INTERNATIONAL FOOD
POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty
Supported by the CGIAR

IFPRI Note 13

Promising Approaches to Address the Needs of Poor Female Farmers

Agnes Quisumbing and Lauren Pandolfelli

Gender norms are an important constraint to increasing agricultural productivity. Inequality in the distribution of resources between men and women is linked with production inefficiency, yet interventions targeting smallholder farmers often fail to redress women's lack of access to, and control of, important agricultural resources. Women are often constrained in access to and control of land, water, and other natural resources; complementary inputs, such as seeds and fertilizer; new varieties and technologies; agricultural extension; labor; credit; markets; and social capital. Oftentimes, interventions will be designed to relieve one constraint, not realizing that gender norms—or constraints in other resources—are more binding and may affect the outcome of the intervention. Without specific attention to gender issues, programs and projects are likely to reinforce inequalities between women and men and may even increase resource imbalances. While individual projects cannot hope to redress these inequalities in the short term, at a minimum, interventions should do no harm, and ideally they should catalyze a change process for ending gender discrimination and securing women's access to key resources.

This brief focuses on key agricultural resources needed by poor female farmers to generate incomes and ensure their families' food security. It is organized around key resources and promising approaches to increase poor women's control of those resources. One resource that is not included in this review is human capital. It must be emphasized that investing in women's education, health, and nutrition is an integral part of enabling women to guarantee their families'—and their own—well-being. These approaches were identified in the course of a review of projects and interventions in Sub-Saharan Africa and South Asia. However, while many of these interventions are innovative, most of them have not been rigorously evaluated. Where evaluations have been done, little attention has been paid to the differential impacts on men and women, or to which delivery mechanisms may be more effective in reaching different groups of women and men. Many of the approaches were also pilot projects, and without evaluations it is difficult to recommend which of them should be scaled up. Nevertheless, this brief suggests many promising strategies for channeling resources into the hands of female farmers to boost their agricultural productivity.

LAND, SOIL, AND WATER

Women are often disadvantaged in both statutory and customary land tenure systems. They have weak property and contractual rights to land, water, and other natural resources. Even where legislation may be in place to strengthen women's property rights, lack of legal knowledge and weak implementation may limit women's ability to exercise their rights. Weak property rights are an important agricultural constraint because they limit women's ability to participate in land and other markets, to obtain credit, and to undertake investments in soil fertility. Inequality in access to and control over domestic and productive water is also widespread. Promising approaches to strengthen women's rights over land, soil, and water are discussed in turn below.

Identify key tenure patterns at the onset of projects so that women's property rights are not inadvertently eroded

Projects that do not recognize women's customary rights to land risk jeopardizing those rights and alienating women, who often withdraw their labor in response. In Cameroon, an irrigated rice project did not assign women land because women were expected to work in their husbands' fields. Ultimately, the project failed to pay for itself because women withdrew their labor to grow sorghum for family subsistence outside the

irrigation scheme. In The Gambia, women lost their rights to grow swamp rice on communal land when an irrigation project gave control of the land to male-headed households. Although women benefited from increased economic prosperity as a result of the irrigation project, they now had to provide labor to male heads of households for their land, whereas in the past they had usufruct rights (that is, the right to use the land to grow their own crops). In contrast, when the Lowlands Agricultural Development Programme in The Gambia began to reclaim and improve individually owned degraded land (in consultation with community members), the project equitably redistributed the land to those who had provided labor for the project—90 percent of whom were women.

Increase tenure security through low-cost, rapid, and transparent community land registration

With more secure tenure, female farmers are more likely to engage in market transactions. In Ethiopia, land certification was carried out through a low-cost, rapid, and transparent process. Local land administration committees were required to have at least one female member, and land certificates were issued for transparency after public registration. The land certificates included maps and pictures of husbands and wives. After the certification was carried out in Tigray, female heads of households were more likely to participate in land rental markets, mostly as landlords, because tenure security increased their confidence in doing so. Women can also use rental markets to obtain access to land. In Burkina Faso, the increased and changing market value of land has created incentives for male landholders to lease excess land to women, who are unable to claim permanent land rights. Husbands typically support their wives in such endeavors.

