play a significant role in household decisionmaking (Quisumbing and Maluccio 2003). Even in societies such as in Bangladesh where husbands control most household resources, expenditures on children's clothing and education were higher and the rate of illness among girls was lower in households where women owned assets (Quisumbing and de la Briere 2000; Hallman 2000).

Women's lack of property ownership has particularly grave consequences in areas where HIV/AIDS is prevalent. By making women less secure economically and more dependent on the men who control property and assets, lack of ownership may increase women's vulnerability to infection. It may also undermine their ability to cope with the disease and its impacts if they or their family members become infected (Drimie 2002; FAO 2003). The consequences are especially severe in some countries in Sub-Saharan Africa where women farm independently of men but normally gain access to land through their husband. A husband's death often means the loss of land, house, and tools to the husband's relatives, leaving the wife and her children without assets and other coping mechanisms just when they are most in need of support.

Property rights and economic efficiency

In addition to welfare gains, gender equality in land rights can enhance productive efficiency. Property ownership may confer incentives to work harder or take greater economic risk. Studies in countries as diverse as China, Ghana, Pakistan, Thailand, and Viet Nam have found a clear association between secure land tenure and increased outputs or improvements to land (Mason and Carlsson 2004). Land ownership, while not guaranteeing access to credit (often, income is also needed; Giovarelli and Lastarria 2004), can serve as collateral, improving women's access to credit, which in turn can increase output. This can be especially crucial where women are the principal farmers, whether because male out-migration is high, women traditionally farm independently of men, as in much of Sub-Saharan Africa, or other reasons.

Women's importance in food production underscores the need to provide them with security of tenure for the land they cultivate, as well as access to credit and other inputs necessary to increase agricultural productivity. Rural women are responsible for half the world's food production, and in developing countries they produce 60–80 percent of the food. In Sub-Saharan Africa and in the Caribbean women produce about 80 percent of household food, and in Asia women do 50–90 percent of the work in rice fields. Security of tenure can improve agricultural production by enabling long-term investment in land. Granting formal title to women may also improve their

Gathering systematic evidence on the gender asset gap must be a priority

access to information that can enhance agricultural productivity. In many developing countries agricultural extension agents target owners of the land, who are usually men, rather than the actual users of the land, who are often women.

The status of women's property rights: the gender asset gap

Relatively little data exist on the magnitude of gender asset gaps within and across countries, but the gaps are thought to be substantial. Deere and Leon (2003) compiled an approximation of the distribution of land by gender in five Latin American countries, finding it to be extremely unequal, with women representing one third or less of land owners (table 6.1). Such disparities are especially noteworthy in light of the relatively small gender disparities in human development indicators in this region and the existence of relatively equal inheritance laws.

Gender disparities in land ownership exist in other regions as well. In Cameroon, where women do more than 75 percent of the agricultural work, it is estimated that women hold fewer than 10 percent of land certificates (Mason and Carlsson 2004). There are similar gender disparities in rights to land in Kenya, Nigeria, Tanzania, and elsewhere in Sub-Saharan Africa. A 2001 household survey in Pakistan found that women owned less than 3 percent of the plots, even though 67 percent of the sampled villages reported that women had a right to inherit land (Mason and Carlsson 2004).²

The lack of data seriously hampers efforts to track the progress that countries are making on this strategic priority. Gathering systematic evidence on the gender asset gap must be a priority if the goal of gender equality and empowerment of women is to be met. This is discussed further in chapter 10.

Table 6.1

Distribution of landowners by sex in five Latin American countries, various years
Percent

| Country, year | Women | Men | Couple | Total | Sample size |
|-------------------------------|-------|------|--------|-------|-------------|
| Brazil ^a , 2000 | 11.0 | 89.0 | — | 100 | 39,904 |
| Mexico ^b , 2002 | 22.4 | 77.6 | — | 100 | 2.9 million |
| Nicaragua ^c , 1995 | 15.5 | 80.9 | 3.6 | 100 | 839 |
| Paraguay ^d , 2001 | 27.0 | 69.6 | 3.2 | 100 | 1,694 |
| Peru ^e , 2000 | 12.7 | 74.4 | 12.8 | 100 | 1,923 |

— Not available.
a. For farms larger than 50 hectares.
b. Ejido sector only (ejidatarios, posesionarios, and *avecindados*).
c. Excludes members of production cooperatives.
d. Based on households with land titles.
e. Based on ownership of titled land parcels; excludes nonhousehold members.

