



Incentives for enhanced performance of agricultural extension systems

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Can agricultural extension¹ systems deliver quality services to smallholder producers, often in remote areas? Yes, there is evidence that this is achieved in some developing and emerging economies. But this is by no means common practice, and many extension systems continue to struggle with weak performance. This series of six papers seeks to understand the patterns behind extension system performance by looking at the different factors that either drive performance or constitute yardsticks to assess performance: governance of extension systems (paper 1); quality of content in extension (paper 2); monitoring and evaluation for accountability and learning (paper 3); ICT in extension (paper 4); assessing performance through cost-benefit analysis (paper 5); and incentives for enhanced performance of extension systems (paper 6). All papers explore emergent practices, showcase promising illustrative examples, and identify potential pitfalls that hinder improved system performance. The objective is to provide state-of-the-art reviews and build the foundation for an informed debate on potential pathways for transformation of agricultural extension systems.

Photo: Geneviève Audet-Bélanger



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

1 Performance incentives in public agricultural extension systems

One of the key problems of public extension services in developing countries is the well-known incentive failure by extension services to respond to clients' needs and be accountable to them (World Bank and IFPRI, 2010). This is largely caused by the bureaucratic structure of extension administration, offering only few rewards, poor facilities, meagre prospects of promotion based on performance, and low recognition for extension agents (EAs), leading to a general lack of motivation and morale.

Against this backdrop, governments and donor agencies have in the past decades attempted to advance structural, financial, institutional, and managerial improvements to agricultural extension services. Since the 1980s, increasing emphasis has been placed on introducing changes that follow so-called 'New Public Management' approaches, which promote different aspects of private sector involvement in extension services, outsourcing and cost-sharing or cost-recovery approaches, a shift from input to outcome performance, and result-oriented management (e.g. Anderson and Feder, 2004). In particular, this includes creating structures and processes to incentivise EAs for enhanced performance – although this is far from being common practice – based on the recognition that there is a clear link between the motivation and well-being of EAs and the clients' view of their performance (Antholt, 1992). Incentive options vary widely, from result-based payment, larger operational budgets and increased recognition of individual achievements, to institutional changes offering greater individual autonomy or alternative, downward accountability mechanisms. Evidence from different countries confirms the potential importance of such incentives in enhancing the performance of agricultural extension systems (Vijayaragavan and Singh, 1998; Swanson and Rajalahti, 2010).

Nonetheless, continued management challenges within (public) extension systems and low overall motivation for enhanced performance of EAs are reported from various countries. This paper therefore reviews the experiences with performance incentives in agricultural extension services in developing countries.

2 The problem of motivation in public extension services

Incentives act as a powerful motivator. This is particularly interesting from a work performance point of view. Several studies have investigated ways in which to incentivise employees towards improved performance in their respective tasks, broadly distinguishing between *monetary incentives* (e.g. performance is rewarded through bonus payments, cash awards, promotion, etc.) and *non-monetary incentives* (e.g. operational resources, employee recognition or training opportunities linked to career development opportunities).

Not just individual incentives are recognised as crucial in this regard; the entire work environment, particularly as *perceived* by employees, is considered to impact their motivation, satisfaction, and task performance.

Incentives work both in a positive way to encourage performance and in a negative way to adversely affect performance (disincentives). Interestingly, the factors involved in encouraging performance are separate and distinct from those which discourage performance. In other words, the opposite of job motivation is not job demotivation, but rather *no* motivation. The opposite of job demotivation is not motivation, but merely *no* demotivation. This baffling dichotomy is what Herzberg in the 1960s called the two-factor theory. He argued that the factors leading to work motivation (and in turn to higher performance) are intrinsic to the job – opportunities to assuming responsibility, the work itself, advancement, and recognition. Factors leading to work demotivation are extrinsic to the job, including company policy and administration, working conditions, supervision, salary and security (Herzberg, 2003).

Public extension services in developing countries are characterised by poor incentive and reward systems, and EAs carry out only routine extension assignments as defined by senior-level managers (Swanson and Rajalahti, 2010). Most agricultural extension services are run by government agencies and form part of the general public administration. This implies that using incentive instruments, such as rewarding superior performance, is often constrained by formal civil service rules and bureaucratic culture (Birner and Anderson, 2007). Instead, career development opportunities are based on seniority and length of service rather than qualification, payment is low, and general working conditions are poor such that the morale of EAs remains low (Vijayaragavan and Singh, 1998). Since this is not only an organisational and institutional but also a cultural issue, changing the incentives for EAs in isolation from the rest of the bureaucracy is likely to be difficult (Birner and Anderson, 2007).

