



INTERNATIONAL FOOD
POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty

Supported by the CGIAR



ETHIOPIAN DEVELOPMENT
RESEARCH INSTITUTE

ESSP2 Discussion Paper 007

Agricultural Extension in Ethiopia through a Gender and Governance Lens

Tewodaj Mogues, Marc J. Cohen, Regina Birner, Mamusha Lemma, Josee
Randriamamonjy, Fanaye Tadesse and Zelekawork Paulos

Development Strategy and Governance Division, International Food Policy Research
Institute – Ethiopia Strategy Support Program 2, Ethiopia

Ethiopia Strategy Support Program 2 (ESSP2)

Discussion Paper No. ESSP 007

October 2009

IFPRI-Addis Ababa

P.O. Box 5689
Addis Ababa, Ethiopia
Tel: +251-11-646-2921
Fax: +251-11-646-2318
E-mail: ifpri-addis@cgiar.org

IFPRI HEADQUARTERS

International Food Policy Research Institute
2033 K Street, NW • Washington, DC 20006-1002 USA
Tel: +1-202-862-5600
Skype: IFPRIhomeoffice
Fax: +1-202-467-4439
E-mail: ifpri@cgiar.org
www.ifpri.org

THE ETHIOPIA STRATEGY SUPPORT PROGRAM 2 (ESSP2)

DISCUSSION PAPERS

ABOUT ESSP2

The Ethiopia Strategy Support Program 2 is an initiative to strengthen evidence-based policymaking in Ethiopia in the areas of rural and agricultural development. Facilitated by the International Food Policy Research Institute (IFPRI), ESSP2 works closely with the government of Ethiopia, the Ethiopian Development Research Institute (EDRI), and other development partners to provide information relevant for the design and implementation of Ethiopia's agricultural and rural development strategies. For more information, see <http://www.ifpri.org/book-757/ourwork/program/ethiopia-strategy-support-program> or <http://www.edri.org.et/>.

ABOUT THESE DISCUSSION PAPERS

The Ethiopia Strategy Support Program 2 (ESSP2) Discussion Papers contain preliminary material and research results from IFPRI and/or its partners in Ethiopia. The papers are not subject to a formal peer review. They are circulated in order to stimulate discussion and critical comment. The opinions are those of the authors and do not necessarily reflect those of their home institutions or supporting organizations.

About the Author(s)

Tewodaj Mogues, Research Fellow, Development Strategy and Governance Division (DSG), IFPRI

Marc J. Cohen, Senior Researcher, Oxfam America

Regina Birner, Senior Research Fellow, DSG, IFPRI

Mamusha Lemma, EEPRI/EEA Co-Researcher or Consultant

Josee Randriamamonjy, Research Analyst, DSG, IFPRI

Fanaye Tadesse, Junior Research Fellow, Poverty and Human Resource Division, EEPRI

Zelekawork Paulos, Research Officer, DSG, IFPRI

Agricultural Extension in Ethiopia through a Gender and Governance Lens

Tewodaj Mogues, Marc J. Cohen, Regina Birner, Mamusha Lemma, Josee
Randriamamonjy, Fanaye Tadesse and Zelekawork Paulos

Development Strategy and Governance Division, International Food Policy Research Institute –
Ethiopia Strategy Support Program 2, Ethiopia

Table of Content

ACKNOWLEDGMENTS.....	1
ABSTRACT.....	2
1. PROVIDING AGRICULTURAL SERVICES FOR THE RURAL POOR AND WOMEN: WHAT IS THE PROBLEM?.....	3
2. CONCEPTUAL FRAMEWORK.....	5
3. AN OVERVIEW	6
3.1 Economy and agriculture	6
3.2 Role of women in agriculture.....	9
3.3 Agricultural extension	10
4. DESCRIPTION OF THE SURVEY AND DATA.....	12
4.1 Quantitative surveys	12
4.2 Qualitative case studies	14
5. HOUSEHOLDS, COMMUNITY ORGANIZATIONS, AND SERVICE PROVIDERS	15
5.1 Households' access to, and satisfaction with, agricultural extension services.....	15
5.2 Service providers: capacity, constraints, incentives	23
5.2.1 Service providers' interaction with farmers.....	23
5.2.2 Service providers' attitudes toward women, and gender-orientation of services.....	23
Service providers' relationship with the local bureaucracy.....	29
Interactions among service providers.....	30
5.3 Agricultural cooperatives.....	30
5.4 Local political bodies and agricultural service provision.....	33
5.4.1 Relationship between the different tiers of government.....	33
5.4.2 The role of political parties	34
5.4.3 Relationship between cooperatives and local political bodies.....	34
6. DISCUSSION, AND IMPLICATIONS FOR RESEARCH AND POLICY.....	37
REFERENCES	43

List of Tables

Table 1: Basic economic indicators	8
Table 2: Agricultural indicators	8
Table 3: Survey Site Characteristics	13
Table 4: Number and types of household/individual level interviews	14
Table 5: Case study selection	14
Table 6: Number of qualitative interviews in Ethiopia	14
Table 7: Characteristics of surveyed households	16
Table 8: Use of extension and other agricultural services, by location (Percent receiving service)	18
Table 9: Relationship between household and geographic characteristics and extension access and innovation.....	21
Table 10: Residents' involvement in and contribution to cooperatives	32
Table 11: Residents' perception of cooperative's influence on local government	36

List of Figures

Figure 1: Conceptual framework of the agricultural extension system	7
Figure 2: Use of extension and other agricultural services, by gender	17
Figure 3: Use of extension and other agricultural services, by socioeconomic status	18
Figure 4: The size of overall and female membership in cooperatives	33

ACKNOWLEDGMENTS

The author team would like to thank the following persons, who contributed in various ways to the project: Degnet Abebaw (EEA/EEPRI) was the lead collaborator managing the Ethiopia quantitative survey, and Naod Mekonnen (EEA/EEPRI) and Degnet Abebaw contributed to the design of the household and extension agent questionnaires used in Ethiopia. The peer reviewers for the above mentioned three-country study under the project “Gender and Governance in Rural Services” project were: Meheret Ayenew (Addis Ababa University, Ethiopia); Radu Ban, Reena Gupta, Smita Misra, Giovanna Prenzushi, Parmesh Shah, and Melissa Williams (World Bank), Severin Kodderitzsch Anne-Marie Goetz (UNIFEM), Jeannette Gurung (Women Organizing for Change in Agriculture and Natural Resources), S. S. S. Meenakshisundaram (National Institute of Advanced Studies, India), Abena Oduro (University of Ghana), Nicolas Perrin (SDV), Agnes Quisumbing (IFPRI), and Aruna Rao (Gender at Work). The questionnaires for the Ethiopia study were based on questionnaires developed for the Ghana survey of the three-country project. The Ghana survey questionnaires were developed by Regina Birner, Nethra Palaniswamy, Leah Horowitz, Felix Asante, with input of several other researchers. Additional thanks go to Leilina Abate and Zewdu Tadessa, who provided research assistance on the qualitative case studies, and Gudina Bulte, who provided field assistance and translation services. This study would not have been possible without the kind collaboration of all persons in Ethiopia who were interviewed in the course of this study, including members of the public administration, political representatives, community leaders, and household members. We would like to express our special thanks for their time and commitment. The research underlying this paper was funded by the Ethiopia Strategy Support Programme (Phase II) and the World Bank under the Bank Netherlands Partnership Program (BNPP) Trust Fund. ESSP II is managed by Paul Dorosh (IFPRI), and the BNPP Trust Fund is managed by Eija Pehu and Catherine Ragasa (World Bank). Additional funding for the surveys drawn on in this report was provided by Irish Aid under the Food and Livelihood Security Programme, and by the World Bank under the multidonor Trust Fund supporting PSNP.

ABSTRACT

Drawing on a household survey collected in eight woredas in seven Ethiopian regions in 2009, as well as on qualitative fieldwork in four of the eight woredas, this paper provides analysis of agricultural extension delivery in Ethiopia. While overall extension services are relatively accessible in Ethiopia, there are differences in access between men and women, and particularly stark differences by region. Individual visits by public sector extension agents to household farms are by far the most common mode of extension delivery; alternative modes of extension (either in delivery method or type of service provider) play a rather limited role. Using the method widely applied in the “Citizen Report Card” approach, questions to farmers regarding satisfaction with services yielded near 100 percent reporting of satisfaction; however, the study also showed relatively low uptake of extension advice. This suggests the need to revisit or refine the Citizen Report Card method of eliciting satisfaction with services in this type of empirical context.

Women’s groups (e.g. the women’s associations at the kebele level in rural areas) may be a promising approach to reach women with extension services; in some of the study sites, they were able to successfully link extension agents with women farmers and circumvent the socially sensitive issue of (male) extension agents providing advice to women one-on-one. However, the use of women’s associations also for other matters, e.g. political mobilization of women, may weaken their promise in expanding access to extension services for women farmers.

Finally, making agricultural extension demand driven remains a challenge in Ethiopia. While there is strong political will to expand agricultural extension in Ethiopia, the strong standardisation of extension packages arising from a pronounced top-down nature of public service delivery makes it difficult to tailor agricultural extension to farmers’ needs. The incentives of extension agents are set in a way that they try to maximize farmers’ adoption of standardized packages. The packages have become less rigid in recent years, with a menu of options now available to farmers. However, even the more diversified menu cannot substitute for the microlevel adaptation, the process that would make new inputs and practices more credible to farmers, and which only extension workers and their farmers can feasibly manage.

1. PROVIDING AGRICULTURAL SERVICES FOR THE RURAL POOR AND WOMEN: WHAT IS THE PROBLEM?

Three out of four poor people in the developing world live in rural areas, and most of them depend—directly or indirectly—on agriculture for their livelihoods. In the twenty-first century, agriculture remains a fundamental tool for lifting them out of poverty, as has been highlighted in the World Development Report 2008 (World Bank 2007c). The recent food crisis has further underlined the urgency of supporting agricultural development. Providing economic services, such as agricultural extension, is essential in using agriculture for development.

Generally, the “triple challenge” of market, state, and community failure can often result in the poor provision of agricultural and rural services such as agricultural extension, rural water supply, etc., and poor provision of these services is a major obstacle to agricultural and rural development. Due to market failure, the private sector may not provide these services to the rural poor to an extent that is desirable from society’s point of view. Often, in many developing countries the state may not be very effective in providing these services either, because they are difficult to supervise for two reasons: (1) services such as agricultural extension are transaction-intensive—they have to be provided every day throughout the country, even in remote areas—and (2) they require discretion and cannot easily be standardized, especially if they are to be demand driven. In many cases as well, NGOs working in developing countries, or the communities themselves are interesting alternative providers of these services, but they can also fail due to problems such as capacity constraints and local elite capture.

In fact, the Millennium Development Goals cannot be reached without addressing this challenge of improving service provision. Particularly the rural poor suffer from poor service provision (World Bank, 2004a). Where elite capture prevails, they have less access to agricultural and rural services, and where the public system fails in general, they cannot easily resort to private service providers. They have to spend more of their time to access services, which affects their productivity, and it hurts them more if they have to pay bribes to access a service.

Providing better services to rural women is also essential in using agriculture for development. The World Development Report 2008 and the recently published Gender in Agriculture Sourcebook provide ample evidence for this need (World Bank, FAO, & IFAD, 2008). Women play an important role in agriculture—in many parts of Africa, they are the main producers. In Uganda, for example, 75 percent of the agricultural producers are women (World Bank et al., 2008: 2). In the Indo-Gangetic plains, the main rice and wheat production region of South Asia, women provide more than 60 percent of the labor for crop production and more than 70 percent of the labor for livestock production (Ladha et al., 2000: 10). Migration and the effects of HIV/AIDS have increased the share of women who are in charge of managing the family farms in many parts of the world. Women also play a prominent role in the production of high-value commodities, such as fruits and vegetables, which are increasingly in demand, as incomes rise. Yet, the prominent role of women in agriculture is often unrecognized.

The absence of recognition of the role of women in agriculture constitutes a serious problem, which can be described as a “perception bias”: The perception of the roles that men and women

play in agriculture is biased toward men,¹ and as a consequence, the perception that agricultural services are needed is biased toward men, too. Hence, fewer efforts are made to reach women in agricultural service provision, for example through hiring and training more women extension officers especially where cross-gender contact can make outreach to women farmers difficult. In fact, the perception bias adds a fourth challenge to the triple challenge of market, state, and community failure, which is more fundamental: The three types of failures occur when efforts are made to provide agricultural services. The perception bias even prevents efforts being made to provide agricultural services to women. There is ample evidence that the access of rural women to agricultural services is particularly poor, as documented in the Gender in Agriculture Sourcebook. Women have less access to agricultural extension and training, less access to agricultural credit, and less access to irrigation and modern inputs. They are also less likely to be organized in farmers' organizations or agricultural interest groups that make their voice heard (World Bank et al., 2008). This results in a tremendous loss of opportunity. What applies for development in general—as pointed out above—is particularly true for agriculture: Achieving gender equity is not only a goal in its own right, it is essential to use agriculture for development, and a precondition to meeting the first Millennium Development Goal of halving hunger and poverty.

In view of the food crisis, governments and the international development community have pledged to invest more in agriculture, and agricultural service provision is an essential part of this investment agenda. Even prior to the crisis, agriculture had reemerged as a priority on the international development agenda. While the food crisis made the urgency to invest in agriculture clear to everyone, a range of previous developments also contributed to increased attention to this sector. In Africa, heads of states made a commitment in 2003 to spend at least 10 percent of their budgetary resources on agriculture. The New Partnership for African Development (NEPAD) launched the Comprehensive Africa Agricultural Development Program (CAADP), which aims at achieving 6 percent growth for the sector. New charity foundations, such as the Bill and Melinda Gates Foundation, have also turned their attention to agriculture. Yet investing more funds alone does not result in better agricultural and rural services: It is essential to overcome the triple challenge of market failure, government failure, and community failure that makes the provision of agricultural and rural services so challenging. And it is also essential to address the perception bias that further disadvantages women in getting access to agricultural and rural services.

This study focuses on the presentation of major descriptive findings from the quantitative and qualitative research conducted under IFPRI's Gender, Governance, and Rural Services research project. While this research project is a three-country study (Ghana, Ethiopia, India), this paper focuses on the findings on agricultural extension in Ethiopia. The analysis unveils major patterns of extension services and assesses their gender dimension. Subsequent outputs of the research project will build on this paper and on associated country-specific papers to conduct more-extensive quantitative analyses of the gender-specific relations between extension service provision and outcomes. The exploratory nature of this study limits the possibility of deriving strong implications regarding causality. Therefore, the policy implications derived from this paper have been carefully formulated, specifying the areas where further evidence is needed. Since the paper provides empirical information on a range of questions for

¹ In a seminal article, Nobel Prize winner Amartya Sen identified the perception bias against women's economic role as an important reason for persistent gender inequality (Sen, 1990b).

which evidence is limited so far, we believe that the results will nevertheless be of interest for a wide audience interested in agricultural extension in Ethiopia, including researchers, members of the public administration, policymakers, and staff from nongovernmental organizations and international development agencies who are involved in the design and management of reform efforts, projects, and programs dealing with agricultural extension provision.