Source: Deere and Leon 2003, based on sources cited therein.

Channels of land acquisition

Men and women acquire land in many ways, through inheritance, purchase, or transfers from the state (land reform programs, resettlement schemes for people displaced by large dams and other projects, antipoverty programs). Research shows that each channel of land ownership has a gender bias: male preference in inheritance, male privilege in marriage, gender inequality in the land market, and male bias in state programs of land distribution (Deere and Leon 2001).

Inheritance. In Latin America women become landowners mainly through inheritance while men do so through purchases in land markets (Deere and Leon 2003; table 6.2). Latin America has the most favorable legal traditions and egalitarian gender inheritance norms of all developing regions. Nonetheless, inheritance has historically been skewed toward men, in part because agriculture is defined as a male activity and in part because legal headship status confers male privilege in marriage (Deere and Leon 2003). That is changing,

Table 6.2

**Form of acquisition
of land ownership,
by sex in six Latin
American countries**

Percent

— Not available.

Note: Distribution by sex is statistically significant at the 99 percent level of confidence.

a. In areas of community ownership, distribution by the communal authority is one channel through which women access or acquire land.

b. "Other" includes donations by private parties.

c. For farms larger than 5,000 square meters only.

"Other" includes imperfect donations by private parties and other responses.

d. Based on total parcels acquired by 1,586 individuals assuming principal agriculturalist is the owner. "Other" includes land held in usufruct, which is treated as private property.

e. From a nationally representative sample of ejidatarios and posesionarios; based on total parcels titled to 1,576 individuals. "Other" includes adjudications based on judicial actions.

f. For individual landowners only.

g. "Other" includes parcels held in co-ownership with family and nonfamily members of unspecified sex.

Source: Deere and Leon 2003, based on data cited therein.

| | Inheritance | Community ^a | State | Market | Other | Total | Sample size |
|-------------------------------|-------------|------------------------|-------|--------|-------|-------|-------------|
| <i>Brazil</i> ^b | | | | | | | |
| Women | 54.2 | — | 0.6 | 37.4 | 7.8 | 100 | 4,345 |
| Men | 22.0 | — | 1.0 | 73.1 | 3.9 | 100 | 34,593 |
| <i>Chile</i> ^c | | | | | | | |
| Women | 84.1 | — | 1.9 | 8.1 | 5.9 | 100 | 271 |
| Men | 65.4 | — | 2.7 | 25.1 | 6.8 | 100 | 411 |
| <i>Ecuador</i> ^d | | | | | | | |
| Women | 42.5 | — | 5.0 | 44.9 | 7.6 | 100 | 497 |
| Men | 34.5 | — | 6.5 | 43.3 | 15.6 | 100 | 1,593 |
| <i>Mexico</i> ^e | | | | | | | |
| Women | 81.1 | 1.8 | 5.3 | 8.1 | 3.7 | 100 | 512 |
| Men | 44.7 | 14.8 | 19.6 | 12.0 | 8.9 | 100 | 2,547 |
| <i>Nicaragua</i> ^f | | | | | | | |
| Women | 57.0 | — | 10.0 | 33.0 | — | 100 | 125 |
| Men | 32.0 | — | 16.0 | 52.0 | — | 100 | 656 |
| <i>Peru</i> ^g | | | | | | | |
| Women | 75.2 | 1.9 | 5.2 | 16.4 | 1.3 | 100 | 310 |
| Men | 48.7 | 6.3 | 12.4 | 26.6 | 6.0 | 100 | 1,512 |
| Couples | 37.3 | 1.6 | 7.7 | 52.6 | 0.8 | 100 | 247 |

In Sub-Saharan Africa women have historically enjoyed access rights to land and related resources through a male relative

however, with higher levels of legal literacy among women, smaller family size, migration of children, and growing land scarcity, and wives are increasingly inheriting their husband's property.

