From Best Practice to Best Fit: A Framework for Designing and Analyzing Pluralistic Agricultural Advisory Services Worldwide

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ABSTRACT The article provides a conceptual framework and discusses research methods for analyzing pluralistic agricultural advisory services. The framework can also assist policy-makers in identifying reform options. It addresses the following question: Which forms of providing and financing agricultural advisory services work best in which situation?

The framework ‘disentangles’ agricultural advisory services by distinguishing between (1) governance structures, (2) capacity, (3) management, and (4) advisory methods. The framework suggests an impact chain approach to analyze the performance and impact of agricultural advisory services and discusses theoretical and empirical research methods that can be used when applying the framework.

The framework shows that reforms of agricultural advisory services can combine different reform elements—such as decentralization, contracting out, using new advisory methods, and changing the management style—in different ways so as to best fit local circumstances. Using a New Institutional Economics approach (transaction costs approach), the article shows that the following sets of contextual factors need to be considered in this regard: the policy environment; the capacity of potential service providers; the type of production systems and market access of farm households; and the characteristics of local communities.

The framework can be used to develop assessment tools for agricultural advisory services, to inform processes of reforming of agricultural advisory services and to guide inter-disciplinary research. The framework is unique in combining the insights from different disciplines, which have, so far, been treated separately in the literature. The framework can help policy-makers and analysts to move from ‘ideological’ discussions on reform models to an evidence-based ‘best fit’ approach.

KEY WORDS: Agricultural advisory services, Reforms, Governance, Demand-driven services, Impact assessment

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Introduction

Agricultural advisory services are back on the international development agenda. This renewed interest is linked to a ‘rediscovery’ of the role of agriculture for pro-poor development, as emphasized in the World Development Report 2008 (World Bank, 2007). The recent increase in world food prices underlines the continued need for agricultural advisory services in support of agricultural productivity growth and food security. Agricultural advisory services are also needed to help small-scale farmers in developing countries to meet the challenges and grasp the opportunities of the 21st century: new technologies, such as biotechnology and nanotechnology; new types of information and communication technologies; transformed value chains and increased food standards; constraints imposed by HIV/AIDS, avian and swine flu and other health challenges; increasing demand for biofuels; overuse of natural resources; and climate change.

The term ‘agricultural advisory services’ has evolved from the term ‘agricultural extension’. In this article, agricultural advisory services are defined as the entire set of organizations that support and facilitate people engaged in agricultural production to solve problems and to obtain information, skills, and technologies to improve their livelihoods and well-being.

National and international efforts to revitalize agricultural advisory services during the past decade have resulted in a variety of institutional reforms (Rivera and Alex, 2005): decentralization, deconcentration, contracting/outsourcing, public–private partnerships, embedded services, privatization, revitalizing of public sector advisory models, and provision of advisory services by non-governmental organizations (NGOs), farmer organizations and community-based organizations. The term ‘pluralistic’ has been coined to capture the emerging diversity of institutional options in providing and financing agricultural advisory services. Even though available information on different reform strategies for agricultural advisory services has increased, there is still a remarkable lack of empirical evidence to guide the choice of reform options in a particular country (see Anderson and Feder, 2007).

In view of limited empirical evidence, the debate about appropriate reform options is often driven by the search for ‘models’, such as the Farmer Field School model, Uganda’s National Agricultural Advisory Services (NAADS) model, or India’s Agricultural Technology Management Agency (ATMA) model. The debate about the appropriate model ignores that these models combine different reform elements. NAADS, for example, combines decentralization with outsourcing and the involvement of farmers’ organizations (Benin et al., 2007; Parkinson, 2008). ATMA combines decentralization with the continued use of public sector extension agents, better coordination across government departments, and the involvement of farmers’ organizations (Singh et al., 2006). Farmer Field Schools can be combined with a variety of reform approaches, such as decentralization and outsourcing (Davis, 2008).

Therefore, reforms of agricultural advisory services are best understood as a menu of options that can be combined in different ways. Yet, the challenge for the policy-maker is to identify the combination of reform approaches that best fit the situation under consideration. The experience, especially with the Training and Visit (T&V) system, shows that it is not a promising strategy to import standardized models of advisory services that have worked elsewhere even if they are viewed as ‘best practice’.
What is important is building capacity among policy-planners, managers, and researchers to identify modes of providing and financing advisory services that ‘best fit’ the specific conditions and development priorities of their country. This perspective is strongly supported by the experience of general public sector reforms in developing countries (Levy, 2004).

