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The governance of agricultural extension systems

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Can agricultural extension[1] systems deliver quality services to smallholder producers, often in remote areas? Yes, there is evidence that this is achieved in some developing and emerging economies. But this is by no means a common practice, and many extension systems continue to struggle with weak performance. This series of six papers seeks to understand the patterns behind extension system performance by looking at the different factors that either drive performance or constitute yardsticks to assess performance: governance of extension systems (paper 1), quality of content in extension (paper 2), monitoring and evaluation for accountability and learning (paper 3), ICT in extension (paper 4), assessing performance through cost-benefit analysis (paper 5), and incentives for enhanced performance of extension systems (paper 6). All papers explore emergent practices, showcase promising illustrative examples, and identify potential pitfalls that hinder improved system performance. The objective is to provide state-of-the-art reviews and build the foundation for an informed debate on potential pathways for transformation of agricultural extension systems.

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[1] Extension services are understood as encompassing all intangible services to farmers, including information, knowledge, brokering and advice, on issues such as production, inputs and technology, credit, nutrition, processing, marketing, organisation and business management.

1 The governance of agricultural extension systems

Governance in extension refers to the administrative, institutional and organisational structures and processes within which agricultural extension services are embedded. At the heart of governance lie complex questions of how extension services are steered, at what level decisions for budget, design and implementation of extension services are made, and how authority is exercised. On the one hand, this refers to the institutional design of extension services, such as the level of decentralisation, privatisation and pluralism of extension services, as well as monitoring and accountability mechanisms. On the other hand, governance focuses on the roles and responsibilities of the public, private and civil society sector in providing and financing extension services as well as the linkages and coordination across these different actors.

In many developing countries, governance has been identified as one of the critical weaknesses of public agricultural extension systems. Anderson (2008) speaks of 'governance failures' which block effective performance of public services, including corruption, political misuse, paternalistic approaches, and patronage. In response to these governance failures, often also due to donor pressure, many developing countries have introduced various governance reforms to their public extension services. Decentralisation is one of the most frequently encountered governance reforms, denoting a far-reaching change in the structure of the state and a change in the level of decision making. Other reforms have targeted the providers of extension services, such as efforts aimed at privatisation and outsourcing, leading to increasing pluralism in extension systems.

This paper provides an overview of the governance structures and processes of extension services dominant in many developing countries, including the most prevalent governance failures, recent efforts targeted at governance reform, emerging practices within pluralistic governance systems, and promising processes in strengthening governance. The paper also investigates the gender implications of governance and concludes with a set of key lessons and recommendations.

2 Background

2.1 The governance failures of public extension systems

Most agricultural extension systems in developing countries have their origins in state-run, centrally managed systems which focused on linear technology transfer from researchers through extension agents to farmers. This approach was modelled to replicate the significant rises in agricultural productivity, particularly for food crops, that had occurred in developed countries and in high-potential (irrigated) areas during the Green Revolution in Asia (Hounkonnou et al., 2012). Supply-driven approaches, such as Training and Visit (T&V), were promoted and introduced into virtually every country in sub-Saharan Africa and many other developing economies from the 1970s onward to facilitate a smooth flow of information to farmers as passive beneficiaries. However, adoption rates of new technologies remained low and overall productivity increases were insignificant (Anderson and Feder, 2004; Anderson et al., 2006). Although public extension services were staff intensive – up to a degree where high levels of staff emoluments took almost the entire national budget for extension – they were still unable to cover the vast number of farmers in need of services (Kidd et al., 2000). This has led to critical assessments of public sector extension as failing to fulfil its role in promoting agriculture-based growth (Rivera et al., 2001). In the early 2000s, T&V was judged to be financially unsustainable (staff costs were high and operational funds were often available only under special programmes and projects) and as a result, support for this type of extension was terminated (Anderson et al., 2006).

Other governance failures identified as inherent in public sector extension systems include (Anderson and Feder, 2004; Birner and Anderson, 2007; World Bank and IFPRI, 2010; Bawa et al., 2010):

- Low political priority and support for extension for food crops;
- Dominance of bureaucratic procedures;
- Top-heavy decision-making and lack of farmer participation in extension planning and implementation (see Special Series on Agricultural Advisory Services – Paper 2);
- Strong upward accountability toward bureaucratic hierarchies and donors, but weak downward accountability to users of extension services (farmers) (see Special Series on Agricultural Advisory Services – Paper 3);
- Poor performance incentives for public extension officers (see Special Series on Agricultural Advisory Services – Paper 6);
- Weak interaction with agricultural research;
- Misuse of extension officers for political purposes (such as campaigning for the ruling party);
- Patronage by local agencies along ethnic or religious lines.