The paper is structured as follows: Section 2 presents the conceptual framework used in this paper for analyzing agricultural advisory services. Section 3 provides contextual information on the economy, agriculture, and the institutional arrangements by which agricultural extension is provided. Section 4 describes the data used in the analysis. The subsequent sections are organized around the conceptual framework used for the study. Covering agricultural extension, Section 5 presents the main empirical findings of the study that are derived both from the surveys and from the qualitative case studies. Section 6 presents summarising discussion of the findings. It also derives conclusions and policy implications, and identifies areas for further analysis and research.

2. CONCEPTUAL FRAMEWORK

This paper uses as the conceptual foundation for the analysis of agricultural extension services in Ethiopia the framework developed in Birner et al. (2009). Figure 1 reproduces the framework, which distinguishes between factors that constitute choice variables for policy makers concerned with agricultural extension services (such as the features of extension captured in the box AAS), and variables that are either difficult for them to change or go beyond their area of influence (such as the contextual factors in box CF).

The governance, capacity, management and delivery methods of the agricultural extension system—and the extent to which these factors constitute a best-fit with Ethiopia’s existing policy environment, service provision capacity, agricultural systems, and socio-cultural and economic conditions—in turn influence the quality of agricultural extension delivery (Box I). However, what is of ultimate interest is how the quality of extension contributes to outcomes related to development and wellbeing. These may be more narrowly defined in terms of outcomes in the sector, e.g. agricultural productivity and incomes, or more broadly, in terms of overall household income or consumption, equity, or empowerment. High performance in extension provision will, however, not result in improvement in these outcomes without extension resulting in appropriate changes in farmers’ agricultural practices, by influencing their capacity, incentives, and knowledge base (Box J). (See Birner et al. (2009) for a more detailed discussion of this framework). In the rest of the paper, we will relate the overview information as well as the empirical findings back to this conceptual framework.

3. AN OVERVIEW

This section provides background information about Ethiopia. The section starts by presenting a perspective on basic economic and agricultural data derived from international databases, followed by more detailed information on agricultural extension services, which this study is centred on.

3.1 Economy and agriculture

The information provided in this section corresponds to the Contextual Factors (Box CF) of the agricultural advisory services framework in Figure 1. As shown in Table 1, Ethiopia has had a low gross domestic product (GDP) per capita, and highly fluctuating economic growth, over the past decade and half. As in many countries in Sub-Saharan Africa, the reported female labor force participation is less than half in Ethiopia, and as been stagnant over many years. The level of urbanisation is low and poverty is endemic beyond Ethiopia's urban areas.

Figure 1: Conceptual framework of the agricultural extension system

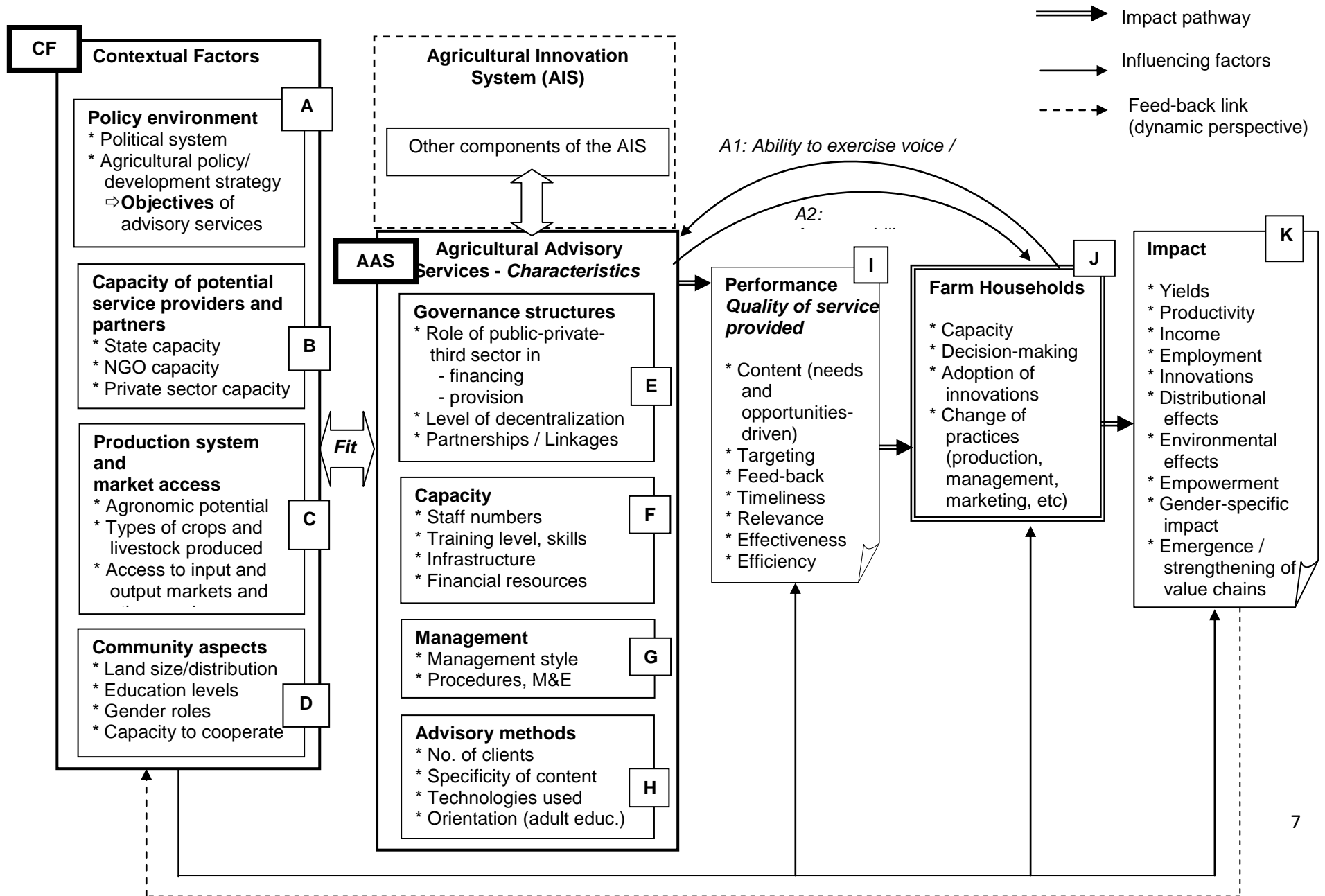


Table 1: Basic economic indicators

	1990	1995	2000	2006
GDP per capita (constant 2000 US\$)	116	111	120	146
GDP per capita growth (annual %) (3-year average)	-2.5%	6.5%	-0.4%	8.0%
Labor force, female (% of total labor force)	44.89%	44.81%	44.86%	44.94%
Rural population (% of total population)	87.4%	86.1%	85.1%	83.7%
Poverty headcount ratio at Ethiopia's rural poverty line (% of rural population)	n/a	47% ^a	45%	n/a ^b

Source: World Development Indicators 2008 database. ^aThe closest date to 1995 for which WDI 2008 has this information is 1996, thus this figure is for 1996. ^bThe most recent data available in the WDI 2008 database is for 2000. According to Ethiopia's Central Statistical Authority based on the 2004/05 Household Income, Consumption and Expenditure Survey (HICES), the rural poverty rate in 2004/05 was 39.3%.

Agriculture dominates economic life in Ethiopia, accounting for 47 percent of GDP, 80 percent of employment, and 88 percent of exports (see Table 2).

Table 2: Agricultural indicators

	1990	1995	2000	2006
Agriculture, value added (% of GDP)	54.3%	57.5%	47.4%	47.3%
Employment in agriculture (% of total employment)	n/a	89.3% ^a	n/a	80.2% ^b
Agricultural raw materials and food exports (% of merchandise exports)	n/a	85.9%	89.3%	87.8% ^c
Agricultural land (% of land area)	51.1%	30.5%	30.7%	33.9% ^b
Irrigated land (% of cropland)	n/a	n/a	2.53% ^d	2.46% ^c
Fertiliser consumption (kg per arable land)	n/a	n/a	16.9 ^e	2.6 ^b
Crop production index (1999–2001 = 100)	n/a	81	98	111 ^f

Source: Most recent data available from the World Development Indicators 2008 database. Closest year for which data is available: ^a1994, ^b2005, ^c2003, ^d2001, ^e2002, ^f2004,

Despite the relative lack of irrigation infrastructure and limited use of fertilisers, Ethiopia has registered gains in crop production. Coffee is the principal export crop, with hides, pulses, oilseeds, khat, and sugar also being important export commodities. Mixed crop and livestock production are found in both the northern highlands and central Rift Valley. Commercial crop production, intercropped with enset (false banana) as a staple, characterizes the south-central region, while pastoralism is the main livelihood in the arid eastern and far southern parts of the country.

Agricultural land accounts for 34 percent of land area. The state owns all rural land, with usufruct rights allocated after the current government took power in 1991. These rights can be passed on to heirs and divided among them, but land cannot be sold or mortgaged. Land rental markets exist but remain underdeveloped. The average farm plot is 0.5 hectares, with many farmers engaging in subsistence or semisubsistence production. As indicated above,

government policy emphasizes Agricultural Development-Led Industrialization (ADLI), but Ethiopian agriculture faces severe constraints, including underdeveloped transportation networks that inhibit market development (recent substantial road investments are beginning to alleviate this constraint); serious land degradation due to overgrazing, deforestation, population pressure, and poor soil and water conservation practices; and periodic droughts that appear to be occurring more frequently as a result of climate change.

3.2 Role of women in agriculture

This section discusses the social aspects (Box D of the conceptual framework) of the agricultural system in Ethiopia, focused in particular in the gender roles. Although anyone who has spent just a short time in rural Ethiopia can readily observe that in most parts of the country, women are intimately involved in most aspects of agricultural production, marketing, food procurement, and household nutrition, the view is widely held that “women do not farm.” This cultural perception remains strong even though numerous agricultural tasks are deemed “women’s work,” including weeding, harvesting, preparing storage containers, managing all aspects of home gardens and poultry raising, transporting farm inputs to the field, and procuring water for household use and some on-farm uses (EEA/EEPRI, 2006).

There is some variety across crop commodity type, region, and farming system in the traditional allocation of agricultural activities between men and women. For example, in a medium to high altitude area in the central Oromia region dominated by teff production, men undertake nearly all tasks in cereal production, including land preparation, planting, fertilizing, and harvesting, with the exception of weeding, which is the women’s task (Bishop-Sambrook, 2004). Participation of women in agricultural activity is constrained by cultural norms—for example, the norm that women should not engage in plowing. In some areas, such as Sidama in Ethiopia’s SNNP region, restrictions go even further, prohibiting women from plowing, sowing, hoeing, and even weeding. Women often predominate in the cultivation of horticultural, especially vegetable, crops. Such crops are commonly grown on small land plots in the vicinity of the house, or in the compound.

Crop marketing, and the control over revenues from these sales, are often gender differentiated, and in some cases vary by crop type. Many female farmers bring the vegetables and fruits, the production of which they manage, to the market, and may retain these incomes to pay for household needs. In contrast, the marketing and income from cash crops grown by the household in larger scale, such as coffee, teff, and khat, are controlled by the household head (who is nearly always male in households where the head has a spouse in the household), though there are many cases where small quantities of these important crops may be sold by the head’s spouse.

Tending to livestock is most commonly performed by boys and young men. For the livestock types kept near the home, women are frequently responsible for providing feed and water for the livestock and for dairy production, and in some areas are involved in collecting animal dung from grazing lands. Sole cattle ownership by women is not common in Ethiopia, whereas joint ownership between spouses is found in many regions. As is the case with many spheres in agriculture, control over the sale of and proceeds from livestock and livestock products is

generally gender differentiated, with women tending to market small livestock and poultry, as well as dairy products and eggs. The sale of cattle and other large livestock is for the most part in the male domain. Recent extension packages tailored for women have emphasized sheep and goat husbandry and poultry.

This gender division of agricultural activities has constrained women's access to extension services. Horticultural production and the raising of poultry and small ruminants has been considered a part of "home economics" until quite recently, leaving women excluded from other kinds of extension advice, training, and credit.

Both the federal constitution, as well as all regional land proclamations, stipulates that the existing land rights are to be granted equally to men and women. Empirical evidence, however, reveals important gender asymmetries in de facto access to and control over land. Upon forming a new household through marriage, women bring only a negligible amount of land into the household, and nearly all land is brought in by the male spouse (Fafchamps and Quisumbing, 2005), suggesting high intrahousehold land inequality at the initial stage of a household. Traditionally, this inequality in land has been perpetuated later in the household's "life cycle," upon the death of the spouses' parents. Husbands nearly always inherited land when their parents died, whereas wives very rarely inherited their parents' land. However, more recently in the northern regions of the country, women have regularly inherited their parents' land.

Even in regions where women (whether they are household heads or not) formally receive individual rights to use land, land tenure security continues to be precarious for women (Crewett et al., 2008). In the Oromia region for example, tenure insecurity prevails for divorced women, arising from several exceptions to such land rights in the legal framework. For example, some articles in Oromia's land proclamation link land rights to social status, which in effect constrains the rights of divorced women and widows. This is consistent with the finding of Fafchamps and Quisumbing (2005) that it is mostly husbands who keep the land upon the dissolution of marriages. Although female household heads may have access to land, they frequently lack other productive resources such as labor, oxen, and credit, making it difficult to obtain inputs. As a result, they frequently must sharecrop out their land, and usually do so from a weak bargaining position that results in unfavorable arrangements.

3.3 Agricultural extension

As indicated by the Agricultural Advisory Services Characteristics (Box AAS) of the agricultural extension framework in Figure 1, this section discusses governance structures, capacity, management and advisory methods. As stated above, the government of Ethiopia adopted its ADLI policy in 1993 (MoPED, 1993). In the context of this strategy, the government commenced in the early 1990s a big push to disseminate agricultural packages to farmers, which included fertilizer, improved seeds, credit, and the provision of extension services. Within the decentralized federal administrative structure (Box E), the main government institutions responsible for planning and implementing agricultural policies and projects are MoARD at the federal level, and the corresponding regional bureaus and zonal and woreda offices.

