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ENHANCING THE POTENTIAL OF FAMILY FARMING FOR POVERTY REDUCTION AND FOOD SECURITY THROUGH GENDER-SENSITIVE RURAL ADVISORY SERVICES

OCCASIONAL PAPERS ON INNOVATION IN FAMILY FARMING

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ABBREVIATIONS

| | |
|--------------|---|
| CBO | Community-based organization |
| FAO | Food and Agriculture Organization of the United Nations |
| FFS | Farmers' Field Schools |
| GFRAS | Global Forum for Rural Advisory Services |
| HLPE | High Level Panel of Experts |
| ICT | Information and communication technology |
| IFAD | International Fund for Agricultural Development |
| IFPRI | International Food Policy Research Institute |
| ILO | International Labour Organization |
| PO | Producer organization |
| RAS | Rural advisory services |
| SEWA | Self-Employed Women's Associations |
| UN | United Nations |

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INTRODUCTION

Family farming has the capacity to contribute effectively and significantly to poverty reduction and food security. It relies mostly on family members whose capacities, opportunities and constraints are greatly determined by their gender and age. These characteristics also define the roles and responsibilities of women and men in farming activities, their decision-making power and productive efficiency. The success of family farming has an important gender dimension as women have less access to productive assets, resources, services and economic opportunities. This gender gap is determined by intra-household dynamics and is aggravated by a changing agricultural and rural landscape where increasing migration, climatic conditions, and new actors competing for scarce natural resources pose serious challenges to the family farm, its sustainability and the enhancement of livelihoods. In this setting, failing to address gender inequalities comes at the cost of lower productivity and continued rural poverty with consequences for not only the agricultural economy, but also for family livelihoods and societies at large. Rural advisory services (RAS) can play an important role in addressing gender inequalities to achieve the productive and long-term success of family farming. However, RAS (and agricultural extension) programmes have often fallen short of expectations to design and implement relevant and demand-driven services to help rural women and men achieve food security and generate more income.

This paper is based on an examination of a broad selection of existing literature on the subject of gender-sensitive RAS and has four objectives. The first is to document gender-differentiated barriers in access to RAS and the challenges of effectively targeting women family farmers when delivering these services. Second, the paper provides examples of good practice strategies from RAS that have been successful in responding to women farmers' specific requirements in supporting their economic empowerment. Third, based on the good practices, the paper provides recommendations on what can be done to improve the gender-sensitivity of RAS. Finally, it offers a reflection on actions needed to ensure that good practices and lessons learnt translate into the design and provision of demand-driven and gender-sensitive RAS for improved food security and poverty reduction.

An earlier version of this paper was presented at The First International Conference of the Asia and Pacific Islands Rural Advisory Services (APIRAS) and the Fifth Congress of Extension and Education in Agriculture and Natural Resources Management: "Facilitating Information and Innovations for Empowering Family Farmers", held on 2–4 September 2014 in the Islamic Republic of Iran. It was part of the section on the "Role of agricultural extension and RAS systems in food security and sustainability of family farmers' livelihoods".



CHAPTER 1

OVERVIEW

Women are key actors in agriculture and rural development and make a fundamental contribution to food security, both in their families and in society at large. This is especially true in the context of family farming, where livelihoods depend on the joint efforts of family members. Family farming is the most prevalent form of agriculture today, with over 500 million family farms producing 80 percent of the world's food supply (Lowder, Scoet and Singh, 2014; HLPE, 2013; FAO, 2014a). In Brazil, family farmers provide on average approximately 40 percent of the production of a selection of major crops working on less than 25 percent of the land (FAO, 2014a). Family farms in Fiji provide 84 percent of yam, rice, manioc, maize and bean production working on only 47.4 percent of the land (FAO, 2014a).

Beyond food production, family farming also performs a number of other environmental, social and cultural functions, which makes family farming a unique system and mode of life. However, family farming as a productive system and as a way of life faces numerous threats. For example, women farmers are burdened with various challenges deriving from intra-household arrangements and traditional gender norms that negatively impact their productivity level, as described in section 1.1. In this paper, we argue that achieving food security in the context of family farming is conditional upon addressing rural gender inequalities. In section 1.2 we suggest that investment in gender-sensitive RAS is an effective strategy for enhancing women farmers' social and economic empowerment in the context of family farming, with important benefits for food security and poverty reduction. Indeed, through gender-sensitive RAS, women can learn new and more effective agricultural techniques, obtain competent advice relevant to their various responsibilities on the farm, and gain access to markets, services and other productive inputs and opportunities. It is expected that this will result in higher yields and increased income and food stability for women and their families. In order to achieve these results, it is crucial to understand women farmers' needs. This leads us to section 2.1, which analyses the challenges faced by women in accessing and benefiting from RAS, as well as the providers' difficulties in delivering such services, as outlined in section 2.2. In chapter 3, we outline ways and present good practices for how challenges can be addressed to achieve a more inclusive and equitable provision of RAS.

Our definition of RAS draws on the Food and Agriculture Organization (FAO) (2010a) and the Global Forum for Rural Advisory Services GFRAS (2012b), where RAS refers to all the different activities that provide information and advisory services needed and demanded by farmers and other actors in agro-food systems and rural development. These include technical, organizational, business and management skills and practices which improve rural livelihoods and well-being. This definition of RAS recognizes the diversity of actors in advisory service provision (public, private, civil society and farmer organizations) and the much broadened support to rural communities, which goes beyond conventional technology transfers and dissemination of information.¹

1.1 THE GENDER GAP IN FAMILY FARMING, FOOD SECURITY AND POVERTY REDUCTION

FAO defines family farming as “a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labour. The family and the farm are linked, co-evolve and combine economic, environmental, reproductive, social and cultural functions” (FAO, 2013)². It follows that family farming is not only a means of production, but a way of life, a mode of preserving and transmitting culture and agricultural knowledge (van der Ploeg, 2013). However, numerous factors constrain family farmers, including low prices for products and high costs of inputs, the volatility of markets, competition from powerful interests for scarce land and water resources, the need to adapt to climate change and the neglect of agriculture in development policies. All of these factors weaken farmers’ capacity to sustain themselves, their rural communities, and society at large, with negative impacts on rural livelihoods and food security worldwide (van der Ploeg, 2013; Villareal, 2011).

In addition to the above described challenges, the “gender gap” in agriculture further hampers the potential of family farming. This is especially worrying given the prominent role of women in agriculture: women represent on average 43 percent of the agricultural labour force, yet

¹ In this paper we advocate for the use of the term RAS and not the term “extension”, sometimes used as synonyms, precisely because of the at times negative connotations of the latter. Extension is sometimes identified with the old-fashioned, top-down mode of technology transfer. Thus, we prefer to use RAS to acknowledge a shift towards more inclusive, demand-driven and participatory approaches that focus on facilitating interaction and learning, sharing of knowledge rather than top-down messages and technology transfer. We use the term “extension” only when it is important to note that the term “rural advisory services” was not in use when the referenced source was written.

² www.familyfarmingcampaign.net/en/family-farming/concept

in many countries their productive role is relegated to that of unpaid family labour, and as a consequence women are in many cases excluded from statistics (FAO 2011). Hence, women are often invisible in agricultural censuses (FAO/IFAD/ILO, 2010; IFAD, 2011; World Bank, 2012). Moreover, the majority of small-scale farmers are women, yet due to structural barriers, they have lower productivity levels compared with men, and thus their contributions are marginalized (FAO, 2011).

In the context of family farming, there are several critical areas where gender inequalities should be addressed to ensure the sustainable enhancement of production and livelihoods. Among the inequalities accounting for women's under-performance in family farming is their lower access to productive resources; intra-household division of labour, of which women bear the brunt; discrimination from formal and customary institutions, particularly with regards to inheritance, property rights and land tenure; the exclusion of women farmers from groups such as producers' organizations, which are often a source of knowledge, inputs and power; and women's lack of access to the resources and learning opportunities provided by RAS, which are crucial to making the most productive use of men and women farmers' time. Although RAS provision in developing economies remains low for both women and men, women tend to have even less access than men (Meinzen-Dick *et al.*, 2010; Ragasa, 2013; World Bank and IFPRI 2010) despite attempts to mainstream gender into agricultural extension delivery in the last decades (Ragasa 2014). According to a 1988–89 FAO survey³ on agricultural extension covering 97 countries with sex-disaggregated data, only 5 percent of all extension resources were directed towards women. Nevertheless, evidence shows that closing this gender gap would unlock the productivity potential of women. FAO estimates that if women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent and could increase agricultural output in the developing world by 2.5–4 percent, on average, with higher gains in countries where women are more involved in agriculture and the gender gap is wider (FAO, 2011). The increase in female productivity is conditional on substantial changes in gender relations and the successful engagement of men, who must consider themselves partners and beneficiaries of gender equality and the sharing of productive resources (Farnworth and Colverson, 2015).

³ Regrettably this is the most recent global comprehensive survey available on the subject, and indicates the urgent need to realize a similar global-level study so that up-to-date information is available to inform policy and programme development in RAS.

Furthermore, women's contributions to food security go beyond their productivity levels due to their role as primary caretakers in the household. Women directly provide for food security (prenatal nutrition, breastfeeding) and invest in the overall well-being of the family (food, children's education) comparatively more than men (World Bank, 2012; FAO, 2011). Numerous studies show a positive correlation between women's empowerment and nutritional outcomes, and conversely, negative correlation when women are disempowered (van den Bold, Quisumbing and Gillespie, 2013, citing Bhagowalia *et al.*, 2012; Quisumbing and Maluccio, 2003).

These findings have led to the recognition of the importance of investing in women's empowerment, including through gender-sensitive RAS, among other means, as an effective strategy to improve overall household nutrition, food security and well-being (FAO/ADB, 2013). To achieve women's empowerment⁴ in the context of family farming, a good understanding of gender roles and intra-household dynamics is required, as there are often large differences amongst household members' decision-making power, workloads and benefit sharing (Bishop-Sambrook, 2014). Women and men also tend to allocate resources differently. As a result, their relative bargaining power within the household can affect the overall wellbeing of all family members, in terms of nutrition, education, and health (van den Bold, Quisumbing and Gillespie, 2013, citing Alderman *et al.*, 1995; Hoddinott and Haddad, 1995; Quisumbing and Maluccio, 2003). Overcoming the constraints faced by women within and outside the household must therefore be treated as a key component in the fight against poverty, hunger and malnutrition (FAO, 2013).

1.2 WHY DOES GENDER-SENSITIVE RAS MATTER?

We have highlighted women's fundamental role in food security, suggesting that the gender gap in family farming constrains women's productive capacity. We will now advance the argument that pursuing gender-sensitive RAS is a promising strategy to effectively "close the gap" by redressing the inequalities between women and men in access to information, knowledge, and technologies. In turn, this is expected to raise women's productivity levels and result in improved and stabilized access to income and food. On the contrary, when RAS are gender blind, they may negatively affect female farmers' yields and household food security, as demonstrated by the following examples.

⁴ Although no unique definition of women's empowerment exists, it is usually framed in terms of economic advancement and enhanced agency and power. Golla *et al.* (2011) argue that a woman is economically empowered when she has both the ability to succeed and advance economically and the power to make and act on economic decisions. Both components are necessary to achieve better lives for women and their families: economic advancement promotes women's power and agency. At the same time, when women are able to control and share resources (power) and to define and make choices (agency), they are better able to advance economically.

Research in the Ethiopian highlands found that female-headed households produced 35 percent less per hectare, in value terms, than male-headed households, and the differences were due to lower levels of input use and less access to extension services by the female farmers (FAO, 2011). Additional studies from Burkina Faso (Alderman *et al.*, 1995), Cameroon (Kumase *et al.*, 2008), Benin (Kinkingninhoun-Médagbé *et al.*, 2010), Côte d'Ivoire (Adesina and Djato, 1997), and Zimbabwe (Horrell and Krishnan, 2009) also overwhelmingly support the conclusion that differences in farm yields between men and women are caused primarily by differences in access to productive resources and extension services. Gender differentials in the relevance of the available RAS also contribute to women's lower productivity. Recent studies from Sub-Saharan Africa find that a key element explaining the productivity gap is lower returns to agricultural advisory services and information for women, meaning that the information that female farmers receive is often less beneficial for increasing the productivity on their plots than is the information obtained by their male counterparts (O'Sullivan, *et al.*, 2014). This suggests a gender bias in the provision of RAS services, which may result from gender-blindness in RAS planning and decision-making.