As a result of these governance failures, public extension has become largely defunct in many developing countries since the collapse of T&V.

2.2 Efforts to reform the governance of extension systems

The widespread governance failures inherent in public sector extension systems led to mounting pressure, notably by international donors, to bring about radical reforms in extension. On the one hand, the acknowledged failure of the T&V extension model in many African and Asian countries fuelled an intense debate on new approaches to extension, such as Farmer Field Schools. On the other hand, having a centrally managed, publicly funded and implemented system of agricultural extension was no longer considered a desirable

and feasible option, particularly in the light of limited budgets available to fund these services. Common reform models include cases of (1) decentralisation of services; (2) outsourcing of services to private, either not-for-profit or commercial organisations; and (3) privatisation of services.

Decentralisation is motivated by objectives of making services more demand-driven and farmer-led, improving the efficiency of governance, and responding to differing agro-ecological conditions within countries. Although farmer empowerment is not per se an explicit goal of this reform, decentralisation brings services closer to the people, thereby offering opportunities for increasing the influence of farmers and enhanced accountability of public extension services (World Bank and IFPRI, 2010). Nevertheless, evidence of successful decentralisation remains patchy (e.g. Birner and Resnick, 2010; Mogues and Omusu-Baah, 2014). On the upside, studies indicate the potential for efficiency improvements (Poulton, 2010), increased flexibility in setting priorities based on local needs, and context-specific implementation (Swanson and Rajalathi, 2010). On the downside, much seems to depend on the specific implementation and the willingness of national bureaucratic politics to empower local government. Several governance failures, such as financial instability, elite capture, corruption and misappropriation of extension agents for political purposes, are just as present at the local level as they are at the national level (Poulton, 2010). Moreover, decentralisation often suffers from a lack of political support by the central government (e.g. Benson and Jafry, 2013; Chisinga and Cabral, 2010).

Outsourcing refers to the contracting out of public extension services to private sector organisations, mostly not-for-profit organisations, with a view to lowering government expenditure, increasing the efficiency of service delivery and improving the quality of services through greater demand orientation and accountability to clients (Heemskerk et al., 2008). One of the main advantages lies in the contractual establishment of clear targets, which allows for performance management based on progress-related disbursements (Heemskerk et al., 2008). These kinds of outsourcing models were introduced in Uganda, Mozambique, Mali and Tanzania, for instance – with some degrees of success, such as in Uganda, where private service providers were found to have higher effects on farm productivity (Benin et al., 2011). However, if not implemented properly, outsourcing of public services can increase the pressure on public budgets, as public extension services (or remnants thereof) often remain in place, leading to costly parallel structures. Experience therefore indicates that outsourcing is most effective and cost-efficient if it concerns specific extension functions where private providers have clear competitive and complementary advantages (Heemskerk and Davis, 2012).

While contracting out only addresses the public delivery of extension services, *privatisation* of services has been widely discussed as an alternative to the reliance on public funding for extension services (e.g. Rivera et al., 2001; Chapman and Tripp, 2003). The assumption that the private sector is generally free of administrative and political constraints and is more capable of allocating resources efficiently underlies much of the argument in favour of discontinuing public involvement in agricultural extension (Kidd et al., 2000). Thus far, however, efforts to completely privatise extension systems have largely failed. In most countries, dependence on public funds (mostly from donors) is still dominant even if extension services are provided by private sector organisations. This is related to difficulties in implementing cost-recovery approaches, as low-income farmers are often not able to pay for private extension services themselves (Swanson and Rajalahti, 2010). Privatisation may thus lead to a further bias in extension services towards middle- and high-income farmers, as evidenced by early experiences with privatisation in several Latin American countries in the 1990s. At the same time, pri-