In South Asia land is acquired through inheritance, which in most places is passed through the male line (although there are areas where ancestral property is passed through the female line) (Agarwal 2002).³ During the twentieth century women's organizations teamed up with lawyers and social reformers to advocate for more gender-equitable inheritance laws, but women are still disadvantaged.⁴ In India Hindu women's inheritance in tenancy land depends on state-level tenure laws, which in most northwestern states specify an order of inheritance that strongly favors men, and these inequalities cannot be challenged on constitutional grounds. Muslim women continue to be disadvantaged in the share of family property they inherit. Sri Lanka has the most favorable laws toward women in the region. The General Law, applicable to the entire population unless covered by one of three personal laws, offers equal inheritance of parental property to women and men, allows for widows to inherit all of the deceased husband's property in the absence of descendants, and gives married women complete rights to acquire and dispose of their individually owned property.

Inheritance laws and practices throughout the Middle East and North Africa are based largely on *Sharia* law, which defines the shares that go to each member of the family: the woman's share is half that of a man when there are both male and female heirs. However, there is a difference between Sunni and Shi'a inheritance rules; in Shi'a tradition, the wife (or wives) and daughters share the inheritance when there are no male heirs (Hijab and El-Solh 2003). Religious law does not prevent women from owning assets, which may be given to them by a father or brother during their lifetimes. However, in some areas women who are widowed or abandoned by their husbands may cede their one-third share of family land to their brothers in exchange for economic support. Thus both laws and the economic realities faced by women in many parts of the Muslim world reduce the likelihood that women own real property.

In Sub-Saharan Africa women have historically enjoyed access rights to land and related resources through a male relative (father, brother, or husband), depending on the lineage system in particular communities. In Kenya, for instance, women obtain property through their relationships with husbands, fathers, brothers, or sons. When a relationship ends through death, divorce, or other estrangement, women often lose their land, homes, and other property. Some widows are forced to undergo customary "wife inheritance" or "cleansing" rituals to continue to enjoy access to their husband's property. Kenya's land law system is being overhauled, presenting an opportunity for incorporating women's equal property and inheritance rights.

In Ghana, where matrilineal inheritance has traditionally been practiced (the property of a deceased man is transferred to his sister's sons), women own

nearly 30 percent of cocoa land.⁵ But parental discrimination against daughters still exists. Fathers tend to transfer smaller areas of land to their daughters than to their sons (Quisumbing, Estudillo, and Otsuka 2004).

Many Sub-Saharan African countries (Kenya, South Africa, Tanzania, Uganda) have recently enacted legislation guaranteeing women the right to own and inherit property in their own names and prohibiting sex-based discrimination (table 6.3). Although statutory reform has been applauded by many women's rights activists, the reforms have been mixed. For instance, Uganda's 1998 Land Action and Condominium Law provides the basis for women's equal right to buy and own land and housing. However, inheritance laws have yet to be adequately reformed. Widows have no right to sell land, but can only farm or till it until their death. They also lose occupancy rights upon remarriage. No such restrictions apply to widowers (Benschop 2002). In other countries, such as Tanzania, the reforms are not being adequately enforced.

Part of the problem in the application of property and inheritance rights is that statutory and customary laws have not been harmonized in many countries in Sub-Saharan Africa.⁶ Customary law is embedded in traditional attitudes and practices, and although customary laws vary across countries, women generally cannot own or inherit land, housing, or property in their

Table 6.3

Status of legislation on women's rights to land, housing, and property in five Sub-Saharan African countries, as of 2004

Sources: Adapted from Benschop 2002; COHRE 2004.

| Legislation | Uganda | Kenya | Tanzania | South Africa | Rwanda |
|--|--|--|---|--------------|--|
| Gender-based discrimination prohibited | Yes | Yes | Partly; discrimination still allowed in application of personal law and customs | Yes | Yes |
| Application of customary laws that discriminate against women prohibited | Yes | Partly; only if it denies women lawful access to ownership, occupancy, or use of land | No | Yes | Yes |
| Women's equal right to acquire land and housing | Yes; implicitly recognized in Article 26 of the Constitution | Yes; implicitly recognized in the Married Women's Property Act and Registered Land Act | Yes; explicitly recognized in Section 3(2) of the Land Act and the Village Land Act | Yes | Yes; private property rights guaranteed for every "person" by Article 29 of the Constitution |
| Spousal co-ownership presumed | No | No | Yes (Section 161 of the Land Act) | No | No |
| Women's equal inheritance rights | | | | | |
| For widows | No | No | No | Yes | Yes |
| For daughters | Partly | Partly; only for Christians | Yes | Yes | Yes |

**Land markets
have been a
weaker means
of transferring
property to
women than
inheritance**

own name. However, there have been cases where local customary courts and authority systems have not been hostile to women (Walker 2003). Customary law is dynamic and has evolved over time in response to social, cultural, and demographic changes. Whether this evolution bodes well for women's rights or not depends on the nature of the changes.⁷ It is important to capitalize on aspects of customary law that are consistent with basic principles of equality and nondiscrimination and to harmonize them with provisions of statutory law.