Strengthen and increase knowledge of women's property and contractual rights

Change is needed in property rights laws so that women may hold individual or joint land titles. Further, women need to be aware of their rights in order to claim them. In Uganda, greater knowledge of rights under the 1998 Land Law encourages women to invest in soil conservation, suggesting that legal literacy campaigns can increase agricultural productivity. Several innovative pilot interventions have been used to build awareness about women's property rights. In Zambia, the Justice for Widows and Orphans Project, a network of nongovernmental organizations (NGOs), has established community-level advice groups for women, including training in property law and the writing of wills. In Zimbabwe, Women and Law in Southern Africa trains community-based paralegals in inheritance law. And in Rwanda and Kenya, NGOs are promoting marriage registration, oral and holographic wills, and memory books because lack of identification cards among women is a major impediment to acquiring land titles.

Improve women's access to inputs and technologies that improve soil fertility

Secure access to land is not enough. Farmers must also be equipped with fertilizer and improved seeds to maximize the productivity of their land. Because women tend to have less access than men to methods for improving soil fertility, fertilizer and seed vouchers should be targeted to smallholders with explicit efforts to reach women in poor female- (and male-) headed households. Where women do not have enough cash to pay for fertilizer, fertilizer-for-work programs can target women, or smaller quantities can be sold at lower cost. Another strategy for ensuring women's ability to adopt is to introduce high-value cash crops into women's cropping systems, whereby women pay for fertilizer for their food crops with cash-crop receipts.

Design water supplies explicitly for mixed domestic and productive uses

Designing water supplies for mixed use can enhance livelihoods without compromising the quality or availability of water for domestic needs. In rural Zimbabwe, where women's gardens are an important source of income and food security, the Collector Wells project developed domestic water sources that also provide enough water for the gardens by drilling horizontal boreholes to exploit shallow groundwater tables. Although the average combined costs of the collector well and garden are significantly higher than a standard domestic borehole ($10,600 compared with $4,700), the money earned from the gardens was often invested in micro-businesses or saving schemes, suggesting that the extra costs were a sound investment.

Consult communities to define local water rights

Local water rights and users should be defined in consultation with communities in order to avoid elite capture. The poorest members of the community and women are often excluded from accessing irrigated water through criteria stipulating that users must own land (as opposed to using it) and be heads of households. Projects should also identify and provide potential women leaders in rural communities with the training and skills to become active members of water-user associations. Women's willingness to participate will vary, however, according to cultural norms. In a case study of domestic water needs in India, for example, a majority of women interviewed said that they preferred that their husbands participate in water management committees and represent their wives' interests given gender norms that discourage men and women from interacting in public.

NEW VARIETIES AND TECHNOLOGIES

Because traditional agricultural research and development (R&D) systems are not gender-responsive and typically do not consult female farmers and end-users, improved varieties and technologies do not take into account women's needs, preferences, and resources. Women may have a different risk profile than men and may also command fewer resources to invest in new and "lumpy" (that is, one-off, large and expensive) assets. Promising approaches toward developing gender-responsive R&D are discussed below.

Take into account both women's and men's preferences when developing and introducing new varieties

Women and men often express different preferences for maturation periods, yields, tastes, and colors, which can influence their willingness to adopt new varieties. For example, a study on the adoption of high-yielding varieties of maize in Zimbabwe found that, in an area where men considered maize a cash crop, taste was not an important criterion for adopting a new variety, but women valued taste because they used maize for cooking. Because women's preferences are often overlooked, even when they are the primary cultivators of a variety, involving women in participatory plant breeding can ensure that women's preferences are met and can also lead to better performing varieties. In Rwanda, where the International Center for Tropical Agriculture (CIAT) brought 90 female farmers on station to evaluate genetic material over four growing seasons, bean varieties selected by the women had production increases of up to 38 percent over breeder-selected varieties and outperformed local mixtures 64–89 percent of the time. Achieving these results required a multidisciplinary team to integrate farmers into the formal research process and to effect a "sea change" in thinking on the parts of both the station researchers and the female farmers, who had to learn to think of women as experts in farming in their own right.