More recent results from a study carried out by the World Bank and International Food Policy Research Institute (IFPRI) (2010) in Ethiopia, India and Ghana found that the level of access to RAS varies across regions and type of livestock and crop production. It also varies according to the farm size (SOFA, 2014, figure 21) with small-scale producers of both genders having less access than larger farms to public RAS. As women are more likely than men to have small farms, they are therefore less likely to have access to RAS. Also, top-down extension models focused on encouraging farmers to increase adoption of technology packages tend to neglect poor farmers, who in the providers' view lack the relevant skills or means to make effective use of their services. Women are overrepresented among these neglected farmers (World Bank/IFPRI, 2010). To redress these inequalities in access to RAS, the Global Forum for Rural Advisory Services recommends that RAS institutions carry out an introspective examination of their activities aimed at reducing any inherent gender bias (Chipeta, 2013).



CHAPTER 2

CHALLENGES FOR GENDER-SENSITIVE RURAL ADVISORY SERVICE PROVISION

In this chapter we present the obstacles that stand in the way of providing gender-sensitive RAS. Section 2.1 concentrates on the challenges that rural women face in accessing and benefiting from the services, while section 2.2 describes the challenges of reaching and providing effective RAS to rural women from the providers' perspective.

2.1 CHALLENGES FOR ACCESSING AND BENEFITING FROM RAS: THE USERS' PERSPECTIVE

As highlighted in the first Chapter, women have to overcome numerous challenges in order to access and benefit from RAS. Intra-household arrangements dictated by traditional gender roles, discrimination from legal institutions, and socio-cultural norms – all these constitute some of the structural barriers to women's access to RAS. These constraints lessen women's ability to get an education, to earn and control their personal income, to buy or access productive inputs, to have enough free time to participate in organizations providing services and/or lead groups or organizations, to establish linkages to other service providers, and so forth. Such constraints in turn influence their access to RAS and their ability to contribute to the productivity of their family farms. These and other challenges are described in detail in the following sections.

2.1.1 RECOGNIZING WOMEN FARMERS AS LEGITIMATE RAS CLIENTS

A fundamental issue in analysing RAS from a gender perspective is related to how users of the services are defined, as well as the providers' perception of who should receive services, and whether they consider women as legitimate clients. In many instances, RAS agents tend to approach male farmers more often than female farmers because of the common beliefs that women's role in farming is less important and that RAS advice will eventually "trickle down" from the male household head to all other household members (Bello-Bravo and Agunbiade, 2011; FAO, 2011; Farnworth and Colverson, 2015; GIZ, 2013). The misconception that women's role in family farming is limited to household responsibilities ignores substantial evidence

of women's contributions to the production and harvesting of cash crops. In fact, women's contribution to agriculture is often underappreciated by women themselves. Rubin and Manfre (2012) report that a study in Honduras found that women described their agricultural activities as simply "helping their husbands", despite their substantial engagement in both production and harvesting of cash crops. This self-perception can bias agricultural statistics, if women self-report that they do not farm. Due to the fact that traditionally most of the crops and products produced by women are consumed within the household or sold locally, the economic importance of these products has been overlooked (Rubin and Manfre (2012). Farnworth and Colverson (2015) point out that the terms "women's crops" and "men's crops" have been misused as they do not necessarily indicate that the man or the woman is responsible for the whole cycle of production of a specific crop, rather these terms indicate who has control over the sale of the product and the income derived from its commercialisation. Nonetheless, they also found that in some countries, RAS providers are still biased and target women with information related only to home gardens and poultry, as they assume that women garden rather than farm. As a result, women's role in agriculture is underestimated, they are not seen as important clients for RAS and therefore they are underserved by advisory services.

Formal or informal selection criteria for receiving RAS can also make it difficult for women to access the services. Manfre *et al.* (2012) refer to a study carried out in Kenya which found that RAS beneficiaries were selected based on minimum land size available to them, literacy, and ability to purchase inputs. In other instances, the selection of beneficiaries is often made informally by village chiefs and RAS field agents, who are generally men, and may not select women. Because of socio-cultural norms and structural discrimination against them, women often cannot meet selection criteria and therefore receive fewer services compared with men. Moreover, if RAS are delivered to 'farmers' in general, this may also exclude women. Manfre *et al.* (2012) cite Doss (2002), who provided examples of how farmers are often defined by RAS providers: as head of farming households; as the owner of the land that is farmed; or the individual who is entitled to the revenue earned from the sale of produce. The report shows that each of these definitions poses challenges to the provision of RAS to women for several reasons: women might be landless and cultivate abandoned land, or they may provide their agricultural labour to the plots cultivated by male members of the household, or they may be excluded from access to and decisions over household income derived from the sale of the farm products (Manfre *et al.*, 2012). For these reasons, unquestioningly targeting 'farmers' in a generic and gender-blind way as RAS clients can enhance the gender bias and lead to women's unequal access to and inability to benefit from RAS. This exclusion calls for revising how RAS clients are defined, in order to reach more women farmers. It is also important that RAS providers recognize that women farmers are a diverse group, and a variety of strategies may be required to reach them and to address their distinct needs.

2.1.2 TIME AND MOBILITY CONSTRAINTS

The gendered division of labour in family farming results in women having multiple responsibilities in the household, which restricts the time they have available to participate in other activities, including attending RAS activities. In many countries, women have the primary responsibility for household chores, including cooking, cleaning, childcare and tending to the ill and the elderly. This is often in addition to tasks such as collecting water and firewood, tending to kitchen gardens, and informal income-generating activities, as well as the production and processing of crops and livestock, as noted in Manfre (2012). All these tasks combine to take up a large amount of women's time and limit their participation in more productive activities (Blackden and Wodon, 2006; ActionAid, 2013; FAO 2011; Saa Isamit *et al.*, forthcoming).

A study by IFPRI on Uganda's National Agricultural Advisory Services (NAADS) found that among the factors undermining women's access to services was their excessive time burden due to their triple responsibilities, including productive, reproductive and community services (Meinzen Dick *et al.*, 2010). An assessment of accessibility of Nepalese RAS programmes found that because of the time constraints women had less access than men (BahadurGhartiMagar, 2011). The assessment found that it was necessary to reduce women's workloads in order to increase women's participation in RAS activities, for instance by providing low cost, easy to use machinery. Moreover, seasonal agricultural work and connected male migrations can also worsen women's workload and reduce their time available for RAS activities.

Table 1 on time spent by women and men on productive and reproductive activities demonstrate the disproportionate burden of work women bear compared to men, if household activities are also counted. In all cases the time women dedicate to work is higher than the time dedicated to work by men. Other time-use data shows that women disproportionately perform unpaid work in both developed and developing countries (ADB/FAO, 2013; Antonopoulos, 2009; Budlender, 2008; Chopra, 2015; OECD, 2014; Grassi *et al.*, 2015).

For example, in the Occupied Palestinian Territory, Pakistan and Turkey, the time men spend on domestic work is not even a fifth of what women spend (UNDESA, 2010). Earlier evidence showed that, in Venezuela, women's time spent in household work was a striking 11.5 times more than men's time (UNDP, 1995). According to the Human Development Report of 1995 (UNDP), in Venezuela women and men spent 12.3 billion hours in National System of Accounts (NSA) defined activity, out of which men and women account for 8.9 billion hours and 3.4 billion, respectively. However if all market and non-market (i.e. household activities) working hours are included, the total rises to 22.1 billion. Of this, women contributed 12.4 billion hours versus 9.7 billion hours for men, so 56 percent of all work in Venezuela was done by women, and

only 44 percent by men. In Cameroon, women spend 12 hours per week on income-generating activities and more than 50 hours per week on food production and household care, compared to men's 22 and 9 hours, respectively [Arora and Rada, 2013].

Table 1. Time spent by women and men on productive and reproductive activities

| COUNTRY | WOMEN'S TIME SPENT ON HOUSEHOLD ACTIVITIES (MINUTES/DAY) | MEN'S TIME SPENT ON HOUSEHOLD ACTIVITIES (MINUTES/DAY) | WOMEN'S TIME SPENT ON PRODUCTIVE AND HOUSEHOLD ACTIVITY (MINUTES/DAY) | MEN'S TIME SPENT ON PRODUCTIVE AND HOUSEHOLD ACTIVITY (MINUTES/DAY) | PERIOD |
|------------|--|--|---|---|---------|
| Rwanda | 231 | 77 | 436 | 342 | 2010–11 |
| Tanzania | 253 | 75 | 504 | 420 | 2006 |
| Palestine | 293 | 55 | 329 | 304 | 2012–13 |
| Morocco | 300 | 43 | 381 | 368 | 2011–12 |
| Bangladesh | 216 | 84 | 528 | 498 | 2012 |
| Ethiopia | 246 | 66 | 423 | 384 | 2013 |
| Ghana | 209 | 69 | 455 | 378 | 2009 |
| Brazil | 202 | 52 | 372 | 368 | 2012 |
| Ecuador | 330 | 81 | 493 | 423 | 2012 |

Source: UN Women, 2015

Additionally, scarce and inefficient medical services and lack of crèches, as well as the state of basic transport and sanitation infrastructure, can influence women's ability to participate in RAS training if they have to arrange for care of children, the ill and the elderly, or travel long hours on foot to fetch safe water or firewood [Kes and Swaminathan, 2006]. The state of all these services is of interest to RAS providers wishing to ensure women's participation, as absent or poor infrastructure can substantially hinder women's ability to attend RAS activities.

Furthermore, women farmers tend to be less mobile than their male counterparts owing to time constraints, restricted access to transportation, and potential social and cultural obstacles that keep them from travelling outside their village boundaries [FAO, 2011]. They may not have transport to use, or be able to afford it. In some cultures, socio-cultural norms do not

allow for women to travel and or participate in public activities outside the household. In parts of Bangladesh, for example, women cannot leave the household without a male chaperone [Manfre *et al.*, 2012]. If RAS activities are carried out in areas where women do not tend to frequent or are excluded from going, women's rates of participation are likely to be low. A study by FAO in Zambia's Eastern Province found that women were unable to attend training courses due to lack of transport or the difficulty in leaving the village for several weeks, or both [FAO, 1996]. In sum, women's time and mobility constraints, which can result from uneven distribution of household workload, community infrastructure, or social norms, can make it difficult or impossible for women to attend RAS trainings.



2.1.3 EDUCATION AND LITERACY LIMITATIONS

Although the world has progressed in terms of children's education, adults, especially adult women, still lag behind. World Bank statistics show that despite progress in adult women's literacy (going from 69 percent in the 1985–94 period to 80 percent in the 2005–12 period), women still have lower average literacy rates than men (89 percent in the 2005–12 period) (World Bank, 2014). Due to structural inequalities, including social images and expectations, women in rural areas in developing countries tend to have less access to formal education and hence have lower levels of education than men. This in turn may limit their active participation in training events that use written material extensively (Hassan *et al.*, 2014). Education is also directly related to agricultural productivity: an econometric analysis of data from Chad, carried out by the World Bank (1997), found that adult rural women's education was a successful means of increasing agricultural productivity, as more educated women were more receptive to new technologies and practices. The study also found that other rural women were more likely to follow the example of more educated women, so increases in women's education can have community-wide impacts on agricultural productivity.

Language barriers can also prevent women from accessing and benefiting from RAS. In some countries, women in rural areas are less likely than men to speak the national language, which is the language in which most RAS activities are delivered (Quisumbing *et al.*, 1995). Not only may the language spoken not be understood, but translations of training material into local language may not be sufficient if literacy is an issue. There may also be cultural preferences about the language used, as in Iraq, where Kurdish participants showed reluctance to express themselves or follow training in Arabic (Abi-Ghanem *et al.*, 2013). Moreover, local dialects may be preferred by end-users, who will only make limited use of training material if it is written in the national language (Esim and Omeira, 2009). In addition, the vocabulary used ('gender', 'entrepreneurship' or 'informal employment') might have no resonance with local communities because these terms often have no equivalent in local languages, and may not represent the specificity of local contexts. This issue, called "foreignness of concepts", is encountered when content remains unpalatable to end-users because it is framed in an incomprehensible way (Esim and Omeira, 2009).

It is therefore necessary for RAS providers to translate these "foreign" concepts into the locally acceptable and comprehensible terms and craft adequate delivery methods to overcome any literacy constraints. The capacity to understand the information provided – in terms of literacy, language, and conceptual ideas – will influence women's ability to use new information and techniques.

2.1.4 VOICE AND REPRESENTATION

One effective way for women to articulate their demands for RAS and to represent their interests is through membership-based institutions. These rural institutions may vary in terms of degree of formalization, aims, membership and other factors, going from national farmers' unions and cooperatives to loosely organized groups and associations. One prevalent form of membership-based organization is the producer organization (PO). Participation in POs is crucial for accessing information, RAS and other rural services, engaging in collective action, building social capital, accessing input and output markets, and reaching policy-makers. However, there is growing evidence that compared to men, women are often under-represented in rural organizations and therefore are often excluded from the benefits and services they provide [Kaaria and Osorio, 2014].