The government is the major provider of extension through the WoARDs. These generally include such subsectors as agricultural development, natural resources, environmental protection and land administration, water supply and rural roads, input supply and cooperative promotion, marketing, and disaster management and food security (Berhanu, Hoekstra, and Tegegne, 2006). Agricultural extension service provision falls under the agricultural development sector.

The second wave of decentralization in Ethiopia gave woreda governments in the four largest regions responsibility for providing rural services, including extension, to the kebeles. In the case of extension, until 2006, each kebele had access to the services of a single extension agent based in the WoARD. Selected kebeles were able to draw on a larger extension team under specialized projects such as the MERET soil and water conservation project supported by the World Food Programme (Cohen, Rocchigiani, and Garrett, 2008). WoARDs also have more highly trained specialists who can provide services as needed to address specific problems. As part of its extensive “good governance” reform in the wake of the disputed 2005 elections (Dom and Mussa, 2006a and 2006b), the federal government directed all woredas in the four largest regions to dramatically expand extension services, with the goal that every kebele would have a team of at least three extension agents, with training in crops, livestock, and natural resource management, respectively.

According to this plan, agents are based in the kebeles and rotate to new communities every few years and remain accountable to the WoARD. The extension team leader in the kebele serves as the agriculture portfolio holder in the kebele cabinet. In some cases there are additional extension agents, such as those who specialize in beekeeping, veterinary health, cooperatives, or other topics; where they are present, they each usually serve multiple kebeles.

The team deploys in the kebele on a watershed basis, with each member taking responsibility for all agricultural advice within her or his territory, and drawing on the technical expertise of colleagues as needed. The team meets together frequently and reports to supervisors who are likewise deployed to a kebele and take responsibility for teams in a cluster of three-to-four surrounding kebeles. The team members work closely with contact and model farmers in their respective territories and facilitate the development of kebele-level agricultural planning. The rapid expansion of the extension service has increased the number of agents who hold postsecondary diplomas and has opened up opportunities for women to fill extension slots. Recently, Farmer Training Centers (FTCs) have been established in many kebeles, through which extension agents are to train farmers through the use of classrooms and demonstration fields. Short-term training, as well as more modular training for farmers with a fourth-grade education or higher, is envisaged. The government’s goal is to eventually establish one FTC in each kebele. Extension agents and other agriculture staff, in turn, receive training through the 25 agricultural, technical, and vocational education and training (ATVET) colleges in Ethiopia.

Previous studies of agricultural extension in Ethiopia emphasize the top-down approach to service provision. Agents have received relatively hard quotas for enrolling farmers in technology packages and have been evaluated on this basis. Extension also works through “model” or “progressive” farmers, who tend to be better off and male. Communication is mostly one way, with extension agents transferring knowledge to farmers. There is little effort to marry new agricultural research and development with farmers’ knowledge or to learn what kinds of

services farmers would like to receive (Buchy and Basaznew 2005; EAA/EEPRI 2006; Lemma 2007). Most agents have been men, except in the field of home economics, and they have provided services mainly to heads of household, regardless of gender (Buchy and Basaznew 2005; EAA/EEPRI 2006). Historically, extension policy was made in Addis Ababa, and merely implemented in the field. Changing the delivery mode can have positive benefits: deployment of extension teams to kebeles can facilitate communities' ability to plan and manage development activities for themselves on a sustainable basis (Cohen, Rocchigiani, and Garrett 2008). In addition, extension services generally have positive impacts on nutrition and poverty reduction (Dercon, Gilligan, Hoddinott, and Woldehanna 2007). Few agents have university degrees, although an increasing number have postsecondary technical training. Extension personnel with more-advanced training tend to work in administrative positions (Lemma 2007).

4. DESCRIPTION OF THE SURVEY AND DATA

4.1 Quantitative surveys

This study draws on quantitative household/individual-level surveys which were undertaken jointly by the Ethiopian Economic Policy Research Institute and the International Food Policy Research Institute. The sampling procedures are described below.

Selection of woredas for the household/individual-level surveys

Eight woredas, as four pairs of woredas, were selected, located in seven of Ethiopia's 11 regions. These pairs were chosen so that in each pair would consist of two woredas that are nearby each other but belong to different regions. Of the two regions associated with a woreda pair, one is a "leading" region—that is, one of Ethiopia's four more institutionally advanced regions—and is one in which local-level decentralization has taken place. The other woreda of a woreda pair belongs to a "lagging," or "emerging," region. In Ethiopia's four emerging regions, decentralization has only been implemented to the regional, but not the local (woreda) level. This method of woreda pair selection applies to three woreda pairs (or six woredas) from the sample. The fourth pair consists of a woreda in the Amhara region and one in the Tigray region. Both are considered leading regions, but local empowerment and community mobilization has a longer and distinct history in Tigray, making the Amhara-Tigray comparison an interesting one from the perspective of contrasting legacies of de facto local-level decision making. In the study, the eight woredas will be referred to by the region in which they are located, and a "D" for "woreda". They are, then: Afar-D, Amhara-D2, Amhara-D3, Beneshangul Gumuz-D (or for short, BG-D), Gambella-D, Oromia-D, SNNP-D, Tigray-D. As there are three sites in Amhara region analyzed in this paper, they are distinguished as D1, D2, and D3. In Amhara-D1, only the qualitative research was conducted (Table 3).

Table 3: Survey Site Characteristics

Survey Sites	Population ('000s)	Percent Extension Beneficiaries	Agro-ecological Zone	Cereal Area Cultivated (1000 ha)	Average Cereal Area Cultivated per Capita (ha)
SNNP-D	35.9	7.9	Other moisture reliable - Enset	4.5	0.5
Gambella-D	15.1	1.5	Humid lowland moisture reliable	1.3	0.5
Oromia-D	25.3	18.0	Other moisture reliable - Cereals	4.8	0.9
BG-D	7.8	3.1	Drought prone	3.2	0.9
Amhara-D2	144.9	47.6	Drought Prone	9.9	0.6
Afar-D	63.1	no data available	Pastoralist	no data available	no data available
Tigray-D	124.5	44.9	Drought prone	12.4	0.4
Amhara-D3	130.2	10.7	Drought Prone	32.3	1.0
Amhara-D1	121.6	38.8	Other moisture reliable - Cereals	25.5	1.3

Source: Ethiopian Rural Economy Atlas (ERE Atlas, 2006)

Sampling and surveys at the household/individual level

From each of the eight woredas, four kebeles were randomly sampled. From each of the resulting 32 selected kebeles, 35 households were randomly drawn. This resulted in a planned household sample size of 1,120. In each household, both the household head and the spouse were separately interviewed. If there was no spouse, as is often the case in female-headed households and sometimes the case for male-headed households, only the head was interviewed. Where there were multiple wives (in polygamous households), the head and the first wife were interviewed. Specifically, the household questionnaire has two components: (1) A component administered to the household head only that contains the household roster, household assets, and other household-level variables. (2) A much larger component administered separately to both head and spouse that contains all the modules of direct research interest, relating to agricultural activities, access to and satisfaction with services, participation, social capital, and so on. Table summarizes the sample size for household/individual level surveys which constitutes the actual sample. It is lower than the planned size by 48 households.

Quantitative kebele level surveys were also conducted in the same weredas as the households survey, with separate questionnaires for focus groups, wereda council members, kebele council members, kebele council speakers, kebele chairpersons, agricultural extension agents, heads of water committees, and heads of agricultural cooperatives. These data were not yet available at the time of this paper, and will be analyzed in subsequent studies.

Table 4: Number and types of household/individual level interviews

Respondents	Household heads	Spouses
Male	834	9
Female	238	680
Total:	1,072	689
<i>Total number of interviews:</i>	<i>1,761</i>	

Source: Authors.

4.2 Qualitative case studies

The project also carried out qualitative case studies in five woredas (four of which are a subset of the above mentioned eight woredas), which are further described in Table below. In each woreda, the research team conducted key informant interviews and focus group discussions in the woreda capital town and in one rural kebele.

As shown in Table , 105 respondents were interviewed for the case studies. In the woreda capitals, the interviews took place with woreda government officials responsible for finance and budget, agricultural extension and women's affairs; the speaker of the woreda council; and leaders of the woreda women's association, the cooperative union, and the governing party of the woreda.

Table 5: Case study selection

Kebele	Woreda	Region	Agroecological Zone	Main Livelihood Pattern	Responsibility for Service Provision
Amhara-K1	Amhara-D1	Amhara (Western part)	Highland	Mixed crop-livestock	Woreda
Tigray-K	Tigray-D	Tigray	Highland	Mixed crop-livestock, horticultural products	Woreda
Amhara-K3	Amhara-D3	Amhara (Northern part)	Highland	Mixed crop-livestock	Woreda
BG-K	BG-D	Beneshangul-Gumuz	Lowland	Forest, cash crop, livestock	Region
Oromia-K	Oromia-D	Oromia	Highland	Cash crop	Woreda

Source: Authors.

Table 6: Number of qualitative interviews in Ethiopia

Woreda Sites	Woreda Capitals	Kebeles	Total
Amhara-D1	2	12	14
Tigray-D	15	24	39
Amhara-D3	16	11	27
Beneshangul-Gumuz-D	4	6	10
Oromia-D	8	7	15
Total	45	60	105

Source: Authors.

At the kebele level, the qualitative research team interviewed agricultural extension agents; the kebele manager; the speaker of the kebele council; the kebele chairperson; members of the kebele cabinet responsible for agriculture and for women's affairs; heads of water committees; leaders of the agricultural cooperative, the women's association, and the governing party; and male and female farmers. Prepared interview guides structured the discussions with key informants and focus groups. Discussions with groups of farmers relied on the Net-Map tool (Schiffer and Waale, 2008). Prior to starting the research, a preliminary scoping exercise was carried out in Amhara-D1, and findings from this woreda are also discussed in this paper.

5. HOUSEHOLDS, COMMUNITY ORGANIZATIONS, AND SERVICE PROVIDERS

This section uses the survey and case study data for Ethiopia to analyze the links between households, service providers, and community-based organizations (with a focus on agricultural cooperatives) as well as their relationship with local political agents and regional and national governments with regard to agricultural extension services.

5.1 Households' access to, and satisfaction with, agricultural extension services

This section that corresponds to performance and quality of extension services in the agricultural advisory services framework (Box I) presents the findings of the household survey regarding access and satisfaction with agricultural extension services. Table provides an overview of the major household characteristics.

Extension provision by the public sector

In Ethiopia, the public sector is the primary source of extension services. In practice, public service provision has not been strongly client oriented or demand driven. Historically, services have been provided via a top-down, command-and-control mode, in which extension agents receive relatively hard quotas for signing up farmers for fixed technology "packages," and farmers are expected to serve as passive vessels for the knowledge transferred to them (Lemma 2007).

Table 7: Characteristics of surveyed households

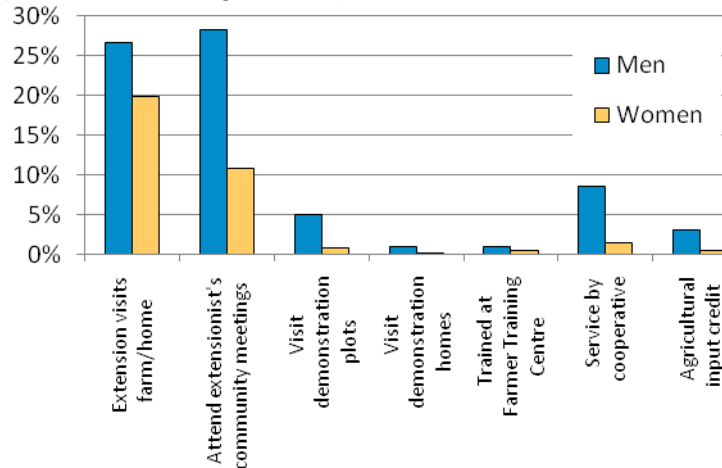
	Male HH head	Female HH head
Human capital – % who are literate	47%	11%
Livelihoods – % with the main occupation being:		
Own farm cultivation/sharecropper	85.8%	35.3%
Livestock rearing	7.4%	14.3%
Herding	0.1%	0.4%
Dung and firewood collection for sale	0.0%	0.4%
Forestry activities	0.0%	0.4%
Domestic work	0.5%	34.5%
Prepared food or beverage seller	0.1%	2.9%
Petty trade owner	0.5%	1.3%
Hired farm worker	0.0%	0.8%
Hired in petty trade	0.0%	0.4%
Casual labor	0.2%	0.0%
Teacher	0.5%	0.0%
Other government employee	0.6%	0.0%
Religious worker	0.1%	0.0%
Student	3.1%	2.5%
Not in labor force due to age	0.6%	5.0%
Disabled and unable to work	0.2%	1.3%
Other	0.1%	0.4%
<i>Total</i>	<i>100.0%</i>	<i>100.0%</i>
Indicator of wealth: Agricultural and consumer assets		
% who own at least one:		
Ox or bull	60.5%	26.1%
Donkey or mule	25.8%	12.2%
Camel or horse	10.9%	13.0%
Goat or sheep	58.3%	48.7%
Radio/tape recorder	36.0%	15.1%
Mobile/wireless phone	1.1%	0.4%
Number of agricultural assets	10	5.6
Indicator of wealth: Housing quality		
% whose roof is made out of:		
Mud	0.5%	0.0%
Thatch	69.0%	68.2%
Wood	1.6%	0.8%
Iron	20.3%	12.7%
Cement/concrete	0.1%	0.0%
Bamboo	0.8%	0.0%
Other	7.7%	18.2%
<i>Total</i>	<i>100%</i>	<i>100%</i>

Source: EEPRI-IFPRI Survey, 2009.

The most common form of formal extension provision in the study areas are visits undertaken by the extension agent to the farmers' home or farm, with 23 percent of respondents reporting this form of extension contact.

Figure 2 shows that 27 percent of men and 20 percent of women stated that they received an extension agent visit at their home or farm during the last year.

Figure 2: Use of extension and other agricultural services, by gender
(Percent receiving service)



Source: EEPRI-IFPRI Survey, 2009.

The gender gap in this access to extension is not as large as may be expected. However, it is possible that women may have responded in the affirmative as long as an extension agent was at their home or farm, whether or not they were being directly addressed by the extension agent during such a visit. There is a greater and significant gender gap when it comes to accessing technical advice through community meetings organized by extension officers. Only 11 percent of women, compared to 28 percent of men, participated in such meetings over a one-year period. Visits to demonstration plots and model farms, and training received through the Farmer Training Centers, which are a relatively new institution in Ethiopia, were rare in general, and women barely engaged in such visits.