Disseminate high-value crops to women that do not require large initial investments or asset ownership

Because women's access to credit is more constrained than men's, women may be more reluctant to adopt high-yielding varieties that require large initial investments. In Zimbabwe, men's greater access to financial assets and formal marketing institutions rendered them more likely to adopt high-yielding maize varieties, whereas women preferred to adopt open-pollinated varieties because they did not require women to obtain loans for fertilizer, and seeds and markets could be accessed through women's informal networks. If large initial investments or asset ownership are required, mechanisms should be provided for women to pool resources, or complementary assets should also be disseminated. In Bangladesh, poor women who were members of an NGO were able to adopt a polyculture fish technology because the NGO arranged for leases of fishponds and organized women into groups to manage the ponds. Group fishponds substituted social capital for land ownership, thereby allowing landless women to adopt the technology, provided that the groups could be sustained. And in Ghana, men and women were just as likely to adopt improved varieties of maize if they had equal access to needed inputs.

Assess how the introduction of new technologies targeted to women will affect gender norms

Introducing new technologies to women may violate social norms or adversely affect gender relations within the household, leading to less successful adoption and potential backlash against women. In Bangladesh, where men and women do not mix openly in public, women were able to successfully adopt improved vegetable technologies disseminated by a women's NGO because the vegetables could be cultivated on homestead land, meaning that women did not have to risk a loss of reputation by working outside of their homesteads. A fish polyculture project by another women's NGO was less successful because it required women to leave their homesteads to manage the fishponds. In a project in The Gambia's North Bank Division, the introduction of intensive vegetable crop production on garden plots led to male resentment because the new technologies required women to invest considerable labor in their gardens during the dry season, a time of year when men spend more time at their family compounds and thus expect increased attention from their wives. Men's resentment did decline, however, when women adopted intercropping strategies to prolong the marketing season, allowing them to yield more profitability from their gardens throughout more months of the year.

Find ways to protect women's gains from new technologies

The introduction of new technologies may shift the gender division of labor and can have both positive and negative impacts. In Ghana, the adoption of cocoa farming increased women's labor burdens, but it also increased women's control over land as husbands transferred land to their wives in exchange for their wives' labor in their fields. In other cases, technologies that increase the productivity of land may encourage men to return to farming and decrease women's access to land. In The Gambia, for example, women lost usufruct rights to communal garden plots when men were encouraged to plant orchards in the same locations because women were already irrigating this land. Projects need to have a clear understanding of the gender division of labor, by both crop and task, before developing and introducing new technologies. Better baseline surveys of households and communities are thus needed before new technologies are introduced.

Recognize that women of different ages and status may have different agricultural roles that can influence the adoption process

Gender is an important distinction for analysis in project design and implementation, but it is not always the most important distinction. A narrow focus on differences between men and women may mask more important differences among women, leading to the flawed assumption that all women have identical resources to draw upon and, hence, the ineffective targeting of interventions. Such differences include marital status, age, and religion; levels of education; and size of landholdings; however, which differences are most important will depend on context. In Kenya, for example, young Luo women defer much of the decisionmaking about their farms to their mothers-in-law and do not obtain the rights to farm independently until they have had children, suggesting that older women may have more resources with which to respond to extension messages and that interventions targeting younger women need to take account of the differential constraints they may face.