Studies from various countries have identified the following key factors lowering the motivation and hence performance of employees in agricultural extension services.

- 1 Low remuneration.** Salaries of public extension agents are generally low and options for merit-based pay are lacking. For instance, in the Congo (DRC), public extension agents receive salaries of about US\$50 per month, which is not only considerably less than what private extension agents make (about US\$500-1000 per month) but also less than the salary of many farm labourers (Ragasa et al., 2013).
- 2 Lack of rewards and promotion opportunities.** Public agencies usually award promotions based on length of service (or merit), but evidence suggests that this often works differently in practice. EAs from Kenya, for instance, report that promotions are neither based on length of service nor merit, but on favouritism and the relationship between the EA and his/her supervisor (Mutia and Sikalieh, 2013).



- 3 **Low status and recognition.** Lacking recognition as critical public frontline workers, as is the case with school teachers, extension agents often have a lower social status than many other public sector employees and a lower rank in the civil service system, which affect their morale (Birner and Anderson, 2007).
- 4 **Lack of operational funds.** Lacking funds for equipment, transport, communication and information facilities further diminish EAs' morale and capacity for high performance. For instance, in Pakistan, EAs are frustrated by the difficulties to get reimbursed for travel expenses made in order to get to the field (Ahmad et al., 2014). In the DRC, more than half of public extension organisations even received no funding at all in 2009/2010 from the government (Ragasa et al., 2013).
- 5 **Lack of professional advancement.** Continuous professional development opportunities are scarce due to a lack of allocated public budgets (such as in Egypt or Liberia), the absence of alternative funding, and merely ad hoc and erratic funding, driven by supply (e.g. donor projects) rather than demand (such as in the DRC). Linkages to universities and research centres are also weak in many countries, which further limits the opportunities for extension agents to learn and advance in their professions.
- 6 **Lack of encouragement from supervisors or management.** A study in Kenya revealed that EAs overwhelmingly feel unappreciated by their supervisors and their accomplishments go unnoticed in the hierarchical administrative structures, deflating their motivation and esteem (Mutia and Sikalieh, 2013).
- 7 **Performance measurement.** Extension agents often assessed based on the activities they undertake rather than the outcomes they achieve, which reflects in their reporting requirements (see Special Series on Agricultural Advisory Services – Paper 3). Instead of identifying and tracking the outcomes and impacts of their own performance, extension agents are demanded to spend time collecting and reporting on input indicators, which are easier to obtain and measure (Anderson and Feder, 2004).
- 8 **Top-down structures.** Most extension programmes are designed for top-heavy and headquarter-centric implementation (Gautam, 2000). Accountability measurements (e.g. the number of field visits or training sessions rather than

accountability to clients) and a focus on delivery of specific and well-defined messages (rather than quality of information) put in place adverse incentives and detract attention from the needs of actual recipients. This can be aggravated, as seen in various countries, by giving EAs politically motivated assignments, such as free distribution of inputs during elections (see Special Series on Agricultural Advisory Services – Paper 1).

- 9 **Other issues.** Job risks (security, hardships, etc.), non-extension assignments given to EAs (e.g. statistical data collection, environmental monitoring, credit and tax collection), and gender-specific constraints further reduce the performance of EAs.

Overall, these multiple factors do not only lead to poor and inadequate public extension services, but also increase the cost of such services due to high staff turnover (depletion of competent officers, gender bias) and increased costs of hiring and training new EAs.

3 Incentive options and emerging practices in agricultural extension services

The public sector can use a variety of managerial approaches to address the problem of weak motivation and incentives for enhanced performance of extension agents. As indicated earlier, these can be monetary or non-monetary, and address job-intrinsic or job-extrinsic factors.

Uganda: privatisation for higher performance incentives and accountability

Under the National Agricultural Advisory Services (NAADS) Phase I (2000-2009), NGOs and private firms were contracted by the government, a donor or even a farmer organisation to provide different types of extension services to farmers. Contracts were awarded at the lowest tier of local government through a competitive bidding process. Farmers' fora participated in priority setting for extension activities and had a vote in the community procurement committees that awarded the extension contracts. They also participated in monitoring and evaluation. This strong influence of farmers in decision making was meant to increase the incentives of service providers

Extrinsic disincentives

Those factors which increase job demotivation

Low remuneration

Lack of operational funds

Lack of rewards & promotion

Low status

Top-down structures

Intrinsic disincentives

Those factors which reduce job motivation

Lack of professional advancement

Lack of encouragement

Performance measurement



to provide quality services. Moreover, as private service providers did not underlie public sector administration, they were in a position to hire and fire employees and pay merit-based salaries to incentivise performance.