Rwanda provides a picture of promising change. Serious gender inequalities in land rights were rectified during post-conflict reconstruction. The Law of Matrimonial Regimes, Succession, and Liberalities now enshrines the principle that women may own and inherit property on an equal basis with their brothers. It also requires couples registering for marriage to make a joint commitment to a choice of options for the shared ownership and disposition of marital property.

Land markets. Evidence from many parts of the world shows that land markets have been a weaker means of transferring property to women than inheritance. In Latin America, for instance, Deere and Leon (2003) note that land markets are not gender-neutral; men are more likely than women to participate successfully as buyers. Evidence from their ethnographic work suggests that discrimination against women is prevalent. Deere (1990) found that in hacienda land sales in Peru in the 1950s and 1960s, women tended to buy smaller parcels and to pay higher prices than men for land of similar size and quality, reflecting women's lower bargaining power. Some landowners refused outright to sell to women. Moreover, inequalities in labor and credit markets produce gender-biased disparities in land markets. The case studies profiled in Deere and Leon (2001) demonstrate that explicit, well enforced public policies are needed to help women participate in land markets.

Women potentially could gain from land sales through the market. Agarwal (2002) describes how in parts of South Asia groups of landless women have used subsidized credit provided by the government to lease or purchase land in groups and cultivate it jointly. Through such collective ventures, and with external financial support, land markets could become an important supplementary channel through which women acquire land, even if not the primary one. However, this has not yet happened on a large scale.

Land markets also exist in most rural areas of Sub-Saharan Africa.⁸ Lastarria-Cornhiel (1997) has found that privatization of land in many countries has resulted in titles being transferred to male "heads" of households, to powerful groups, or to corporate or other entities and that women have lost rights they once had. Women suffer systematic disadvantages in the market because their opportunities to buy land are limited. In some places, however, small elite groups of professional or wealthy women have gained secure freehold ownership rights in land (Walker 2003).

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Government-initiated land reforms and resettlement schemes. Although government land redistribution programs provide an opportunity to equalize property rights between men and women, this happens infrequently. In India, Agarwal (2002, p. 8) concludes that, “irrespective of the program under which the transfers occur, typically the land is allotted almost exclusively to males, even in communities which traditionally practiced matrilineal inheritance, such as the Garos of northeast India.”

In Uzbekistan international agencies have been heavily involved in setting the land reform agenda, favoring establishing secure and tradable property rights and eliminating price distortions and production quotas. As a consequence, the private sector share in agricultural production has increased substantially. This has led to the emergence of a new category of private holdings in which management is almost exclusively in male hands while the unpaid family labor that keeps the private holdings viable is predominantly female (Razavi 2004).

In some Latin American countries, such as Colombia and Costa Rica, the experience has been somewhat better. And Viet Nam has recently piloted a program to retile land jointly in the names of both husband and wife (Mason and Carlsson 2004). But in other countries—such as Bolivia and Ecuador—land reform has failed to address women's land rights. Although most agrarian reform laws were gender neutral, the legal beneficiaries were household heads, defined culturally as the male (Deere and Leon 2003).

Interventions for property rights

Since 1995 there has been growing awareness and policy attention to women's property and inheritance rights, drawing on evolving human rights-based frameworks. Within countries attention needs to focus on identifying and eliminating the points at which discriminatory practices come into play, including complex or archaic legal systems, deep-rooted social and cultural norms, and persistent lack of awareness about individual rights and legal protections. A common problem is how to approach property and inheritance where informal or traditional practices might offer more security to women than newer market-oriented practices that formalize ownership and establish title to land and other property. Countries need to understand how privatization of property (whether through purchase, inheritance, or other means) affects men and women differently, especially where legal regimes discriminate by sex. Interventions for increasing women's access to land and housing must be context-specific: there is no single global blueprint.