A World Bank/IFPRI study conducted in Ethiopia, Ghana and India found that in Ethiopia 24 percent of men and 4 percent of women belonged to some kind of cooperative, and only 13 percent of men and 2 percent of women belonged to agricultural cooperatives. The study also found that in Ethiopia, men are five times more likely than women to hold a leadership position within cooperatives; in India, only 10 percent of dairy cooperatives had women chairpersons [World Bank/IFPRI, 2010]. As noted by FAO [2014], Kaaria and Osorio [2014] and Agrawal [2001], there are many factors preventing women's participation and leadership in POs. These factors are often related to socio-cultural norms, the intra-household division of labour, and behavioural norms regarding the gender-segregation of public space. When women do join these groups, they may be prevented from expressing their opinion in a male dominated context because cultural norms forbid them from contradicting men, especially older men. Furthermore, rules of entry, which may include fees or control or ownership of assets (especially of land and income), may also reduce women's participation in producer organizations (POs). In addition, many POs offer membership to only one person per household, which typically results in the adult male representing the entire family. Other aspects, such as education, training, access to information, preferences and personal motivation, also play a role in women's limited participation in POs [FAO, 2014].

Cooperatives and other producer organizations thus hold a great potential for women's empowerment, yet due to structural discrimination, this is often not fulfilled. Therefore, women may find other forms of organizations, for example community-based organizations (CBOs), more accessible and understanding of their needs. These organizations include church groups, self-help groups, women's groups, and savings and loan associations, as found in Ghana and Kenya, for example [Ragasa, 2013]. In these groups, women may find it easier to make their voices

heard and advance their interests. RAS programmes, which often make use of POs and other CBOs as existing channels to reach out to farmers, need to consider the inherent organizational shortcomings in order to improve women's access to and ability to benefit from RAS.

2.2 CHALLENGES FOR GENDER-SENSITIVE SERVICE PROVISION: THE PROVIDERS' PERSPECTIVE

In addition to the structural barriers and resultant challenges considered in detail above, RAS providers also face limitations that hinder them from offering gender-sensitive services that respond to women's needs and demands. RAS providers (be they public, private or not-for-profit) too often lack the knowledge, capacities, resources and enabling environment needed to target women effectively. This section describes some of the limitations that individual RAS agents, as well as their organizations can face in designing and delivering RAS with the objective of promoting rural women's empowerment in the context of family farming.

2.2.1 HUMAN RESOURCES AND STAFFING

In many cultures, it is unacceptable for male RAS advisors to talk to women in the villages. In other societies, women simply feel more comfortable interacting with other women, as reported by FAO (2003a) and Carter and Weigel (2011). The authors argue that this is due to the fact that it is generally easier for women RAS advisors to raise certain subjects with fellow women and speak knowledgeably by drawing on their own personal experiences. However, the number of female RAS agents remains low: worldwide only some 15 percent of RAS personnel are female (FAO, 2011). In social contexts where women are not allowed or are unwilling to meet with men from outside the family nucleus, the lack of female RAS advisors effectively prevents women from receiving advice. In these cases, there is a need to increase the number of female RAS advisors and also to enhance their capacities. It is important to note that the preference for female agents is not universal and varies by region or even province, based on the cultural and other location-specific contexts (Meinzen-Dick *et al.*, 2011). Similarly, wherever appropriate, male agents may provide equally effective RAS to female farmers (FAO, 2011), as long as they have the necessary capacity to provide gender-sensitive services.

Once they are employed, women RAS agents may also face organizational barriers that impede their performance and promotion for many reasons. In many societies, socio-cultural norms, including messages from early childhood, undermine women's self-confidence and assertiveness, which in turn limits women's ability to compete with men in the workplace

[FAO, 1998; FAO, 2003a; AFAAS; 2011]. Traditional, male-dominated organizational dynamics, barriers to women's professional advancement, sexual discrimination, lack of female role models, poor access to support networks and lack of acceptance from both male co-workers and clients – all these can also make work difficult for women RAS agents [FAO, 2003a; Carter and Weigel, 2011]. All of these need to be addressed to enhance the ability of women to become competent RAS advisors and managers.

When in the field, female RAS advisors can face difficulties travelling alone or returning home late, or both. A study in Honduras and El Salvador [FAO 1998] reported that women agents find it necessary to leave the field and return home before dark for safety reasons or to attend to their children. At the same time, in many instances, the only form of transport may be bicycles or motorcycles, which in some cultures are not acceptable for women to use or are heavy and cumbersome and women may find them difficult to drive [FAO, 1998]. This may reduce young women's interest in taking up the profession of a RAS advisor. It also limits women RAS advisors' ability to reach farmers, particularly those living in remote areas. In Palestine, lack of transportation emerged as the single most important factor preventing female RAS agents from reaching clients on their farms [CIRD, 2011]. Similarly, concerns for female extension agents' security and safety and the need to address their physical mobility constraints are also documented by FAO [2003a] in case studies on female extension assistants in Pakistan and Kashmir.

Women may also face gender-specific difficulties in participating in in-service training or professional development opportunities. A survey of female RAS advisors in Uganda [AFAAS, 2011] identified the following set of challenges that limit women's participation in in-service training activities: giving short notice for field work, making it hard for women to plan for the welfare of their families during their absence; lack of provision of childcare facilities; non-availability of special meals for pregnant women; and the need for separate boarding and sanitary facilities for male and female participants. The study also found that field work that was not planned with sufficient lead time often ended up creating high emotional and social costs to the female RAS advisors and their families. All these factors limit the potential of female RAS to work as extension agents, and need to be addressed.

2.2.2 INDIVIDUAL CAPACITIES OF RAS PROVIDERS

Historically, the role of agricultural extension was about communicating and disseminating information to farmers on new and better agricultural practices and technologies generated by research. A vast body of literature has criticized this type of one-way technology transfer

approach for being top-down; failing to recognize multiple sources of knowledge; failing to link farmers, researchers and extension agents effectively; and failing to hold agents and organizations accountable to farmers. Top-down or one-way systems are not structured to incentivize agent responsiveness to clients, and they typically have limited impact in remote rural areas, and on women and the poor (Feder *et al.*, 2010; Davis *et al.*, 2010, cited in Ragasa, 2014).

RAS, as defined in the introduction, is more about sharing and facilitating access to information, knowledge and technologies, and networking and collaborating with others to bring about innovation. This transformation has been advanced through new delivery methods based on the principles of mutual learning and demand-led participatory planning. RAS are also called upon to extend their scope to include helping farmers to deal with agricultural challenges (climate change, high food prices, and the depletion of natural resources), and also to provide market information, health and sanitation training, facilitating access to credit and other productive resources, amongst other topics (FAO, 2010; Davis and Heemskerk, 2012). However, this paradigm shift in methods and content has not yet necessarily translated into enhanced capacities of individual agents to provide gender-sensitive RAS.

Johnson-Welch *et al.* (2000) analysed 13 food security case studies in four sub-Saharan African countries, and found that, in general, projects were more successful at incorporating participatory methodologies than they were at mainstreaming gender. The authors suggest that this can occur for several reasons: (1) organizations may be more familiar with participatory tools than they are with gender analysis tools, or they may find the participatory tools easier to access or use; (2) staff may be more comfortable encouraging participation than they are challenging social norms around gender; or (3) projects may find it easier to measure participation than to quantify changes in gender relations. “Participation” can be recorded by simply counting who attends a training or event: although this is not a good proxy for meaningful engagement, it is convenient for reporting, and thus may be appealing for projects. All three of the reasons discussed above may also help explain the slow progress in making RAS gender-sensitive, even though the knowledge and tools needed to improve the gender-sensitivity of service provision are available.

Therefore, given the widened nature and scope of RAS services, RAS staff will probably need a broad set of skills, including management, communications, ability to link innovation system stakeholders, and specialized technical knowledge. However, too often RAS providers, whether public or private, are not sufficiently aware of or trained in new topics, new competencies or gender-related issues, nor know the tools, training methods and approaches that are necessary to address gender inequality and overcome its negative impact on agricultural

production (FAO, 2010; GIZ, 2013). Therefore, in order to enhance effectiveness, RAS providers need to develop relevant skills to understand both gender roles and women farmers' diverse needs and demands in order to design appropriate programmes. Given that being female does not imply gender-sensitivity, and given that still today the vast majority of RAS staff members are male, both male and female RAS advisors and managers must be trained on gender issues so that the relevance and quality of information and knowledge provided to women can be improved. This training, particularly if it is applied to the tools and approaches that RAS agents are already familiar with, can both make agents feel more comfortable addressing gender and increase their ability to use participatory tools effectively. Similarly, gender training for managers can help increase their understanding of the importance and relevance of gender-sensitivity to organizational goals, and increase their support for and leadership in providing gender-sensitive services.

2.2.3 METHODS OF DELIVERY AND CONTENT

As outlined above, provision of agricultural support services have undergone a deep change over time, towards more participatory approaches focused on mutual learning and interaction between farmers, RAS providers and other knowledge institutions (research, agriculture training institutes, etc.). Participatory approaches are understood to deliver RAS in a more bottom-up, demand-driven fashion. However, this is conditional upon taking into consideration gender roles and relations when designing and deploying these participatory methods (Ragasa *et al.*, 2014). This is well demonstrated by, for example, the Farmers' Field Schools (FFS), which are generally considered effective in involving men and women farmers in agriculture research and development. However, Bello-Bravo and Agunbiade (2011) also found that in West Africa, FFS faced several challenges in ensuring equal participation of women. These challenges related to the FFS selection process and other factors such as women's age and marital status, time constraints related to pregnancy and number of children, religion and culture, and land ownership patterns.

Another example of a promising yet challenging approach for delivering RAS is through groups. These can be single-sex groups, or mixed sex groups such as POs, village-based groups or activity related groups. Manfre *et al.* (2013) underline that although single-sex groups can allow women to voice their concerns and get organized, they can also reinforce segregation and inequality of access, according to the level of resources they are able to access compared with men-only groups. Mixed-sex groups, in contrast, can give women access to men's networks, resources and information, which are often better in quantity and quality, but they may reproduce gendered patterns of behaviour (Manfre *et al.*, 2013).

In summary, the success of participatory methods and group based approaches is conditional also upon the incorporation of gender concerns in the designing and planning phases of these programmes.

Information and Communication Technologies

The provision of RAS using Information and Communication Technology (ICT)-based applications offers a promising approach for enhancing access to information for rural women, as they can disseminate information widely for a relatively low cost, do not necessarily require literacy, and can be tailored to local languages. This is illustrated by the increasing number of public–private sector initiatives in different countries that try to reach rural women farmers and the poor using ICT-based agricultural services (see example of Kenya in Manfre and Nordehn, 2013, and others in USAID, 2012). A recent study (Gilward *et al*, 2010, cited in Ragasa, 2014) reviewed women’s access to ICTs across 17 African countries and found significant gender differences in access to and use of internet services. Radio access patterns were more promising for rural women, in terms of access to radio than to other technologies, although average hours listened to the radio per day were still higher for men. Other studies (Sorensen 2002 cited in Ragasa 2014; USAID 2012) showed that although mobile phones are becoming more equally used by men and women, in rural areas men are still more likely to access and use a phone than women.



The reasons for such disparities may include women's limited literacy and education, financial and time constraints, women's time poverty, or the perception of technology as men's prerogative in the household.

Women's access in rural areas is enhanced when RAS programmes directly provide the ICT, either on an individual or group basis. When the technology is not provided by the RAS organization, women are likely to face higher access barriers due to lack of resources available to purchase the technology, which means that women may also lack ownership and control of technology within the household (Manfre, 2012). Other studies have found that even when the ICTs are directly provided by RAS, the perception that technology is a male domain may still influence the distribution of ICTs in rural areas, so that these programmes become gender biased. In summary, due to a range of barriers faced by rural women (e.g. low literacy levels, lower technological skills, time-consuming domestic tasks, lack of control of the mobile phones, income levels, socio-cultural norms and more), women in developing countries tend to have lower rates of access and usage of ICTs than men, and this should be considered when planning RAS programmes that rely on ICTs.