The purpose of this article is to present a conceptual framework and theoretical and empirical research methods that can be applied to meet this ‘best fit’ challenge. By integrating the insights and research methods used in different disciplines, including agricultural and institutional economics, communication theory, adult education, and public administration and management, the framework can be used to guide future interdisciplinary research on agricultural advisory services. The framework can also inform reformers to identify the options from which they can choose, and it can inform multi-stakeholder consultations on reforms of advisory services, which can play an important role in identifying the ‘best fit’ of different reform options.

The Conceptual Framework

Figure 1 displays the conceptual framework for the design and analysis of agricultural advisory services. The logic of this framework is as follows: one first has to consider the contextual factors (Boxes A–D) that influence how agricultural advisory services should be structured and organized (Boxes E–H) to reach high levels of performance (Box I). The ultimate impact of agricultural advisory services (Box K), however, depends on the actual change at the farm household level (Box J). The ability of the farmers to exercise demand and hold service providers accountable influences the performance of advisory services, as the arrows indicate in Figure 1.

Characteristics of Agricultural Advisory Services

The variables in Boxes E to H describe the characteristics or design elements of agricultural advisory services. These are the variables on which policy-makers have to make decisions when designing or reforming agricultural advisory services.

Governance Structures. The governance structures (Box E) variables refer to the institutional set-up of agricultural advisory services. There is a wide variety of possible governance structures. To classify them it helps to distinguish among three sectors that may be involved in financing and providing agricultural advisory services: (1) the public sector (public administration, state agencies), (2) the private sector (farm households, agribusiness enterprises, other profit-oriented firms), and (3) the third sector (non-governmental and non-profit organizations, farmers’ organizations, civil society organizations). Different structures include contracting out (provided by NGOs or private sector; financed by public sector), privatization (provided and financed by private sector), and extension provision by farmer-based organizations (financed by the farmers themselves). Within the public sector, governance structures differ depending on the degree and the type of decentralization. The factors that influence the ‘best fit’ of different governance structures, and the research methods to identify them, are discussed below.
Figure 1 Conceptual framework.
Source: authors.
Capacity. The capacity (Box F) variables include human resources (staff numbers, training levels, skills and experience) as well as physical infrastructure and the vehicles. The financial resources that are available to advisory services are a particularly important capacity variable.

Research Methods: In principle, one can use the economic concept of efficiency to determine the appropriate capacity that agricultural advisory services need to have to meet their stated policy goals. According to this criterion, the optimum number of agricultural extension agents is reached at the point where the marginal benefit of increasing the number of agricultural advisors (i.e., extension agents) equals the marginal cost of doing so. Dinar et al. (2007) used production- and efficiency-based approaches to evaluate extension impact on farmers’ performance in Crete. One would need to further refine this analysis to determine the efficient mix of training levels and skills that the agricultural advisors should have. The same principle can be applied to other aspects of capacity, like vehicles. In practice, however, such an analysis is hardly carried out, and planners rather rely on the ratio of agricultural advisors to farmers as a benchmark. The last global consultation on agricultural advisory services was conducted by the Food and Agriculture Organisation of the United Nations (FAO) in 1989, and has not been updated since then. In 1988, the average ratio of advisory service agents to farmers was 1:1,800 in Africa, 1:2,660 in Asia and the Pacific, and 1:2,940 in Latin America (Swanson et al., 1990).

Management. The management (Box G) variables include the management style (top-down or participatory, rule-focused or results-focused), as well as the procedures in place for planning, monitoring, and evaluating advisory activities, and for managing financial and human resources. Human resource management has important implications for the attitudes, motivation, and aspirations of the staff members, their incentives, mission orientation, professional ethics, and organizational culture.

The management system needs to fit the objectives of providing agricultural advisory services, and be adjusted to the governance structures and the advisory methods used. For example, making advisory services demand-driven requires new management skills and procedures, such as the ability to facilitate the interaction between multiple stakeholders and the use of adaptive planning methods. There is a range of tools that could be used to improve the quality of management in advisory organizations. Total Quality Management (see, for example, Swiss, 1992) and Managing for Results (Drucker, 1993) are examples. In the case of service providers that are part of the general public administration, the possibilities for improving management approaches in isolation are limited. In this case, it is important to make use of public sector reforms that often introduce new management approaches, such as performance contracts in Ghana (see, for example, Economic Commission for Africa, 2003, pp. 20–21), and Business Process Reengineering in Ethiopia (see, for example, Carr, 1995; Davis et al., 2009b).