Reforming laws and supporting women's claims to property

Several changes are necessary within countries to ensure women's property rights: amending and harmonizing statutory and customary laws, promoting legal literacy, supporting organizations that can help women make land claims,

and recording women's share of land or property. These reforms need to be implemented together to have maximum impact.

Government efforts to reform relevant laws (including constitutional, marital, property, and family law) are an important first step. Reform includes applying provisions of the Convention on the Elimination of All Forms of Discrimination against Women to national law, clarifying interpretations of relevant laws, and changing legal practices concerning land and property titling. Several countries have established paralegal services to help women pursue and defend their property and inheritance rights. Many countries have instituted community- and national-level human rights and legal training of advocates, judges, registrars, police, elders, and others. Box 6.2 highlights an effort in Kyrgyzstan to enhance women's land rights.

Many of these efforts appear to be successful, but there is widespread concern about their sustainability and ensuring consistent standards of service provision (legal aid, for example) within countries. Such activities deserve greater support because they have the potential to transform gender-biased social and cultural norms. They need to receive adequate budget support. Local government land authorities should be provided with gender training, and their administrative and institutional capacity to implement and enforce equal property and inheritance laws need to be strengthened.

Box 6.2
Land reform
changes focus
on women's
land rights in
Kyrgyzstan

Source: UNIFEM 2003c.

Kyrgyzstan was the first country in the former Soviet Union to introduce land reform. Shortly after independence in the early 1990s, the transition government introduced legislation that privatized collective farms and other state property, established legal guarantees for private land entitlements, and created legal and administrative land market mechanisms.

Despite the fact that women make up a sizeable portion of the agricultural workforce in Kyrgyzstan, and rural women are one of the poorest segments of society, a land distribution survey in 2002 revealed that only 450 of 38,724 farms belonged to women. Women's land ownership is still constrained by a combination of legal, procedural, and cultural factors. Prominent among them are the precedence of customary over statutory law in determining property and inheritance issues and limited awareness by rural women of their land rights and entitlements.

Following up on this survey, women's groups, supported by UNIFEM, carried out a public awareness campaign to bring attention to this situation and to advocate for changes in legislation guaranteeing women's access to land and inheritance rights. In 2003 an amendment was drafted to the Land Code guaranteeing women's equal rights to land ownership; it is currently before the parliament. Meanwhile, women worked with government officials at the municipal and local levels to strengthen the capacity to better protect women's rights to land as well as to strengthen women's entrepreneurship and sustainable agricultural skills. In addition, a media competition for programs on women's land possession resulted in a series on women's land rights broadcasted by 10 of the publicly owned TV and radio companies in the country. This series has raised awareness in rural areas.

Joint titling

Land titling is often suggested as a solution to gender disparities in land rights.⁹ While titling and formal registration are not the only way to provide women with access to land, where it exists, men and women should both be able to acquire title, individually or jointly.¹⁰

Joint titling helps to guard against capricious actions by one spouse; protects against the dispossession of women through abandonment, separation, or divorce; and increases women's bargaining power in household and farm decisionmaking. Joint titling can be mandatory or voluntary for legally married couples. Mandatory joint titling provides the most secure land rights for women. Rights are established in civil law, through co-ownership rules. In practice, proof of marriage and sometimes proof of commingling of household resources may be required.¹¹ Voluntary joint titling is less secure and requires significant education of women, registration personnel, legal services, and other actions.

In Latin American and the Caribbean a major advance has been joint adjudication and titling of land to couples (Deere and Leon 2003). During 1988–95 five countries (Brazil, Colombia, Costa Rica, Honduras, and Nicaragua) passed agrarian legislation for joint adjudication or titling of land to couples. In countries where mechanisms of inclusion have been adopted and implemented, women have benefited to a greater extent than they have from previous agrarian reforms (Deere and Leon 2003). This was also the case in Viet Nam, which revised its marriage and family law in 2001 to require joint titling for land and other family assets (box 6.3).

Box 6.3 **Joint titling** **improves women's** **access to land** **in Viet Nam**

Source: Prosterman and Hanstad 2003; Ravallion and van de Walle 2004; World Bank 2002d.

