Encouraging capacity-building for private sector irrigation-technology service provision in Uganda

Le renforcement des capacités en vue de la fourniture des services en matière de technologies d'irrigation par le secteur privé en Ouganda

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Abstract

In the wider context of Irrigation Management Transfer, the results and lessons learnt from recent activities in Uganda illustrate some pertinent issues and highlight a number of actions that countries with similar emerging markets could valuably use. A demand for the service provision of irrigation equipment was demonstrated, in terms of a desire for both diversity of quality products and competitive prices. The challenges to stimulating such service provision, were those of encouraging the private sector to invest in such new, unproven markets. The intricacies and specific challenges to this work are explained and analysed. The paper proposes a list of best practices for promoting private-sector service development, and gives recommendations about ways in which the public sector can assist.

Résumé

Les résultats et les leçons tirés de récentes activités dans le contexte du transfert de gestion de l'irrigation en Ouganda mettent en évidence des sujets pertinents et de nombreuses actions applicables aux pays avec des marchés émergeants semblables. Le demande pour la fourniture des services et le matériel d'irrigation est affichée en termes de diversité de produits de qualité et des prix compétitifs. Comment encourager le secteur privé à investir dans de tels secteurs, encore neufs et non-éprouvés, reste le défi majeur. Les détails et les complexités liés à ce travail sont expliqués et analysés. L'article propose une liste de bonnes pratiques susceptible de promouvoir le développement des compétences de provision de services au sein du secteur privé et offre des suggestions pour mobiliser l'assistance du secteur public.

1. The background to Uganda's development

Since the mid-1980s Uganda has settled into relative political and economic stability. (Pockets of rebel activity have remained only in the north and far west). The country has developed a number of strategies and polices that have aided in attaining economic growth rates, reported to be as high as 7 percent (World Bank 1999). Since 1993 Uganda has had a proactive policy and a great number of activities in the areas of decentralisation and privatisation (Government of Uganda 2000a). District Administrations have been given the responsibility of planning and managing their own development (Government of Uganda 2000b), and of encouraging private-sector provision of services.

Recently, a major agricultural extension service project has been designed that aims to develop the market for the provision of private-sector extension services to farmers. Initially farmers at the sub-county level (there are approximately 850 sub-counties in Uganda) will manage a publicly-funded budget, with which they will purchase extension services. This budget will slowly decrease and the intention is that after a period the demand and supply for such services will have grown sufficiently, so that the system will be self-sustaining through private-sector mechanisms (Government of Uganda 2000c). The Land Titles Act 1998, has been implemented to the extent that land alienated has increased to 15 percent (Government of Uganda 2001).

Furthermore, largely due to the failure of co-operatives in the early 1990s, the majority of farmers' activities are managed individually rather than on a group basis. Although many of the co-operatives were initially viewed as successful and attractive for many farmers to become involved, they soon became victim to corrupt management and as a result farmers have not largely regained sufficient

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confidence to re-use co-operatives to a significant extent. Individual actions are now the main medium of activity of farmers. Only two large-scale irrigation schemes are currently in operation in Uganda.

With a relatively high average rainfall, varying from approximately 760 mm in the north-east to about 1,520 mm near Lake Victoria, there are generally still two dry seasons and even periods in the length of a week when soil moisture is well below levels for optimum crop growth. Water is required also for livestock, small industries and domestic use. As a result recent individual users' efforts have been put into the better management of water; namely, water harvesting and water delivery systems.

2. Introduction

As a result of NGO demonstrations of treadle pumps, starting in 1997, a demand for the retail provision of such services to individuals emerged, mainly in rural areas. At this early stage, the bottleneck of a lack of retail availability of small-scale irrigation equipment, in the development of the adoption of such practices, was clearly highlighted, as well as a number of other aspects of service provision that are proposed as best provided by the private sector.

Private-sector investment and involvement has proven to be essential at two different levels. Firstly, a commitment for investment by the farmers has been substantiated by the fact that a farmer using his or her own money is more likely to use and benefit from the investment. Something given-away is not always used effectively (one accepts it because it is free), whereas an investment in something, by nature, is usually done with the intention of making effective use of that item. The second level of "Essential Private Sector Investment" again centres around the intention of gaining a return from the investment. The investment of money with an intention of producing something that is of value to others (service or product), on which a profit can be made, is again the essence of such investment.