Table presents evidence of the strong diversity in access to agricultural services across study sites. As many as 54 percent of respondents in Tigray-D have had extension visits to their home or farm, in contrast to only 2 percent in Afar-D. Access to the other most common contact with extension agents, through community meetings they organize, varies similarly across sites, with Tigray-D and Afar-D again representing the extremes in access to such services.

Socioeconomic status also clearly plays a role in households' access to agricultural extension services, as seen in Figure 3. Better-educated farmers are somewhat more likely to receive farm or home visits by extension officers, and a much greater proportion of them than illiterate farmers attend extension community meetings and visit demonstration plots. Better-endowed farmers similarly access extension services more than asset-poorer farmers. These findings may result from the hard quotas for promoting technology packages that agents are expected to

fill. These induce the agents to favor working with better-off and educated farmers who are more inclined to adopt their advice.

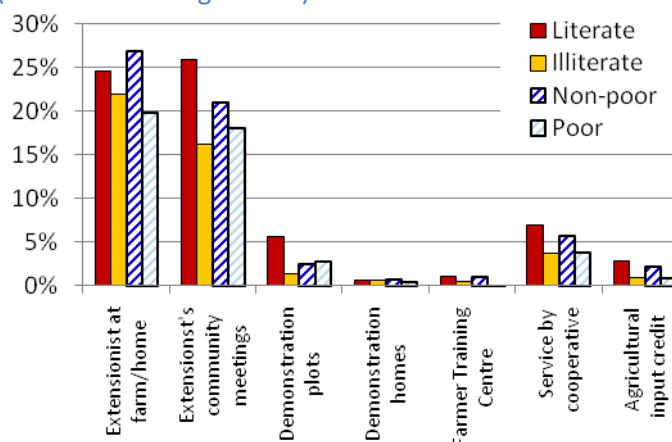
Table 8: Use of extension and other agricultural services, by location (Percent receiving service)

Study sites:	Afar-D	Amhara-D2	Amhara-D3	Benesh. G-D	Gambella-D	Oromia-D	SNNP-D	Tigray-D
Extension visits farm/home	2%	24%	37%	8%	25%	11%	39%	54%
Attend extensionist's community meetings	1%	24%	27%	13%	18%	15%	27%	39%
Visit demonstration plots	0%	5%	3%	3%	3%	1%	1%	4%
Visit demonstration homes	0%	3%	1%	0%	0%	0%	0%	1%
Trained at Farmer Training Center	0%	3%	1%	0%	0%	1%	0%	1%
Service by cooperative	0%	12%	7%	6%	1%	7%	0%	2%
Agricultural input credit	0%	5%	1%	0%	0%	1%	1%	5%

Source: EEPRI-IFPRI Survey, 2009.

Figure 3: Use of extension and other agricultural services, by socioeconomic status

(Percent receiving service)



Source: EEPRI-IFPRI Survey, 2009

Individuals in Ethiopia report being satisfied with extension advice at staggering rates (this is also consistent with findings from a recent study, Davis et al. 2009). For example, 92 percent and 94 percent of men and women, respectively, who received extension or expert advice, state that they were very satisfied with these services, and another 7 percent and 5 percent, respectively, say that they are somewhat satisfied. These sweeping satisfaction rates should, one could surmise, translate at least to a certain extent to farmers adopting new farming practices, growing new crops, or adopting inputs they didn't previously use, because effective extension services would ideally result in farmers doing something differently (and better) than they did before. The survey asked farmers whether they had tried a new practice in the past two years. This refers to any practice, production of outputs, or use of inputs, that they did not use

before, either modern/improved commodities and practices or conventional ones. Thus, the “new” in the question about farmers’ use of new practices refers to these practices or commodities being new to the farmers, even if they are not new elsewhere.

Surprisingly, only 8 percent of respondents stated that they tried something new in the past two years. In other words, 92 percent of the respondents did not change their activities. It is not clear, then, what farmers’ near-100 percent satisfaction with extension agents means if the vast majority of them seem not to have adopted anything new that the extensionists would have sought to advise them on. With regard to modern inputs such as fertiliser or improved seeds, aside from the modality and quality of agricultural extension services, other factors in adoption of these inputs include the availability and accessibility of these inputs, their price, and market access for the sale of agricultural products. These other factors could in some cases be a more important constraint than the quality and quantity of agricultural extension services. This qualification however applies in a less pronounced manner to changes in agricultural practices and farming methods which do not require modern inputs—these types of changes were also included in the survey question on whether farmers tried anything new. There are also potentially methodological concerns with satisfaction survey questions, and further research should address these methodological issues and probe more deeply and through diverse means farmers’ perception of the quality of their interactions with extension agents.

Table 8 summarizes the relationship between the various demographic, socioeconomic, and geographic factors discussed above, and access to extension services. By examining these relationships in a regression framework, it assesses the importance of each factor after controlling for the others. This analysis does not serve to determine the effect of household wealth, education, and so forth on access to extension services, but has the more modest purpose of exploring correlations.

The table shows that the probability of being visited by an extension agent is strongly related to the woreda location of the respondents. Farmers in the Afar site, in which pastoralism is an important livelihood, are by far the least likely to receive an extension visit, followed by those in the Beneshangul-Gumuz site. These are two of Ethiopia’s four so-called emerging, or lagging, regions into which public services penetrate less than elsewhere, and which have less-developed local public institutions. In contrast, farmers in Tigray are most likely to receive extension advice through farm or home visits.

Individuals in larger households are significantly more likely to receive extension services. This may be driven by the fact that larger households also have more land. The table also shows a significant and negative correlation between the share of female dependents (children and the elderly) and the probability of receiving extension visits. The gender of the respondent only emerges as significantly correlated with receiving extension services when location is not accounted for.

Table also relates the socioeconomic, demographic, and geographic factors to the probability that respondents started an agricultural practice for the first time in the past two years. Here a new practice may mean adopting modern inputs, but may also relate to planting some crop for the first time, using different farming methods for the first time, and so on, as discussed above. This could arguably be seen as a possible outcome of accessing extension, although farmers

may in principle start a new practice without (or not due to) contact with extensionists. Again, location appears to play a major role, with respondents in Afar-D least likely to undertake a new agricultural practice, and those in Tigray-D most likely to do so. The chance of the use of a new practice is also higher among individuals in better-off and in larger households. And notably, men are significantly more likely to start something new in agriculture than women. The gender effect is the only one among the demographic and socioeconomic variables that holds up whether or not location is controlled for.

As mentioned in Section 3, national policy has promoted the rapid expansion of the extension service to enable the posting of at least three extension agents in each kebele. In Tigray-K and Amhara-K3, there are more than three extension agents, some of whom covered more than one kebele (e.g., veterinary technicians). However, in BG-D, where decentralization of service provision to the woreda level has not occurred, the extension agents were based in the woreda capital. Only two kebeles had extension centers; these were poorly developed and received irregular visits from agents. More remote kebeles do not receive extension services. Assigned agents do not make visits and have basically abandoned their positions, although they continue to collect their salaries through delegated friends.

The deployment of extension agents to the kebele does seem to be an institutional innovation that contributes to making services a bit less top-down (EEA/EEPRI, 2006). In particular, kebele-based extension agents (Amhara-K1, Tigray-K, Amhara-K3, and Oromia-K) have a good understanding of local conditions, and often seem to develop good rapport with the farmers they serve. In Tigray-K, it was observed that female extension workers had adopted the traditional dress and Muslim head covering of local women - these practices are in fact taught in ATVET training of extension agents (Davis et al. 2009) - although one of the extension agents stated that her background was urban and modern.

Table 9: Relationship between household and geographic characteristics and extension access and innovation

	Visited by agricultural extension agent		Started agricultural practice for the first time	
Gender	0.158	0.206 *	0.510 ***	0.553 ***
(1 = male)	(0.121)	(0.113)	(0.188)	(0.169)
Education	0.101	0.022	0.183	0.110
(1 = literate)	(0.087)	(0.081)	(0.113)	(0.103)
Respondent status	0.133	0.092	0.215	0.139
(1 = head, 0 = spouse)	(0.122)	(0.113)	(0.198)	(0.178)
Wealth (No. of consumer asset types owned)	0.021	-0.025	0.057 **	0.009
(0.018)	(0.018)	(0.016)	(0.024)	(0.021)
HH size	0.038 ***	-0.013	0.063 ***	0.005
(No. of HH members)	(0.013)	(0.012)	(0.017)	(0.015)
Working age women	-0.007	0.001	-0.006	-0.004
(% of HH members)	(0.007)	(0.007)	(0.01)	(0.009)
Working age men	-0.010	-0.003	-0.009	-0.006
(% of HH members)	(0.007)	(0.007)	(0.01)	(0.009)
Female dependents	-0.012 *	-0.004	-0.009	-0.006
(% of HH members)	(0.007)	(0.006)	(0.01)	(0.009)
Male dependents	-0.009	-0.003	-0.012	-0.008
(% of HH members)	(0.007)	(0.006)	(0.01)	(0.009)
Afar-D	-1.698 ***		-1.302 ***	
	(0.259)		(0.404)	
Amhara-D2	-0.405 ***		-0.410 **	
	(0.134)		(0.187)	
Benesh. G.-D	-1.241 ***		-0.922 ***	
	(0.149)		(0.199)	
Gambella-D	-0.392 ***		-1.086 ***	
	(0.128)		(0.249)	
Oromia-D	-1.069 ***		-1.184 ***	
	(0.146)		(0.222)	
SNNP-D	-0.453 ***		-0.153	
	(0.124)		(0.16)	
Tigray-D	0.407 ***		0.386 **	
	(0.126)		(0.156)	
Constant	0.159	-0.477	-1.306	-1.357
	(0.675)	(0.643)	(0.961)	(0.865)
Number of observations	1753		1740	
LR χ^2 :	250.69 ***	29.65 ***	167.08 ***	59.31 ***

Source: Authors. *Note:* Standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1% level. Excluded woreda = Amhara-D3. LR χ^2 refers to the likelihood ratio chi-square test.

However, it is important to note that the ATVET training curriculum continues to focus heavily on technical agricultural topics, without much attention to gender analysis, community organizing, or integration of modern agricultural science and traditional knowledge (Davis et al. 2009). Agents seem to learn the latter topics mainly on the job and experientially, rather than through pre-service training. In Amhara-K1 and Tigray-K, agents reported receiving formal in-service training on gender issues, sometimes from the woreda or regional government and sometimes from NGOs.

Extension agents work with model and contact farmers, who then are supposed to pass extension messages on to follower farmers. The selection of these farmers is often not based solely on farming skills and social capital, but may include political considerations or outright cronyism (Lemma 2007). Nevertheless, this system can be an effective way to disseminate extension advice, particularly if communication is two-way. At the study sites, we did not find much evidence of this system providing for such two-way links.

Extension service provision by user organizations, NGOs, and the private sector

Farmer cooperatives, while not providing extension services directly, are a major source of both agricultural inputs and credit where they exist, and thus are closely tied into the pervasive “package” approach to extension that prevails in Ethiopia. The view among cooperative leaders in both Tigray-D and Amhara-D3 was often that these supposedly farmer-driven organizations are not free to set their own agendas based on leader or member needs and desires. Instead, the government sets the parameters within which cooperative programs operate.

In the woredas of the qualitative research sites, cooperatives are more developed in Tigray-D than elsewhere. Bernard et al. (2007) also found that a greater percent of households in the Tigray region participate in cooperatives than is the case in the three other leading regions (Amhara, Oromia and SNNP). The cooperative union is engaged in projects such as dairy farms and beehive production in order to encourage its member cooperatives and individual farmers to engage in such activities. This has demonstration effects on farmers’ adoption of agricultural practices. A cooperative union leader reported that these projects are successful in having such demonstration effects.

NGOs offered training to extension agents and other woreda-level civil servants on, for example, gender issues in development and community development (in both Tigray-D and Amhara-D3). However, this is not systematic and varies considerably from woreda to woreda. In the study woredas, where NGOs are involved in rural development, there is weak collaboration and coordination between their interventions and those of the woreda government. While community members, particularly women, appreciated the contribution of NGOs in Amhara-D3, government officials were blasé.

5.2 Service providers: capacity, constraints, incentives

5.2.1 Service providers' interaction with farmers

5.2.2 Service providers' attitudes toward women, and gender-orientation of services

This section refers particularly to the advisory methods as indicated in the agricultural advisory service framework (Box H) in addition to its gender roles (Box D). Extension in Ethiopia has long focused on male farmers, in keeping with the cultural perception that “women do not farm,” a perception that ignores the wide range of agricultural activities in which women engage. Moreover, extension traditionally concentrated services on “model” or “progressive” farmers, those who are open to new ideas and innovations. These farmers tended to be male. Extension agents were evaluated on how many farmers they could get to adopt “packages,” and so they preferred to work with the household decision maker, who in a husband-wife household was always the male (EAA/EEPRI, 2006). In addition, extension agents were overwhelmingly male, and cultural taboos restricted their interaction with women. Home economics and nutrition agents were women and generally provided advice to women on household management and reproductive health (EAA/EEPRI, 2006; Buchy and Basaznew, 2005).

In an analysis of the agriculture bureaucracy in southern Ethiopia, Buchy and Basaznew (2005) found critical shortcomings both in the gender sensitivity of extension provision and in the way gender and women's affairs were situated within the agriculture bureaucracy (see Box 1). The Ethiopia National Action Plan for Gender points to the challenge inherent in the way that traditional social norms filter into bureaucracies, leading to a resistance within these bureaucracies to consider gender experts in agencies as being on par with other officials (GoE 2000).

There was considerable evidence of gender bias in the provision of extension services in the study woredas, even though national policy and EPRDF ideology strongly promote gender equality in all aspects of life. The findings from qualitative discussions contrast with the survey results on satisfaction, discussed earlier. For example, in Oromia-K, women complained that they have no access to extension services, although they hear on the radio about extension programs for women in other parts of the country. In Amhara-K1, an extension agent stated that he only works with heads of household, so he even provides advice oriented toward women (for example on poultry and home gardens) via their husbands. Female household heads in this kebele said that their contact with extension agents mainly involves mobilizing labor contributions.

Farmers, particularly in Tigray-K, pointed out that the gender of extension agents does not matter as long as they serve the needs of farmers. Development agents also share this view. However, there are cultural barriers to male extension agents reaching women alone. In the study woredas, male extension agents employed different approaches to reaching women farmers, such as contacting their husbands first and explaining the purpose of the visit, meeting women in groups (organized, for example, by the local women's association), addressing

women in public meetings, seeking the support of kebele cabinet women's affairs portfolio holders, and so on.