EXTENSION

Agricultural extension systems typically do not pay attention to gender, nor do they recognize the importance of women's social networks for information diffusion. As a result, untargeted dissemination is more likely to benefit men and better-off households. Diffusion of information takes place only in part through formal extension services, which implies that social networks are an important resource that remains underutilized. Although extension design is expanding beyond its traditional modes—that is, moving away from top-down, technology-driven, male-dominated approaches focusing on technology transfer, toward gender-sensitive, demand-driven approaches focusing on broader, interrelated issues and facilitation—it is still unclear how these reforms have particularly affected women. Gender-sensitive, participatory approaches would be expected to have positive impacts on women, but little evaluation has been done. Nevertheless, promising approaches to addressing the extension needs of female farmers are discussed below.

Train male extension agents to meet the specific needs of female farmers

The gender division of labor by crop and task, although not static, means that female and male farmers often have different extension needs. Yet untargeted dissemination is likely to benefit men and better-off households because most extension services focus on crops and activities controlled and performed by male farmers. In areas where it is difficult to attract or retain female extension agents, it is especially important to make sure that the extension services provided by male agents meet the needs of female farmers. This includes training male agents in extension methods and communication skills suitable for female farmers and in tasks usually done by women, such as postharvest techniques. Extension agents also need to be equipped with adequate transportation so that they can travel to female farmers because women are often unable to attend training outside their villages due to childcare responsibilities. Finally, programs that implement targeting to reach female farmers need to give careful consideration to the targeting mechanism. Quota targeting, for example, may conflict with program objectives. In Bangladesh, where 30 percent of participants in an individual fishpond program were mandated by the donor to be female, extension agents recruited women by talking to their husbands, and women's roles in the project remained limited. Had a gender-sensitive monitoring system been in place, project implementers would have taken note of women's token participation, not simply the number of women to whom loans were disbursed.

Recruit and train female extension workers, particularly in areas where cultural norms restrict male–female interaction

Whether women prefer to work with male or female extension agents will vary by region and cultural norms influencing male–female interaction. In an evaluation of Nigeria's Unified Extension System, for example, 69 percent of the respondents said that either male or female agents would be acceptable to them, but there was significant variation across states with different cultural norms. Other evidence suggests that the presence of female extension agents and female early adopters is an important factor in encouraging the participation of female farmers in extension activities. In Kenya, previous awareness and adoption of technology by farmers of the same sex increases the probability of coffee adoption, suggesting that there are positive gains from training female extension agents to work with female farmers. Yet men can also benefit from the training of more women as extension agents. In rural Senegal, for example, both women's and men's knowledge of a set of natural resource management technologies (nursery techniques, composting, and agroforestry practices) increased from contact with female extension agents. Efforts to recruit and train female agents must take into account sociocultural norms that may act as disincentives. In Nigeria, extension agents were given subsidized motorcycles to travel to villages, but in the southwest, where cycling is not culturally appropriate for women, most of the motorcycles were used by the agents' male relatives instead.

Provide extension messages in the simplest way possible

Extension messages, whether delivered by male or female extension agents, should be given in the simplest terms possible. Where women have lower literacy or schooling rates than men, it is critical to adapt training materials to be easily understood

by women. In Kenya, women who had less education than men excelled in the uptake of soil fertility replenishment technologies as long as explanations were given in the simplest terms. In fact, qualitative data suggest that the women understood the technologies better than the men did. In Bangladesh, a local NGO successfully taught illiterate women how to manage fishponds by giving them notebooks with illustrated instructions.

Use informal networks for information diffusion

Information diffusion takes place only in part through formal extension services. Social networks also play an important role, especially for women, who often have less access to formal channels of dissemination. Yet because men's and women's networks often differ, extension information should be disseminated through a range of networks. In Uganda, where informal mechanisms are the most important sources of information for farmers, markets are a particularly important source of information exchange on agriculture, but men go to market far more often than women. In Kenya, church is a far more important information channel for female farmers than it is for male farmers.