As part of the transition to a market-oriented economy, Viet Nam has instituted a series of land reforms. Although the government remains the sole owner of land, under a 1993 law granting use rights for up to 20 years individuals can transfer, exchange, mortgage, and bequest their use rights. Initially, the land tenure certificates issued to households had space for only one signature. As a result, the certificates typically bore the signature of the male head of the household. Women could claim their rights only in the presence of their husbands or male relatives and could lose their rights in case of divorce or death.

In 2001 the marriage and family law was revised so that both spouses' signatures are required on any documents registering family assets and land use rights. The government aims to achieve universal joint titling by 2005.

In cooperation with the World Bank the Vietnamese government selected two communes for a pilot project to reissue land title certificates with joint signatures. The project organized village meetings and distributed leaflets about the new law. As a result of the pilot, some 2,600 households now have joint titles. A 2002 evaluation by the World Bank concluded that the project also:

- Enabled the establishment of a gender-responsive land administration system.
- Improved the ability of local governments to implement land reform.
- Enabled local practices to comply with national law.
- Disseminated knowledge on national law in remote communities.

At the international level, the scale and energy of efforts focused on women's property and inheritance rights have grown in recent years

In India, however, joint titling has had mixed effects (Agarwal 2002). Joint titles are usually favored in the limited cases where women's claims to land are recognized by courts or informal tribunals. Although having some claim to land is better than no claim, joint titles can create problems, making it difficult for women to control the produce of the land, to exercise their priorities in land use if those differ from the priorities of their husbands, to bequeath a portion of the land as they want, or to claim their shares in case of marital conflict. Individual titles may give women greater flexibility and control over the land than joint titles, enabling them to explore alternative institutional arrangements for cultivation and management. Even then, women often lack funds for equipment or inputs. Where holdings are very small, individual investment in equipment can prove uneconomical. Women may also face considerable pressure from male relatives who want to acquire or control the land.

Collective approaches to support women's access to land

Agarwal (2002) identifies five types of institutional solutions to these problems. One is to help women who own individual holdings to invest in capital inputs jointly with other women, while managing production individually. A second type of arrangement involves women purchasing land jointly while owning it individually and farming it collectively.¹² A third possibility is for women to lease land and cultivate it as a group.¹³ A fourth type of institutional arrangement is for women's groups to manage and oversee cultivation on land owned by men. A fifth type of arrangement is for poor rural women to hold group rights over land distributed by the government or otherwise acquired by them (Agarwal 2002).¹⁴

More generally, women's land rights must be complemented by other changes that enhance women's access to credit and to important inputs such as seeds, fertilizers, and new technologies. Credit programs that provide loans for land and housing purchases can promote joint titling and titling in women's names. Improving access to markets for women's products, through improved infrastructure and transportation as noted in chapter 5, is also complementary to the legal changes discussed in this chapter.

International actions

At the international level, the scale and energy of efforts focused on women's property and inheritance rights have grown in recent years, spurred by expansion of the Internet even to remote areas and the continuous efforts by women's and rights-oriented networks. The Convention on the Elimination of All Forms of Discrimination against Women has focused on equality in property as one of its important directives. The UN Conference on Human Settlements at its Istanbul meeting in 1996 also focused centrally on women and land.

Since then the Huairou Commission, a network of women's organizations, in conjunction with the United Nations Development Programme,

UN Human Settlements Program (UN-HABITAT), the Women's Environmental and Development Organization, and the Women's Caucus of the UN Commission on Sustainable Development has held discussions with women's groups worldwide to examine regional progress in enhancing women's access to land and property (Agarwal 2002). The Huairou Commission, the UN Center for Human Settlements, the Centre on Housing Rights and Evictions, and the Food and Agriculture Organization have begun a joint initiative in Sub-Saharan Africa to strengthen advocacy for law and policy reform and implementation and for dissemination of tools and strategies used by women's organizations in the region. The UN Special Rapporteur on the Right to Adequate Housing has given content to specific human rights such as the right to adequate housing. And the United Nations has passed several increasingly specific resolutions over the past decade concerning women's right to ownership of, access to, and control over land, housing, and other property (OHCHR 2003; CESCR 1991). All these efforts deserve greater support.