Nevertheless, extension agents in the study woredas had a great deal of awareness of this gender bias and had employed strategies to get around it. For example, in Amhara-K3, the extension agents work with the kebele women's association to organize women into extension programs, thereby circumventing cultural taboos on women meeting with men other than their husbands. Leaders of the women's association in Amhara-K3 reported that they work with husbands as well as wives. However, many women leaders in the study kebeles were themselves single (divorced, widowed, or never married) and that there was a great deal of resistance to women's empowerment among male farmers.

In Amhara-K3, female leaders pointed out that when women return home from meetings of the local women's association or the party women's league, their husbands urge them not to pay attention to the "nonsense" that they heard about gender equality. In Amhara-K1 and K3, local women's association leaders reported that men frequently jeer them when they speak up in public meetings.

In Amhara-D3, the woreda government carried out gender analysis as part of a comprehensive needs assessment, while in Amhara-D1 and Tigray-D, woreda government staff all receive in-service training on gender issues. We observed that a female extension agent in Tigray-K was very popular with local farmers (both men and women), and the extension agent reported that she had won recognition for the high quality of her work. In some study sites, there was a great deal of social distance between educated extension agents and illiterate farmers, regardless of gender. In BG-K, extension agents felt that farmers should do what the agents said and were not willing to follow up with farmers who did not follow extension advice.

Box 1: Gender blind spot of the agricultural agency: In field extension and within the bureaucracy

A study by Buchy and Basaznew (2005) highlights the types of problems that result in low extension coverage for female farmers. During the study period, the Awasa Bureau of Agriculture (ABA) in the Awasa zone of the Southern Nations, Nationalities and Peoples (SNNP) region was divided geographically into woreda bureaus and thematically into three departments, which were further divided into a number of departments: the (i) management, (ii) regulatory, and (iii) extension departments. The teams within the extension department were evaluated on the basis of output indicators: number of livestock vaccinated, amount of illegal forest product seized, quantity of pesticide applied, number of demonstration days, size of land under different crops, etc. Their targets were households and their clients were heads of households, and therefore de facto men in a vast majority of the cases.

The staff usually approached individual male farmers in their farms or contact groups when there are field visits. This excluded women who did not go on field visits except for those organized by the home economics team. The staff members used office hours to conduct training, which may not necessarily suit farmers' timetables, and even less so women's schedules. For example, in the year examined, most of the training was conducted during March-May, when women in the region are the busiest with the processing of *enset*. These oversights were not just a reflection of gender-blindness but also of a methodological inadequacy, representing a very top down attitude. People-centered approaches should take account of seasonal and daily calendars, and need to ensure that the method of delivery is both gender- and culture-sensitive. There was no evidence that the staff engaged in consultation with farmers to determine their needs in terms of training, technology or knowledge.

The rural women's affairs team (RWA), which was housed in the extension department, had previously been moved many times without a clear justification ever having been given. Until 1990 there was no team but there were just two experts attached to the extension department. These experts were then moved to the regulatory department, where they provided some home economics advice. The team was later placed under the crop production team. Its remit was nutrition, home and income management, reproductive health, and self-help groups. The staff members were home economics graduates with limited knowledge of project planning and preparation. Here the clientele were clearly women and not the household.

The location of the RWA in a specific corner of the organization was also matched with the location of women staff within the organization. While all RWA staff were women, there were no women staff in the micro-finance, documentation, and farmers training teams. In other teams the proportion of women varied from 12 percent to 37 percent. Structurally, the part of the organization concerned with women (rather than gender) was working in isolation rather than as a fully integrated part of good practice within the organization.

There was no gender policy within ABA, despite the efforts of Irish donors since the early 1990s to introduce one. The concept of gender (albeit not a policy) was finally introduced in the late 1990s through donors. Out of 39 respondents, 10 had participated in a gender workshop. Seven of these were women. Gender was very much considered a women's issue and men attended this training only if they were specifically asked to do so. There were no staff members responsible for gender issues within the bureau. However, RWA was tacitly expected to deal with gender issues within the organization. This expectation was not explicit, and RWA had no mandate to control or measure gender-related performances in other teams of ABA. In the absence of a gender policy, there were no gender-specific procedures, guidelines or terms of reference. Accordingly, for example, there was also no sexual harassment policy, and 50 percent of the women interviewed reported cases of harassment, which went unreported or unchallenged by their supervisors.

Within the agency, the major push to gender awareness was identified as stemming from donors. Yet the bureau had no gender policy and therefore no gender-specific guidelines or procedures. The unit within

the agriculture bureau responsible for gender outreach had the characteristics of many similar gender desks in line ministries: It had an all-female staff, had a precarious position within the bureau, it was heavily specialized in home economics and nutrition and was short on other core skills such as project planning and preparation, it operated mostly in isolation from the rest of the bureaucracy, and it had no mandate to monitor gender-related performance of the bureau.

Source: Buchy and Basaznew (2005).

The gendered provision of extension services is evolving. Throughout the country, the effort to expand the extension service means that many more women have an opportunity to work as agents, and in all subject matter areas. In fact, nutrition and household management advice is now the purview of health extension agents, rather than an agricultural responsibility. (Interestingly, there was a male health extension agent in Amhara-K3, even though these positions are mainly held by women). Second, MoARD has developed a broader variety of extension packages, recognizing that one size does not fit all farmers. This includes a “women’s development package,” which emphasizes support for women’s agricultural activities (poultry, small ruminants, and home gardens). Extension agents and woreda agricultural officials suggested that extension agents are expected to move toward advising at least as many women farmers as men. However, in Amhara-K3, the women’s affairs portfolio holder in the kebele cabinet said that while extension agents will advise women if asked to do so, they do not tend to approach women on their own.

Moreover, the “women’s development package” remains relatively fixed, whereas women in different circumstances have different needs. The same official in Amhara-K3 stated that it is much more difficult for female household heads to raise chickens, for example, because they spend a great deal of time providing weeding services to male farmers to earn income. Informants in Amhara-K1, Tigray-K, and Amhara-K3 indicated that female household heads who have the right to use land typically sharecrop it out and/or exchange “women’s” weeding services for “men’s” plowing and planting, but they may engage in this work themselves on a portion of their land. There isn’t much time left to devote to chickens. So to the extent that the women’s development package emphasizes poultry, it is really more of a “*married* women’s development package.”

Involvement of households in planning

As outlined in Section 3 (see also the arrow A2 in Figure 1) farmer involvement in planning is an important mechanism to create accountability. In Ethiopia, community engagement in planning varied considerably by region. In Tigray-K, extension agents and the kebele manager said that there was a great deal of participation in sectoral planning and developing the overall kebele plan, with many active committees and citizen engagement. Extension agents work with *mengistawi budin* (government teams) in their respective territories to develop annual agricultural plans, and these bodies actively consult village residents about priorities. In fact, we observed a large turnout of kebele residents for several full days of meetings with woreda government officials on agricultural plans. In contrast, in a kebele general assembly meeting to discuss the annual plan in Amhara-K3, no more than 15 people attended this desultory exercise. In general, woreda and kebele officials felt that planning at the community level was mostly symbolic in Amhara-K3, BG-K, and Oromia-K. The deeper citizen engagement in Tigray-K reflects the institutionalization of self-reliance from the civil war era in Tigray region. Whether

community involvement in planning was symbolic, indicative, or more substantial, at all study sites, budgeting was carried out exclusively at higher levels of government.

The participation of women in community planning and decision making has been found to be nearly nonexistent. A study of decentralization and service delivery in four regions found several cultural, social, and economic barriers to women's ability to attend community meetings and express their priorities and concerns where they did attend (World Bank 2001). A fear of violent reprisal from husbands, feelings of insecurity about public speaking, a sense that their opinions would not be listened to, weak leadership and decisionmaking capacity, and pressure on women's time all combined to keep both attendance and expression of voice low. On the other hand, perhaps due to donor or higher-tier governmental pressure to create more gender balance in local meetings, it was found that for local government planning meetings, women were at times "ordered" to attend. More recently, the government has made provisions to increase the participation of women and the youth. For example, the size of woreda and kebele councils has increased, with the stated objective of giving more representation to women and the youth. However, women representatives lacked confidence and skills in expressing themselves and the concerns of their constituencies. Further, the gender machinery lacked capacity. For example, in Oromia-K the woreda women's affairs office has no formal training in gender issues.

Complaints by households, and response to complaints

The study found that citizens have a variety of channels for grievances, which is another mechanism to create accountability (see arrow A2 in Figure 1). Farmers in Amhara-K1 explained that they usually take complaints to the kebele chairperson, who heads the executive branch of government. Certain disputes, such as those over land use, may go to the local court (composed of citizen judges), which in turn may refer issues to the traditional elders' council for advice or resolution. In addition, one farmer emphasized, "I have the right to go to the woreda government." Also, in Tigray-K, the speaker of the kebele council said that citizens sometimes seek redress from the council. In Tigray-D and Amhara-D3 and the corresponding kebeles, a number of interviewees pointed to grievance committees attached to the government's Productive Safety Net Program, noting that citizens who believe they are eligible but are not enrolled have successfully appealed to get into the program. In all, there do appear to be effective recourse mechanisms for certain types of complaints in the Amhara and Tigray sites.

In BG-D and Oromia-D, grievance systems do not work well. In Oromia-D, there are many land disputes, and citizens feel that governance structures do not help resolve these. In BG-D, people take dispute resolution into their own hands rather than relying on the legal system, as this is a "faster" way to get satisfactory outcomes.

Collection of user fees and labor contributions

Farmers receive advice from public sector extension agents without having to pay a fee (see Box E of Figure 1), and no complaints were made in the interviews about the cost of service. However, extension is not costless. Agents play a major role in mobilizing community labor contributions in all the study sites. In Amhara-K1, a female household head said that her main contact with the extension agents was when they wanted her to work on maintaining soil and

water conservation structures. Farmers said that extension agents in this same kebele spent a good deal of their time encouraging the repayment of fertilizer loans provided by the local cooperative, but a local agent said that even farmers who failed to do so would continue to receive basic extension advice, although they would not be eligible for packages until they covered their debts.

Planning, service standards and human resource management

This section refers to the capacity and management (Box F-G) of Figure 1. The federal MoARD provides the overall policy framework governing service provision. This may include technical standards—such as MoARD’s Community-based Participatory Watershed Development Guidelines, which provide extensive technical guidance on soil and water conservation—as well as on how to engage communities in planning and management (Cohen, Rocchigiani, and Garrett 2008). Within federal policy parameters, the relevant regional bureaus offer planning guidance to the woredas. In all study woredas, officials suggested that on one hand, this is strictly indicative, but on the other hand, senior woreda government officials are evaluated by the regions on whether or not they meet these targets. In Oromia-D, officials complained that regional targets make no reference to kebele needs and priorities and that budgetary resources received from the region are inadequate to meet regional targets.

To ensure that gender is duly taken into account in the planning process, many woredas have established a system of gender desks or focal points within sectoral offices. This provides the woreda office of women’s affairs with a point of contact in each sectoral office and is supposed to guarantee that the office will review budgets, plans, and operations through a gender lens. In looking at the implementation of this system across the study woredas, we found considerable variation in its effectiveness. There seems to be an assumption that gender is a women’s concern. Gender focal points in the study woredas were all women, and in some instances rather junior staff members (there were male professional staff in some woreda offices of women’s affairs, however). In Amhara-D1, the WoARD gender focal point stated that she had conducted training in gender analysis for all the extension agents in the woreda. In Tigray-D, the deputy head of the office of women’s affairs said that gender is mainstreamed in all planning activities, so the focal point system is somewhat redundant. Her office organizes gender training for senior staff in all sectoral offices, carries out gender audits, and regularly reviews planning activities from a gender perspective. In Amhara-D3, the gender focal points of the agriculture and finance offices were all not able to explain the precise duties involved or how the focal point system is supposed to function. One characterized it as mainly symbolic and pointed out that her regular assignment is to conduct gender analysis for the needs assessment unit of the agriculture office; she did not see the focal point responsibilities as adding any additional duties. BG-D has only recently reestablished a women’s affairs office, and does not have a focal point system. In Oromia-D, there are no focal points, except in the office of education.

The study also identified challenges related to human resource management. Staff costs absorb most budget resources, and in Amhara-D3, BG-D, and Oromia-D, senior officials complained that resources were inadequate to hire sufficient numbers of staff and people with adequate professional qualifications. In Amhara-D3 and BG-D, a high rate of staff turnover exacerbates these problems.

Overall, the legacy of six decades of top-down service provision weighs heavily on any efforts service providers might undertake to induce higher levels of government to become more client-oriented. The incentives to the providers strongly reinforce upward lines of accountability and render risky any efforts to support downward lines. In Amhara-K3, for example, an extension agent was much franker when the senior woreda official who accompanied the research team was out of earshot. This extension agent complained directly about the lack of incentives for providing demand-driven services.

Service providers' relationship with the local bureaucracy

The relationship between service providers and local bureaucracy is manifested in the governance of extension provision (Box E in Figure 1), and determines capacity and management of the system (Boxes F and G). Extension agents remain primarily accountable to the WoARD, and there is generally a standard system of supervision in place. In Tigray-D and Amhara-D3, supervisors are also based in a kebele and take responsibility for extension agents in three to four nearby kebeles. Supervisors then report to the WoARD on extension agents' activities in their territory. In Amhara-K3, an extension agent said that the supervisors and woreda-level experts had no greater technical knowledge than he did. He felt that he received inadequate support from the supervisors, whose role has instead become mainly one of control. If supervisors are to be recognized by extension agents as competent and trustworthy advisors, they must demonstrate adequate content and methodological competence (Lemma, 2007).

In Tigray-K, extension agents also meet regularly with mengistawi budin in their assigned territory, and also work closely with them. Mengistawi budin essentially constitute the political leadership at the sub-kebele level and are subject to some level of evaluation by these bodies and their contact farmers. The mengistawi budin meet regularly with the kebele cabinet to discuss extension agents' performance. However, lines of authority and accountability become somewhat muddled, because recent practice is for the extension team leader to serve on the kebele cabinet as the member responsible for agriculture.

The new position of kebele manager, created as part of the "good governance" initiative in the wake of the 2005 elections, adds another accountability mechanism. This official is the chief civil servant posted at the kebele level, and all other staff report to her or him. The manager is available to residents 24 hours a day, seven days a week. The manager in Tigray-K instituted a suggestion box and meets frequently with residents on any and every issue. Managers are accountable to the woreda Office of Capacity Building.