Box 1: Cash crop production through interlinked services to smallholders

In many countries, especially in Africa, cash crop production for export markets, such as coffee, cotton, cocoa, tea, rubber and horticulture products, was organised separately from the public extension system for food crops. Small-scale producers were integrated into closely coordinated configurations run by parastatal organisations that offered interlinked services to farmers, such as inputs, extension, credit and marketing. By and large, these systems were successful to the extent that small-scale farmers were integrated in export markets and have even turned into the backbone of export crop production (Hounkonnou et al., 2012). However, Structural Adjustment programmes in the 1980s and 1990s forced the public sector to devolve the parastatals that run such cash crop industries. In many cases, the private sector failed to effectively step in and many export crop industries experienced decline as a result (De Janvry and Sadoulet, 2010). Yet in other cases, crop buyers had sufficient incentives to take over the function of previously public services, and provide extension services to increase smallholder production through outgrower arrangements (Poulton et al., 2010). The cost of providing extension services is usually included (although not necessarily explicitly) in the contract with the farmer. Services are typically confined to the crop in question and, although the advice offered may be of high quality, farmers have little choice about the content or nature of information delivery (Chapman and Tripp, 2003).

vatisation of commodity-specific services has turned out to be successful when combined with input and marketing services (often called 'embedded' services) (see Box 1). For food crops and those cash crops where buyers do not have an incentive to supply embedded services, willingness (and ability) to pay for commercial extension services can be extremely limited (Poulton et al., 2010).

2.3 Towards pluralistic extension systems

In many developing countries, the various reform efforts have led to the emergence of *pluralistic* forms of agricultural extension services, including different public and private models for funding and implementing extension services. The promises of pluralistic extension services lie in their ability to overcome different constraints related to funding, staffing and expertise as well as in providing the necessary flexibility to make extension services more demand-driven, context-specific and based upon multiple knowledge sources (Birner et al., 2006). As farmers are highly heterogeneous (e.g. differing in terms of resources, crop and livestock systems, market access, etc.), they require different types of information, rendering public extension services, which often purely focus on production issues, insufficient to cover all their information needs (Spielman et al., 2011). Advisory services offered by other providers, such as NGOs, agribusinesses and farmer organisations, thus open up new opportunities based on distinct competitive advantages.

One of the key challenges in pluralistic systems lies in the coordination of activities by organisations that have vastly different ways of working. Such a coordination function is generally considered to be the role of the public sector (at district, regional and national levels) to ensure that the activities, scope and scale of the different service providers are aligned in such a way that service providers are accountable, quality is assured, farmers are able to influence extension services, and lessons learned are shared among service providers (Heemskerk and Davis, 2012). However, experiences from different countries show that this is the greatest problem up to now, and coordination and collaboration between the various service providers is generally low (e.g. Simpson et al., 2012; McNamara et al., 2011). Mutual suspicion among service providers as well as lacking incentives for public sector actors to take up the role as coordinator are some of the main barriers to effective stakeholder coordination, often leading to unnecessary costs, duplication and inconsistencies in service delivery (Chinsinga and Cabral, 2010). A high fluctuation in the number of service providers can also be observed, leading to dynamic but also highly fragile systems in which the public sector often remains the main provider of agricultural extension services (Heemskerk and Davis, 2012).

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3 Emerging practices to enhance governance in pluralistic systems

In search of extension models that are more effective and responsive to farmers' needs, most developing and emerging economies nowadays pursue some form of pluralism in extension, although the degree and design of pluralism as well as the level of institutionalisation vary greatly. Some countries have formalised efforts to institutionalise pluralistic systems through policies and guidelines; in other countries pluralism in service delivery has emerged more or less organically, as public extension services have largely collapsed and NGOs, donors, and private companies have stepped in to fill the institutional void left by governments. Overall, a clear trend, at least in discourse, towards what is referred to as 'demand-driven services' to promote enhanced responsiveness and accountability of extension services to farmers can be observed. However, putting these principles into practice remains a formidable challenge. The three most important emerging practices (each of which faces its own sets of challenges) revolve around (1) public coordination of pluralistic systems, (2) public-private partnerships, and (3) bottom-up extension services through farmer organisations, which are described below by means of illustrative examples.

