Financing Extension for agriculture and natural resource management

Some conceptual considerations

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This article is based on a review of literature and a search for case examples which was conducted to prepare a study concept to explore innovative approaches to financing extension. The results of the study including further development of concepts and case examples will be published by the end of this year.

Introduction

When discussing extension for agriculture and other fields of natural resource management in a developing country context, the thoughts nowadays soon revolve around the question of financing. In most developing countries extension services have been, and often still are, largely a domain of state financing and delivery, and much donor assistance has been channelled through government institutions. NGOs also finance and deliver extension services, particularly in areas not or badly served by state services. They tend to be largely financed by donor funds. Private companies finance and deliver extension services linked to either input provision or processing and marketing of produce. There also have since long been cases where clients are financing extension delivered by private agents, usually for specific commercial commodities like coffee, tea, tobacco, cotton etc.

Some developments have contributed to motivating discussions on whether state financing and delivery is really the most appropriate way to organise extension services in developing countries. a) The effectiveness and efficiency of the large-scale pubic extension services are often questioned, b) governments increasingly face problems in raising enough revenue to fulfil all their commitments and thus think of what expenditure to cut, and c) a world-wide political discussion on revising the role of the state and defining task sharing between state and private actors is going on.

In recent years a range of alternative approaches to financing and delivery of extension services based on different concepts have emerged and are being tried out. As a basis for the judgement of such approaches some conceptual considerations are necessary. In particular two issues need discussion:

- Who should pay for what sort of extension services?
- How can effectiveness and efficiency of services be achieved?

Who should pay for what sort of extension services?

Economic theory suggests that market forces do lead to the economically most efficient allocation of resources and that states should only intervene where markets fail to regulate supply and demand of goods in a way which is in the interest of the public, i.e. when leaving things up to the market would result in undesirable outcomes.

For services resulting in benefits which can be appropriated by the client, it can be assumed that in general clients are willing to pay. Similarly the commercial sector is likely to provide such services if the frame conditions ensure their profitability. This type of services is in economic terms said to have private good character (for basic explanations concerning the concept of public/private goods see box).

Examples for this type of services in an extension context are e.g. the preparation of a business plan to obtain credit, medication for livestock, assistance in maintaining farm accounts, or a soil analysis to enable efficient use of fertiliser. An example for a private good benefiting a whole group of clients is commodity research and extension, which is, as to be expected, frequently financed by producers through levies or association membership fees. In general individual problem solving assistance and information about commercial farm products fall in the category of private goods. Information is often provided in combination with access to inputs, credit and marketing. Buyers of such services will be unwilling to share related information with others.

Private and public goods - Economic theory distinguishes between private and public goods.

Excludability and subtractability are the criteria to differentiate between private and public goods. **Excludability** means that those who do not pay for a good can be excluded from its use, **subtractability** means that the use of a good by one user reduces its availability to other users. Goods which show both the criteria to a high degree are pure private goods, goods which are neither excludable nor subtractable are pure public goods. A bag of fertiliser is an example for a pure private good, clean air one for a pure public good. Goods with high excludability and low subtractability are called toll goods (a park with an entry fee is an example), whereas common pool goods are characterised by high subtractability, but low excludability (fish in the oceans are an example). Toll goods often are provided by the private sector as long as free-riding can be minimised. The management of common pool goods is often based on difficult political negotiation processes, and needs regulation to prevent overuse. There is a continuum between pure private goods at one end and pure public goods at the other end of the scale, and many goods are excludable and/or subtractable to a certain degree, and it is often not easy to draw exact boundaries.

However, a large part of extension situations in a development context do not deal with private good type services and private interest, as is illustrated by the following deliberations on situations where markets are likely to fail to effect the desired outcome and thus state intervention may be desirable:

Public goods: For services where benefits cannot be appropriated or it is not possible to exclude non-payers sufficiently, there is no motivation to provide them on a commercial basis, and no motivation for users to pay for it, as they can also get it for free. Such services are of public good character.

General information and advice on commonly produced crops and animals are public good type extension services.

Public interest: Private actions may have - positive or negative - spill-over effects, or externalities, on others. The public may have an interest to promote private activities with positive externalities or to reduce activities with negative externalities. Also it may be in the interest of the public to make those who cause negative externalities to pay for damages or mitigating measures.

Inappropriate use of pesticides in food crops has a strong negative externality for consumers. Thus the consumers or the public will be very interested that the state provides assistance to farmers to prevent pesticide residues in food. Also in the case of prevention and cure of contagious animal diseases, there is a public interest in that farmers make use of the concerned services, and therefore public funds for these are justified.

A certain measure of socio-economic equity may also be in the public interest. In consequence it may well be justified to publicly fund extension services for resource poor farmers who cannot pay for them, even if these services in theory look like being of private good type.

Insufficient information: Insufficient information concerning a service constitutes a risk to the user in the sense that the utility of the service cannot be judged exactly. In an extension context for example clients cannot judge the quality of an extension service at the time they receive it, its true value to the client may become apparent only later. This constitutes a risk to the client which may reduce the use of an extension service unnecessarily. It may be in the interest of the public to use public funds for risk reducing measures in such a case.