Government bodies in the kebeles thus add another layer of oversight to extension service provision. The main lines of accountability remain upward, despite the elements in place to ensure some measure of downward accountability, because training and promotion opportunities depend on pleasing supervisors and the WoARD. Extension agents' incentives do not encourage efforts to draw on farmers' own knowledge or to tailor programs to farmers' demand; promoting package participation is the way to get a good evaluation.

In some study sites, extension agents complained about a lack of training opportunities and materials, as well as a top-down approach to supervision, whereby supervisors and technical experts enforce the promotion of packages rather than providing technical backup and coaching

to front-line agents who respond to farmers' demands and work to marry modern and traditional knowledge. In Amhara-K3, an extension agent said that he sought to tailor services to local conditions and demands, but added that he did not receive support from above for doing so.

A well-functioning Farmer Training Center was observed in Tigray-K, but in Amhara-K3, an extension agent said that the center is nonfunctional, and agricultural officials in Oromia-D reported that the centers are often used as goat sheds. Links between research and extension were generally poor at all sites, as is common throughout the country (Lemma, 2007).

Overall, the vertical and horizontal relationships of service providers are not well institutionalized and remain very weak. There is no systematic mechanism or coordinating body to align the activities of public sector, NGO, and user organization activities and to provide a common framework in which all actors can operate. Woreda governments are supposed to exercise this function, but in practice it is nonexistent. This lack of coordination at all levels limits the effectiveness and efficiency of services.

Interactions among service providers

This section deals with the interaction of different types of service providers among each other, with community-based organizations and with donor agencies (Box E). At all sites, agricultural extension was provided exclusively by the public sector, as indicated above.

In Amhara-D1, there are extension agents based at the woreda headquarters who promote the formation of farmers' cooperatives and membership in cooperatives (see next section) throughout the woreda. All woredas have a cooperative promotion desk as a unit of the WoARD. In Amhara-K1, extension agents encourage cooperative membership and prompt repayment of loans obtained through the cooperative. In Amhara-K3, extension agents work closely with the local women's association on promotion of the "women's development package" and other livelihood activities for women.

Donor agencies have played a major role in attempting to make extension services more client-oriented. The World Food Programme and MoARD have collaborated since the 1980s on engaging communities in planning and management of soil and water conservation, culminating in national participatory watershed development guidelines in 2005. This effort has also included a major focus on gender equality in these activities. The effort was not donor driven, however, because WFP took great pains to work in a collaborative mode with the ministry (Cohen, Rocchigiani, and Garrett, 2008).

5.3 Agricultural cooperatives

Cooperatives are becoming an increasingly important agricultural institution in Ethiopia, with the recent strong attention paid by the government to cooperatives as a key vehicle for advancing the government's agricultural and rural development agenda. Cooperatives have both the function of rural "user organizations" and of service providers.

They have the common characteristics of user organizations in that their members, and often their leadership, is comprised of local residents who directly use the services and resources that cooperatives facilitate. Also, they take the form of user organizations in that they are not strictly public agencies but rather are voluntary local organizations of individuals interested in cooperating to achieve individual and mutual goals of increasing productivity and accessing markets. At the same time, agricultural cooperatives in Ethiopia can also be characterized as “service providers,” as it is, for example, predominantly through cooperatives that farmers obtain agricultural inputs and in some cases agricultural equipment (Spielman, Cohen, and Mogues, 2008).

Through a recent major emphasis of government to expand and accelerate the formation of cooperatives and the membership of farmers in them, such membership has only recently been increasing rapidly, albeit from a low base. In the study areas taken together, 24 percent of men and 4 percent of women are members of a cooperative (Table). However, this includes a range of cooperative types; membership in agricultural (also called multipurpose) cooperatives is 13 percent for men and 2 percent for women.

This compares to a national estimate of 9 percent of households being members of a cooperative (Bernard and Spielman, 2009). The very low share of female respondents who are directly cooperative members reflects the fact that, to date, those households who are cooperative members (this prevalence itself already relatively low) nearly exclusively join through the household head, who is usually male. Men are five times more likely than women to hold a leadership position within the cooperative. Only 3 percent of women who are in a cooperative hold such positions, while 15 percent of male cooperative members have some leadership role within the cooperative.

It appears that several cooperatives in the study areas may have been relatively new—which is consistent with the recent rapid expansion of cooperatives throughout the country as discussed above. Table is suggestive of this: Three-quarters of male respondents and a majority of women who are in a cooperative had to pay an “establishment fee” upon joining, which goes toward the costs already incurred in setting up the cooperative.

Table 10: Residents' involvement in and contribution to cooperatives

Residents' involvement in cooperative	Men	Women	Diff. sign.
	% of respondents		
Member of any cooperative	24%	4%	***
<i>Of those who are members of a cooperative:</i>			
Member of any agricultural (multipurpose) cooperative	13%	2%	—
Hold a leadership position in the cooperative	15%	3%	**
Involved in development of cooperative's constitution / bylaws	34%	15%	**
Had to pay establishment fee upon joining the coop	74%	62%	
Had to contribute additional resources upon joining cooperative	25%	26%	
Have to pay periodic membership fee	17%	26%	*
	No. of meetings		
Average number of meetings attended (per year)	12	13	*
	Years		
Duration of membership	6	4	

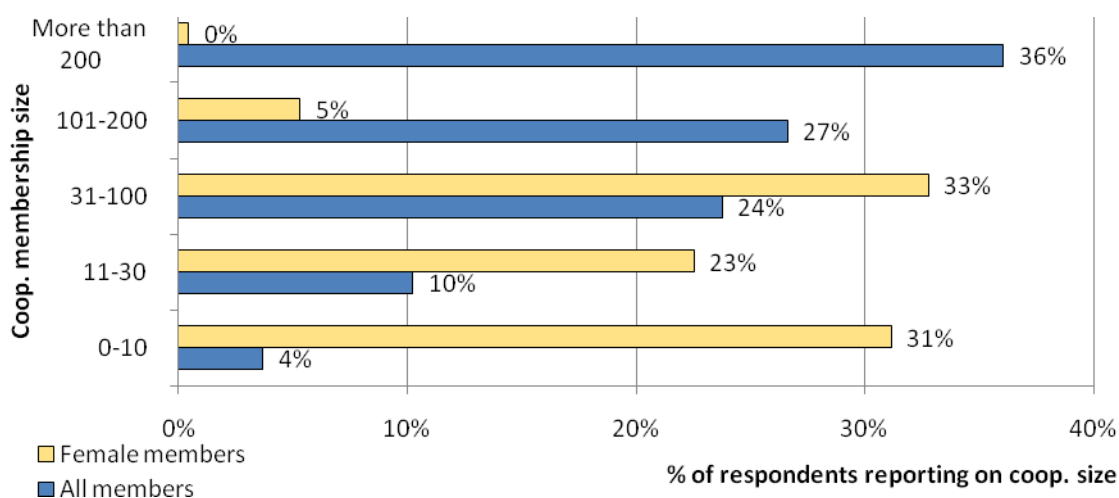
Source: Authors. Note: * significant at 10%; ** significant at 5%; *** significant at 1% level.

And, in fact, a nontrivial proportion of men and even women were directly or indirectly involved in the development of the cooperative's rules and policies. In this sense, it is to be expected that these cooperative members in the study are founding members. In contrast, surprisingly few members are obliged to pay a regular membership fee. One of the reasons for this may be the diverse ways in which cooperatives obtain revenue through their members. Explicit membership fees are just one way; many cooperatives also mark up the price of agricultural inputs purchased from cooperative unions or the woreda government office of agriculture before selling them to members. Similarly, those cooperatives engaged in output marketing may withhold a small amount of the revenues from commodity sales before paying out the farmers.

Cooperatives in the study area tend to be relatively large. Based on respondents' replies to a question about the size of the membership of their cooperatives, it can be seen in

Figure 4 that close to over 35 percent of the respondents stated that the aggregate membership of their cooperative has more than 200 members.

Figure 4: The size of overall and female membership in cooperatives



Source: EEPRI-IFPRI Survey, 2009.

Another quarter of respondents reported a membership of between 100 and 200. Smaller cooperatives were less frequent. In contrast, and in line with the above information, over 30 percent of respondents stated that their cooperative had less than 10 women, and nearly a quarter stated that there are between 10 and 30 women in their cooperative.

5.4 Local political bodies and agricultural service provision

This section corresponds to the policy environment (Box A) of the agricultural advisory services framework.

5.4.1 Relationship between the different tiers of government

Financial support and information flows are two important mechanisms by which regional and national governments can influence the effectiveness of local political representatives. Financial support from the national and regional level to woredas is formula driven. While woreda governments discuss plans and allocation of budget resources with higher levels of government,

guidance from above tends to trump bottom-up priorities and communications. The case study evidence suggests that woreda representatives on regional councils are not able to alter total resource levels, given reliance on formulas, and the research team did not receive any information about how interactions between these representatives and woreda or kebele representatives might influence sectoral or territorial allocations of funds within woredas or plan priorities.

As discussed from the field research in several sections, information tends to flow from the top down in Ethiopia. While many institutional arrangements exist that could help make the information flow both ways, these will not play this role effectively until policy making and implementation no longer occur via a command-and-control mode.

5.4.2 The role of political parties

During the 2008 local elections, EPRDF party endorsement was virtually a requirement for achieving office. Party leaders explained that candidates had to be people who set a good development example, such as model farmers who send their children to school and otherwise participate in party-endorsed development activities. The EPRDF is pervasive in all policy matters and at all levels of governance in Ethiopia. This is equally true for agricultural and rural development policy (Aalen 2002; Pausewang, Tronvoll, and Aalen 2003; Gebre-Egziabher and Berhanu 2007; also see Box 2). Civil society organizations such as associations for women, youth, elders, and veterans are basically “mass organizations” of the party, in keeping with the EPRDF’s Leninist character (Vaughan and Tronvoll 2003). This is true even of farmer cooperatives, which are supposedly organized to advance farmers’ interests and secure them tangible benefits. Members of EPRDF parties routinely fill cooperative leadership positions. Moreover, the cooperatives frequently are more responsive to the desires of the government and donors than to those of members (Bernard et al. 2008; Francesconi 2009).

5.4.3 Relationship between cooperatives and local political bodies

As discussed above, cooperatives in Ethiopia both have an identity as user associations and as organizations that are linked to government both through their genesis and their key role in channeling government provided inputs and services to farmers. Their genesis informs this link to government primarily through the fact that cooperative promotion agencies at all levels have as one of their main tasks to help create, set up, and advise agricultural cooperatives in the country to help meet the government’s goal of making 70 percent of the society into users of cooperatives’ services by having one cooperative in each kebele of the country by 2010 (Federal Cooperative Agency, 2006).

The strong government-led effort behind the creation and strengthening of cooperatives has given these organizations access to local governments. The effort also provides the potential for cooperatives to function as effective mediators between farmers and government. Table shows that households reported cooperatives in their community to have been involved in government meetings at the kebele and woreda level, when local officials convene to discuss the local government’s agenda for agriculture in the community. Households stated in fact more often that cooperatives were present at such woreda-level meetings than at the lower-tier kebele meetings. This may relate to the greater bearing that woreda-level decisions have on people’s lives, and the often derived nature of kebele plans from the higher tier.

The potential of a role of cooperatives as interlocutors between residents and local government is further brought out by the finding that, in addition to cooperatives having a forum in local government discussions on agricultural plans, cooperatives also engage their members on governments' plans through discussions conducted in membership meetings. Analogous to the above findings that cooperatives are more often said to be present during woreda than kebele meetings, so also are the downward interactions more often about the woreda government's agricultural agenda than the kebele government's.

Box 2: The party and participation: The local nexus between the party and agricultural activities in Tigray

The history and legacy of the Tigray People's Liberation Front (TPLF), and the party-development nexus. While the military dictatorship referred to as the Derg was in power in Addis Ababa since 1974, larger parts of the rural Tigray region in the 1980s came under control of the TPLF—the movement that was later (in 1991, by overthrowing the Derg) to become the core component of the ruling party EPRDF. In the 1980s, TPLF pursued a policy of strengthening Tigrayan farmers' livelihood base and promoting self-government of rural communities. This played a crucial role in increasing the loyalty that farmers forged with the movement and in TPLF's ability to consolidate its legitimacy in the region. The legacy today of the political and economic alliance between farmers and the TPLF is complex. Some evidence suggests the alliance's continuation in the postrevolutionary era. Nevertheless, there are reasons to question the idea of Tigrayan rural people freely rewarding their government for development and self-governance with political support.

Ensuring participation in government programs. Local government officials and *tabia*-level “farmer-leaders” (a *tabia* is analogous to a “kebele” in other parts of the country) are in charge of rousing the farmers' interest and stimulating their participation in development programs. (The term *farmer-leaders* refers to *tabia* leaders who have livelihoods like regular rural residents; this includes heads of community women's and youth associations, *tabia* council members, and so on.) They draw on different strategies to do so, which in practice often intertwine. One strategy consists of pointing out to farmers the advantages of newly introduced technologies and agricultural techniques through extension and demonstration. Second, households that take part in development programs are rewarded with privileged access to public resources, such as scarce employment in the public work component of the government's Productive Safety Net Programme. Finally, local government and farmer-leaders try to win over farmers by capitalizing on the TPLF's historical legitimacy through its struggle against the Derg. At the discursive level, they frequently do so by extrapolating feelings of hatred against the Derg to poverty and underdevelopment, by presenting the latter as the farmers' present-day enemies to be defeated.

Representation as “leading by example”. Local party leaders motivate party members, such as *tabia* council members and other farmer-leaders, to take part in the programs and to set an example for others. For example, for *tabia* council members, “representing the people” takes on a different meaning, as in the quote of a local administrator to the council: “I saw your pond looks bad. You have to take responsibility and make sure that at least your own ponds are fine. To lead the people, you have to show them.” For ordinary farmers, the TPLF-development nexus opens opportunities for upward social and political mobility. Indeed, that TPLF members on average are more active participants in development programs is not exclusively the result of the mobilization strategies described above. The local party leadership also invites already successful and innovating farmers to join the TPLF. For obvious reasons, most of these farmers chosen do not refuse the invitation. Strengthening the TPLF ranks with innovative farmers increases the chance that future development interventions quickly gain a foothold.

Decentralization for the downward channeling of a central agenda. In the agricultural development realm, the local institutional machinery, including the local party apparatus, is thus mobilized only in order to see to the implementation of the government's agenda, which is channeled from the highest tiers of government on down. In this, the room for using the local structures to take advantage of local knowledge on what does and does not work is severely restricted. This is well illustrated by a village leader called on to lead by example: “If I had a good catchment near my land, I would have dug a pond before, but what is the use of a pond if it is impossible for water to enter it? Subworeda administrators constantly commented on me. They visited me in my house and I tried to convince them of the impossibility for a pond on my land to harvest rainwater, but they did not accept this. One day at a meeting in the woreda my case was brought up again. I was so tired of it that I decided to dig a pond anyway.” It could be argued that the EPRDF and the TPLF at their core, with their clear vision on development and ambitious development agenda, have tended to reduce opportunities for rural people to foster and develop theirs. In general, despite Ethiopia's transformation into a federal state and the further decentralization processes in

progress, power devolution to regional and local government levels is inadequate in practice, even in Tigray with its pre-1991 history of local empowerment under the then-rebel movement TPLF.