A debate as to whether the public sector (rather than the NGOs) would have originally invested in the researching of such technologies, importing example-models, developing proto-types and demonstrating such technologies, could be answered by the fact that, over the last 4 years, it has proven difficult to encourage the private sector to invest in such a situation, even when receiving a certain amount of public-sector assistance. However, there is a counter-argument to this, saying that the private sector has not willingly invested because it has been waiting for further assistance and subsidisation from the public sector. Similar observations of private-sector behaviour have been made in other areas of "Business Development Service" promotion (Committee of Donor Agencies 2001).

This paper focuses on the question: What is the most effective amount of public-sector assistance that will encourage the private sector to invest in innovative and effective provision of new types of services? What has been revealed is that too little assistance will not stimulate new markets to emerge, while too much assistance will make the private sector dependent on the public sector to carry out work that it can do without assistance. Such a debate will be addressed in greater depth in the following sections, as well as recommendations about specific public-sector actions that will help stimulate the private sector to provide new services and products in previously unexploited and unexplored markets.

3. The Ugandan example

The development of private-sector provision of small-scale irrigation services and products has gone through a number of stages and challenges in Uganda. The following paragraphs describe the main activities and issues, namely:

- Demonstrations (public education) and market creation;
- NGO insertion in retailer and wholesale systems;
- Manufacturing and product development;
- Marketing and product-package development.

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3.1 Demonstrations (public education) and market creation

The initial demonstrations by Non-Governmental Organisations had the effect of developing a demand for such items on a locally available retail basis, and also began to educate farmers about the benefits of using such technologies. These public sector education schemes have proven to be an essential element in the equation; an element for which the private-sector will rarely take total responsibility. It is very unusual that a business will spend money on educating the public to adopt new practices, unless the newly learnt practices will bring significant returns on the investment.

Sales-orientated and sales-benefiting demonstrations are something in which the private sector will generally invest in as long as such an investment bears sufficient returns. Unfortunately the market for small-scale irrigation equipment typically starts small and is of the type that is often slow-growing; poor rural farmers do not often have money to invest in agricultural machinery despite the demand for such.

Heierli and Polak (2000) describe an approach where public-sector funds are used to "create a market" for irrigation products that are believed to have a "poverty-alleviating" impact. Their approach involves vigorous marketing support by the public sector. In opposition to such an approach, we should distinguish between educating the poor about what products are good for them, and the creation of markets so that business will invest in a sector to provide suitable, sustainable services and products to the poor that they can choose from themselves.

In such a context it could be said that Heierli and Polak describe an approach that is top-down, in that public-sector funds promote products that are believed to be good for the poor; whereas the capacity-building of markets, for the private sector to offer a more diverse range of quality products and services to the rural producers, is less of a top-down approach and more of a market-driven approach.

Another recent aspect of the demonstration of such equipment is that the private-sector proved its ability to provide more cost-effective demonstration methods. The private-sector recognised the need for such educational and awareness activities, but also recognised the costly nature of them. It was also recognised that, if low-cost demonstration systems were put in place, both education and marketing requirements could be met at the same time. Most public-sector demonstration methods were of a travelling nature, i.e., from the back of a pick-up truck travelling from town to town. Hotel accommodation, vehicle running costs and staff costs proved to be prohibitive if carried out on a sales-returns basis. The components of an effective sales-returns to investment demonstration system were identified as shown in Box 1.

Box 1. Effective sales-returns to investments in demonstration systems.

Demonstrations should be:

- In a number of permanent locations where they can be seen by persons travelling past the location, so reducing travel and accommodation costs.
- Used by a farmer as part of his daily activities in profitable crop production, so reducing labour costs of demonstration and increasing the proof of real-use value.
- Pro-actively demonstrated, whereby a sales-commission is paid to the demonstrator-farmer for every customer found.

Although not in a highly developed stage, the manufacturer in Uganda who has proven himself to be most committed and innovative started to develop such a system by advertising a competition, where the most suitable farmer who applied could win the use of an irrigation system for a 3-month period. Arrangements were then often, in the long run, for such demonstrations to continue, based on the purchase or long-term hire of a pump.

In summary of issues regarding development of markets, it has been shown such a market is a costly one to stimulate, and is one where often the returns to investment are slow and comparatively small. Therefore, it is advocated here that market-creation and educational aspects of demonstrations be supported by the public sector, and that sales-orientated aspects be private-sector driven, but that the two be implemented together by the private sector.

3.2 NGO insertion in retailer and wholesale systems

The first two NGOs intervening in the sector encouraged independent private-sector retailer development but acted as the wholesaler. Both of these NGOs have since tried to pull even further back by encouraging the private sector to become the wholesaler also. However, a major player, a public-sector funded organisation, tried to control the manufacture, design and development, and wholesale positions in the chain of events. This showed a strong contrast to the efforts of bringing in the private-sector. Such actions quashed investment and innovation by the private sector. The climate for investment by the private sector became, at this time, very inactive with little involvement from the private sector.