LABOR

A poor woman's labor is one of the few resources she can control. However, women's productivity in agriculture and home production, including food processing and preparation, is low, and many home production tasks are filled with drudgery. Given gender norms that emphasize women's roles in home production, women will not be able to allocate time to more productive (or remunerative) uses unless labor productivity increases through the mechanisms described below.

Introduce culturally appropriate, labor-saving technologies that reduce women's time and energy burdens

Labor-intensive and time-consuming rural practices hinder women's farm and nonfarm productivity. Introducing technologies that reduce women's time and energy expenditures can enable women to invest in income-generating activities or much needed leisure time. Not all women, however, will benefit equally from labor-saving technologies. In general, women from poor landowning households will benefit from technologies that save labor and reduce drudgery. Landless women, on the other hand, will benefit from the increased employment that mechanical technologies provide, but they may also be displaced by some labor-saving technologies if interventions do not provide them with alternative employment opportunities. Technology design also needs to take into account culturally permissible roles for women. A pedal-operated, bicycle-mounted rice thresher was introduced to female processors in Nigeria, but it was ultimately rejected because, in using it, women exposed their thighs (and wearing trousers was not a culturally appropriate alternative). Involving women in the maintenance of new technologies can be one strategy for circumventing gender roles. When the Self Employed Women's Association began a campaign to mobilize women for water management in Gujurat, India, women resisted participating because they regarded the development and management of water infrastructure as male territory. However, when women became trained as handpump technicians to repair broken pumps, involvement in the campaign increased.

MARKETS

Women face many barriers to accessing markets, including culturally inappropriate modes of transportation, harassment by market or health officials because the high cost of permits often leads women to market their wares just outside market boundaries, time burdens that constrain women from seeking the best prices for their output, and even marital conflict if fluctuating prices lead a husband to believe that his wife is withholding money based on earnings from past trips. Men may also appropriate crops that women are traditionally responsible for when they enter the market economy.

Invest in market-oriented interventions that facilitate women's market access while addressing gender norms

In Tanzania, because men are more likely to be approached by agricultural companies or other chain actors wanting to do business, women's farmer groups are less successful than men's groups in terms of searching for and accessing new markets for their existing products and pursuing new products under contract arrangements. These actors wrongly assume that men are the primary producers in the household. Market-oriented interventions thus need to address constraining gender norms that place women at a disadvantage when seeking new market opportunities. In Uganda and Malawi, for example, CIAT has implemented a participatory research approach, "Enabling Rural Innovations," that develops the capacity of rural women and the poor to analyze and access market opportunities for competitive products that will increase farm income and employment. Women must account for 30–50 percent of market group members, and enterprises must be selected based on the extent to which both women and men can benefit from the enterprise. Group members are also given training in group leadership, conflict management, gender issues, and HIV/AIDS awareness. A case study of the approach reveals that women improved their skills in becoming group leaders, training other farmers in experimentation, and bargaining with traders, although men improved significantly more than women in these areas, suggesting that they were still better able to exploit social networks. The study also found that the increase in women's incomes from their new market opportunities led to an increase in household decisions being made jointly by men and women in both Uganda and Malawi.

CREDIT AND FINANCIAL SERVICES

Collateral requirements, high transactions costs, limited education and mobility, social and cultural barriers, and the nature of women's businesses, often concentrated in low-return sectors, limit women's ability to obtain credit. Women's roles as primary caregivers and the health risks associated with child-bearing also lead to intermittency in employment, which makes women riskier clients for banks. Social customs in some cultures also prohibit women from receiving information from outside lenders—which is important in circumstances where information is not fully transmitted from husbands to wives. Under these conditions of imperfect information and barriers to access, credit and insurance delivery systems need to be designed to overcome women's constraints. Key strategies are discussed below.