Public coordination of a pluralistic extension landscape – the case of Malawi

In Malawi, the government adopted a policy to promote a pluralistic and demand-driven extension system in 2001, officially allowing NGO and private sector involvement in the provision of agricultural extension. Service providers exhibit significant diversity, pursuing different objectives and approaches to extension delivery. While this diversity potentially offers scope for complementarity and collaboration, it presents a formidable coordination challenge. In recognition of this challenge, the government of Malawi has created different organisational structures. At the district level, the District Agricultural Extension Services System (DAESS) is the main framework for organising farmer demand through Stakeholder Panels and coordinating service delivery through Extension Coordination Committees. At the national level, coordinating structures were largely absent until stakeholders established the Malawi Forum of Agricultural Advisory Services (MFAAS) in 2011 to serve as an information sharing body concerned with coordination, standardisation, quality, and capacity building.

Both district and national levels are considered critical for coordinating activities (Masango and Mthinda, 2012). Particularly the district structure, as set up in Malawi, is viewed as innovative and vital for a demand-driven system, even encompassing attempts to coordinate with related projects on nutrition and gender (Sigman et al., 2014). However, neither the DAESS nor the MFAAS are fully functional. The DAESS, in particular, includes different administrative structures which are either not working well or are non-existent (Sigman et al., 2014). There is a general concern that too much is being attempted with too few resources, leading to weak local structures, insufficient integration of smallholder farmers into demand articulation and prioritisation, and a lack of coordination among the different extension service providers (Simpson et al., 2012). Overall assessments of the pluralistic extension landscape in Malawi, however, agree that the foundation for a strong and effective demand-led extension system has been put in place (Masangano and Mthinda, 2012).

Public-private partnerships in India – the ATMA model

Under the Agricultural Technology Management Agency (ATMA) model, India has decentralised its public extension services and recognised the growing importance of private extension providers. As a result, public-private partnerships with NGOs and commercial providers are increasingly important vehicles for service provision. Examples of such partnerships for extension abound, and many ATMAs, such as those in Maharashtra, have developed strong partnerships with private sector firms on a variety of topics, including organic farming, processing and marketing of medicinal crops, and joint operation of information technology kiosks (Singh, 2008). Even partnerships with input providers – traditionally viewed with suspicion by public extension workers as unskilled competitors 'who just want to sell more products to farmers' – have been established to ensure that farmers receive accurate and consistent technical information (Swanson and Rajalahti, 2010, p. 46). The advantage of such partnerships lies in their potential for benefit and risk sharing, and thus being able to reach smaller and poorer farmers, who are frequently omitted by both commercial extension providers and by public extension (Ferroni and Zhou, 2012).

However, implementation bottlenecks have emerged because of limited qualified public extension staff, insufficient technical and financial support, and a weak framework and coordination of public-private partnerships (Ferroni and Zhou, 2012). Recognising these bottlenecks, the Indian government seems to have increased ATMA's funding over the last two years (Kaegi, 2015). A strong role of the state is called upon to ensure that partnerships are driven by both public and private objectives, without the latter dominating over the former.

Bottom-up extension services through farmers' organisations – the case of Ketiara in Indonesia

Indonesia is characterised by a pluralistic extension system with a variety of service providers. As the public extension agencies only provide general service on crop production and livestock (Mangnus and Oonk, 2015), private forms of extension are particularly important for specialised services. For instance, in the coffee sector, farmer groups play

a prominent role. An example for this is Ketiara cooperative in the Gayo Region, established in 2009 by a local (woman) coffee collector to deal with the increasing importance of international sustainability certification in coffee production. Starting with a membership of 38 coffee farmers, the cooperative has meanwhile grown to 1,778 members, of which 40% are women (making Ketiara not only female-led, but also the cooperative with the highest number of female members in the region) (Mangnus and Oonk, 2015). Ketiara offers various extension services to its members, including training on good agricultural practices, usage of chemicals, waste and environmental management. Its five extension staff also check that farmers' practices comply with organic standards, provide farmers with market information on a regular basis, and distribute farm inputs, including seedlings and organic fertiliser. Being producer-owned, Ketiara's extension services are demand-driven and in case in-house capacity is not available, linkages to other organisations and development projects are sought. Since 2012, the cooperative is certified against organic and Fairtrade standards, and has managed to receive an export license, enabling the cooperative to sell its coffee directly to international specialty coffee buyers, e.g. from the USA or the Netherlands. Anecdotal evidence suggests that Ketiara's members benefit from the increased access to knowledge, training and networks: incomes for farmers are said to be higher than before and collective premiums associated with certification have partially been reinvested in healthcare, education and infrastructure for its members (Mangnus and Oonk, 2015).