RAS content provided

Farmer demand for services is not homogeneous. Demand greatly depends on the gender of the farmer, socio-economic characteristics of the farming family, including education, size of the farm household and farm land, quality of resources managed and controlled and extent of access to other productive assets and resources. At the same time, women also represent a heterogeneous group as RAS clients: their needs and priorities depend on age, class, and social and economic status. Oftentimes, due to RAS, research and other development programmes being based on national policies and not sufficiently on expressed needs and demands of men and women smallholder producers as well as the perception that men are the primary farmers and RAS clients, the topics covered by RAS do not necessarily meet the distinct needs and demands of men and women smallholder producers. For example, women in many countries are mainly charged with growing food for household consumption, hence RAS services only targeting cash crop production largely exclude women from RAS (GIZ, 2013). Other evidence shows that because of the focus on "agriculture" and "farmers", RAS has typically overlooked activities beyond the field, such as post-harvest processing, for which women are normally responsible. Other studies show that although women traditionally produce the major household food crops, they also produce some cash crops, and as such they should receive the relevant agricultural training so that they can also access markets and increase income generating opportunities (World Bank/IFPRI, 2010).

However, women are often targeted for training only in home economics, including child nutrition and education, and are excluded from more technical topics. This in turn relegates them to traditional roles and reinforces stereotypes about their capacities (Manfre *et al.*, 2013). Women have a variety of roles in family farming, including participating in the production and processing of cash crops *and* food for home consumption, as well as the preparation of food. All these activities should be addressed by RAS providers and the other innovation stakeholders (research, POs, private sector, etc.) as they constitute suitable entry points for improving women's livelihoods, productivity and overall food security. Moreover, the need for client-demanded content is particularly necessary given changing roles on farms. In recent years, many regions have seen an increase in male migration to urban areas, or the loss of men due to conflicts or HIV/AIDS. In these situations, women may take over the household and production of crops which were previously the responsibility of the men in the family. All of these factors need to be taken into account when planning the content of gender-sensitive RAS.

The content that RAS organizations are able to cover depends to a large degree on the information made available by the agricultural innovation system (research, universities and other knowledge institutions, including POs). The focus of agricultural research during past decades on increasing production has also shaped RAS programmes in this direction with a focus on technologies and the neglect of other content such as farm management, marketing, the development and strengthening of farmer organizations, multi-stakeholder process facilitation or brokering.

Agricultural technology

Technologies are seldom wealth and gender neutral, and thus can influence power relations, resulting in reduced access by the poor and by women. Research shows that gender-blind technological innovations tend to benefit men more than women, by reducing the formers' work burden, and increasing the latters' agricultural workload (Quisumbing and Pandolfelli, 2008). For example, in Syria, mechanization lowered demand for male labour for land preparation, which allowed men to pursue better-paying opportunities outside of agriculture, while increasing demand for women's labour-intensive tasks such as transplanting, weeding, harvesting and processing (Abdelali-Martini and Dey de Prick, 2014). In Turkey, women's participation in the agricultural labour force decreased due to the mechanization of their tasks because of men's appropriation of machinery. Women were reluctant to adopt mechanized technology due to lack of education, socio-cultural norms, and also because the machinery was not designed for use by women (Ozcatalbas and Ackaoz, 2010). A study found that in Zaire, because social norms dictate that cassava processing is a woman's responsibility, the

adoption of a high-yielding variety of cassava resulted in women becoming overworked. As a result of the increased workload, women reverted to lower-yielding varieties. In this case, the technology was socially inappropriate, as it did not take into consideration the social impacts of innovation (Campbell and Barker, 1998). Similarly in Senegal, women cattle owners tended to reject “stabling” techniques (consisting of a stable, a food supplement, an animal healthcare programme) despite the resultant increase in milk production, because it required considerable additional labour (Fisher *et al.*, 2000, cited in Peterman *et al.*, 2010).

Therefore, women will benefit from technical changes only if these changes not only increase productivity, but also free up women’s time, or if higher productivity can be achieved without additional time commitment. Furthermore, it is important to note that women only benefit from technical changes that increase overall household productivity of labour and land when they are able to access at least part of the income derived from improved productivity. However, in many instances women lack control over proceeds from land, and sell their agricultural labour as their only means of earning an income. Therefore, if not appropriately planned and introduced labour-intensive technical changes can increase demand for women’s labour, while labour-saving technologies may take away women’s income opportunities (Carl and Hartl, 2010; Unhnevehr and Stanford, 1985, cited in Meinzen-Dick *et al.*, 2014).

Historically, national agricultural research systems have been oriented towards cash crops and commercial farming, and little has been invested in research on other topics that might be more useful to women. This trend, combined with gender blindness in research organizations, leads to the generation of knowledge and technologies that are, in general, focused on the needs of larger-scale, male farmers. Although women can benefit from technologies and information on cash crops, as explained above, they have additional content needs that have been largely ignored by the agricultural research system. In many countries, the majority of agricultural research staff, managers and policy-makers are men, and the perspectives and needs of rural women are not always considered (Beintema, 2014). A study in 64 countries for 2003–2008 found that on average, women made up 23 percent of agricultural research staff (at both public and private institutions), but only 14 percent of managers (Meizen-Dick *et al.*, 2011). The lack of gender balance in leadership positions means that decisions about research agendas and policies are made mainly by men, with little input from women. Although male scientists can and do research topics that are relevant and helpful to women, this requires that the researchers and managers are aware of rural gender roles and the interests and needs also of female farmers. Currently, many agricultural research organizations lack this type of expertise (CGIAR, 2012). As a result of gender-blindness at the research level, the knowledge and technologies that are available to RAS organization are often gender-biased.

Moreover, technologies may be inaccessible to women due to economic constraints or cultural norms. As a consequence, technologies may strengthen or help overcome power relations, depending on the gendered nature of adoption and appropriation. Hence, it is difficult to predict the gender impacts of the various agricultural technologies without a deep understanding of the technologies and their appropriateness for different users and contexts. This is a further argument for increased gender-sensitivity and demand-orientation in agricultural research and other knowledge institutions, as this is where investments in technology selection and development are made.

2.2.4 ORGANIZATIONAL CULTURE

RAS can be provided by the government, NGOs, private companies, farmer organizations and other non-state actors. Each of these providers tends to have a different organizational culture with regard to gender which is expressed through a core set of values, beliefs, practices and principles. The culture of an organization is likely to influence its employees' perceptions of gender roles in their work. RAS documentation and communication are also often affected also by a 'perception bias' where it is intrinsically assumed that farmers are men (see section 2.1.1). Extension concepts were and some are still designed according to this assumption, resulting in biased decision-making, targeting, employment of staff, service delivery models and content of the services (GFRAS, 2013). Other studies confirm that gender-blind organizations deliver gender-biased services. Buchy and Basaznew (2005), in their analysis of field extension and bureaucracy in Southern Ethiopia, found that the lack of clear measures to address gender equality within the organization resulted in inadequate attempts to reach women farmers.

A key challenge for RAS organizations is to have an effective gender policy and, most importantly, have in place formal procedures and institutional mechanisms to enable effective policy implementation and facilitate the change in organizational culture towards greater gender equity. A lack of a gender policy is likely to be accompanied by the absence of specific procedures, guidelines or terms of references to address gender issues (Mogues, 2009).

Government agencies tend to be male dominated; to advance in such organization, women have to be able to work within this culture. This traditional set up of society and thinking may permeate RAS institutions and leading gender officers not being considered as equal to other technical officers (Government of Ethiopia 2000 in Mogues *et al.*, 2009). Additionally, women are often relegated to administrative or 'traditional female' roles such as secretarial, nutrition or home economics (Saa Isamit *et al.*, forthcoming). The decision-making process is often centralized and women may be blocked from moving into middle and senior management levels in the organizations (Hunt, 2000a; CGIAR, 2012). A study by FAO (2011a) in Pakistan

found that female agents of the Women Extension Cell in the Directorate of Extension had not been promoted during their 17 years of service. According to the study, the lack of career development was due to the absence of related human resources guidelines in the department. In addition, female agents did not have opportunity to improve their knowledge and skills, as few refresher training opportunities had been provided to them, nor any modern equipment that could be used in the office or in field activities (CGIAR, 2012). All these factors severely limit women's ability to participate in decision-making processes and, in turn, affect their opportunities to influence and improve the relevance of RAS to women.

Another study by Cohen and Lemma (2011) conducted on the gender impacts of decentralization of RAS services in 4 districts in Ethiopia found that the organizational cultures around gender varied greatly between the district offices, and as a result the district Offices of Women's Affairs had different levels of efficacy. In the study district in Tigray, staff in the Office of Women's Affairs were well-trained, and had established strong, collaborative partnerships with district women's organizations and the rest of the district government. As a result, gender was mainstreamed in district-level planning, programme implementation, and monitoring and evaluation. Both senior district management and RAS field agents received gender training, which was run in collaboration with an NGO. Although there were still various external constraints, the Office of Women's Affairs staff were able to do their jobs, and gender-sensitivity in RAS provision had increased. In contrast, the study district in Oromia had a very negative organizational culture around gender equality. The leadership of the district government displayed an obvious gender bias, and allocated few resources to the Office of Women's Affairs. The district transferred school teachers to the Office of Women's Affairs, on the assumption that they were qualified to work in gender because they were women. The teachers did not receive any gender training, and were given a very limited budget. Women were not represented in leadership positions in the district, and were "not taken seriously as decision-makers" (Cohen and Lemma, 2011).

In summary, gender equitable RAS face unique challenges in the domain of organizational culture, which has both systemic and individual dimensions, at formal and informal levels. With regards to the structure of the organization, the challenges involve: enhancing a culture of gender inclusion for RAS providers; stimulating the organization's commitment to gender equality and women's empowerment; encouraging a decentralized and equitable decision-making process; and developing a learning culture within the organization, so as to highlight and give recognition to good practices in gender mainstreaming. All these challenges are connected, and change in one domain is often related to change in others. The informal dimension, which includes discriminatory norms and values that reproduce exclusionary practices, is the hardest to address (Rao, 2012). Therefore, greater efforts in stimulating the individual and organizational commitment to and ownership of changing the status quo are needed.



CHAPTER 3

STRATEGIES TO PURSUE GENDER-SENSITIVE RAS

3.1 EFFECTIVE INCLUSION OF WOMEN IN RAS AS CLIENTS

As highlighted in section 2, the way the clients of RAS are defined, or the inclusion of pre-determined criteria for access, can influence the extent to which RAS pays attention to rural women's needs and priorities.

Evidence shows that by using the broad term 'farmers' to define RAS clients women may be excluded because they are not considered the 'real farmers'. For this reason, in light of the definition of RAS (see Introduction), agricultural and RAS should be provided not only to "farmers", but to the rural population in general, on the basis of their specific roles and responsibilities, as well as needs, constraints and priorities. Successful examples include the work of PRADAN (See Box 1 for details), an Indian NGO, and the National Rural Livelihoods Mission, India, where women are recognized as legitimate clients starting within the organizations' strategic documents and throughout their field interventions. The National Rural Livelihoods Mission (NRLM) is a Government of India poverty reduction initiative that has a strong focus on women. The Mahila Kisan Sashaktikaran Parijoyana (MKSP) is the sub-section of NRLM that explicitly supports women farmers, and aims "to recognize women farmers, a hitherto unrecognized category, even though most of the farming activities are almost exclusively handled by the women" (Indian Ministry of Rural Development, 2013). Since its launch in 2011, MSKP has offered training on agriculture, livestock, marketing, rural entrepreneurship, how to connect with other programmes and resources and more, to over 5000 women.

Similarly, explicit or implicit criteria required for accessing RAS (such as land ownership, control over income produced, minimum income and productivity levels, and literacy of clients) that may be inherently gender-biased often prevent women from accessing services. Therefore, the selection criteria for RAS interventions should be carefully designed so they do not exclude women and other vulnerable groups. For instance Saito and Weideman (1990) found that three

strategies proved effective in increasing the percentage of women selected as ‘lead farmers’ to mentor other farmers in Kenya, namely: (1) encouraging village chiefs and other local leaders to highlight the role of women in agriculture and promote women’s participation in meetings; (2) communicating the importance of women’s participation during RAS activities; and (3) selecting lead farmers based on merit, from amongst those actually doing the work.

Box 1

EFFECTIVE INCLUSION OF WOMEN AS RAS CLIENTS: THE CASE OF PRADAN

PRADAN, an Indian NGO, increased the participation of women in its programmes by specifically including women as clients. PRADAN began its Gender Equality Project in 2010, following an organizational realization that general “family income generation” projects were not adequately reaching

women due to social and cultural constraints. By creating a programme that is intended and designed for women, PRADAN has reached 80 000 women in 9 project locations. As a result of the Gender Equality Project, female participants have begun to challenge social perceptions of women and women’s roles.