Encourage women to enter high-value or high-return sectors for higher returns to credit

Targeting credit to women is often justified by the argument that female owners are likely to be poorer and more credit constrained than male owners and to use resources more efficiently. If this were the case, returns to capital would be expected to be higher in female-owned firms. However, in Sri Lanka, mean returns to capital are zero among female-owned microenterprises, whereas returns to capital for male-owned enterprises are in excess of 9 percent per month. These large returns show that, on average, male-owned enterprises are more likely to generate the returns on investments necessary to repay microloans. These differences in returns are primarily due to women's concentration in low-return industries. Female farmers and entrepreneurs should thus be encouraged to adopt high-value crops or to enter high-return sectors by giving them equal access to new varieties or business training to venture into nontraditional economic activities. Such interventions should, however, anticipate potential male resistance and the possibility of men taking over profitable activities done by women.

Use group liability as a collateral substitute, with the option of graduation to individual liability

The Grameen Bank has been very successful in using group lending to overcome the need for collateral in reaching out to poor rural Bangladeshi women. Recently, however, even lenders traditionally using group lending have shifted to individual liability. The Grameen Bank, for example, has relaxed the group liability clause in the Grameen II program by allowing defaulters to renegotiate their loans without invoking group pressure. One study, in which women in the Philippines were randomly assigned to individual and group liability loan programs, found that conversion to individual liability does not affect repayment rates and leads to higher growth in center size by attracting new clients. Varying interest rate and loan maturity periods may also help reach poor female farmers, whose ability to repay loans may depend on the gestation period of their crops.

Target credit, or design loan packages, based on women's different needs throughout their life cycle

A study in Guatemala found that gender differences in the ability to expand family-owned enterprises are highly correlated with the life cycle. Young male entrepreneurs were more aggressive in generating employment than older male entrepreneurs, but older women generated more employment than young women or older men. Although women in their child-bearing years may not channel their energies toward employment growth, choosing instead to focus on childrearing, it is during these years that the impacts of income-generating activities may be highest in terms of reducing poverty and improving child nutrition. Thus, one option for delivering credit would be to target microenterprise funds to older females beyond childbearing years, who could expand their enterprises, but whose preferences would also tend toward the welfare of their grandchildren.

Protect women's rights to their own savings and financial assets

Financial services for poor rural women should provide opportunities to save—and to protect those savings. Opportunity International's bank in Malawi, OIBM, was founded as a traditional credit-led microfinance bank but now also offers two savings strategies: a biometric smart card that enables illiterate customers with no official government identification (the vast majority of the population) to open and manage a savings account using fingerprints for identification, and inexpensive community branches made from used shipping containers. The minimum opening deposit is $4.50. One early savings customer was a domestic servant whose employers had granted her severance pay when they moved away. She deposited the full amount at OIBM using her smart card. A few weeks later, when her husband died of AIDS, the husband's relatives came to seize the property of his widow. They found her smart card and took it to the bank, but the biometric reader showed "red light: no match." Although the relatives argued with the teller that this was their due, he held firm that the account belonged to the woman. Her savings were protected and became her only asset as she began her life again.

SOCIAL CAPITAL

Working with groups is a major mechanism through which outside programs and women themselves can increase women's control of assets, improve their productivity, and enhance their status. In fact, the social capital that groups generate has been recognized as an important asset in itself. Women draw on a range of social networks for their personal and their family's

livelihoods. In development policy intervention strategies, social networks are said to be an effective instrument of women's participation and empowerment. Women's clubs, various forms of women's groups, and kinship ties, for example, are thought to further women's empowerment through building social capital, especially trust and norms. However, building social capital is not costless—networking takes time, especially when formal group meetings are required, and many groups levy fees. Women in poor households face particularly serious time constraints due to livelihood activities and child-care responsibilities. Membership fees may create a further barrier for poor women, who have limited control over cash resources. Strategies to build women's social capital include the following.