Towards the middle of the year 2000, a private-sector investor initiative came into operation with some donor backing. The principal objective of this initiative was to set examples to the private sector that successful investments and innovations were possible. Based on a business plan of a short-term investment nature by the donor, a set number of activities were undertaken that included demonstrations, new retailer establishment, product development and marketing-method development.

Although the private sector had taken an interest in manufacturing and marketing such products from an early stage it took time to get the private sector significantly involved. Some rural retailers invested in a small stock of such items, especially when they knew that they had definite customers. Customers often emerged as a result of NGO demonstrations. However, investment by the private sector remained at this superficial level for quite some time, until a loosening-off by the organisation, in terms of wholesaling activities. Such wholesaling activities were revealed to be a major and central activity that could have effects either of making the sector more independent of the NGOs, or more controlled by the NGOs.

3.3 Manufacturing and product development

After a period of approximately 3 years, a large private-sector manufacturer finally started to show a commitment to producing a quality-competitive product. This was a major step towards independence for the private-sector working in this area in Uganda. Prior to this time he sought donor assistance to start manufacturing. This was an example of the point made earlier, where the manufacturer hesitated for such a long time before he invested his own money because of the possibility of gaining donor funds.

Once the manufacturer found that the donor would not go as far as giving funds for such activities, he finally showed commitment and started to invest. To begin with he employed a rural development specialist / engineer consultant to design an improved treadle pump model that he could market more competitively than any of the NGO-designed models. The manufacturer also invested in developing more effective marketing systems in collaboration with various specialists. Due to the low levels of capital that many farmers have, low-capital investment products had to be offered to farmers.

3.4 Marketing and product-package development

The manufacturer invested money in manufacturing (development of a new production line, training of staff, establishing a stock of materials and of finished products) but did not want to venture into other areas of mass retail marketing or the management of credit on a large scale. However, he did want to see that the items he was producing were sold at a quick rate and was prepared to try out and encourage a few new and innovative retailing and credit methods.

The manufacturer had discussions with micro-finance institutions that showed interest in providing services where specific items could be purchased on credit, but in the end could not really propose a competitive and attractive package. Unsubsidised interest rates in Uganda are at least 32 percent per annum in urban areas and a lot higher in rural areas, for loans offered by formal

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micro-finance institutions, apparently due to high operation overheads and transaction costs. However, informal savings and credit groups have continued to be competitive and attractive on a large scale, due to their operations usually being carried out on a voluntary basis and where there is often very low overhead costs and very low interest rates. However, these small groups have had to be encouraged to stay small and informal so that overhead costs do not rise. The manufacturer felt he could not formally and safely work with these informal groups.

As a result, the manufacturer has attempted to devise low-capital-purchase systems. The most simple and effective of these has been a hire purchase / leasing system. If a customer could demonstrate certain financial sureties and securities (letter of proposed payment schedule, letter from local councillor, statement of address and statement of collateral) irrigation equipment was effectively given on a basis of about 10 percent annual interest. This was equivalent to about 5 percent increase on the overall cost of the equipment, since most equipment was paid for within 4 months. There were however, limitations to such a scheme, in that the manufacturer has only given this service to persons known to him in the locality and to those that can demonstrate various securities, which has not generally included the majority mass low-income market.

Despite the availability of the package (although only to few), a number of customers have purchased the equipment on a “lay-away system” whereby they gave money to the manufacturer on generally a monthly basis and only took the equipment when fully paid. The manufacturer held the retail price without any increases for 6 months and gave a 5 percent discount for those involved in this scheme.

Another innovative system that has enabled a growth in sales is that of encouraging the growth of water-pumping services. The intention is that if pumps are hired out on a basis of the amount of water transferred, by a person who travels around by bicycle, with the pump on the back of the bicycle. More people will see the pump in use and a demand should grow from persons wanting the pump. Currently 6 US cents per 20 litres is paid for water delivered. For anyone requiring more than 200 litres, the use of a treadle becomes cost-effective and less labour intensive. In order to promote the practice of water-pumping services, he advertised and hired-out pumps from his workshop to young men who wanted to offer such services. To start up the demand for such services, he allowed for 2 days the free hire of pumps to two young men.

In terms of developing marketing-products, the manufacturer has had an emphasis on systems that have improved the achievement of his primary objective of increasing sales. He has not chosen to become directly involved in the management of complex financial services, but, like many companies, he is happy to absorb the transaction cost of credit services in the profit mark-up, even to the extent that items are sold on virtually interest-free credit.