Source: PRADAN, 2015

3.2 RESPONDING TO WOMEN’S TIME AND MOBILITY CONSTRAINTS

RAS systems need to be innovative and flexible to address the time and mobility constraints of rural women. For example, for all of the reasons outlined in section 2.1.2, the period and time of the day chosen for RAS activities can have a big impact on male and female attendance. For this reason, RAS providers need to understand women’s daily and seasonal calendars and schedules so they can adjust RAS activities to suit women’s availability. The duration of the activity can also be adjusted to enhance participation: for instance, training could be delivered in modules so they require less of a time commitment at each session. Arranging on-site childcare or other community services (health centres, eldercare, water infrastructure, etc.) may also be vital for ensuring women’s participation. Furthermore, the venue is equally important. Women may be unable to travel long distances from home due to cultural barriers or time constraints. In such cases, it may be better to provide training directly on women’s plots or close by (Carter and Weigel, 2011; Campbell and Barker, 1998; FAO, 1996; Manfre *et al.*, 2013).

Extension agents in Thailand and the Philippines were able to overcome women’s mobility constraints by bringing services out to rural communities, instead of requiring women to

leave their villages to attend training events. Mobile dairy extension and training services were found to increase women's access to both technical training and inputs (Stephens, 1990, cited in Naimir-Fuller, 1994). In Ethiopia, the EMPOWER project got entire families involved in RAS training as a means to overcome women's mobility constraints. In rural areas of Ethiopia, men exercise a great deal of control over women's mobility, and it can be difficult for women to attend RAS training due to mobility constraints and heavy household work burdens (Woldu *et al.*, 2013). By encouraging men to bring their wives to training sessions, the EMPOWER programme was able to increase women's access to new information (Gallina, 2010). Similarly, one of the success factors of the *Sierra Productiva* Programme in Peru is that extension and advisory services are delivered on women's plots or on the plot of a neighbouring family (Saa Isamit *et al.*, forthcoming). Finally, in Nicaragua, programming RAS in a way to suit men and women's different needs, including time and mobility constraints, enhanced use of RAS services by 600 percent for women and 400 percent for men (FAO, 2003).

3.3 RESPONDING TO WOMEN'S EDUCATION AND LITERACY LIMITATIONS

RAS communication and materials should be carefully tailored in their messages and advice, as well as in the way they are presented. Rural women with low education and literacy levels find training material that is packaged in pictures, plays, songs and human stories much easier to grasp (Carter and Weigel, 2011). RAS messages have been found to be the most effective when delivered in the simplest possible way and adapted to local contexts. Quisumbing and Pandolfelli (2008) found that, in Kenya, women with lower literacy levels fared better than men in taking up soil replenishment technologies, understanding the technology even better than men did, because of the means of delivery that was used to overcome illiteracy barriers. In Bangladesh, women were successfully taught how to manage fishponds thanks to illustrated booklets (Quisumbing and Pandolfelli, 2008). In general, video, audio and visual materials should be provided in support of face-to-face provision of services to overcome literacy constraints.

Education enables women to understand and adopt new techniques; thus RAS providers need to consider improving women's literacy rates as a successful strategy for women's empowerment. However, the success of such initiatives needs to be carefully planned to ensure continuity of attendance, homogeneity of classes, engaging women and girls to develop appropriate methodologies, documenting the process and ensuring follow-up. It is also important to take into account women's time constraints and deliver classes when it most suits them to avoid absenteeism (Abdelali-Martini, 2011), as pointed out in the

previous section. Since this is in the domain of education, RAS providers need to partner with organizations that offer adult literacy classes.

Two international NGOs, Digital Green⁵ and Access Agriculture⁶ offer good examples of producing and disseminating videos produced by local farmers. Both of them support the production of videos that build on locally available knowledge and experiences. Farmers are trained in producing videos in which fellow farmers show locally suitable solutions and technologies [Harvin, 2013]. The online knowledge platforms, where best practices are shared in video format, help to communicate information and in turn enhance knowledge among illiterate women. These online platforms facilitate south-south exchange and access to quality audio-visual training materials. The uniqueness of these programmes is that the information provided is place-bound, and the screenings of such videos, together with the help of a facilitator, can enable farmers to select and adopt relevant innovations. Many videos show processing activities, a domain in which women are particularly active. FAO has also developed an ICT-based approach that has proven highly successful in increasing rural women's access to information, the Dimitra Listeners' Clubs [see Box 2].

Box 2

USING ICT TO EFFECTIVELY EMPOWER ILLITERATE RURAL WOMEN: THE CASE OF THE FAO DIMITRA LISTENERS' CLUB

The Dimitra Community Listeners' Clubs is a project initiated by FAO in 1998 in Niger. The clubs use a participatory communication approach to empower rural poor women and men, promote social mobilization, strengthen collective action, and challenge existing gender-based inequalities. The approach was designed to work in rural areas, where the majority of people do not have access to media such as TV or newspapers, and illiteracy rates are high. Today, the more than 1300 community groups make use of a solar-powered radio and are self-organized and monitored by members, of which two-thirds

are women. Members' discussions revolve around concrete solutions to development issues in the community, and are shared over the broadcast on club-owned solar powered radios. The gender-related impacts of this transformative approach include women's improved access to productive assets and resources (including land), as well as to services (health, legal and psychological support); change in gender norms and behaviours; and proactive agency by women in gaining recognition and representation in institutions (public offices and traditional village meetings).

Source: FAO, 2015

⁵ www.digitalgreen.org

⁶ www.accessagriculture.org

3.4 ENABLING WOMEN TO VOICE THEIR DEMANDS AND REPRESENT THEIR INTERESTS

Particular attention should be paid to supporting women and men in identifying their needs, setting their priorities, and formulating their demands for adequate RAS. Given women's position in society, this needs to be done in a manner that ensures that the voice of weaker socio-economic groups are also considered (Blum and Sulaiman, forthcoming). Proactive measures that encourage women's effective participation in and leadership of farmer organizations have proven to be a valuable strategy (Herbel *et al.*, 2012; Ludgate *et al.*, 2015). Such measures may include setting up quotas for women, or requiring membership and participation by spouses as well. Spring (1985, 1986) demonstrated that minor adjustments could enhance women's participation, such as: asking men to bring their wives to RAS activities; asking village chiefs to identify women needing advisory services; requiring field agents to spend a greater proportion of their time working with women's groups; and organizing women farmers' seminars with researchers and field staff to share solutions to the technical problems specific to women's productive activities.

Cultural barriers that hinder women from effectively voicing their needs and proactively participating in RAS can be overcome by supporting the organization of women in groups and/or providing separate training for male and female farmers, depending on the topics and contexts. The promotion of women's groups by RAS can have great socio-economic benefits for women, depending on the purpose and activities, e.g. joint marketing of women's agricultural products, organization of inputs and other assets, mutual support in social matters and in making technologies available to all members (e.g. fuel-saving stoves, water tanks, etc.) by using the labour and knowledge resources of the group, negotiating and receiving training on productive and non-productive issues (e.g. hygiene, women's rights, etc.). This approach has been successful in India, where women's Self-Help Groups are popular (see Box 3). Single-sex groups can ensure that women are able to voice their opinions and needs easily, in situation where they may be intimidated by the presence of men (Manfre *et al.*, 2012). This in turn will help them build confidence and leadership skills. Single-sex groups can be effective where the degree of gender segregation is very high. Similarly, there is evidence that strengthening the participation of women in mixed-sex groups can offer significant benefits to their members. OXFAM (2012) found that participation in mixed-sex groups led to significant benefits for rural women members, including increased productivity and improved access to credit and market information. However, as Manfre *et al.* (2012) suggest, rather than assuming that one approach or another is more effective for reaching women, a gender-equitable RAS needs to be able to analyse current local conditions and allow for flexibility between and within these strategies.

Box 3

**WOMEN FORM GROUPS TO MAKE THEIR VOICES HEARD:
THE CASE OF THE SELF-EMPLOYED WOMEN'S ASSOCIATIONS (SEWA)**

SEWA aims to empower poor and self-employed women farmers in rural India. Women form self-help groups where they collectively articulate their needs and identify constraints that prevent them from accessing and benefiting from income generating opportunities; and learn to take decisions and calculate risks associated with their decision-making process. SEWA's approach uses an integrated organizational model, whereby self-help groups collaborate closely with both external partners and

SEWA's specialized institutions for access to training and communication facilities, micro-finance and insurance agencies. These collaborations provide sustainable and accountable rural advisory delivery systems. One key factor that ensures that RAS services meet women's needs is that SEWA establishes a structure for participation through which women can individually and collectively articulate their challenges (self-help groups and trade groups) and find solutions to address them.

Sources: Crowley, 2013 ; Gale et al., 2013; Mbo'o-Tchouawou and Colverson, 2014

As women often have less access to formal channels of information, their social networks also play an important role in making their voices heard. Social networks provide communication channels through which women can express their needs and priorities as well as through which they can be reached. Such networks can be women's groups, saving and credit associations) and maternal and child health groups, all of which are suitable for spreading information and knowledge to women on health care, family planning but also different kinds of technical and economic knowledge, which can positively affect family income, (World Bank/IFPRI, 2010). Furthermore, women farmers can observe and learn from experiences of others in their network about the suitability and profitability of innovations (Quisumbing and Pandolfelli, 2008).

3.5 IMPROVING THE METHOD AND CONTENT OF RAS DELIVERY

ENHANCING ADVISOR'S INDIVIDUAL CAPACITIES AND COMPETENCIES TO DESIGN AND DELIVER GENDER-SENSITIVE RAS

It is important to tailor advisory services to gender-specific demands in order to make them more relevant, therefore, RAS advisors need to develop specific skills and competencies to be able to analyse context, assess needs, and design and deliver demand-driven, gender-sensitive RAS. RAS providers should be able to recognize and address structural barriers to

equality arising in the context of family farming and address multiple social, cultural and economic challenges that can prevent them from effectively reaching out to women. These include both intra- and extra-household power relations, which shape gender norms in ways that limit women's access to support and resources provided by RAS agents. Therefore, a prior understanding of values, beliefs, behaviours, gender roles and social norms shaping the context in which services are provided is a necessary requisite for designing successful RAS programmes, as stressed by Manfre *et al.* (2012) and FAO (2010).

Training RAS staff in gender sensitivity and promoting this actively can be a good starting point (Carter and Weigel, 2011). Capacities are, for example, needed, to carry out gender analysis to identify the gendered division of labour in the farm family household, the demand for RAS on the part of men and women, and the ways in which these services could be provided (Doss, 2013). RAS advisors also need to be able to apply a gender lens to map institutional context, carry out a stakeholders' analysis, and to carry out a needs assessment for RAS provision.

To facilitate the development of such capacities, FAO, the International Labour Organization (ILO) and the World Bank produced the Socio-Economic and Gender Analysis (SEAGA) approach, which includes a wealth of training materials for field agents, development practitioners and policy-makers. As an analytical programme, it provides tools and methods for conducting socio-economic and gender analysis at all levels of a development intervention, from the macrostructure of policy to the programme-level. In particular, the field toolkit (FAO, 2001a)⁷ offers practical advice on how to better elicit and understand the voices and needs of poor and marginalized groups, with specific attention being accorded to women. Other methods include the "new consultative design process for reaching rural women"⁸. Jafry and Sulaiman (2013) argue that bold, radical methods are needed to engage with rural women to understand their needs from the outset, starting from analysis of household dynamics, listening to women's requests and working out a plan of action together with RAS agents, who take on the role of facilitators rather than trainers.

To enhance the capacities of national extension staff in Turkey in designing and delivering demand-driven, gender-sensitive services that respond to the specific needs of women producers, FAO has been working since 2013 with the Department of Training and Extension of the Ministry of Food, Agriculture and Livestock (MFAL) in the framework of the FAO-Turkey

⁷ Available online at www.fao.org/docrep/012/ak214e/ak214e00.pdf

⁸ Available online at www.reachingruralwomen.org

Partnership Programme. The overall objective of the project is to improve women farmers' socio-economic status through increasing their access to and ability to benefit from agricultural extension and RAS. The project successfully uses and combines different capacity development modalities, including needs and capacity assessment, development of training-of-trainers material, training-of-trainers, training of rural women as part of "on-the-job learning" for extension staff, and a study tour. The diversity of modalities builds the capacity of individual RAS advisors, as well as building organizations' and institutions' capacity to design and deliver demand-driven, gender-sensitive services. The lessons learnt at each stage of the project are feeding back into the adaptation of the training-of-trainers' manual.