However, due to the distance between the farmers' fora and the farmers who actually received the advice, accountability of providers towards the recipient farmers was weakened and incentives to provide high quality services were diminished (Feder et al., 2010). Making farmers contribute 2% towards extension costs was expected to increase the incentives of extension providers to deliver the advice which farmers value, but ultimately cost-recovery remained insignificant. Strong control by local government officials and the influence of national priorities for agricultural development increased the incentives of private service providers to focus on commercial crops over the expressed needs of farmers' groups (Feder et al., 2010).

Despite these drawbacks, independent evaluations described NAADS as successful (e.g. IFPRI, 2007). However, in 2010, NAADS entered Phase II and discontinued the use of private extension providers (Friis-Hansen, 2010). Instead, individual extension agents were contracted by the ministry of agriculture based on performance contracts. NAADS and the performance-based approach to extension were finally suspended by the Uganda's President in 2014 due to political reasons (Rwakakamba and Lukwago, 2014).

Kyrgyzstan: result-based payment system for increased efficiency?

In the context of the decentralisation and semi-privatisation of public extension services in Kyrgyzstan starting in 1999, a result-based payment system (RBP) was introduced in 2001 on the initiative of donor agencies. All service providers belonging to the semi-autonomous Rural Advisory Services (RAS), such as NGOs, are required to utilise RBP to motivate EAs to improve cost-effectiveness and quality of service delivery, enhance accountability for delivered services, and increase the influence of farmers on the services provided. Specifically, EAs in the Kyrgyz Republic receive a basic salary (60-80% of total remuneration) while the remainder depends on performance, which is monitored biannually. Such monitoring is done within unit teams of extension agents in order to promote solidarity and collaboration.

Since the introduction of the RBP, the overall mean salaries of EAs have risen slightly (to 106.5% of the previous standard payment) and efficiency of service delivery is said to have increased significantly (Helvetas, 2005). As salaries are directly linked to achievements, EAs have become more dedicated to produce results and focus on measurable on-farm outputs rather than inputs of service delivery (Vögtli, 2008). Attitudinal changes towards farmers and changes in organisational culture and transparency are also reported (Helvetas, 2005).

However, the system requires considerable efforts in monitoring, reporting and communication, which are time consuming and costly. Moreover, the shift to output-orientation has resulted in a focus on topics which are of high visibility and low risk in their implementation. EAs have also tended to select farmers who are likely to exhibit better performance (Vögtli, 2008). The lack of accountability to farmers, increased occurrences of manipulating the RBP system, and declining efficiency over time has led to attempts to introduce cost-recovery to increase the influence of farmers on extension activities, but without much success so far (Kaegi, 2015).

Ethiopia: how performance incentives can turn into disincentives for local accountability

In Ethiopia, extension services have received heightened political attention since the mid-2000s. As a result the number of EAs has increased from about 15,000 to currently over 60,000. Staff capacity is thus generally not a problem and farmers in Ethiopia seem to have more access to extension than farmers in many other countries (World Bank and IFPRI, 2010). Merit-based recruitment, timeliness of salary payments, performance appraisals and rewards for good performance such as awards, equipment and additional operational funds, have also increased the amount of time that Ethiopian EAs spend on farmers' fields (Haile and Abebaw, 2012).

However, the performance of EAs is evaluated against the number of farmers adopting a specified technology package, which creates disincentives for local responsiveness. Firstly, it leads to EAs focusing on the relatively rich and middle-income farmers who are more likely to adopt new technologies so that the EAs meet their quotas (Geburu et al., 2012). Secondly, it reinforces upward accountability of EAs as promotion and reward opportunities depend on meeting the said quotas (World Bank and IFPRI, 2010). Thirdly, while progress has been made in diversifying farmers' packages, which now offer packages for women, the focus on standardised package adoption renders risky any initiative to tailor programmes to local needs and demands (World Bank and IFPRI, 2010).

On a final note, even performance incentives do not guarantee satisfied and motivated EAs. Different studies from Ethiopia confirm that EAs are often dissatisfied with their salaries, promotion opportunities, supervision, workload, and being stationed in remote rural areas with limited connectivity – leading lead to very high annual staff turnover of around 20% (Davis et al., 2009; Geburu et al., 2012; Kelemu et al., 2014).