4 Processes and structures to strengthen governance

Over the past decade, a broad consensus has emerged that the diversity of agricultural production, local conditions and farmer demands should be matched by pluralism in services, approaches, and providers (Kidd et al., 2000; Chapman and Tripp, 2003; Heemskerk and Davis, 2012). Recognising this diversity and the dynamics inherent in agricultural extension systems implies that actors will be attributed new roles and particularly public extension services will see far-reaching changes to their once dominant position in extension – from a top-down bureaucratic style towards a role defined by facilitation and coordination of demand-driven and market-oriented approaches (Heemskerk and Davis, 2012).

Coordination

1 **Enabling environment and strong legal framework.** An enabling environment is needed for a pluralistic service landscape to develop. This, in turn, demands an overall political and legal framework for agricultural extension within which different services are implemented, including clear stipulations are on the roles, responsibilities and linkages of different categories of service providers.

2 **Government as facilitator.** In a pluralistic setting, the primary role of the public sector is to assure an adequate mix of services to meet existing demands and needs. This implies a facilitative role of the public sector in bringing together the different extension providers and relevant stakeholders for collaborative priority setting and service delivery. Provisions need to be made to ensure that the public sector (i.e. local authorities) are able to fulfil this role. Inventories of existing service providers (public, private, embedded services, etc.) at the relevant local level, can help obtaining an overview of the comparative and competitive advantages of service providers (Heemskerk and Davis, 2012), and thus assist the government in its facilitation role.

3 **Multi-stakeholder coordination.** Multi-stakeholder forums should be established at the relevant administrative levels where decision making on extension services takes place in order to strengthen the interaction and learning between different service providers. However, experiences with existing forums indicate that they often do not function effectively due to lack of funding to support their operation, lack of capacity to mobilise the right people to participate, and conflicting interests and competition between service providers (Chisenga and Cabral, 2010). Thus, sufficient resources, capacity building and effective facilitation are critical elements of establishing multi-stakeholder coordination.

Demand articulation and inclusion of small-scale farmers

4 **Empower farmers to articulate demand.** Having farmers participate in extension design and implementation, and holding service providers accountable is difficult without having some form of farmer organisation. Small-scale farmers suffer from limited political voice as a result of their low levels of education, weak economic power and geographic dispersion (Poulton et al., 2010) – a situation which demands targeted strategies to enable farmers' demand articulation. Producer associations, community groups or farmer platforms can play an important role in aggregating farmers' demands and needs, and in representing farmers in participatory models of extension governance (Feder et al., 2010). Farmer representation in multi-stakeholder forums established for service coordination is particularly critical.

5 **Categorising farmer demand.** Priorities for services differ significantly between farming households, depending on whether they are categorised as small-scale commercial, emerging and subsistence, food-security focused, or part-time farmers, for example. Male and female farmers may also diverge in their needs. This calls for differentiated services among many categories of farmers (Heemskerk and Davis, 2012).

6 **Facilitate inclusion.** Another major challenge of (any) extension system is to avoid elite capture and social exclusion of marginalised groups. While pluralistic extension

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systems should, in theory, be better able to deliver services to different categories of producers, little is known on the 'inclusiveness' of pluralistic systems. Strategies to address the challenge of exclusion lie in the formation of specialised organisations, such as groups exclusively for female farmers, or in the institutional design of extension planning by allocating specific seats in participatory management of extension to women or disadvantaged groups (Feder et al., 2010).

Service delivery

7 **Develop local capacity for service delivery.** To develop a local service delivery industry, building the capacity of small-scale service providers is imperative, especially with a view to developing capacity to use new extension approaches based on particularly learning and farmers' demand, such as Farmer Field Schools, etc. (Heemskerk and Davis, 2012).

8 **Public-private partnerships.** Partnerships between the various agricultural extension service providers, for example between public and private providers, or between extension services and research agencies, are critical to draw upon a diversity of knowledge sources and promote innovative practices that encourage smallholder-led agricultural growth and sustainable livelihoods (e.g. Heemskerk and Davis, 2012).