Research Methods: Concepts of organizational theory, administrative sciences, and business administration can be used to analyze the management of agricultural advisory services. Empirical approaches involve staff surveys and analyses of management processes (see, for example, Erbaugh, et al., 2007). Expert and key informant interviews can help to identify how informal processes influence the
management of agricultural advisory services. These tools can also be useful to get insights into the management problems that are not easily revealed through formal research, for instance political interference and corruption. For instance, Parkinson (2008) examined the institutionalization of participation in NAADS using an organizational learning lens. Extension management was a vibrant field of research in the 1980s. However, compared to the debate on governance structures and advisory methods, the field has received comparatively little attention in the recent research-based literature. An interesting new contribution, however, is the textbook on agricultural extension management by Karthikeyan et al. (2008).

Advisory Methods. Box H refers to the advisory methods that are used by the field staff of agricultural advisory services in their interaction with farmers. These methods can be classified according to different criteria:

- types of training or technology transfer (demonstrations, field days, short courses, farmer-to-farmer exchanges);
- number of clientele (individual, group-based, mass approaches);
- involvement of clients in planning and problem-solving (‘top-down’ methods; participatory methods);
- specificity of content (limited to specific crops/livestock or dependent on needs identified by clients in different fields);
- types of media used (information and communication technology, radio, drama, newspaper); and
- adult education orientation (social learning, humanist, cognitive).

Over time, development agencies have developed various standardized advisory methodologies, such as T&V, Farmers’ Field Schools, Participatory Technology Development (PTD), and the Participatory Extension Approach (PEA).

Research Methods: After the phasing out of T&V, the Farmers’ Field School approach now dominates the debate on advisory methods, and there is a considerable body of literature assessing this approach. These studies have employed a variety of empirical research methods, including longitudinal impact evaluations, surveys, case studies, double difference approaches, and quasi-experimental and experimental approaches (see Davis, 2006, for a review). Other studies have used transformative learning theory to understand learning in Farmer Field Schools (Najjar, 2008). Limited attention has been paid to the factors that actually influence which types of advisory methods are most suitable in a given situation. Obviously, advisory methods have to be adapted to the goals of the advisory service and to the available resources (Box A), to the type of production system and the complexity of the technologies to be promoted (Box C), and to the characteristics of the communities to be served (Box D). Advisory methods lend themselves more easily to experimentation than governance structures. More experimentation with advisory methodologies—accompanied by rigorous assessments—would help increase the knowledge on the ‘best fit’ of advisory methods.

Linkages within the Agricultural Innovation System. As Figure 1 indicates, agricultural advisory services should not be seen in isolation. It is important to analyze the
relations that they have, in particular with agricultural research and education, and
to assess the role that they play with the wider Agricultural Innovation System (World Bank, 2006).

Contextual Factors that Influence ‘Best Fit’

Applying a ‘best fit’ perspective, the design of an advisory service should depend on
contextual factors as they influence which systems are most appropriate for a given
situation.

Theoretical Research Approaches. So far, research has mostly used concepts of welfare
economics to identify which governance structures are most appropriate in a given
situation. The bottom line of this economics approach is the following: (1) the public
sector should provide advisory services if the advice has the nature of a public good;
(2) the private sector is the preferred choice if the advice represents a private good;
and (3) community-based approaches should be used if the advice represents a club
good or a common-pool resource (Umali and Schwartz, 1994). The reality, however,
is more complex, since markets, governments and communities all involve their own
‘failures’. The challenge is to devise governance structures that can overcome market
failure, government failure, and community failure in agricultural advisory services
(Birner and Anderson, 2007).

In view of such challenges, concepts of the New Institutional Economics, especially
transaction costs economics, can provide further insights on the way in which
textual factors (Boxes A to D) influence the appropriateness of different
governance structures (Williamson, 1985; Birner and Wittmer, 2004). According to
Williamson’s ‘discriminating alignment hypothesis’, transactions that differ in their
attributes are to be aligned with governance structures that differ in their costs and
competence, so as to affect an economizing result. This approach represents a cost-
effectiveness analysis, which makes it possible to compare governance structures in
terms of the costs incurred for achieving certain objectives, such as delivering advice
of a certain quality to a defined group of clients. In this type of cost-effectiveness
analysis, it is important to compare the costs of providing advisory services against a
defined set of objectives to avoid favoring governance structures that provide services
at lower costs but do not reach the poor. Applying a transaction costs approach
involves the following steps:

1) Identifying the key attributes of providing advisory services. The comparative
advantage of different governance structures depends on the transactions and their
attributes, as well as on contextual factors. The transactions in the case of
agricultural advisory services include transferring knowledge from different sources,
in particular the research system, to the farmers and getting their feedback, building
capacity through different forms of training and education, facilitating group
processes, as well as planning, monitoring, and evaluation activities. In industrial
organization, important attributes of transactions, which determine the governance
structures to be chosen, are frequency, uncertainty, and specificity (Williamson, 1985).
Specificity in agricultural advisory services refers to the extent to which advice is site-
specific and client specific. The transferability of a technology is related to this
attribute. As the above considerations show, additional attributes that are relevant in advisory services include the following:

- **Exteralities** and **public good character** of the transactions (see above)—since these characteristics lead to market failures, they are important criteria and influence the need of the public sector to be involved in the respective governance structure; and
- **Measurability** of the quality of the transaction—this is a considerable challenge in agricultural advisory services. The quality of advice given to farmers is difficult to measure by a third party, because the ultimate result (e.g., increased yield) is influenced by a number of other factors.

2) **Identifying contextual factors.** The choice of appropriate governance structures depends on contextual factors. The policy environment (Box A), especially the development priorities and the agricultural development strategy of a country, and the role envisaged for the public sector, has far-reaching implications for the appropriateness of different ways of providing and financing agricultural advisory services. The proportion of the budget that a government is able and willing to spend on the agricultural sector determines the scope for publicly funded advisory services. The more resources a government is willing to spend, the more feasible it is to provide farm-specific advice. Priorities within the agricultural sector play an important role, too. Agricultural development strategies that focus on high-value commodities require different types of agricultural advisory services than strategies focusing on food-staple crops. Likewise, the relative priority placed by governments on economic growth, social inclusion, and environmental sustainability will influence the design of agricultural advisory services.

The complexity of the agricultural system and the education level of the farmers are important contextual factors, too. They are represented by Boxes C and D in Figure 1. The capacity of the potential organizations to be involved is an important factor, as well. For example, if local communities have a high level of social capital (dense social networks, trust, sharing of norms), governance structures that involve collective action (farmers groups) may have a comparative advantage. Likewise, if the capacity of the public administration in the country under consideration is comparatively high, governance structures relying on this sector may have a comparative advantage. If there is already a large number of private enterprises or NGOs with the capacity to provide advisory services, models of contracting out are more likely to be successful than in situations in which this is not the case.

The contextual factors (Boxes A to D) change over time, due to factors such as general macroeconomic development and macro-political change, specific policy interventions (e.g., investment in infrastructure), and unintended effects (e.g., climate change and natural resource degradation). Providing agricultural advisory services is in itself a policy intervention that aims at changing these variables. Hence, as indicated in Figure 1, there is a feedback link between the impact of agricultural advisory services and the contextual factors.
3) Aligning transactions with governance structures—considering costs and trade-offs.

The next step in applying the transaction cost approach is to derive hypotheses on the comparative advantage of different governance structures, based on insights from the theoretical and empirical literature. Following Williamson (1985), one can derive hypothetical cost curves for different governance structures, depending on their attributes. Figure 2 illustrates this approach.

The horizontal axis displays the relevant attributes, and the vertical axis measures the total costs arising for the provision of the service with a defined quality under different governance structures. Figure 2 represents a situation where the hypothesized cost of providing the service under pure state governance (public advisory services) increases rapidly with increasing relevance of the attribute, because of the monitoring and enforcement costs. It is hypothesized that a governance structure that involves the private and the third sector (hybrid governance) gains comparative advantage over state governance from point c₁ onwards. The establishment of the NAADS in Uganda is an example of such a model. If the value of c is lower than c₁, hybrid governance structures do not have a comparative advantage, because one has to take the fixed costs of setting up a collaborative arrangement into account. If the capacity of the state (see Box B in Figure 1) is low (upward shift of the cost curve for pure public governance), the hybrid arrangement gains comparative advantage from a lower value of the attribute onwards (shift from c₁ to c₂). If the local communities have a high capacity for collective action (Box D in Figure 1), which can be measured by their level of social capital, the cost curve for providing the service under a hybrid governance structures would be shifted downwards, thus increasing the comparative advantage of this governance structure.