Organize women into single- or mixed-sex groups to increase their control of project benefits and improve their well-being

In some contexts, working with existing women's groups may facilitate entry into communities and allow women to retain control of project benefits. In other cases, it may be more effective to form mixed-sex groups, especially when women and men are both key users of a resource. In Bangladesh, compliance with rules limiting fishing in protected areas is higher when both men and women are actively involved in groups because women pressure others to follow the rules and men patrol the fish sanctuaries at night when it is unsafe for women to do so. In Madhaya Pradesh, India, when women belong to forest protection committees, participate in committee meetings, and patrol the forest, control of illicit grazing and felling increases by 24 and 28 percent, respectively, and the regeneration of allotted forest also increases by 28 percent. The ability to promote mixed-sex groups, however, will depend on the degree of gender segregation within a community and on women's and men's interests. Where strong segregation exists, promoting women's groups may be the best strategy. Where women's and men's motivations for joining groups differ, projects that encourage mixed-sex groups may be less sustainable, especially once external funding runs out.

Regardless of whether projects choose to work with mixed- or single-sexed groups, they need to conduct sound gender analysis. In western Kenya, for example, where men often comprise a minority of membership in women's groups, an agroforestry extension project working with women's groups underestimated the importance of men's role in the distribution of resources and benefits within the groups. Consequently, the groups suffered a 67 percent rate of collapse over a 12-year period, often resulting in a loss of labor, capital, and moral support for group members.

Secure women's participation by emphasizing benefits that matter to women

Development practitioners tend to assume that women want to participate in groups, but women need incentives, especially when the opportunity costs of their time are high, such as in labor-intensive collective-action schemes. In the Philippines, attempts to have women monitor lake water to determine if soil conservation techniques were reducing silting were unsuccessful until the project realized that women were more interested in health issues than in soil loss. When the project began to raise awareness about how water quality affected the health of families, and the program expanded to include monitoring for E. coli, women's participation significantly increased.

Promote institutional mechanisms that foster women's active participation in groups

Simply adding women to groups does not lead to greater effectiveness. Women's inclusion in collective action needs to be accompanied by measures to strengthen their capacities for assuming active roles, including leadership positions. Institutional mechanisms that enable women to join groups and remain active members should be intrinsic components of group-based programs. Such mechanisms include allowing nonhousehold heads and nonlandowners to be group members, timing meetings to accommodate women's workloads (which will vary seasonally), ensuring that all women (for example, poorer, less-educated, single, or widowed women) have opportunities to voice their concerns in group meetings, and soliciting women's feedback in project monitoring and evaluation. In many cases, women will also need training to perform their roles effectively. In community forest-user groups in Nepal, for example, women reported significant challenges in retaining their positions once they were elected because they lacked the needed technical skills, and thus the confidence, to do their jobs.

CONCLUSION

Gender norms are complex. They change in response to shifting economic, political, and cultural forces, which can create new opportunities for women to strengthen their control of resources. Yet, gender norms do not change overnight, and attempts to directly challenge such norms may unintentionally result in an erosion of women's claims to resources. Thus, interventions that seek to put agricultural resources in the hands of women need to consider the trade-offs inherent in challenging and respecting gender norms. The NGO vegetable program noted above was successful because it was designed in response to local gender norms that dissuade women from working outside of their homesteads; nevertheless, it did not redress another byproduct of those norms, women's constrained access to markets. In another example from Bangladesh, an

NGO's insistence that it would work only with women to create aquatic resource management committees failed to involve women in the long run because it challenged local gender norms that discourage women's public participation, and men within the communities refused to allow their wives to participate. These examples do not suggest that gender norms that disadvantage women should not be challenged outright, but that strategies for doing so need to be designed in light of other project objectives, such as increasing women's food security or increasing their management of natural resources. Gender norms are also context-specific, varying across cultures and even within the same country. Adopting these promising approaches to specific settings involves tailoring interventions to the specific sociocultural context in which gender relations unfold.

FOR FURTHER READING

Adato, M., and R. Meinzen-Dick, eds. 2007. *Agricultural research, livelihoods, and poverty: Studies of economic and social impacts in six countries.* Baltimore: The Johns Hopkins University Press for the International Food Policy Research Institute.