9 **Market-driven services.** In the face of changing market demands and increased competitive pressures, market-driven extension approaches are urgently needed to shift from supply-driven dissemination of packages towards approaches that respond to and make use of market demand (Swanson and Rajalahti, 2010).

Accountability

10 **Accountability mechanisms.** Improving the accountability of extension services necessitates increased involvement of farmers in monitoring and evaluation at a systemic level, for instance, by means of integrating farmers into extension planning and by involving farmer organisations in service procurement (see Special Series on Agricultural Advisory Services – Paper 3).

11 **Accountability through performance contracts.** Providing extension services based on performance contracts, e.g. between the providers and the clients or between extension agents and their employers, offers an opportunity to include farmers' feedback into performance reviews and thus serves to increase downward accountability.

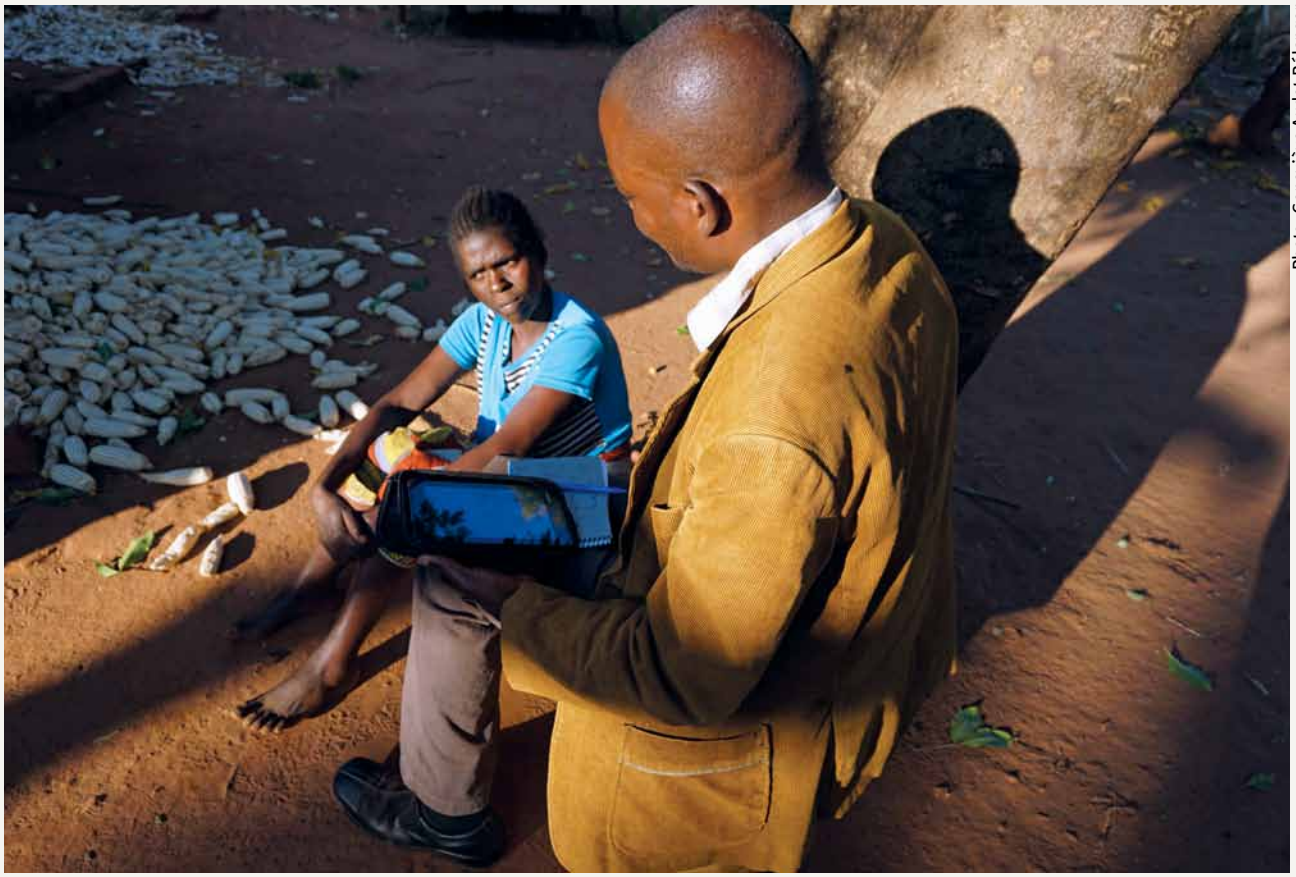
While this provides an overview of some of the critical structures and processes to enhance governance, institutionalising any of these changes will likely to be supported by or opposed by different stakeholder groups – as change inevitably benefits some groups and harms others (Poulton and Kanyinga, 2014). Even when reform efforts are championed by influential policy makers, there may be resistance at various levels of the relevant bureaucracies, including attempts to dilute the efforts or co-option of farmer leaders to support the interests of the bureaucracy rather than those of the community (Feder et al., 2010).