Box 4

HOUSEHOLD APPROACHES: A USEFUL METHODOLOGY FOR RAS ADVISORS TO IDENTIFY GENDER RELATIONS IN THE FARM HOUSEHOLD AND BRING ABOUT CHANGES FROM WITHIN

Household approaches imply working with all household members to jointly identify intra-household relations and decision-making processes, with the objective of promoting the understanding that unequal power relations between women and men result in sub-optimal decisions, and thus contribute significantly to poverty. The methodology facilitates the formation of a 'family vision', which enables the family to conceptualize and work towards a shared, time-bound goal in relation to the improvement of their livelihoods (Farnworth, 2012).

In Zambia, RAS agents used household approaches, along with technical production training, as part of the Agricultural Support

Programme. Agents worked with participants to make household action plans, and then made follow-up mentoring visits to the households through several cropping seasons to support them in reaching their goals. The families who participated in the programme experienced significant increases in food security, increased equity between men and women in terms of workload and access to and control over resources, and greater empowerment for all members of the household. Programme managers commented that the approach required a very long time commitment, and that RAS agents needed to be completely retrained in order to implement it successfully.

Source: IFAD, 2014

FAO recently completed a study of the impacts of 10 years of FFS in Kenya, and found that including a gender dimension in FFS led to increases in women's access to resources and markets, as well as more collaborative, equal decision-making in the household. Friis-Hansen *et al.* (2012) also studied FFS in Kenya, and found both men and women's perceptions of women's capabilities and roles changed, women became more involved in the market economy, and joint

household decision-making increased. The participatory, collective action-based structure of FFS contributed to these changes, as men and women were encouraged to participate equally and collaboratively in the field. However, it is important that gender be considered in the planning of FFS, as the methodology itself will not automatically change gender relations on its own.

In order to ensure that RAS is demand-driven and that it can respond to the multiple needs of its clients, RAS advisors need to develop a set of additional individual competencies. The first is facilitation skills necessary to enhance the creation of social capital and to establish partnership with other service providers. Second, agents also need to be comfortable with problem solving or managing change processes, as well as encouraging active learning and participatory development. Finally, the ability to work in inter-disciplinary teams, given the increased complexity of challenges and problems they should help solve, is fundamental. These teams can be composed of RAS advisors with diverse skill-sets and responsibilities, or by different actors from the agriculture knowledge and innovation system. Linking farmers with the various actors in the innovation system (research, input and output markets, land and environmental offices, and others) requires brokering competencies, including facilitation, networking, and mediation. Brokering competencies are also required to link these innovation system actors to each other. An e-discussion by FAO in 2012 showed that, so far, few RAS advisors have taken up this brokering role. Therefore, particular efforts are required to strengthen innovation brokering competencies. For RAS managers, additional skills are

Box 5

FARMER-TO-FARMER EXCHANGE: A PROMISING WAY TO DELIVER RAS CONTENT

Farmer to farmer exchange consists of the provision of information and knowledge by farmers to other farmers, often through the creation of a structure of farmer-trainers. This approach was born out of the realization that farmers may learn best from peers (Feder and Sevastano, 2006), and that it is easier to recruit women farmer trainers than women extension agents, as found by the East African Dairy Development Project in Kenya (Franzel, 2012). In general, RAS providers are

involved in training and support of the farmer trainers. By engaging end-users in co-design and co-delivery, there are better chances that the service delivered and the way it is delivered actually correspond to users' needs and preferences. It is also a cost-effective option, as by training a few farmer trainers, the whole community will be reached (OECD, 2010). However, it is important to be aware of the risk of creating a two-level system, where men receive RAS from trained agents, and women receive it from peer volunteers.

Sources: Feder and Savastano, 2006; Franzel, 2012; OECD, 2010

required in change/adaptive management, including new ways of managing human resources. Managers must also be comfortable with partnering within the pluralistic extension and innovation system, facilitating multi-stakeholder processes, and engaging in policy dialogue, processes and advocacy.

These new competencies can be developed through mentoring, training using interactive learning, on-the-job-training or specific capacity development programmes. Whatever method is used, these topics need to be included in a corporate professional development programme. Also, unconventional approaches to learning, such as participatory action learning, should be encouraged. In order to create sustainable, systematic change, training for these competencies should also be included in RAS higher education and vocational curricula, in order to prepare the next generation of RAS staff to be able to effectively provide demand-driven services to all clients.

Box 6

INNOVATION PLATFORMS

Innovation Platforms create a dynamic learning space that brings diverse stakeholders together to create a vision, solve problems, and reach their collective goals. They can be particularly effective in agriculture, where problems can be complex and involve many stakeholders. An agricultural innovation platform can focus on either farmers or an entire value chain,

and can involve researchers, agricultural processors, farmers, input suppliers, RAS agents, government officials, and others. If an innovation platform is designed in a way so that it is accessible to women, it can be a good channel to connect rural women to a much larger network, as well as providing them with a way to get involved and make their needs heard in the innovation process.

Sources: DFID, 2013a, b; Asenso-Okyere and Davis, 2009

IMPROVING RELEVANCE OF RAS CONTENT

Women and men engage in different agricultural activities, therefore RAS and the other innovation stakeholders should adapt to their differentiated needs and priorities. This should begin with support to the demand side of RAS, meaning a process among men and women farmers and their organizations in identifying their needs, in setting priorities and in negotiating effectively with the knowledge stakeholders of the innovation system in order to then contract the services they want. RAS managers need to have the knowledge to provide organizational leadership on engendering such demand-led processes and on gender-sensitive services in

general. RAS providers need to be able to facilitate demand processes and to carry out gender analysis to understand and tailor knowledge and advice based on men's and women's needs and demands according to their priorities, constraints, resources and opportunities, roles and responsibilities, and livelihood strategies.

Linking interventions in different domains has proved to be successful for empowering women in their rural context (Farnworth and Colverson, 2015). The authors argue that women have multi-faceted roles in the household, inside the community and in agricultural value chains as farmers, buyers, sellers, consumers, community leaders, wives, mothers, processors and innovators. They found that interventions that targeted women in more than one of their roles proved to be the most effective. Therefore, implementing agencies need to understand this and target women in their different roles and contexts. Murray (2013, cited in Farnworth and Colverson, 2015) provides an annotated list of a wide range of interventions that aim to empower rural women, including: membership in farmers' groups, economic empowerment through loans, savings and asset ownership, improving harvesting and post-harvesting technologies, reducing time constraints, and targeting women as members of the household and community, while including male community leaders.

Similarly, a study in Jordan by Al Shadiadeh (2006), focusing on the relationship between gender roles and preferences about RAS delivery approaches, concluded that extension agents should focus their efforts on addressing the needs of women, with respect to their roles in agriculture and in the home. They also argue that women should be considered as distinct clientele group, because of their divergent roles, interests and learning preferences, that are distinct from men's. This is crucial in the context of family farming, where all activities including, but not limited to, farming contribute to the livelihoods of the family farm members. In addition, non-farm income generating activities (small-scale manufacturing, provision of services such as transport and ICTs, business and marketing skills, value chain development, branding, and so forth) and non-marketed activities (childcare, kitchen gardening, household duties, cooking, etc.) should be taken into account and included in the provision of RAS. The former gives women a way to earn additional income and thus become more economically empowered, while the latter increases women's knowledge of topics such as nutrition and child education, while both are contributing to poverty eradication and food security, either directly or indirectly. As part of the lessons learnt from action research carried out in Jordan, Ludgate *et al.* (2015) recommend that RAS trainers carefully select training topics so as not to offend women and the men in their families. Also, they emphasize that training should not centre on recommendations that require access to resources that women are unlikely to be able to procure (e.g. fertilizer or large amounts of clean water in the context of Jordan).

In general, advisors should focus on locally available, affordable knowledge, skills and technologies, and build partnerships with other institutions that can facilitate farmers' access. In addition, given that these diverse topics cannot be covered by an individual advisor, they need to have the skills to partner with other advisors and service providers that have complementary expertise, in order to address complex problems requiring inter-disciplinary solutions, as pointed out in the previous section.

OFFERING TECHNOLOGICALLY ADEQUATE RESPONSES

Given that technology is seldom gender neutral, as highlighted above in Section 2.2.3, it is necessary to promote gender awareness at the research level, where technologies are developed, and at the service provision level, so that RAS providers have the skills to craft technologically appropriate responses for women and men's needs. In particular, the affordability of the technology, the suitability of the technology for women and its cultural acceptability, are crucial aspects to be taken into consideration. Quisumbing and Pandolfelli (2008) recommend carrying out a baseline analysis at the household and community level before introducing a technology, to help predict its gendered impact. Technology that takes into account women's needs results in labour savings and improved efficiency.

Box 7

PARTICIPATORY INNOVATION DEVELOPMENT (PID): AN APPROACH FOR GENDER-SENSITIVE PARTICIPATORY TECHNOLOGY AND INNOVATION DEVELOPMENT

PID is an approach that was pioneered by a multi-stakeholder consortium called PROLINNOVA -- Promoting Local Innovation in ecologically oriented agriculture and natural resource management. The PID approach recognizes that many rural men and women, on their own initiative, develop a wide range of local innovations to address their specific needs and priorities. These local innovations serve as entry points for initiating PID or farmer-led joint research, a process in which scientists and development agents join local people to further develop, adapt and test these local ideas and initiatives, integrating local knowledge and scientific knowledge. The

approach integrates gender in several ways: ensuring that women innovators are actively involved in setting the agricultural research agenda; ensuring that joint experiments are based on women's innovations and led by woman innovator(s) (from different age groups), and that this is reflected in all promotional materials (posters, radio, innovator fairs, and publications); promoting a range of innovations in both the productive and reproductive domains; including indigenous knowledge from men and women (from different age groups), and; ensuring that innovations have no negative gender nor cultural impacts.

Source: Wettasinha and Waters-Bayer, 2013

Some examples include water management practices and technologies, fuel-efficient stoves, and appropriate farm tools (FAO, 2011). These can drastically reduce the time spent by women and girls fetching water and firewood, with important results, such as increased school attendance, 40–60 percent reduction in firewood use, and increased time for productive and recreational activities. A study carried out in 2011 (Hemmings and Gapihan, cited in FAO 2014b) found that, in Yemen, where women had access to water and gas stoves, they spent about 52 percent of their time in productive activities (farming and husbandry) compared to only 24 percent of time for women who did not have access. Other examples of women-friendly technology are agricultural tools that take into account women's height, weight and muscular power, and are designed in such a way that they reduce drudgery and time needed to perform farming tasks, such as preparing seed beds, weeding or harvesting (FAO, 2011). Similarly, Ragasa *et al.* (2012) argue that one way to ensure a technology's affordability is to provide smaller packages of inputs (fertilizers, improved seeds, pesticides), which will result in a heightened rate of adoption of these technologies. A good example is in Niger, where there is high demand for small quantities of fertilizer; more than 1/3 of total fertilizer sales in input shops are of quantities of 1 and 2 kg, which are more affordable for women and the poor (Blum and Musoko, 2015).

Box 8

WOMEN FARMERS INCREASE THEIR INCOMES THROUGH MOBILE PHONE MARKET PRICE INFORMATION SYSTEM

Many women farmers in rural Gujarat, India, lacked access to market information and sold their goods to local traders at whatever price the traders dictated. As a result, women received low returns for their produce, while the traders captured significant profits. In response, the Self-Employed Women's Association (SEWA) set up a simple market price information system to help rural women know the prices for their goods and products. Each day, SEWA sends a text message to a few select members in each village, who have been provided with mobile phones. The messages include up-to-date spot and future prices for major cash crops or commodities in three or four of the nearest markets.

The members post the updated prices (in the local language) on a public chalk board

that is easily accessible to the community – usually outside a local government office or health center. Another member then uses a mobile phone to take a picture of the updated board and send it to SEWA headquarters in Ahmedabad, where the data is triangulated to verify its accuracy.

With this information the women farmers throughout the village are able to sell their produce at higher – and fairer – market prices individually. This has reduced the profit margin that traders and middlemen had once made, and greatly increased the income of the women farmers themselves. In the long term, the women are able to use the future pricing data to better plan their crops and make more informed production and harvesting decisions.

Source: FAO [n.d.] For more information: Crowley (2013)

Similarly, ensuring the appropriateness of ICTs (mobile phones, internet service, radio, etc.), which have huge potential to deliver knowledge and information in rural areas, is crucial. Among the various ICT tools, community knowledge centres and community radio were found to have the greatest potential in reaching women with locally relevant content (Sulaiman *et al.*, 2011). For example, the FAO Dimitra Community Listeners' Clubs provide an easily manageable ICT access route to the community, producer organization or women's group (see Box 2). In this way, the barrier of ICT access can be partially overcome by sharing the cost of purchase, maintenance and power source for the technology. It can also provide a source of income to the person administering and maintaining the ICT services, and a way to build technical skills of women.