South Africa: professional registration of EAs for enhanced performance and motivation

In South Africa, post-apartheid extension services have been confronted with the challenge of improving service delivery to a growing and technically more divergent farming community, whilst simultaneously addressing the low level of technical



expertise of a significant number of EAs, particularly in the case of government-employed EAs (Terblanché, 2008).

To address this situation, South African stakeholders have already for more than ten years discussed the idea of introducing professional standards for EAs and turning extension into an accredited profession. Observers have argued that the absence of a professionalized extension science has been damaging to the dignity and motivation of EAs, ultimately resulting in compromised service delivery (Zwane, 2014). For instance, EAs without relevant qualifications have lacked the necessary skills for relevant service delivery and have effectively been blocked from advancing into higher positions, which has manifested in poorly motivated staff.

Since January 2014, the South African government has brought into force the required legislative changes and 'Extension Science' has become a professional field of practice (Diale, 2015). This implies that only registered persons may practice in a consulting capacity and may apply for government appointments. Registered persons must comply with a Code of Conduct which is also linked to Continued Professional Development requirements to keep abreast of current know-how and maintain professional competence. Registered EAs therefore need to undergo skills upgrading and enrol in training programmes.

Roll-out of the professionalisation of extension is supported by the government, both financially and through the involvement of tertiary training institutes. While it is too early to tell the impact of professional registration, it is expected it will improve the image of extension, ensure a high level of professionalism and ethical conduct, and promote competent, efficient and needs-driven service delivery (Terblanché, 2015).

4 Processes that strengthen performance incentives

Different types of incentives can be used to improve the performance of EAs. This includes introducing and enforcing performance indicators which reward EAs with bonus payments, promotion opportunities, and other financial benefits. Experiences with such performance indicators are mixed, as monitoring the performance of each individual EA is time consuming and costly. Practice has shown that this is often a key bottleneck of effective performance indicators. Moreover, as shown above, almost all performance indicators seem to create incentives to focus on better performing farmers who in turn help EAs meet their targets more easily. This suggests that performance indicators do not help raise performance of EAs per se and that their utilisation must be well planned and monitored to prevent adverse effects.

For one, emphasis is currently placed on the output dimension, i.e. the number of farmers that EAs meet. Not surpris-

ingly, this does not necessarily lead to improved outcomes at the farm level. The effects of EAs' advice on smallholder livelihoods thus require more attention. Incorporating such an outcome dimension into performance indicators is a challenging task, however, as one cannot directly connect an increase in farmers' yields to the work of EAs. In Ethiopia, the outcome dimension is captured by measuring the number of farmers adopting a standardised technology package. Yet, the benefits of these packages are debated due to the inevitable focus on pre-defined adoption behaviour rather than on context-specific solutions. Integrating farmers' satisfaction into performance indicators may be a way to circumvent the narrow focus on technology adoption and ensure two-way communication on what constitutes good performance and the direct outcomes of such performance.

In general it seems that the novelty of performance indicators wears off relatively quickly, and after a number of years, performance tends to decline again. This calls for increased attention to aspects which increase intrinsic *job satisfaction*, such as making the work itself more interesting, allowing individuals to assume responsibility, and ensuring that achievements are adequately recognised. Professionalisation of extension services, as currently pursued in South Africa, may offer an interesting avenue for improving the image and professional ethics of EAs.

As regards the content of the work, in-service training has been identified as one of the most important factors that enhances the interest of EAs and reduces staff turnover (Kelemu et al., 2014). Increasing the autonomy of EAs is also thought to lead to enhanced performance. For instance, giving them greater responsibility and control over budgeting and planning serves to ensure a better match between local service and local needs (Poulton et al., 2010). This can also be a good way to limit burdening extension agents with tasks outside their mandate which often lead to decreased performance (Birner and Anderson, 2007).

Finally, establishing feedback systems between EAs and farmers can create incentives to focus on local priorities and needs rather than top-down planning which has repeatedly proven to have limited impact (see Special Series on Agricultural Advisory Services – Paper 2 and 3). Being able to demonstrate the satisfaction of farmers can also be a way to increase the recognition of EAs' work.