In case of unequal information availability those with better information may exploit this advantage which may lead to undesirable outcomes. E.g. a fertiliser supplier may not be interested to tell farmers that the continuous application of synthetic fertilisers only may ultimately lead to a decline in soil fertility. Also here the public may have an interest to make the full information available.

Profitability differentials: Different types of advice and different client segments have different profitability potentials. Extension services to small subsistence farmers is likely to be less profitable than services for larger commercial farms, it may thus need public finance to ensure extension services to small farmers (in such a case one would however also have to consider whether extension services are the most efficient way for support to these small farmers at all).

Advice leading to quick benefits is also likely to be easier sold than advice which results in benefits only in a longer term. Such short term benefits may be ecologically unsustainable or be in total less than competing long term gains, the market forces will however favour the adoption of these. Again this may be a case for public intervention.

Compensation for discriminatory policies: In many developing countries the agricultural sector is discriminated against through unfavourable policies. Artificially low prices, subsidies for the industrial sector, overvalued exchange rates together may have the effect of a taxation up to 20 or more percent in addition to frequently imposed direct taxes on export crops. Such a situation results in sub-optimal resource allocation to the agricultural sector. A number of countries are explicitly compensating for an unfavourable policy environment with publicly funded extension (and research) services. The question remains whether inefficient publicly funded services are an efficient way of redirecting resources.

From above deliberations it becomes apparent that the public (state or donors) should finance desirable extension services which are in the public interest, independently of whether they are of private or public good characteristics according to the economic theories. Important in this respect are situations where private and public interest may be different as it often is the case with **ecological** and **equity** issues. On the other hand unnecessary, untargetted subsidies in the form financing services which are purely in the private interest with public funds should be avoided. Note that these consideration concern the source of finance only, but not the question of who deliverce the services.

However, the distinction between private and public is not a matter of black and white, but must be made along a continuum between the extremes of purely private to purely public. That means that in fact many extension services are best financed by a combination of public and private funds. Further is the public not a uniform mass, but is constituted of a variety of interest groups. Thus decisions about what services are in the public interest to what extent, will always be the result of political negotiation processes, and not of economic theories.

How can effectiveness and efficiency of extension services be achieved?

Under the usual set-up where extension service providers get their rewards from the state or donors, they are not accountable to the clients but to the source of funds. The clients have only limited leverage to ensure that extension services are truly useful for them. And if services are not appropriate, it is not their own money which is wasted.

Who are the clients?

In case of extension advice leading to higher farm profits it is obvious that the clients are individual farms or farm families. However, we understand clients not only as farmers and their families. The clients may be any persons or groups who have a major interest in a certain extension service. E.g. in the case of advice on pasture and range management the clients would usually be one or several village communities. In case of advice on rational pesticide use in vegetables the main clients are the consumers. Clients thus can be individuals, families, clans and village communities, the population of a region, a state or even the international community. Besides those concerned directly with the agricultural sector, clients can also be the wider public as consumers or as people with interest in sustainable ecosystems. This understanding of clients implies also that there may be several clients with concern regarding a specific extension service. Besides the obvious recipient of the service, some section of the public may be something like a side-client.

Evidence suggests that if clients would pay for extension, quality, efficiency and sustainability of the services will improve, because the service providers will be accountable to the clients. This implies that clients must have the opportunity to check on the quality and appropriateness of the services, and the service providers must be accountable to the clients in the sense that they must somehow feel negative effects of clients' dissatisfaction. In the case of services of pure private good character, without any externalities of public interest, accountability is probably rather easily achievable through payment for services by clients linked to the extensionists' income.

However, clients will be willing to pay also for private good type extension services only if the offered services are truly useful and of high quality. In many cases the quality requirements may be an obstacle to introducing cost participation of farmers quickly. Competition between service providers is a way to improve quality. However, unless training opportunities to improve skills and knowledge for extensionists are available, service quality may not be sufficient to attract clients.

Another obstacle for willingness to pay may be unawareness and uncertainty about the usefulness of services. Strategies to overcome this may lie in promoting the farmers' capability to exactly identify their needs, and in risk compensation arrangements.

Where public interests and public good type services, and all kinds of - sometimes conflicting - mixes of public and private interests, or other cases of market failure situations are involved, it is likely to be substantially more complex to manage accountability and related service quality and efficiency, and major parts of agricultural extension services in developing countries belong to these categories.

Cost participation by farmers – even if only a small proportion of the actual cost – has an immediate accountability effect. However, cost participation may also have less desirable other effects: Certain client segments may be excluded from services. Services resulting in quick economic benefits with little attention to longer-term sustainability may be favoured.

Participatory approaches (involvement of clients in planning and decision making) and social accountability mechanisms (e.g. extensionists chosen by local communities, group promotion) may serve as non-monetary tools to promote effectiveness in cases where payment by clients is not feasible or desirable.

In many cases of conflicting public and private interests the presence of lobby groups may be vital for establishing some degree of accountability of service providers to the public. Laws and their enforcement are the means available to the state to ensure effective actions in favour of public interests.

Conditional incentive payments are a means to motivate clients to adopt practices which are in the public rather than their own interest, and to encourage them to demand and pay for related extension services.

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