Source: Segers et al. (2008)

This is promising for the role that cooperatives could be able to play as mediators between the state and farmers. However, what remains unanswered is whether the interactions upward (the involvement in agricultural planning meetings of the government) and the interactions downward (the discussion of these plans with members) serve only as a conduit of information to farmers about state mandates and targets, or whether these interactions are also a potential for channeling concerns and priorities of farmers up to government.

Cooperative leaders in both Tigray-D and Amhara-D3 felt that the government has a big influence on the cooperatives' agenda. These leaders had their own ideas about how best to serve their members but felt constrained to follow the part established by the government.

Table 11: Residents' perception of cooperative's influence on local government

Cooperatives' influence on local government, and participation of residents in the local policy process	% of residents
Stated that cooperative leaders were involved in meetings on the kebele government's agricultural plans	30%
Stated that cooperative leaders were involved in meetings on the woreda government's agricultural plans	48%
Stated that the cooperative conducted discussion among the cooperative members on kebele government's agricultural plans	33%
Stated that the cooperative conducted discussion among the cooperative members on the woreda government's agricultural plans	50%
<i>Perception of influence of cooperative on kebele government's priorities</i>	
High influence	12%
Some influence	17%
Little influence	9%
No influence	31%
Don't know	32%
<i>Perception of influence of cooperative on woreda government's priorities</i>	
High influence	7%
Some influence	18%
Little influence	3%
No influence	28%
Don't know	44%

Source: EEPRI-IFPRI Survey, 2009.

The body of literature on agricultural cooperatives in Ethiopia during the present regime is extremely sparse, and nearly no research has been conducted on the interface between cooperatives, the state as manifested through local government, and farmers.² In particular, little is known about the direction and nature of influence, accountability, and pressure between these three actors. The households in this study report very mixed responses about their perception of their cooperatives' influence on kebele and woreda government, and interviews with cooperative leaders suggest that the government holds the trump cards in these interactions. Nevertheless, as Table shows, survey responses indicate that some 30 percent and a quarter of respondents believe cooperatives have influence on the priorities of the kebele and woreda governments, respectively. However, a greater percentage (40 percent and over 30

²The very few peer-reviewed journal articles that focus on cooperatives in post-1991 Ethiopia include Bernard and Spielman (2009), Spielman, Cohen, and Mogues (2009), Bernard et al. (2008), Francesconi and Ruben (2008), and Staal et al. (1997).

percent, respectively) think cooperatives have little to no influence on local government priorities. These perceptions do point to a certain degree of influence that cooperatives can exercise over government, notwithstanding the constraints that cooperative leaders perceive in their interactions with the authorities.

6. DISCUSSION, AND IMPLICATIONS FOR RESEARCH AND POLICY

Moderate access to agricultural extension

The access of households to extension for men and women is moderate: 27 percent and 20 percent of men and women, respectively, receive agricultural extension agent visits at home or on the farm; 5 percent, 0.9 percent, and 1.1 percent of men visit demonstration plots, Farmer Training Centers, and demonstration homes, respectively, while these rates are 1 percent, 0.4 percent, and 0.9 percent for women. Access to extension varied widely between study sites, ranging from 2 percent in the Afar site to 54 percent in the Tigray region site. While there is likely to always be some diversity in access to extension services across localities for a range of reasons, including feasibility in light of agroecology and livelihood systems, it appears justified to reduce the stark differences in access. Extension coverage expansion where it is currently very low, including to pastoral areas with packages and agricultural advice relevant to this livelihood system, would address the current stark lack of balance in extension access.

However, even a high level of access does not necessarily mean utilization or quality of service. Due to the top-down approach and the focus on getting model farmers to adopt fixed technology packages, extension tends to neglect poor farmers, particularly women. The extension system is not client oriented, and users have limited demand capacity. The national goal is that women should account for 50 percent of extension users, but many barriers to women's participation in extension programs were found, including cultural norms and the inappropriateness of the "women's development package" for female household heads, as opposed to farm wives.

The study indicates that access to services is one of the most important diagnostic indicators. To capture the full gender dimension, services that can be supplied individually, such as agricultural extension, should be measured separately for male-headed households, female-headed households, and female spouses in male-headed households. The survey results indicate that there are often considerable differences in access to services between female household heads and women in male-headed households. The need to obtain gender-disaggregated "hard data" on access to services has been emphasized for a long time, and for essential services, such as health and education, such indicators meanwhile exist on a broad basis. Yet there is a dearth of such indicators for agriculture-related services, such as agricultural extension. The surveys conducted for this study included questions on a range of other agriculture-related services, such as credit, land administration, and marketing services, which will be presented in future outputs from this research project. A set of gender-disaggregated agricultural indicators will be developed on this basis, as well.

Alternative modes of extension still play a rather limited role

The surveys showed that individual visits by public sector extension agents, which can be referred to as the “traditional model,” have remained the predominant mode of providing extension. The traditional model dominates in spite of the efforts to promote group- and community-based extension and to encourage the active participation of other extension providers in Ethiopia, the share of male farmers that attended community meeting organized by extension officers was in the same range as for individual visits (26 percent), but female farmers apparently found this mode of interaction less accessible, as only 11 percent received extension in this form. NGOs played a limited role in Ethiopia. In the surveyed woredas, the extension role of NGOs was limited to the training of extension agents and other woreda-level staff, but did not involve the direct interaction with farmers. Private sector enterprises did not feature as providers of extension services per se in any of the surveyed regions, apart from the fact that farmers who buy inputs from private input dealers receive advice related to these inputs.

Those farmers who receive extension services tend to be very satisfied

Using the methodology that is widely applied in the “Citizen Report Card” approach, the surveys tried to establish how satisfied the farmers were with the extension services they receive. Practically all extension recipients in Ethiopia expressed satisfaction with the service. The findings of the study cast some doubt on the reliability of satisfaction indicators. Household members expressed high satisfaction rates when asked to rank their satisfaction, even for services that they otherwise identified as their main area of concern and/or to which they had rather low access. The reasons may be manifold: lack of knowledge, low expectation rates, reluctance to criticize government service providers who are often also members of the ruling party (Abate 2009), perceptions that services are gifts from benevolent politicians that cannot be questioned, and so on. This question certainly requires further research. At the same time, it indicates that satisfaction data should be interpreted with care.

The involvement of agricultural cooperatives in extension services remains low, and these organizations are not typically inclusive

Cooperatives play a rather limited role in the provision of agricultural and veterinary extension services, in spite of ongoing efforts to promote them as a way to strengthen both farmers’ voice and farmers’ access with regard to agricultural and veterinary extension services. Since they are in charge of providing inputs, they are closely linked to the “package approach” used by the Ethiopian extension system, even though they do not provide extension services themselves. Women’s membership in cooperatives, and even more so their participation in cooperative boards or management, is very limited. Also, as a consequence of Ethiopia’s political system (further discussed below), the cooperatives are dominated by state and party influence.

Agricultural services fail women for many different reasons—and it is important to know them

Agricultural services can fail women for very different reasons. Quite often, the failure is linked to general problems of providing the service. These may include (1) a general lack of capacity to provide the service in terms of staff and resources; (2) the capture of the service by the better-

off; (3) the lack of appropriate management of the service to make it effective and focused on outcomes; (4) the existence of service provision methods and staff incentives that discourage the responsiveness to users (as in the case of the package agricultural extension approach); (5) the lack of political priority to provide the service; and (6) the relative unawareness of users and their lack of knowledge about the relevance of the service for their well-being. In such cases, introducing gender-related strategies will have limited effect, as long as the more fundamental underlying problems of service provision remain unresolved. So, as far as possible, it is important to undertake a more general assessment of the problems with the respective service as a first step and to link gender-related efforts to general reform efforts regarding the respective service.

Apart from the general failures in agricultural service provision that require attention, there are gender-specific problems associated with poor service provision to women. The study suggests that in agriculture, a widespread “perception bias” regarding the actual role of women in agriculture can contribute to a low priority of providing better services to women. Women are not considered to be farmers in Ethiopia, in spite of the many farming activities they perform. This bias seems to persist in spite of ample research evidence that documents the role of women in agriculture. Innovative strategies seem to be needed to address this perception bias.

Linking extension to women’s groups might be an interesting alternative

The model of linking extension services to women’s groups might be promising, when these groups can serve as a bridge between extension workers and women farmers. Women are organized in various forums that are associated with the government and political party system. The women’s associations and the women’s league of the party have shown themselves to be possible entry points for strengthening service delivery to women. In addition, party ideology and government policy support gender equality while recognizing the barriers posed by centuries of patriarchal culture. The women’s associations and the party’s women’s groups are not created by external agencies such as donors, are widely present throughout the country at the lowest administrative unit, and have been found to be quite active in some of the study areas. These groups are particularly active in some areas in facilitating women’s access to extension agents and in gently pushing some of the cultural frontiers by discussing gender equality and women’s abilities.

However, the existing literature suggests that the overt government and party affiliation of women’s groups, and their use for political mobilization for the ruling party, has led to hesitancy on the part of female rural residents in some parts of the country to actively participate. This dual role may constitute a check on these institutions’ success rate if trust in their gender awareness work is undermined by heavy political undertakings.

External assistance to further expand this and other approaches to bringing women’s access to extension advice somewhat more in line with that of men can include, to start with, better and more-detailed documentation on how and through which mechanisms women’s associations are successful in bringing extension advice to their members, and on where they try and fail, and why. These lessons learned can then be taken into account in a process of expanding this approach, possibly through a project within a limited number of rural woredas in Ethiopia that focuses on drawing on women’s associations and other women-focused local institutions in

extending agricultural advice to women. Such a project can then lead to a more widely applicable policy, after further lessons are learned on what works and what doesn't in this approach.

Making agricultural extension demand driven remains a challenge

Unlike in some other developing countries, where severe neglect of extension systems leads to a failure of the system to be oriented to farmers' needs and demands, in the case of Ethiopia, the challenge to make agricultural extension demand driven is of a different nature: Staff capacity is generally not the binding constraint, due to strong political will to have high outreach of extension staff throughout rural areas. Instead, this study indicates that it is the pronounced "top-down" nature of public service delivery in Ethiopia that makes it difficult to tailor agricultural extension to farmers' demands. The incentives of the extension agents are set in such a way that they try to maximize farmers' willingness to adopt the "technology packages." Since these packages are not subsidized, convincing farmers to adopt them is the major task of the extension agents. The study found evidence that extension agents are discouraged from adapting the packages to local needs. Even where extension agents wish to be able to tailor their advice to the diverse context, situation, and needs of different households, and to take local knowledge into account, the pressure from the woreda agriculture office to persuade a given quota of farmers to adopt standardized technology packages and the fact that opportunities for promotion and training depend strongly on meeting such quotas discourages extension workers from pursuing activities characterized by a demand-oriented focus.

The packages themselves have become less rigid in recent years, with a menu of options now available to farmers. However, the quota system for the evaluation of extension agents remains in effect. The top-down orientation of delivery starts from the higher tiers of government and runs all the way down to the local level. At the local level, it is even reflected in the way that the different roles of agricultural workers reporting to the woreda government coagulate. In principle, front-line extension agents work directly with farmers. Supervisors should coach and ensure their strong performance, and subject matter specialists should provide technical backup. In practice, these actors form a chain of command, the main purpose of which is to make farmers adopt the standardized agricultural packages. The study found little to no room provided for an upward flow of feedback from farmers to extension agents and up to the woreda agricultural office. Nevertheless, the posting of agents to the kebeles does make them more attuned to local needs and desires. In fact, the agents are now well-positioned to play an important role in facilitating bottom-up information flow if their incentives (and training) were appropriately altered to encourage this.

The training of extension personnel also reflects the supply orientation of the extension service. Much of the pre-service training focused heavily on technical issues, nearly to the exclusion of aspects such as community organization and interaction and gender concerns of services, topics that would contribute to the ability of front-line service providers to manage community members' concerns and feedback and to use this feedback to better tailor services to farmers' needs. However, the study suggests that extension workers received in-service training on these topics, among others from NGOs. Strategies to increase women's access to agricultural extension suffer from the general problems faced by the extension system and from the "perception bias" regarding the role of women in agriculture.

Ethiopia pursues the strategy to mainstream gender through the “gender machinery” in the public administration. There are Wereda (woreda) Offices of Women’s Affairs as well as gender desks or gender focal points within each line department at the wereda level, including in WoARD, the office in charge of agricultural and rural development. There is also a women’s affairs position in the kebele cabinet.

Still, access of women to extension services remains curtailed relative to that of men, as proportionally much fewer women than men appear in community meetings organized by extension agents, and substantially fewer women than men visit demonstration homes and plots. Extensionists’ visits to households’ homes and farms are reported by men and women nearly equally, and in fact proportionally more frequently by women. However, this does not reveal whether the woman actually came into contact with the extensionist during these visits, or whether the extension officer focused his or her advice on the man in the household. The latter is in fact strongly suggested by the qualitative fieldwork, which also found that extension agents targeted the men even when the advice concerned activities primarily undertaken by the women (such as poultry keeping).

However, the creation of a “women’s development package” indicates that agricultural officials are trying to improve their services to women, and the study found that extension agents are trying to find ways around cultural taboos to work with more women, for example, by collaborating with local women’s associations. It is also important to note that the rapid expansion of the extension service has created many more opportunities for women to work as crop, livestock, and natural resources management specialists, rather than as just ‘home economics’ extensionists.

Nevertheless, gender-differentiated quality and quantity of extension provision persists. It may originate from many sources, but one reoccurring theme in the study was the cultural perception that “women don’t farm,” even where the range of agricultural activities in which women engage is well known. The perception of men as “farmers” and women as “farm wives” also proposes that professional advice given to the man will be faithfully passed on by him to his wife, without due consideration of the somewhat different realms in agriculture that women and men engage in. Moreover, when the wife is not present during the contact with the extensionist, she loses the opportunity to follow up with questions addressed to the extension agent.