5 Implications for gender

The governance of agricultural extension services has traditionally been biased towards men, rooted in a lack of recognition of the role of women in agriculture and the general dominance of men in the structural and organisational setup of extension services. Firstly, various studies indicate a low number of women extension agents relative to men, both at the field level and at higher organisational levels (Manfre et al., 2013). This is both a recruitment problem (there are fewer female than male graduates of agricultural sciences) and a workplace problem (difficult working conditions and low acceptance of female extension agents make the job unattractive for prospective female applicants) (GIZ, 2013). Secondly, the gender bias is evidenced in the strategies of agricultural extension services, which frequently focus on disseminating technologies to more progressive farmers as early adopters, whereas resource-poor farmers are generally neglected, including women-headed farm households (Swanson and Rajalahti, 2010). Persistent inequalities in access to land reinforce this exclusion, as extension services are often based on land ownership and thus overlook the landless, of which women farmers constitute the large majority. Thirdly, constraints also arise from the institutional environment, as women farmers have less access to agricultural credit, irrigation and inputs, and are less likely to be organised in farmer organisations that make their voices heard (World Bank and IFPRI, 2010).

In some cases, the governance reforms discussed above have been linked with efforts to improve gender sensitivity in service provision, including gender budgeting, reservation of seats for women in local councils, and the formation of self-help groups for women (World Bank and IFPRI, 2010). For example, Swanson and Rajalahti (2010) report on two cases from India where decentralised extension services developed innovative ways of working specifically with women groups, utilising community rather than farm resources, thereby taking into account that women often do not have access to land. Other successful cases are reported from Nigeria, where the Women in Agriculture (WIA) Extension Programme trained female extension agents to work directly with rural women and help them establish group farms; or the Women Extension Volunteer efforts in Ghana training community-based women to assume leadership roles in farmer groups.

At the same time, many of the introduced governance reforms have not increased the access of women farmers to extension services (Mbo'o-Tchouawou and Colverson, 2014); despite the potential for more demand-driven (and hence, gender-sensitive) service options by pluralistic extension systems. However, it seems that pluralistic extension services still concentrate on the productive activities dominated by relatively well-off farmers – who, in many cases, are men (Swanson and Rajalahti, 2010). Particularly private providers relying on cost-recovery may focus farmers who grow high value agricultural commodities, leaving behind poor farmers who cannot afford