**Empirical Research Approaches.** The transaction cost approach outlined here has hardly been empirically applied in the literature on agricultural advisory services. The literature in other fields shows that transaction cost considerations can be applied

![Figure 2](source: Birner et al. (2006, p. 35))
empirically in two ways (see Shelanski and Klein, 1995, for a review). One approach is to use the transaction costs framework to formulate hypotheses on the type of governance structures to be expected for different types of transactions and frame conditions, and then use econometric techniques, such as multinomial logit models, to test whether the empirically observed choice of governance structures is consistent with the hypotheses. This approach is well suited to study profit-oriented organizations, where competition forces the enterprises to choose governance structures according to cost economizing criteria. However, if governance structures are determined by political rather than purely economic considerations, as is mostly the case in agricultural advisory services, it is necessary to measure directly the transaction costs involved in different governance structures in order to test hypotheses regarding the comparative advantages of different governance structures. While this is certainly an ambitious undertaking, there are an increasing number of studies showing that it is in fact possible to empirically measure transaction costs in the agricultural sector (see, for example, Mburu and Birner, 2002).

Studying the transaction costs of pluralistic agricultural advisory services may yield important insights. For example, there are hardly any empirical studies of the costs involved in administering, monitoring, and enforcing contracts with providers of advisory services. This lack of knowledge is rather surprising considering how widely contracting out advisory services is currently recommended. Studying transaction costs is also a way to assess the potential problems of corruption that may occur in using public procurement procedures for contracting advisory services. This problem is empirically relevant, as the case of the Ugandan NAADS shows (Parkinson, 2008). Analyzing the transaction costs incurred by the users of an advisory service will help to identify potential obstacles faced by the poor or by women to get access to advisory services.

Performance, Impact and the Central Role of the Clients

Boxes I, J, and K of Figure 1 can be interpreted as an impact chain. Using the terminology of impact chains, the performance indicators (Box I) refer to the quality of the outputs of an advisory service. These outputs lead to immediate outcomes—changes in farmers’ behavior (Box J), then to intermediate outcomes—benefits at the farm household level, and finally to impact—broader societal goals (Box K).

Performance. One can define a wide range of performance (Box I) indicators to capture the quality of advisory services. These indicators depend on the goals of the advisory service and are best identified in a participatory way involving policymakers, service providers and clients. They may refer to the (1) accuracy and relevance of the content of the advice, (2) timeliness and outreach of the advice, (3) quality of the partnerships established and the feedback effects created, (4) efficiency of service delivery, and other economic performance indicators.

Research Methods: From an analytical perspective, measuring and explaining performance is less demanding than assessing impact because performance can be attributed in a more straightforward way to the characteristics of the advisory service. For example, changes in spending can be linked directly to changes in the number and timeliness of farmers reached (Box I), but it cannot be linked directly to
farm household incomes (Box K). Some interesting indicators used by Dinar and Keynan (1998) include the rate of stability of producer groups and the financial performance of extension provider companies. Performance measurements of agricultural advisory services will be most useful if they include information provided by the clients. New methods developed in other sectors, such as Citizen Report Cards, can be applied for this purpose.

Farm Households/Clients. The farm households/clients (Box J) play a central role in the conceptual framework. Any impact that advisory services can achieve with regard to ultimate development objectives depends on the way in which the clients make use of the service. Importantly, as indicated by the arrows in Figure 1, the ability of farmers to exercise voice and formulate demand is of crucial importance for the performance of agricultural advisory services. This ability is influenced by the characteristics of the farm households and the communities in which they live (Box D) as well as by the characteristics of the advisory service. For example, a decentralized governance structure (Box E), a favorable advisory staff to farmer ratio (Box F), a responsive management approach (Box G), and the use of participatory advisory methods (Box H) are all factors that improve the possibilities of farm households to exercise voice and hold the service providers accountable. In the early stages of moving towards a demand-driven approach, providers may face a weak demand, and hence need to first build the capacity of farmers to express their demand.

Research Methods: Research methods that capture the farm households’ perspective include household and community-level surveys as well as a range of qualitative and participatory research methods (for a recent example see Davis et al., 2009a). With the emphasis on demand-driven advisory services there is now increasing research attention placed on assessing the ability of the farmers to demand services and hold service providers accountable (see, for example, Benin et al., 2007). Considering that advisor-to-farmer ratios are in the range of more than 1:1,000 (see above), such research needs to pay special attention to the way in which farmers’ demand for advisory services is aggregated. An important question in this regard is the role that farmers’ organizations play, and their ability to avoid elite capture (Bernard et al., 2008).