USAID (2012) documented several other initiatives in Africa and in Asia that have been using ICT to: enable women's access to productive resources (GRAFED in Congo); overcome their mobility and time constraints (Zambia's National Farmers Union SMS-based service); access income (CROMABU in Tanzania); improve efficiency (Market Extension and Mobile Phones for Women Chicken Farmers in Bangladesh); and have control over income (M-banking in Malawi). The study shows that ICT technology has great potential for increasing access to knowledge and information for women farmers.

3.6 PROMOTING WOMEN AS RAS ADVISORS AND MANAGERS

Increasing the number of female RAS advisors is an important strategy for increasing rural women's access to RAS, and increasing the number of female RAS managers and agricultural researchers can provide an effective way to both support female advisors and to increase the relevance of RAS content and technologies to women. However, as described in section 2.2.1, there are several challenges that need to be addressed in order to ensure that sufficient numbers of female staff with adequate capacities are available.

In order to increase the number of female RAS advisors and researchers, organizations can consider several options. First, capacity development through making scholarships available for young women in agriculture, marketing and other related fields can be a proactive strategy towards ensuring that there are young women professionals aspiring to work in agricultural innovation systems and their knowledge institutions. This can also be a successful way to combat gender roles, when women are not encouraged or are hesitant to enrol in formal agriculture training institutions. Second, the organization can set up quotas for recruitment of female staff at all levels, including management and other senior positions. However,

career options in RAS have always been limited compared with research, universities or the private sector. Hence, clear RAS career prospects and satisfactory working conditions need to be developed so that men and particularly women are motivated to become RAS advisors. Female extension agents have the ability to work with both female and male farmers and they have a unique role in working with women farmers and inspiring girls to take up agricultural RAS as a career (FAO 2003a; AFAAS, 2011). Also, having female extension advisors can help overcome prejudices about women's passivity and lack of knowledge and skills in agriculture, relative to men (Carter and Weigel, 2011). Similarly, having female managers in RAS and other knowledge institutions can also help change perceptions about women's knowledge, skills, and leadership abilities.

Box 9

**WORKING THROUGH FEMALE *YACHACHIQS* TO REACH WOMEN FARMERS:
THE FARMER-TO-FARMER METHODOLOGY OF THE SIERRA PRODUCTIVA PROGRAMME**

Yachachiqs means “the one who is teaching by doing”. They are one of the three types of extension agents with whom the Sierra Productiva Programme operates. The Sierra Productiva Programme works with local farmers to combine local knowledge and appropriate new technologies, and promotes the development of farmer cooperatives. The female *yachachiqs* are women farmers who, in addition to receiving extension advice and support in the framework of the programme, agree to participate in additional training in order to become advisors themselves. Considering the deeply rooted gender roles

and gender-based discrimination against women in rural Peru, the presence of female extension agents is unprecedented. Thanks to their knowledge and work they have gained the recognition and appreciation of local farmers. This has resulted in an increase in their self-confidence as well as the recognition of their capacities by their families, neighbours and community leaders. The example of the *las yachachiqs* shows how by proper targeting and training, women farmers can become respected RAS agents and serve as role models.

Source: Saa Isamit et al., [forthcoming]

Particular attention should be given to mentorship initiatives, training workshops for women's leadership, and other career development programmes in support of women in order to achieve a change in institutions regarding female employment at all levels. Mentorship at the work place by other women agents can enhance women's self-confidence by eliminating prejudices and fears of societal disapproval. Examples of such initiatives are the 'African Women in Agricultural Research for Development' (AWARD)⁹, the 'African Women Leaders in Agriculture

⁹ www.awardfellowships.org

and Environment' (AWLAE), and the Uganda affiliate -- Association of Uganda Professional Women in Agriculture and Environment' (AUPWAE). These are all career-development programs which combine training, mentorship and sponsorship for women who can serve at policy level and support women farmers. For example, some of AUPWAE's achievements include providing scholarships for advanced studies to 25 women professionals in agriculture and environment, while over 100 AUPWAE members have received skills training in leadership, and has reached 9288 students (8577 girls and 711 boys) in 49 schools with career guidance.

In addition, making the RAS working environments gender-sensitive by responding to women advisors' specific needs, including their time and mobility constraints, can help with the retention of female staff. For example, it is particularly important that organizations provide appropriate transportation means for reaching farmers, breastfeeding spaces and childcare on-site, separate sleeping and washing facilities during field work for women and men, and the endorsement and enactment of strong policies against sexual harassment and discrimination (World Bank/FAO/IFAD, 2009). Management should also be aware of the special challenges that female agents face in going out into the field, and should tailor their actions based on this information. Organizations can provide female staff with transportation home in the evenings if women are not able to get home safely alone, and they could schedule staff training events with adequate advance notice for women to make alternative care arrangements for their children. Employers should also consider men's reproductive responsibilities by providing them with the choice of taking paternity leave. Such initiatives are important parts of an organizational staff retention policy (AFAAS/FARA, 2011; Carter and Weigel, 2011; Manfre *et al.*, 2013; Meinzen-Dick *et al.*, 2010, 2014).

3.7 CREATING A GENDER-SENSITIVE ORGANIZATIONAL CULTURE

Institutional policy, its implementation and organizational culture are important determinants of whether RAS programmes will be gender-sensitive. In many instances, the lack of clear measures to address gender equality within the organization (policy, procedures, guidelines or terms of reference) is reflected in the RAS programmes' inadequate attempts to reach rural women farmers. The institutional policy, its implementation and organizational culture should be aligned in order to deliver gender-sensitive services (Buchy and Basaznew, 2005, in Moguees *et al.*, 2009). Organizational commitment to gender equality needs to be clear, and the rationale behind it shared and understood by all staff.

Overall, it is essential that senior management offer commitment and credibility in order to successfully change the organizational culture (Hunt 2000; CGIAR, 2012). Conducting a

participatory gender audit is an important way of promoting organizational learning at the individual, work unit and organizational levels on how to practically and effectively mainstream gender (ILO, 2012). The gender audit establishes a baseline, identifies critical gaps and challenges, and recommends ways of addressing them. The National Agriculture and Livestock Extension Programme (NALEP), a programme of the Ministry of Agriculture and Ministry of Livestock Development, Kenya, developed a guide for mainstreaming gender in the agriculture sector to assist policy-makers, technical teams and local organizations to better integrate gender concerns in all operations (NALEP, 2010).

The gender audit tool focuses on four elements: Political commitment; technical capacity; accountability; and organizational culture. Each of these elements includes various aspects:

First, political commitment focuses on how managers communicate and demonstrate their support, leadership and commitment to working towards gender equality in the organization. This includes the existence of a written gender policy that affirms a commitment to gender equality; the presence of a gender coordination mechanism or unit, which is placed high enough to be effective; representation and participation of men and women at different levels and in various structures; and adequate financial resources to support gender integration work. Greater accountability and responsiveness to women RAS agents' aspirations and needs can be pursued through developing gender-sensitive human resources policies and structures. This can include ensuring staff diversity by establishing a policy on hiring and retaining women.

Second, technical capacity is about level of ability, qualifications and skills of individuals in the organization to integrate gender in their programmes. This includes having adequate resources allocated for building staff capacity on gender.

Third, accountability is about mechanisms by which an organization determines the extent to which is integrating gender equality in its programmes and organizational structures. Accountability can be created by building gender into job descriptions, work plans, performance contracts, strategic plans, policies, programmes and ensuring that data collected for monitoring and evaluation are disaggregated by sex. Data collection on numbers of female and male staff according to seniority; and management versus field positions may be a good starting point in order to monitor progress and barriers to female agent participation and advancement, and to develop adequate strategies to overcome these barriers (Hunt, 2000).

Finally, organizational culture is about norms, beliefs and codes of behaviour in an organization that support gender equality. This includes how management shows respect for diversity in

work, management style in the organization, existence of a written equal opportunity policy, flexible work arrangements in the organization, maternity and paternity leave policy, child care leave policy, promotion of teamwork, involving both men and women as equal partners, and encouragement of gender-sensitive behaviour, for example in terms of language used, jokes, comments and more. Measures need to be organization- and situation-specific.

Institutional policies of RAS and other knowledge institutions are influenced by the overall policy environment. Hence, it is important that national policies and strategies incorporate gender in order to enhance the promotion and mainstreaming of gender-sensitivity in the institutions concerned. One example comes from the Ministry of Gender Equality and Child Welfare of Namibia. In 2012, they conducted a gender assessment of the Ministry of Agriculture, Water and Forestry (MoAWF) with the objective of undertaking a gender analysis of the MoAWF and its sector programmes, and carrying out a capacity assessment for mainstreaming gender in these sector programmes (Ministry of Gender Equality and Child Welfare, Namibia, 2012). As a result, concrete recommendations were formulated for the MoAWF in the area of policy and programming. In particular, the recommendations focused on: (i) promoting an enabling environment for gender mainstreaming; (ii) scaling up of institutional capacity and staff skills training programmes, including capacities of extension and advisory staff; and (iii) institutionalization of gender mainstreaming. Concrete activities, responsibilities, timelines and indicators have been established to realize and monitor the implementation of the recommendations.

Operational or strategic plans with gender disaggregated measurable targets and indicators should be defined by each RAS provider in order to effectively ensure accountability *vis-à-vis* policy goals and objectives, organizational structures, procedures and decision-making processes. Progress towards policy implementation needs to be monitored and regular reviews and audits put in place. Good practices on addressing gender issues within the organization should be recognized and shared, and thus rewarded and incentivized: systems and processes for allowing this to happen should be designed (Hunt, 2000). The mandatory dimension of the policy should be stressed and particular attention paid to accountability for its implementation. Performance targets could be considered to incentivize RAS advisors to work towards women's empowerment (FAO/IFPRI, 2014; CGIAR, 2012). Some examples of gender targets include the number of women and male farmers' problems solved, the number of contacts made with farmers of each sex, and number of women or men farmers with increased income or improved health and nutrition. Finally, harnessing political support and establishing alliances both within and outside the organization may be useful to overcome resistance (Hunt, 2000). Strategies to cope with opposition and resistance to gender equality policy and programmes should be set up if needed.

To institutionalize a gender equitable organizational culture, it is essential that service providers use gender differentiated tools organization-wide. These tools include gender differentiated analysis and planning, gender budgeting, gender differentiated monitoring and evaluation, and gender auditing. Gender budgeting earmarks resources by gender and monitors expenditures accordingly. This enables the organization to make a gender-specific analysis on how resources are spent, which allows management to address inequalities. As indicated above, gender auditing assesses the organization's performance in integrating gender into its own system and procedures, as well as in its programmes.

Box 10

IMPROVEMENTS IN GENDER MAINSTREAMING IN RAS IN GUATEMALA

The Ministry of Agriculture, Livestock and Food (MAGA) of Guatemala is making strides towards the institutionalization of a gender equitable organizational culture. In March 2015, the MAGA, with the support of FAO and other UN agencies, adopted an institutional policy for gender equality and created a strategic implementation framework. The policy promotes the empowerment of women through the incorporation of gender in all the working areas of the Ministry. In particular, it emphasizes rural women's economic

development as a way to strengthen integrated rural development processes in the framework of the National Family Farming Programme, which is implemented through the National Rural Extension System (*Sistema Nacional de Extension Rural – SNER*). The implementation framework of the policy requires the establishment of a gender-sensitive monitoring and evaluation system as well as the systemic training of Ministry and SNER staff in gender-sensitive project formulation, monitoring and evaluation.

Source: Petrics (forthcoming)



CHAPTER 4

CONCLUSIONS

The issue of improving agricultural extension and RAS to ensure that they respond to the specific needs and priorities of both women and men farmers has been on the development agenda for the last thirty years. Research from all regions of the world provides extensive evidence for the important role women play on the family farm and in agriculture and rural development. Their roles and time invested in productive, reproductive and community activities in rural settings have been recognized as equally important to those of men in achieving food security and nutrition and improved wellbeing of their households and communities. Nonetheless, rural women and women farmers continue to face multiple challenges in terms of having equal access to productive resources, services, decision-making and income generating opportunities compared with men.

It has also been widely documented that the roles of women in agriculture and rural development often differ from those of men due to the gendered division of labour. Further, it has been extensively acknowledged that women constitute a heterogeneous group: hence different groups of women, including women farmers, have different needs, concerns and interests. Therefore, no standardized approaches, methods and content can be efficient without a proper analysis and understanding of the differences between men and women in terms of their priorities, needs, capacities and the social context. It is important to carry out analyses which capture the diversity of gender roles and relationships of women and men, as well as the diversity of needs of different groups of women.