5 Implications for gender

Performance incentives and motivation are highly gender relevant as incentives can be handled in more or less gender sensitive ways. A study conducted in India, Ghana and Ethiopia discovered that EAs lack incentives to reach out to female farmers and as a result, participation by women in extension activities is limited (World Bank and IFPRI, 2010). Similarly, a study from Egypt reports that extension services



suffer from both the lack of gender sensitive performance and gender specific training (Kassab, 2015). In other cases gender indicators for performance evaluation may exist, but are simply not implemented and monitored, like in the case of the DRC where gender criteria exist but are not taken seriously by the majority of the staff (Ragasa et al., 2013). Performance incentives for EAs may even exclude women farmers from benefiting from the services delivered, as they may encourage a focus on those farmers who are perceived to help EAs reach their targets more easily, detracting attention from women farmers who EAs may perceive as less likely to win awards (World Bank and IFPRI, 2010). It appears that performance indicators and reviews, combined with deficient monitoring and evaluation systems, lead to the undervaluing of the needs of women farmers and to resultant barriers to tailor services to address these needs (World Bank and IFPRI, 2010).

Specific incentives to increase the access of women farmers to agricultural extension services are thus needed. While there is only limited understanding of how to integrate gender into incentive systems and practices, there are a number of examples from practice that provide valuable lessons. For instance, F-SKILL in Nepal pays higher prices to their members if they train women and socially deprived youths (Helvetas, 2005). In Kyrgyzstan, introduction of quotas for female extension staff resulted in around 30% of EAs being women by the end of 2009 (Kaegi, 2015). Female EAs have tended cope better with performance expectations than their male colleagues and as a result, their salaries were even slightly higher than those of male EAs (Helvetas, 2005). Furthermore, this led to an increased focus on women farmers as the recipients of extension services who constituted around 60% of clients (Kaegi, 2015). This confirms the need to introduce separate incentives to increase the number of female EAs and to increase the number of female farmers reached.

6 Lessons learned and recommendations

Calls for improved performance through better EA motivation and incentives fashioned according to private sector management principles echo across the board these days. However, experiences with performance indicators to measure and reward 'good' performance of EAs are mixed at best; for instance, because they have unintended side effects and create adverse incentives for other aspects of EAs' work, or simply because the novelty wears off over time and ways of manipulating the system are found.

Many attempts at introducing performance incentives could be considered 'add-on motivators', such as an occasional bonus payment or an award ceremony. More integrative solutions are sparse. Being one of the exceptions, the Ugandan experience demonstrated how the reorganisation of a system can be used to introduce two systemic (rather than add-on) motivators: first, incentivising good performance through privatisation (hence, private sector employment and performance conditions for all EAs apply) and second, through increasing the influence of farmers on the extension services delivered (thus, creating a link between the quality of the services and the relationship between the farmer and the EA). This seemed like a step in the right direction, but ultimately fell prey to political capture and was discontinued.

Particularly the lack of farmer integration in the definition and measurement of good performance in many performance measurement systems is a cause for concern. Good performance of EAs is something that can only be fully understood and appreciated through the input of those who receive the service. Options for creating a performance-based relationship between EAs and their clients include, but are not limited to, measuring the willingness of farmers to pay some (not all) charges for ex-

tension services or including farmers' feedback in performance appraisals through satisfaction surveys or participatory monitoring and evaluation. This also has the potential to lead to a wider definition of performance beyond access to technology, and to include issues such as farmer group strengthening and linkages to other value chain actors. Critical in this context is a gender-transformative approach to address the gender bias in agricultural extension and ensure that all farmers' voices are heard.

Finally – and perhaps most importantly – more work needs to be done to increase the intrinsic motivation of EAs. Even if performance incentives are well managed, they may not actually motivate anyone to work any harder. Therefore, ways need to be found to 'answer[s] people's deep-seated need for growth and achievement' through their work (Herzberg, 2003). Job enrichment, for instance, could be promoted through giving greater autonomy to EAs, which would allow them to assume

greater responsibility for their own work and provide space to develop context-specific solutions rather than following top-down requests and pre-defined needs; provided, of course, that EAs have the right capacities for this. Greater autonomy for EAs might also address the problem of overburden as multiple demands – often beyond their competencies – are currently placed on EAs. Increasing the confidence of EAs in their own abilities and in the relevance of their work, for instance through increased official recognition, training opportunities that sharpen their expertise or conference attendance for peer-to-peer feedback, is a critical aspect that needs to be institutionalised in public extension systems. Recognising extension as a professional field of practice may offer a further opportunity to increase the competence and spirit of EAs.

Ultimately, agricultural EAs will not be motivated to perform well unless their needs for job satisfaction and achievement are met.

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