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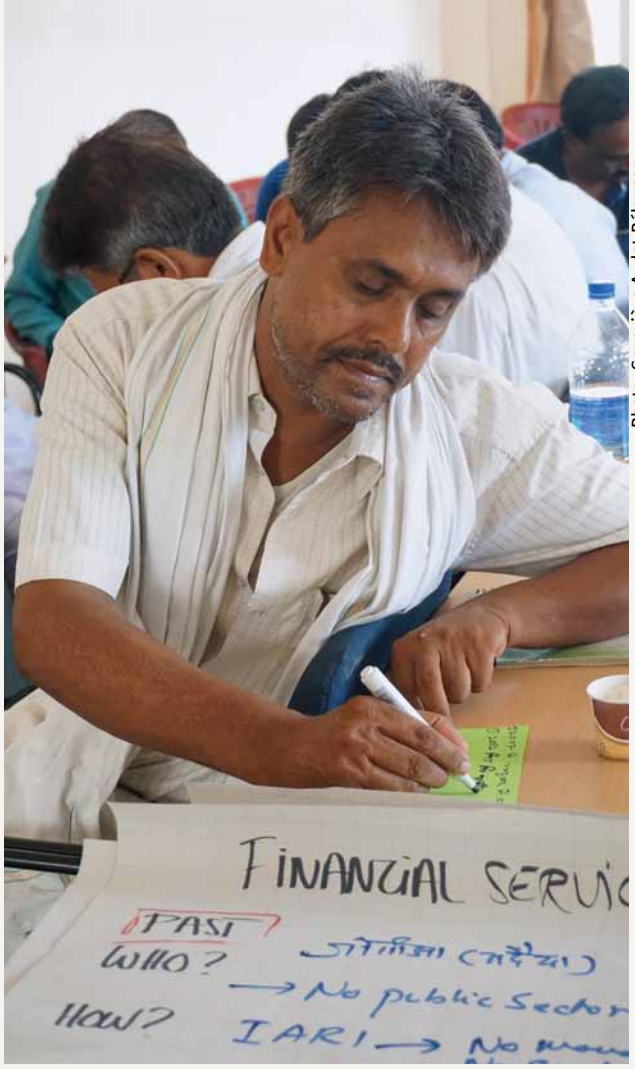
the services (Mbo'o-Tchouawou and Colverson, 2014). Budget constraints faced by extension providers and the continuing widespread perception that 'women are not farmers' are further persistent challenges with regard to systematically embedding a gender perspective in agricultural extension systems. Thus, pluralistic extension services 'may increase the number of choices, but they do not change the conditions of inequality and dependency that constrain women's access to services in the first place' (World Bank and IFPRI, 2010, p. 29).

New impetus for gender transformative progress may come from the rapid proliferation of new technologies that support ongoing efforts of governance reforms. ICT-based solutions, such as mobile data services, are considered to hold significant potential in agricultural extension delivery targeting women farmers by increasing their access to varied agricultural information (Mbo'o-Tchouawou and Colverson, 2014). However, modern ICT services may also reinforce women's exclusion, as their access to and usage of ICT is less than men's in the face of lower numeracy and literacy levels, poorer technological skills, and limited control of mobile phones and other technological devices (see Special Series on Agricultural Advisory Services – Paper 4).



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6 Key lessons and recommendations

Public extension systems in developing countries have been challenged by a variety of governance failures which have impacted on the systems' effectiveness, relevance and performance. Reform efforts in many countries, largely driven by donor pressure, have sought to address these failures and brought about changes in governance through decentralisation, outsourcing and (partial) privatisation. Pluralistic systems have evolved, which are 'almost certain to prevail and deepen' with respect to institutional design and organisational structures (Davis and Heemskerk, 2012, p. 182).

However, the success of these reform efforts varies greatly, and a range of benefits and drawbacks has been identified for each of these reforms. On the one hand, this suggests that there is no single prescribed governance model that can address all of the prevailing governance failures. This echoes Birner et al.'s (2006) call for 'best fit' instead of 'best practice' approaches. On the other hand, the different degrees of reform success are also grounded in the predominant culture of public extension systems (e.g. bureaucracy, political influence, patronage, etc.) which are strongly resistant to change and which cannot be easily altered through reforms in governance structures. Emerging pluralism in extension systems thus, first of all, creates space for change outside of existing public extension services, which may generate the conditions necessary for more fundamental changes to the overall governance of extension systems.

This paper identified three practices considered particularly promising in advancing the governance of pluralistic extension systems: public coordination, public-private partnerships and farmer involvement in extension service provision. While these three practices hold potential to address some of the governance failures identified earlier, other challenges will persist. For instance, fiscal unsustainability is likely to remain a problem given the difficulties to implement cost-recovery approaches. Nonetheless, further efforts are needed for embedding the three practices into country-wide governance approaches – conjointly with ongoing decentralisation processes to bring extension closer to farmers.

Critical to such efforts is a clear understanding and context-specific definition of the roles of public and private actors based on their individual comparative advantages and strengths. It seems likely that more and more services can be delivered by private sector actors, NGOs and farmer organisations, addressing increasingly differentiated demands by heterogeneous farmers, thereby making extension services more inclusive, responsive and effective. However, gaps in service provision may easily remain. This calls for another public sector role – in addition to the above mentioned coordination role – which is to adjust for market failure by providing incentives for private service delivery (e.g. risk sharing) or by offering the required services where demand is not being met. Ultimately, the role of the public sector will change fundamentally in pluralistic extension systems and become much more multi-faceted.

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