The strong standardization of extension and input packages discussed above also affected women in particular ways; the “women’s development packages” considered mostly agricultural activities that farm wives traditionally undertake and ignored the larger set of activities usually taken on by female heads of households (commonly widows and divorced women). The assessment of male and female prioritization of different types of public services highlighted in a more general form that the nature of gender differences (and similarities) in such prioritization varied depending on whether one compares all men with all women, or male with female household heads. This suggests better attention to the gender issues concerning heads versus those concerning all farmers, not only for service providers as mentioned above, but also for gender research on public services more generally.

Viewing the trade-offs between high discretion of frontline service providers versus standardised approach in the context of the political system:

The deep reach of the state has manifested itself in the ability of the government to see through a dramatic expansion of those public services that constitute a priority area in its policy framework. Agricultural extension delivery is one such priority area. In view of the predominant top-down approach to agricultural extension, the challenge remains how to make agricultural extension more responsive to the needs of farmers, including female farmers. The fact that the extension providers in Ethiopia reach a (relatively to many other developing countries) large share of farmers, both male and female, may be due not only to the favorable agent-to-farmer ratio, but also to the strong discipline among the extension agents that induces them to meet their package targets. Also contributing to the success of agricultural extension is the high priority placed on this service by the political leadership of the government and party. The standardized system reduces the challenge of supervising and monitoring extension agents, which is one of the inherent challenges of providing this service. Efforts to promote the Green Revolution in India and the Training and Visit extension system used this approach. Agricultural development in China and Vietnam also thrived under a similar top-down system of a one-party state. Yet there is an important difference between the Green Revolution regions in these countries and Ethiopia. The Green Revolution regions have rather uniform irrigated agricultural systems, and a top-down package approach works well in such environments. However, African agriculture is characterized by agroecological diversity—this is especially true in Ethiopia, where one can find different agroecologies within a single woreda—and thus technologies do not “travel far” in this part of the world. In fact, Pardey et al. (2007) find that only Australia is similar to Africa in the need to tailor technologies to very specific situations. Therefore, a more demand-driven approach is essential to develop agriculture in Ethiopia, beyond other instrumental or intrinsic reasons to favor participatory approaches to agricultural and rural development (see, for example, Cohen, Rocchigiani, and Garrett, 2008 for a summary of the substantial literature on the value of participatory approaches).

In this and other studies, the relative lack of flexibility of the agricultural packages that extension agents are supposed to promote, contrasted with the strong diversity of agriculture in Ethiopia, has been identified as one of the constraints in extension services. This study, however, also found that extension agents may, when given the chance, be quite willing to adapt the packages to make them relevant to the specific farmers they work with, but that the incentives inherent in policies and the local public administration structure discourage such adaptation of packages.

Even with a view to ensure increased technology adoption by more farmers, policy advice could promote expanding the discretion of agricultural extension agents, and giving them more space to experiment together with their farmers with potentially more appropriate technology and input packages than those they are obliged to promote. Having said that, it is important to acknowledge the progress made in government policy to diversify the farmers’ packages, expanding to new menus for women (spouses of household heads) and for pastoralists. However, even the more diversified menu cannot substitute for the microlevel adaptation, the process that would make new inputs and practices more credible to farmers, and which only extension workers and their farmers can feasibly manage. This is particularly important with regard to extensionists’ work with women (both household heads and spouses of heads), as extension advice to women is still less frequent, and thus both female farmers and extension agents need to have the opportunity to experiment with input combinations and other advice on agricultural practices.

REFERENCES

Aalen, L. 2002. *Ethnic Federalism in a Dominant Party State: The Ethiopia Experience 1991–2000*. CMI Report. Chr. Michelsen Institute. Bergen, Norway.

AfDB 2004. "Ethiopia: Multi-Sector Country Gender Profile. Agriculture and Rural Development North East and South Region (ONAR)." African Development Bank. Abidjan, Côte d'Ivoire.

Agarwal, Arun, and Nicolas Perrin. 2009. "Comparative Study of Rural Institutions for Improving Governance and Development: Afghanistan, Ethiopia, India, Vietnam, and Yemen." Social Development Working Paper No. 114, World Bank, Washington, DC.

———. 2008. "Powerful Women: Does Exposure Reduce Bias?" Working Paper 175, Center for International Development at Harvard University.

Berhanu, G., D. Hoekstra, and A. Tegegne. 2006. "Commercialization of Ethiopian Agriculture: Extension Service from Input Supplier to Knowledge Broker and Facilitator." IPMS (Improving Productivity and Market Success) of Ethiopian Farmers Project Working Paper 1, ILRI (International Livestock Research Institute), Nairobi.

Bernard, T., and D. Spielman. 2009. "Reaching the Rural Poor through Rural Producer Organisations? A Study of Agricultural Marketing Cooperatives in Ethiopia." *Food Policy* 34(1): 60-69.

Bernard, T., E. Gabre-Madhin, and A. S. Taffesse. 2007. *Smallholders' Commercialisation through Cooperatives: A Diagnostic for Ethiopia*. IFPRI Discussion Paper 722, Washington DC.

Bernard, T., A. S. Taffesse, and E. Gabre-Madhin. 2008. Impact of Cooperatives on Smallholders' Commercialization Behavior: Evidence from Ethiopia. *Agricultural Economics* 39(2): 147–161.

Birner, R., and J. von Braun. 2007. "Decentralization and Public Service Provision—A Framework for Pro-Poor Institutional Design." Paper Presented at a Conference on "Effectiveness of Decentralized Service Delivery" in Moncalieri, Italy, September 3–4.

Birner, R. 2007. "Improving Governance to Eradicate Hunger and Poverty." 2020 Focus Brief on the World's Poor and Hungry People, International Food Policy Research Institute, Washington, DC.

Birner, R., Davis, K., Pender, J., Nkonya, E., Anandajayasekaram, P., Ekboir, J., Mbabu, A., Spielman, D., Horna, D., S. Benin and M. Cohen (forthcoming in 2009): From Best Practice to Best Fit: A Framework for Designing and Analyzing Pluralistic Agricultural Advisory Services Worldwide, in: *Journal of Agricultural Education and Extension*.

Bishop-Sambook, C. 2004. "Gender Analysis: An Overview of Gender Issues in the Agricultural Sector of Ethiopia. IPMS (Improving Productivity and Market Success) Gender analysis and strategy paper, Addis Ababa, Ethiopia.

Buchy, M., and F. Basaznew. 2005. "Gender-blind Organisations Deliver Gender-biased Services: The Case of Awasa Bureau of Agriculture in Southern Ethiopia." *Gender, Technology and Development* 9(2): 235–251.

Cohen, M. J., M. Rocchigiani, and J. L. Garrett. 2008. "Empowering Communities through Food-based Programmes: Ethiopia Case Study." Discussion Paper, World Food Programme, Rome. Available at http://www.wfp.org/sites/default/files/WFP_Discussion_Paper-Empowering_communities-Ethiopia_0.pdf.

Crewett, W., A. Bogale, and B. Korf. 2008. "Land Tenure in Ethiopia: Continuity and Change, Shifting Rulers, and the Quest for State Control." CAPRI Working Paper 91, CGIAR Systemwide Program on Collective Action and Property Rights, Washington, DC.

Davis, K., B. Swanson, and D. Amudavi. 2009. *Review and Recommendations for Strengthening the Agricultural Extension System in Ethiopia*. IFPRI working paper.

Demessie, S., E. Kebede, and A. Shimeles. 2005. "Ethiopia Strategic Country Gender Assessment—A Report of the World Bank."

Dercon, Stefan, Daniel O. Gillian, John Hoddinott and Tassew Woldehanna. 2007. "The Impact of Roads and Agricultural Extension on Consumption Growth and Poverty in Fifteen Ethiopian Villages." Paper 260, The Centre for the Study of African Economies Working Paper Series, Centre for the Study of African Economies.

Dom, C., and M. Musa. 2006a. "Review of Implementation of the Decentralisation Policy: A Sample Survey in Six Weredas of Amhara Region." Report for the Embassy of Sweden and Amhara National Regional State. Oxford, UK.

———. 2006b. "Review of Implementation of the Decentralisation Policy: A Sample Survey in Four Sentinel Weredas of Tigray Region." Report for the Embassy of Ireland and Regional Government of Tigray. Oxford, UK.

Ethiopian Economic Association (EEA)/Ethiopian Economic Policy Research Institute (EEPRI). 2006. "Evaluation of the Ethiopian Agricultural Extension with Particular Emphasis on the Participatory Demonstration and Training Extension System (PADETES)." EEA/EEPRI, Addis Ababa.

Fafchamps, M., and A. Quisumbing. 2005. "Marriage, Bequest and Assortative Matching in Rural Ethiopia." *Economic Development and Cultural Change* 53(2): 347–380.

Federal Cooperative Agency. 2006. "Five-Year Development Plan." Government of Ethiopia, Addis Ababa, Ethiopia.

Francesconi, G.-N. 2009. *Cooperation for Competition: Linking Ethiopian Farmers to Markets*. Wageningen, Netherlands: Wageningen Academic Publishers.

Francesconi, N., and R. Ruben. 2008. "The Life Cycle of Agricultural Cooperatives: Implications for Management and Governance in Ethiopia." *Journal of Rural Cooperation* 36(2): 115–130.

Gebre-Egziabher, T., and K. Berhanu. 2007. A Literature Review of Decentralization in Ethiopia. In *Decentralization in Ethiopia*, ed. T. Assefa and T. Gebre-Egziabher. Addis Ababa: Forum for Social Studies.

GoE (Government of Ethiopia). 2000. "Ethiopia National Action Plan." Government of Ethiopia. Available at <http://www.un.org/womenwatch/daw/country/national/ethiopia.htm>.

GoE (Government of Ethiopia). 2004. "A National Report on Progress Made in the Implementation Platform for Action (Beijing + 10)." Government of Ethiopia, Prime Minister's Office, Women's Affairs Sub-sector. Addis Ababa.

GoE (Government of Ethiopia) and World Bank 1998. "Implementing the Ethiopian National Policy for Women: Institutional and Regulatory Issues." World Bank, Washington, DC.

Horowitz, L. 2009. "Getting Better Government for Women: A Literature Review." Discussion Paper (forthcoming), Agriculture and Rural Development Department (ARD), World Bank, Washington, DC.

IFAD (International Fund for Agricultural Development). 2005. "IFAD's Performance and Impact in Decentralising Environments: Experiences from Ethiopia, Tanzania and Uganda." Report 1641, IFAD, Rome.

IFPRI (International Food Policy Research Institute). 2000. *Women: The Key to Food Security: Looking into the Household*. Washington, DC: IFPRI.

———. 2005. “Women: Still the Key to Food and Nutrition Security.” Report 33, IFPRI, Washington, DC.

Lefort, R. 2007. “Powers—Mengist—and Peasants in Rural Ethiopia: The May 2005 Elections.” *Journal of Modern African Studies* 45(2): 253–273.

Lemma, M. 2007. *The Agricultural Knowledge System in Tigray, Ethiopia: Recent History and Actual Effectiveness*. Weikersheim, Germany: Margraff Publishers.

Lenin, V. I. 1969; first published 1902. *What is to be Done? Burning Questions of our Movement*. New York: International Publishers.

MOPED (Ministry of Planning and Economic Development). 1993. “An Economic Development Strategy for Ethiopia: A Comprehensive Guide and a Development Strategy for the Future.” MOPED, Addis Ababa.

MoWA (Ministry of Women’s Affairs). 2006. “National Action Plan for Gender Equality (NAP-GE) 2006–2010.” MoWA. Addis Ababa.

Muir, A. 2004. “Building Capacity in Ethiopia to Strengthen the Participation of Citizens’ Associations in Development: A Study of the Organisational Associations of Citizens.” Paper prepared for the World Bank.

NRCWA (National Research Centre for Women in Agriculture). 2004. Annual Report 2003–04, DARE/CAR (pp. 173–181).

Pardey, P., J. James, J. Alston, S. Wood, B. Koo, E. Binenbaum, E., et al. 2007. “Science, Technology and Skills.” Minnesota: Background Paper to the World Development Report 2008, commissioned by the CGIAR Science Council; International Science and Technology Practice and Policy (InSTePP) Center, Minnesota.

Pausewang, S., K. Tronvoll, and L. Aalen. 2002. *Ethiopia since the Derg: A Decade of Democratic Pretension and Performance*. London: Zed.

Pritchett, L., and M. Woolcock. 2004. “Solutions When the Solution is the Problem: Arraying the Disarray in Development.” *World Development* 32: 191–212.

Quisumbing, A., L. Brown., H. S. Feldstein, L. Haddad, and C. Pena. 1995. "Women: The Key to Food Security." Report 21, International Food Policy Research Institute, Washington, DC.

Schiffer, E. and D. Waale. 2008. "Tracing Power and Influence in Networks: Net-Map as a Tool for Research and Strategic Network Planning" IFPRI Discussion Paper 772, Washington DC.

Segers, K., J. Dessein, S. Hagberg, P. Develtere, M. Haile, and J. Deckers. 2008. "Be Like Bees: The Politics of Mobilising Farmers for Development in Tigray, Ethiopia." *African Affairs* 108(430): 91–109.

Sharma, Rita. 2004. "Technology Dissemination for Women in Agriculture." In *Women in Agricultural Development*, ed. Indu Grover and Deepak Grover, 322–330. Udaipur: Agrotech Publishing Academy.

Spielman, D., M. Cohen. and T. Mogues. 2008. "Mobilising Rural Institutions for Sustainable Livelihoods and Equitable Development." Paper prepared for the World Bank for a multi-country project on cooperatives.

Staal, S., C. Delgado, and C. Nicholson. 1997. Smallholder Dairying under Transactions Costs in East Africa. *World Development* 25(5): 779–794.

Sweetman, Caroline (ed.). 1999. *Women, Land and Agriculture*. Oxford: Oxfam (pp. 2–8).

Vecchio, Nerina, and Karthik C. Roy. 1998. *Poverty, Female Headed Households and Sustainable Development*. Westport, CT: Greenwood Press.

World Bank. 2001. "Ethiopia Wereda Studies, Volume I: The Main Phase." World Bank country office, Country Department 6, Africa Region, World Bank, Washington, DC.

World Bank. 2004a. *World Development Report 2004: Making Services Work for Poor People*. Washington, DC: World Bank.

World Bank. 2006. "Protection of Basic Services Project." Project Appraisal Document for a Credit to the Federal Democratic Republic of Ethiopia. Human Development III, Country Department 6, Africa Region, World Bank, Washington, DC.

World Bank. 2007c. *World Development Report 2008: Agriculture for Development*. Washington, DC: World Bank.

World Bank, FAO, and IFAD 2008. *Gender in Agriculture Sourcebook*. Washington, DC: World Bank. Available at <http://go.worldbank.org/5Z9QPCC7L0>.