Impact. From a policy perspective, the ultimate criterion for assessing agricultural advisory services is their impact (Box J) with regard to the policy objectives that the advisory services were set up to achieve.

Research Methods: Assessing the impact of agricultural advisory services involves a range of methodological challenges, which have been widely discussed in the literature (see Birner et al., 2006, for a review). The challenges derive from problems such as multiple goals, attribution problems, lagged effects, spillover effects, data problems, and sample attrition. The methods commonly used to address these challenges include econometric techniques, such as double difference estimation and propensity score matching (see Davis et al., 2009a, for a combination of the two methods). More recently, the use of experimental design has gained increasing importance in impact evaluation, even though applications to agricultural advisory services are still scarce. These approaches to overcome methodological challenges
have different strengths and weaknesses. From a practical perspective, performance, impact, and the role of farm households can often be addressed through the same studies, since each of them requires data collection at the farm household level. In this regard, disaggregating household data by gender, income groups, and other socio-economic criteria (ethnic group, caste, etc.) is important to be able to address the equity aspects of agricultural advisory services.

The framework presented here can help to go beyond current approaches of impact assessment because it ‘disentangles’ agricultural advisory services, distinguishing between governance structures, capacity, management, and advisory techniques. Disentangling these elements is of special importance for identifying ‘best fit’ solutions. Most of the existing impact assessment studies have left it unclear why the impact of investments in a particular type of advisory service was limited. Was it because the advisory methods applied were inappropriate, the training level of the advisory services agents was too low, the system was not managed well, or because of other factors? The framework provides control variables that can help to address this problem. For example, when evaluating Farmers’ Field Schools (Box H), there is a need to also collect information on the governance structures under which this approach is used (Box E), on the capacity of the service provider (Box F), and on management quality (Box G).

**How to Use the Conceptual Framework?**

As stated in the introduction, the framework can be used for multiple purposes besides impact assessment, such as identifying reform options, supporting experimentation and learning in ongoing reform processes, guiding the set-up of performance management, monitoring, and evaluation systems, and/or supporting inter-disciplinary research. This section highlights two of the potential uses of the framework in more detail.

*Developing Assessment Tools for Agricultural Advisory Services*

Reforms of agricultural advisory services need to start with an assessment of existing services. Such assessments are often done as part of project preparations, but no standardized assessment tool has emerged for this purpose. The example of the Quantitative Service Delivery Survey (QSDS) methodology, which was developed for educational and health services, demonstrates the advantages of using a standardized assessment tool (Dehn et al., 2003). The framework can help to develop such a tool for agricultural advisory services because it specifies the variables on which information needs to be collected.

*Guiding Interdisciplinary Research*

When presenting the framework above, reference was made to various research methods that can be applied within the proposed framework. In order to learn more about ‘best-fit’ solutions, it will be useful to apply the proposed framework in different countries, using comparable research approaches and indicators of performance and impact. Ideally, countries should be selected in such a way that
one can learn from comparison and from diverse experiences, focusing on the question: what works under which circumstances, and why? For this purpose, one would need to compare countries with similar types of farming systems, but different types of advisory services, or vice versa, countries where similar types of advisory services are applied to different farming systems.

Practically, it will be necessary to start with few countries chosen according to more practical criteria (partnerships, possibility to link up with ongoing reforms of advisory services, availability of funding). Using a comparable analytical approach however, will make it possible to compare findings from different projects. Therefore, it is the hope of the authors that this framework will be useful to guide future interdisciplinary research projects that aim at providing policy-relevant knowledge for reforming advisory services.

**Concluding Remarks**

This article has presented a conceptual framework that can guide the design and the analysis of pluralistic agricultural advisory services, and outlined different research methods that can be used when applying this framework. By placing emphasis on identifying systems that best fit context-specific conditions, the framework aims to help in overcoming one of the major problems that led to the failure of agricultural advisory services in the past: the push of standardized ‘one-size-fits all’ approaches.

In a time where increasing funds are made available for revamping agricultural advisory services, it is more important than ever to identify reform options that function well in a particular context and that are sustainable in the long run. For reasons of scope, one important aspect of reforming agricultural advisory services could not be covered in this article: the political economy of reforming agricultural advisory services. Managing processes of institutional change in agricultural advisory services is a challenging task, which requires political will and organizational skills. Having a clear understanding of the reform options is an important prerequisite for managing this process. The framework developed in this paper aims to support this understanding.

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