In summary of the actions that have taken place in Uganda over the last 4 years, a number of lessons have been illustrated, particularly in terms of effective and sustainable practices for service-provision. The private sector has produced some innovative and effective products, services, and forms in which these have been offered to small-scale farmers. However, the encouragement and handling of private-sector involvement has been a delicate matter. Although the private sector in Uganda has not particularly had a great deal of pro-active encouragement, too much encouragement (particularly financial) would have done a lot of harm.

4. Proposed assistance

As a result of observations and analysis of a variety of Technical Assistance Programmes (in a variety of countries, and some in irrigation promotion) and from the experiences of Uganda over the last 4 years, it is felt that a certain amount of public-sector assistance could have been more helpful and is very necessary, particularly in terms of educating the public on the benefits of the use of such technology.

Within the Ugandan experience it has been clearly highlighted that the most beneficial public-sector action has been that of the donor supporting the private-sector player (starting middle of the year 2000) in specific planned actions. This assistance was generally seen as successful mainly because it followed some of the best general practices in capacity-building of localised institutions. These best practices should be of the nature described in Box 2.

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Box 2. Recommended best practices for giving assistance to private-sector service providers.

- The public sector works hand-in-hand with the private sector and not in isolation from the private sector.
- The overall aims of any assistance should be to encourage the private sector to:
  - Invest and be committed;
  - Be innovative in terms of results produced.
- The agenda of the institution (business) is strengthened and not an external agenda (although activity plans could be written within certain external guidelines).
- Activities and financial assistance are based on the partner-business's business and marketing plans etc., and any negotiations centre around these plans.
- Any subsidies are specific time-bound interventions with carefully defined exit-strategies (Committee of Donor Agencies, 2001).
- Activity plans aim towards self-sustainability. For example, systems are developed where public education can become a cost-free part of marketing.
- As much as possible, products should be developed by the private sector and not by the public sector; or a joint approach with carefully defined inputs from each party.
- As limited public-sector assistance as possible, but where quality-effective results still occur, minimalist approaches are strongly recommended.

As a result of this "joint-venture" and capacity-building approach to the private-sector player, many of the planned activities effectively took place and the culture of developing new and innovative practices increased rapidly when the manufacturer became involved. For example, the joint-venture activities included those of developing innovative marketing systems; the manufacturer continued this type of innovative-behaviour when he later became involved. However, it is felt that specific assistance to the manufacturer would have speeded up the provision of innovative and quality services.

Therefore, it is here suggested that any public-sector assistance should comprise the elements and generally be of the funding proportion amounts as suggested in Table 1.

Table 1. Recommended elements of assistance to private-sector service providers.

Requirement	Type of assistance	Approximate proportions of assistance	Approximate time period of financial assistance
Mixed marketing / public education schemes (often sales cannot happen without education first).	Grant or the provision of certain resources such as personnel.	40 – 70% of total costs of overall activity	Until demonstrations have been carried out once in all significant locations.
Specialist technical advice, for example in developing business plans, marketing plans and systems, product and services development.	Grant or the provision of certain resources such as personnel.	20 – 40% of total costs	No time limit as long as the grant is being used to develop something that has a social benefit where the private sector would not normally invest in.
Investing in developing the company's capacity to provide such services or products.	Loans based on prevailing commercial interest rates, and secure collateral	Up to 90% of total costs of investments – but should be based on a viable investment and re-payment plan.	Based on a viable investment, returns to investment, and repayment plans.

The assistance described here aims to give an outline of the nature and extent of what has been found to be effective. However, this description is by no means exhaustive and lessons are still being learnt. Getting the balance right and knowing the entire nature of the situation one is dealing with, is a continual challenge.

Nonetheless, it is still recommended that minimalism is better than maximalism in such a situation of encouraging such service provision.

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5. Summary of lessons learned from the Ugandan example

In the past, irrigation scheme set-up and management was often approached in a top-down manner. Such schemes were often of a large size, government-managed and government-dependent. What have been described here are activities and results of a method that, as much as possible, is demand-driven and bottom-up in the type of services and products offered. In consequence the institution providing such services and products is sustainable and relatively effective. However, getting to the point where such private-sector involvement occurs, is not quick and not straightforward. Each specific situation in terms of geographical location, demand for services (strength of demand, nature of services and products demanded, etc.) and the nature of the private sector player is unique and complex in its own right. Managing such situations is a delicate mater. Getting the balance right has proven to be the crux of this type of work.

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