Our literature review provides evidence that agricultural extension and RAS, if properly designed and implemented, can be a promising strategy to close the gender gap in agriculture and rural development, in particular in the context of family farming, where livelihoods depend on the joint efforts of family members. Such a strategy would redress disparities in access to productive resources, knowledge, technology, economic opportunities and services and enhance women's economic and social empowerment, with important benefits for food security and poverty reduction. The review also shows, however, that several barriers to the realization of these benefits still exist.

These barriers include: the underestimation of women's contribution to agriculture and thus the widespread assumption that “farmers” are men; women's mobility and time constraints, which make it difficult for them to attend RAS training events; women's education and literacy limitations; and RAS content and technologies that are too often more tailored to men's needs. In addition, in many areas, rural women have limited voice and representation in mixed-sex organized groups, which cuts them off from the possibility of giving voice to their needs and interests, and from accessing RAS provided through groups. The review also found that women's access to and ability to benefit from RAS is determined not only by their personal capabilities and the gender roles and local socio-cultural context, but also by additional challenges from the providers' side. These challenges include: limited numbers of female RAS advisors; lack of individual capacities and competencies to design and deliver gender-sensitive RAS; and organizations whose structures, culture, policies and procedures lack clear measures to address gender inequality. When designing and delivering RAS, both types of challenges need to be considered and addressed in order to effectively reach and deliver needed services to women.

Based on the review of the literature and the best-practice examples, we found that many of the constraints that emerge from the users' perspective can be addressed through different interventions: To include women as legitimate RAS clients, organizations need to recognize them as potential service users in their own right. In addition, RAS providers need to develop awareness that certain selection criteria can exclude women from accessing their services; therefore they must aim to develop non-restrictive criteria. Similarly, services should not be provided based on pre-established, often erroneous assumptions, but should be developed based on a participatory analysis of who is doing what and what needs they have.

Women need to be acknowledged as clients in strategic organizational documents and targeted deliberately throughout programme implementation. An analysis of the gender division of labour will also help to increase understanding of women's time and mobility constraints and to adjust services in terms of duration, venue and modality. Household and family-oriented as well as farmer-to-farmer approaches have proven to be successful in overcoming these barriers while also involving men and facilitating their acceptance of changes in gender relations. Literacy limitations of rural women can be overcome through the use of different, non-written materials and modalities (video, radio, plays, songs and pictures). However, this should not preclude women's, especially adult women's, inclusion in general education and literacy programmes. Finally, proactive measures need to be applied to encourage women's participation and leadership in rural organizations, including quotas and the abolition of restrictive membership criteria. Existing social networks should be also used more frequently to effectively deliver RAS to rural women.

In order to overcome barriers from the providers' perspective, we found that increasing the number of female RAS staff at all levels, building RAS providers' competencies in delivering gender-sensitive, demand-driven services and creating a gender-sensitive organizational culture were among the most broadly effective solutions. In order to increase the number of women who are both qualified for and interested in RAS as a career, organizations and governments can establish scholarships to encourage young women to study agriculture and rural development, and they can also promote the work of current female staff to make RAS visible as a satisfactory career option. Organizations can also use quotas for the recruitment of women. Employing women is not only important at the RAS agent level, however. It is crucial that women are represented in RAS management, research, and policy-making, as this is where programme decisions and policies are made and priorities are set. Career development programmes that combine training, mentorship and sponsorship can support women in their career advancement.

RAS staff capacity building is also crucial for the delivery of gender-sensitive, demand-driven RAS. All staff should be aware of the impact of gender roles and relations on their work, so gender mainstreaming should be seen as crucial and integral to the equitable and effective provision of RAS. For agents, gender training and familiarity with gender analysis, the ability to define gender-specific demand for RAS at the individual and producer organization level, and knowledge of participatory capacity assessment tools are required to provide services that are relevant for both women and men. An awareness of the constraints faced by women and the skills to help address these constraints are also crucial. For example, if agents are aware of women's time poverty, then they will have the information needed to address women's time constraints. In addition, staff needs the capacity to assess and respond to the specific challenges, needs and interests of women in their local area, and to develop relevant content and technology. Even participatory methods can fail to reach women farmers if women are not involved as participants from the beginning of the planning process. Beyond gender analysis, the transition to gender-sensitive, demand-driven RAS will require other new competencies among staff, including strategic thinking, facilitation skills, managing change, problem-solving, brokering, and the ability to guide multi-stakeholder processes, build partnerships and work in teams.

Finally, a gender-equitable organizational culture can be established if there is strong commitment to the provision of gender-sensitive RAS by management. This must be underpinned by organizational policies on gender equality and implementation plans which set out an accountability framework, institutional procedures and mechanisms, and measureable targets and indicators. Gender-sensitive human resources policies are crucial for creating a family and women friendly workplace, which will contribute to the retention of female staff and enable female staff to do their jobs successfully. Gender-sensitive policy analysis,

planning, an organizational monitoring and evaluation framework as well as gender-responsive budgeting and gender audits are also helpful measures to bring about an enabling institutional environment to provide gender-sensitive RAS.

An overall national enabling environment is also crucial: if national agriculture and rural development policies provide high-level support for gender equity and set the expectation that RAS services should be gender-sensitive, organizations are likely to have greater success in providing gender-equitable services. National commitments to gender equality can also influence public opinion, leading to increased support for gender-sensitive RAS. Conversely, if national agriculture policies and research priorities are gender blind or are biased towards men, RAS organizations will have a more difficult time accessing the resources and information needed to provide gender-sensitive RAS.

REFLECTIONS ON FUTURE ACTION TO SUPPORT GENDER-SENSITIVE RAS

The fact that past (see Poats *et al.*, 1988; FAO, 1995), more recent (FAO, 2003a; Quisumbing and Pandolfelli, 2008) and the latest (Ragasa, 2014; Farnworth and Colverson, 2015) literature present similar challenges to the provision of gender-sensitive RAS raises questions and concerns about how effectively the evidence and recommendations provided by scholars and development experts in the last decades have been used, and if, in fact, this evidence is reaching practitioners and decision-makers at all. There is a clear gap between the academic knowledge and its implementation in practice. Therefore, FAO and other development actors should focus on influencing practice on the ground by focusing efforts in the following four areas:

1. IDENTIFYING AND DOCUMENTING GOOD PRACTICES

In the literature review, we found that while there is a great deal of programme-specific information on both the successes and challenges relating to accessing and providing gender-sensitive and demand-driven RAS, it has not been systematically written up in a broadly accessible way. The systematization of good practices is needed if tools, country-level support programmes and policy advice are to be designed on the basis of the evidence. For example, we found that, in spite of the fact that the need to address women's time constraints is widely recognized and considered crucial for successful provision of RAS, there is very little evidence about initiatives that modified their trainings schedules to make them work for women, nor analysis of the impact this had on women's participation.

Regarding the provider side, the literature clearly shows the importance of staff capacity development around gender, women's empowerment, and gender-sensitive service provision. However, there is little systematic documentation and sharing of approaches used by RAS organizations to help field agents and other staff to enhance their understanding of gender roles and their effect on agriculture and rural development and food security. Similarly, further documentation is needed on methodologies that have been successful in facilitating organizational cultural change towards greater sensitivity, and on innovative national policies supporting gender-sensitive RAS. Similar gaps exist on the client side as well. There is a need for more information about the extent of rural women's awareness of their rights, their ability to effectively voice their demands and represent their interests, and the ways that RAS organizations have promoted this. In addition, given the widespread use of group-based RAS delivery approaches, it would be helpful to systematically document successful methods that have been used to facilitate the organization of rural women. Furthermore, if organizations were willing to share what they tried that did not work to increase gender-sensitivity in RAS, these experiences could also provide valuable lessons learnt and help prevent others from making similar mistakes.

Finally, in the light of the existing gaps in the systematic collection and recording of good practices, we recommend that main actors in this sector join forces and collect and document good practices using a well-designed methodology that is able to capture all the issues described in this literature review, as well as any innovative aspects of the good practices that should be disseminated more broadly.

2. TRANSLATING GOOD PRACTICES INTO CAPACITY DEVELOPMENT AND POLICY SUPPORT MATERIALS

Based on the documentation and analysis of the good practices it will be important to adapt or create up-dated capacity development and policy support materials in order to make this knowledge more accessible and easy to use for RAS providers and policy-makers. Specifically, there is a need to translate existing knowledge and good practices into policies and capacity development methodologies and tools, including training-of-trainers' materials, which RAS agents and managers can use to enhance their skills in designing, planning, implementing, monitoring and evaluating the impact of gender-sensitive RAS. It is important that these support materials are not developed for RAS providers, but with them.

These good practices and resulting tools and materials will also need to be shared and disseminated through ICTs, Share Fairs, and other venues in order to enable interested audiences from around the world to have access to and benefit from these experiences, and

adapt them to their own needs and context. For more general promotion of gender-sensitive RAS, it would also be helpful to have a tool to easily assess the gender-sensitivity of a given RAS programme, and identify specific areas needing improvement.

3. SUPPORT TO GENDER-SENSITIVE CAPACITY DEVELOPMENT OF RAS PROVIDERS

Given the gap between knowledge about gender-sensitive RAS and its application in practice, deliberate efforts are needed to introduce, apply and/or adapt this knowledge in RAS services and systems. This institutionalization process requires not only training of RAS staff, but also a RAS management policy and strategy to ensure that the knowledge and tools are integrated and used across their organization. In order to enhance the accountability of policies, strategies and methodologies of the organization, gender disaggregated measurable targets and indicators should be used in both their strategic as well as operational plans. These processes can be supported through external facilitation guiding management and staff in the institutionalization process.

RAS programmes need to integrate gender throughout their content, in their planning and implementation process and in their monitoring and evaluation. This involves adapting the gender-sensitive tools and other support materials to the specific needs of the RAS organization, and reviewing them periodically based on lessons learnt. Sharing of good practices should also be promoted and their gender-sensitivity should become standard. This integration and adaptation process would be promoted by an enabling environment in the government, development agencies, donors and others. In addition, knowledge management tools using ICTs should be developed and made available for easier access to new knowledge and continuous learning through exchange.

The importance of a gender-sensitive organizational culture for both female staff retention and successful service provision is well recognized, but institutional policies to promote a gender-sensitive organizational culture are scarce. Capacity development is required regarding these institutional policies and their application across the RAS organisation. Adaptive management is needed to enhance staff engagement in the change process, based on continuous joint learning. Incentives should be provided to staff to enhance change processes needed to address new developmental challenges and to mainstream gender. The way management promotes and integrates gender in the organization is crucial: this includes policy, strategy, work, and internal and external communication. Such change processes in RAS organizations should be supported by

development partners through an organizational development approach in which a methodology is provided for the process, but where ownership remains with the RAS organization.

4. PROMOTING COLLABORATION FOR UP-SCALING OF GOOD PRACTICES AND FOR PROVIDING EVIDENCE ON IMPACT OF GENDER-SENSITIVE RAS

Collaboration and partnerships need to be developed among RAS providers and actors of the innovation systems in order to achieve greater impact. Good practices can only be scaled up and scaled out when agreements are reached on which of the practices should be used by all the actors to increase outreach. Hence, the promotion of RAS networks and innovation platforms are required so that the stakeholders concerned can come together to address complex challenges and make use of development opportunities.

Evidence on RAS impact is needed by policy-makers, and is often requested by donors for their support for gender-sensitive RAS. However, reliable baseline data for RAS are often scarce, and often incomplete in many countries. This greatly affects the availability and the rigour of impact studies about RAS at both the service and system level. There is thus a great need to improve the collection and analysis of sex-disaggregated data on RAS providers, their programmes and outcomes in order to provide evidence on the impact of gender-sensitive RAS. Given the pluralistic RAS systems of today, this requires a joint effort by all RAS providers and their long-term commitment to monitoring and evaluation as a management tool for more evidence-based decision-making on RAS. At the RAS provider level, a monitoring and information system is needed that can be used for learning and decision-making by RAS management and agents, but which also contributes to an overall Monitoring and Evaluation system. At the RAS system level, a jointly agreed, gender and wealth-disaggregated baseline data and monitoring system would need to be established. In addition, data would need to be harmonized with other actors of the innovation system and agricultural statistics of government.

This will not happen unless financial means are identified by government, development agencies and donors in line with the overall RAS policy of the country. Collaboration in jointly developed programmes and participation of stakeholders in policy processes as well as Monitoring and Evaluation has a cost, but also a benefit in the form of greater impact, which needs to be monitored. National and local RAS provider networks can develop or hire expertise for setting up Monitoring and Evaluation systems and services with the aim of building up more evidence on the relevance, efficiency and effectiveness of gender-sensitive RAS in order to inform policy-making and improve RAS quality.



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