Adetoun, B. E. A. 2003. *Organization and management of extension services for women farmers in south-western Nigeria.* New Delhi: Global Development Network.

Barham, J., and C. Chitemi. 2008. *Collective action initiatives to improve marketing performance: Lessons from farmer groups in Tanzania.* CAPRi Working Paper 74. Washington, DC: IFPRI.

Carney, J. 1988. Struggles over crop rights and labour within contract farming households in a Gambian irrigated rice project. *Journal of Peasant Studies* 15 (3): 334–349.

de Mel, S., D. McKenzie, and C. Woodruff. 2007. Who does microfinance fail to reach? Experimental evidence on gender and microfinance returns. Working Paper No. 157. Bureau for Research and Economic Analysis of Development (BREAD).

Doss, C. R. 1999. *Twenty-five years of research on female farmers in Africa: Lessons and implications for agricultural research institutions. Includes annotated bibliography.* CIMMYT Economics Program Paper No. 00-02. Mexico City: CIMMYT.

Hambly Odame, H. 2003. Men in women's groups: A gender and agency analysis of local institutions. In *Masculinity matters. Men, gender and development.* Frances Cleaver, ed. London: Zed Press.

Kaaria, S., J. Njuki, A. Abenakyo, R. Delve, and P. Sanginga. 2008. Assessment of the enabling rural innovation (ERI) approach: Case studies from Malawi and Uganda. *Natural Resources Forum* 32 (1): 53–63.

Moore, K., S. Hamilton, P. Sarr, and S. Thiongane. 2001. Access to technical information and gendered NRM practices: Men and women in rural Senegal. *Agricultural and Human Values* 18: 95–105.

Moriarty, P., and J. Butterworth. 2003. *The productive use of domestic water supplies: How water supplies can play a wider role in livelihood improvement and poverty reduction.* Thematic Overview Paper. The Netherlands: IRC International Water and Sanitation Centre.

Pandolfelli, L., R. Meinzen-Dick, and S. Dohrn. 2007. *Gender and collective action: Policy implications from recent research.* CAPRi Policy Brief No. 5. Washington, D.C.: IFPRI.

Schroeder, R. A. 1993. Shady practice: Gender and the political ecology of resource stabilization in Gambian garden/orchards. *Economic Geography* 69: 349–365.

Singh, N., G. Jacks, P. Bhattacharya, and J-E. Gustafsson. 2006. Gender and water management: Some policy reflections. *Water Policy* 8 (2): 183–200.

Sperling, L., and P. Berkowitz, 1994. Partners in selection: Bean breeders and women bean experts in Rwanda. Washington, DC: CGIAR Gender Program.

Taiwo, K. A., and M. O. Faborode. *Gender, technology and poverty: Issues in post harvest crop processing technologies.* The African Gender Institute. http://www.gwsafrica.org/african%20feminist%20thinkers/taiwo/taiwo%20publication.htm (accessed February 2008).

Lauren Pandolfelli (l.pandolfelli@cgiar.org) is a research analyst in the Environment and Production Technology Division of the International Food Policy Research Institute (IFPRI); **Agnes Quisumbing** (a.quisumbing@cgiar.org) is a senior research fellow in IFPRI's Food Consumption and Nutrition Division. All correspondence should be directed to Agnes Quisumbing.

IFPRI briefs in this format have been consolidated into an IFPRI Note series and will be numbered from now on. This is the 13th note in this series.

Financial Contributors and Partners

IFPRI's research, capacity strengthening, and communications work is made possible by its financial contributors and partners. IFPRI gratefully acknowledges the generous unrestricted funding from Australia, Canada, China, Finland, France, Germany, India, Ireland, Italy, Japan, the Netherlands, Norway, the Philippines, Sweden, Switzerland, the United Kingdom, the United States, and the World Bank.

Printed on alternative-fiber paper manufactured from agriculturally sustainable resources that are processed chlorine-free (PCF).